



ISSN: 0975-833X

RESEARCH ARTICLE

PATIENT SATISFACTION AND ASSOCIATED FACTORS WITH OUTPATIENT MEDICAL SERVICES IN RURAL PRIMARY HEALTHCARE FACILITIES, ILUBABOR ZONE, OROMIYA REGION, SOUTH WEST ETHIOPIA

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ARTICLE INFO

Article History:

Received 16th June, 2015
Received in revised form
24th July, 2015
Accepted 23rd August, 2015
Published online 16th September, 2015

Key words:

Rural primary health care facilities,
Outpatient department,
Satisfaction,
Southwest Ethiopia.

ABSTRACT

Background: Satisfaction is one of the meaningful indicators of patient experience of health care Services. Asking patients what they think about the care and treatment they have received is an important step towards improving the quality of care, and to ensuring that local health services are meeting patients' needs.

Methods: Institutional based cross sectional study was conducted from September to October 2013 in Mettu Rural district, Ilubabor Zone, Oromia region, Southwest Ethiopia. A total of 390 subjects were involved in the study. Data was collected using structured questionnaire and analyzed by SPSS for windows version 16.0. Statistical test to analyze the data.

Results: The questionnaire was administered to a total of 396 patients with 98.5% response rate. Out of the participants, 47.9% were male and 31.8% of respondents were in the age group of 35-44 years old, 31.8% of clients were unable to read and write and 71.3% were occupationally farmers. The finding of the study showed that the overall level of client satisfaction level with the OPD rendered at four growing health centers was 57.9%. Satisfaction was reported to be highest for amenities variable (71.3%) and lowest for provider characteristics (63%) related to courtesy and respect for respondents. Furthermore, satisfaction with the health care rendered at OPD was found to have significant association with accessing prescribed drugs and patients' waiting time.

Conclusions: This study showed that clients' satisfaction level lower in the study health centers when compared to other similar studies in the country. Lack of drugs and supplies, poor information provision, long waiting time, poor cleanliness, lack of privacy, lack of necessary equipment and lack of water and electricity were found to be major causes of dissatisfaction. Therefore, the concerned body district Health Office, all the Health Center staffs should consider these service areas in order to improve customer satisfaction.

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Citation: Samson Mengesha Tume, Waju Beyene Salgado and Fikru Tafese Jaleta, 2015. "Patient satisfaction and associated factors with outpatient medical services in rural primary healthcare facilities, Ilubabor zone, Oromiya region, South West Ethiopia", *International Journal of Current Research*, 7, (9), 20245-20251.

INTRODUCTION

In recent years, there has been increasing emphasis on assessing quality in health care in both developing and developed countries. This attention partly reflects the implicit acknowledgment that many health services do not meet minimum standards for clinical effectiveness or client satisfaction. WHO report in 2000 has emphasized the importance of client power and the responsiveness of public services to public needs.

According to the report responsiveness is an intrinsic goal of national health care systems. Client power and health system responsiveness are largely a function of the ability of patients to make their wishes heard. It is assessed through patient/client satisfaction survey. Client satisfaction is the level of satisfaction that clients experience having used a service. It therefore reflects the gap between the expected service and the experience of the service, from the client's point of view and it enhances healthcare organization image, which in turn translates into increased service use and market share (Margaret et al., 2003).

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Satisfaction is one of the meaningful indicators of patient experience of health care services. Asking patients what they

think about the care and treatment they have received is an important step towards improving the quality of care, and to ensuring that local health services are meeting patients' needs. Various studies have reported that satisfied patients are more likely to utilize health services, comply with medical treatment, and continue with the health care provider (Donabedian, 1988).

In Ethiopia the low level of socio economic development resulting in low standards of living, poor environmental conditions and low level of social services has been the major cause for a poor health status of the people. The major affected and less privileged populations are living in rural area which constitutes more than 84% total population (Nayeri et al., 2010). The currently employed three tier health care delivery system in HSDP tries to improve the health of the community by expanding PHCU. The government has also endorsed different performance management systems like BSC and BPR in healthcare organizations to improve organizational structures and quality of health services delivered to the populations. In addition it also had initiated health facilities governance reforms by introducing boards for hospitals and governing bodies/management committees in health centers which facilitate linkage with communities and are used to advocate for increased resources mobilization for facilities. In all strategies and quality improvements mentioned above patient satisfaction is the main component and is integral part of health services delivered to the population (FMOH, 2010).

However Health service utilization by Out Patient Department (OPD) per capita was 0.3 visits per person per year in 2011 that was below the target set for the year (0.6 visits per person per year). The ratio of health personnel's to population ratio also substantially less than the average from sub-Saharan African countries and majority of them are working in urban area (Leulseged Agezew, 2011). The World Bank report also revealed only 53% of households who visited government health facilities were satisfied with their visit. While some studies conducted on patient satisfaction most of them are focused in urban areas in the country but there are high disparities between accessibilities, quality of health service delivery between the urban and rural area (The World Bank, 2005).

MATERIALS AND METHODS

The study was conducted in Mettu rural district, IlluAbabor zone, Oromia region; South-West Ethiopia from September 25 to October 18, 2013. The district consists of 29 rural villages Out of these 3 were semi urban villages and 26 were rural villages with a total population of 72,828. There were 4 primary health centers, 29 community health posts. Institutional based cross-sectional study design was employed using client exit interview methods of data collection. Sampled patients aged 15 years and above were included in the study. The sample size was determined by single population proportion formula based on the estimates of proportion of satisfaction level 62.6% done in central Ethiopian health center (25) 95% CI and 10% none response rate with calculated final sample size of 396. All health centers were covered and then the sample was distributed proportionally

based on the size of patients served last year on the same month. Study subjects were consecutively taken for exit interview soon after receiving the health service.

Structured questionnaire was developed for the purpose of data collection after reviewing relevant literatures and assessing the Internet sources. Eight data collectors who completed grade 10/12 collected the data and two public health nurse professionals supervised the process. The questionnaire was pretested in one health center prior a month to data collections. We trained data collectors and supervisors for one day. Data was entered onto computer using Epi Data 3.1 and exported to SPSS software version 16 for data analysis. The questionnaire was designed to obtain information on socio demographic characteristics of respondents and their satisfaction level with the different components of the outpatient services which included the availability of drugs and supplies, information provision by the health workers, waiting time to get the services, and courtesy and respect of the health workers. All questions developed on five point likert scale ranged from strongly disagree=1 to strongly agree=5 developed to ask satisfaction of patients towards different components of outpatient medical services. Client satisfaction dichotomized into satisfied (Very satisfied and satisfied) and dissatisfied (neutral, dissatisfied and very dissatisfied) to identify the overall satisfaction level and association with independent factors. Bivariate analysis was conducted to determine associations between patient satisfaction and each independent factor and variables that are significant at p-value 0.05 were entered into a multivariable logistic regression model to identify the predictors of satisfaction. Ethical clearance was obtained from Jimma University, College of Public Health and Medical Sciences Ethical Review Committee. Letter of cooperation was written to Illuababora Zonal Health Department and the study district. Informed oral consent was obtained from each respondent during data collection.

RESULTS

Socio Demographic characteristics of Respondents

Three hundred ninety patients were interviewed yielding a response rate of 98.5%. Two hundred three (52.1%) of respondents were female. The mean age of participants was 34.08 (\pm 10.346). One hundred twenty three (31.5%) of patients were unable to read write (illiterates). Regarding their marital status, 69% were married and 24.6% of them were single. Concerning payment status, majority (87.7%) of the patients paid for services. Occupationally the majority (71.3%) of them were farmers (Table 1).

Patients' experiences

Regarding the frequency of visits to the health facility, 75.5% responded that they visited the facility once only. More than 3/4th of participants judged that the health facility was convenient and it was ease to reach. But 22.8% of patients claimed that the health center was far and it was not convenient for them. Two hundred seventy eight (71.3%) of patients responded that they traveled more than 10km to reach health facility with the mean distance of 15.76(\pm 9.58).

Table 1. Socio-demographic characteristics of satisfaction survey respondents in Mettu Rural district, southwest Ethiopia (n=390)

Background characteristics	Number	Percentage
Sex		
Male	187	47.9
Female	203	52.1
Age in years		
15-24	82	21
25-34	122	31.3
35-44	124	31.8
45+	62	15.9
Marital status		
Single	96	24.6
Married	269	69
Divorced	12	3.1
Widowed	13	3.3
Educational Status		
Unable to read and write	123	31.5
Able to read and write	116	29.7
Grade 1-8	100	25.6
Grade 9-12	29	7.4
Above 12	22	5.6
Occupational status		
Government employee	24	6.2
Merchant	21	5.4
Farmer	278	71.3
Student	45	11.5
Other	22	5.6
Payment status		
Paying	342	87.7
Free	48	12.3

The mean travel time of patients to reach health facility was 117.2 min (\pm 63.0116SD) with the range of 15 to 300 minutes (5hr). 79.5% of the patients stayed less than one hour to get services in the facility. Out of all respondents only 91(23.1%) of them responded that they got laboratory services by waiting 15-29 minute to get the services. Almost more than 3/4th of patients respond that they spent <20 minutes for consultation in examination room. Concerning accessing of prescribed drugs, less than half (43.3%) of them respond that they got the prescribed drugs in the facility. Only 57.2 % of patients were willing to recommend the Health facility to their friends or relatives (Table 2).

Levels of client satisfaction with different components of health service

Sixty three percent (63.1%) of the participants responded as satisfied by provider related characteristics (courtesy and respect of health care provider). Sixty two percent of patients were satisfied with the way health providers concerned about their privacy. Most of the patients rated higher satisfaction level to service characteristic and amenities variables than provider related characteristics. Only 64.3% patients were satisfied to the cleanliness of waiting area and nearly 40% of patients were not satisfied to the availability of drugs in the facility. Overall only 57.2% of patients are satisfied their visit of medical outpatient services in the facility (Table 3). This study documented a recorded patient waiting time in minutes for getting services at OPDs. The mean waiting time recorded to see health worker was 10.264 (\pm 4.515SD) with (95%CI 9.816-10.7122). Actual consultation time in minutes recorded shows that a patient & health Provider discussed with a mean of 14.046(\pm 3.78SD) at (13.046, 14.212) at 95% CI.

Table 2. Study participants experience in four Growing Health center in Mettu Rural district, Southwest Ethiopia (n=390)

Characteristics	Number	percentage
Frequency of visit in last 12 months		
Once	294	75.5
Twice	76	19.5
Three times	20	5.1
Type of visit		
New	294	75.4
Revisit	96	24.6
Convenience of ease to reach the facility		
Convenient	301	77.2
Not convenient	89	22.8
Distance from home to facility		
<=10km	112	28.7
>10km	278	71.3
Travel time in hour		
<=2hr	218	55.9
>2hr	172	44.1
Time spent in facility to get services		
<1hr	310	79.5
2-4hr	80	20.5
Laboratory service administered		
Yes	91	23.1
No	299	76.7
Waiting time for lab in minutes		
1-14	27	29.7
15-29	54	59.3
30-44	10	10.0
Waiting time for card in minutes		
1-9	192	49.2
10-19	143	36.7
20-29	43	11
>=30	12	3.1
Waiting for examination in minute		
1-9	43	11
10-19	296	75.9
20-29	38	9.7
>=30	13	3.3
Accessing prescribed drugs		
Yes have got all	169	43.3
Partially have got	175	44.9
Not at all	46	11.8
Willingness to recommend health facility		
Definitely no	52	13.3
Probably no	115	29.4
Probably yes	119	30.5
Definitely yes	104	26.6

The mean OPD consultation transit time recorded after the initiation of triages to final exit of patient from health facility yield that 57.425(\pm 16.7253SD) with (55.7605, 59.0908) 95% CI (Table 4).

Predictor of patient satisfaction with different explanatory variables

We tried to identify the association between patients' satisfaction and independent variables that included socio demographic factors, provider related factors and Service characteristics and facility factors. Univariate logistic regression analysis was done for all variables independently and those which showed significant association at p-value 0.05 were entered into multivariate logistic regression model analysis. Accordingly the result in multiple logistic regression showed, convenience, time spent in the facility, accessing prescribed drugs, long travel time were appeared to be significant predictor of patient satisfaction. From socio demographic age of patients also appear to be associated with patient satisfaction. The finding was as shown below (Table 5).

Table 3. Level of satisfaction of clients with different components of Outpatient departments' Services in growing health centers in Mettu Rural district, southwest Ethiopia (n=390)

Characteristics	V.sat %	Sat. %	Neut. %	Dissat. %	V.dissat %
Courtesy & respect of registration and other staff	8.7	50.5	7.9	24.6	8.2
Courtesy & respect of health worker	24.1	39.0	5.9	19	12.1
The way health provider listened to the patient	17.4	45.1	3.1	28.5	5.9
Information provided by all staff	14.6	47.2	4.1	17.9	16.2
The way health worker keep privacy	14.4	48.2	3.3	23.3	10.5
Information provided by health worker told the way of future prevention etc	19.2	42.6	4.4	26.2	7.7
The queue process in the waiting area	1.8	62.3	4.1	29.7	2.1
Cleanliness of waiting area	7.2	57.3	3.3	27.2	4.6
Availability of enough equipment in the waiting area	6.2	57.9	4.6	23.6	7.7
Cleanliness of the rooms	3.3	70.3	2.6	19.5	4.4
Privacy of the rooms	10.5	60.8	2.3	23.6	2.8
Cleanliness of the compound	4.9	73.6	4.9	15.6	1
Cleanliness of the latrine	1.5	64.1	2.8	23.6	7.9
Availability of drugs	4.4	58.2	4.9	26.7	5.9
Overall level of satisfaction	3.1	54.1	6.4	28.5	7.9

Table 4. Patients' waiting time, consultation time and transit time in minute for getting services at OPD, Mettu Rural district, southwest Ethiopia (n=390)

Variable	N	Mi	Max.	Mean	SEM	SD	95% CI	
							lower	upper
Waiting time recorded to see health worker in minutes	390	5	30	10.264	.22793	4.50130	9.816	10.7122
Actual consultation time in minutes	390	7	25	14.046	.19146	3.78101	13.0462	14.4226
OPD consultation transit time recorded in minutes	390	40	150	57.425	.84692	16.7253	55.7605	59.0908

Table 5. Factors affecting patient satisfaction in public health center of Metu Rural district, 2013 (n=390)

Characteristics	Number	AOR at 95% CI	p-value
Age in years			
15-24	82(21)	0.839(0.301,2.345)	0.738
25-34	122(31.3)	0.294(0.153,0.562)	000*
35-44	124(31.8)	1	
45+	62(15.9)	0.85(0.384,1.880)	0.689
Occupational status			
Government employee	24(6.2)	0.368(0.129,1.051)	0.062
Merchant	21(5.4)	0.966(0.297,3.341)	0.995
Farmer	278(71.3)	1	
Student	45(11.5)	0.295(0.086,1.008)	0.05*
Other	22(5.6)	0.629(0.198,1.997)	0.431
Time spent in facility to get services			
<2hr	310	1	
2-4hr	80	0.352(0.154,0.802)	0.013*
Accessing prescribed drugs			
Yes have got all	169	1	
Some have got	175	0.279(0.161,0.484)	000*
Not at all	46	0.032(0.011,0.091)	000*
Convenience of ease to reach the facility			
Convenient	301	1	
Not convenient	89	0.402(0.189,0.856)	0.018*
Travel time in hour			
<=2hr	218	1	
>2hr	172	0.392(0.190,0.808)	0.011*

*Statically significant with p-value<0.05, 1=reference category

Table 6. Suggestions given for service improvement by respondents, Mettu rural district, southwest Ethiopia, February 2006

Suggestion given	Respondents (N=390)
Improve supply of drugs and equipment	281
Improve patient handling practice	239
Improve number and mix of care providers	180
supervision of staff performance by responsible body	212
Reduce waiting time	81
Improve management system	103
Improving the supply of water and electricity	221

Suggestion given to improve the services

Patients were asked to give suggestions they believed are important for improving the services. Some of them gave more than one suggestion. Accordingly, the main ones patients forwarded were improving supply of drugs and equipment, improving patient handling practice, supervision of staff by responsible body, improving the supply of water and electric power (Table 6).

DISCUSSION

This study has revealed that the satisfaction level with the outpatient services in the rural growing health centers facilities was low (57.2%) when compared to the reports of the study conducted in Jimma Hospital (77%) and central Shewa (62.2%). On the other hand this study showed higher level of satisfaction than study conducted at kutablang health center in Indonesia which showed 23%. The difference might be related to the difference in methods and scope of the study (Nanggore Aceh, 2008). This study has shown that lack of drugs and supplies in the facilities were the major problem affected the satisfaction status of the patients among 23.1%. This finding is similar to other findings conducted in Jimma and Tigray Hospitals although the proportion in the latter studies was higher where 70% and 61% of patients did not get prescribed drugs from hospital pharmacies respectively. The reason for this difference might be to higher user demand in the later ones because of their higher level and better professional mix (Leulseged Agezew 2011; Mettu district health office 2012; Girmay, 2006).

Generally, as stated in different studies above and another studies lack of prescribed drugs were the main reason for dissatisfaction of patients and leads many poor people to bypass the closest public facilities to go to more costly private facilities or choose better quality at more distant public facilities (World Bank, 2012, Ilubabor Zone Health Office, 2012). This is similarly indicated in this study both in quantitative and qualitative results. Regarding provider related characteristics, the respondents of this study rated that courtesy and respect (61.8%), information provision by health worker (61.8%) and the way health worker keep privacy (62.6%) level of satisfaction. This rating is better than that of Indonesia which is 38%, 23% and 18% respectively, but lower than that of Jimma which is 91% and 86.5% for courtesy and respect and information provision. The way keeping privacy was comparable with that of Jimma. Another studies from Tigray hospital showed 46.7% lower satisfaction for the information provision. The reason for differences might be due to difference between facilities setting and professional mix because those facilities are higher referral hospitals and teaching hospitals (Girmay, 2006 and Fekadu, 2011).

Similarly studies conducted by Fikadu *et al.* and Abebe *et al.* at urban health centers revealed that information provision (being told the name of illness) (68.6%) and 72.25% courtesy and respect 75.5 % and 93.23% respectively, which is also higher than this study. The differences also might be those studies conducted in urban and well-structured health facilities. The availability of user friendly services in urban settings and a mix of health professional were also another attributes

for the difference with this study (10,11). Concerning the issue of service characteristics and amenities variable the present study showed that level of satisfaction rated 64.5%,64.1%, 73.6%,71.3%,65.6% for cleanliness of waiting area, availability of enough equipment in the waiting area, cleanliness of the rooms, privacy of the rooms and cleanliness of latrine respectively. This rating was comparable with study conducted in Jimma hospital which showed 66.6% for cleanliness of latrine, But greater than that of Tigray regional Hospitals which is 36.3%.It was also lower than that of studies conducted at level of patient satisfaction conducted in different parts of urban health centers of Ethiopia which showed 76.5% and 90.57% for cleanliness of waiting area and cleanliness of the rooms respectively. The difference might be due to service given and facility factor between hospitals and health centers and the difference between urban and rural settings (Girmay, 2006 and World development report, 2004).

Long waiting time to see health worker, convenience of health center, long waiting time spent in the facility to get services, travel time and distance from health facility were another factor associated with patient satisfaction in this study. The finding of this study revealed that those who spent more than two hours and claimed that the health facility was not convenient for them have shown 0.335(0.154,0.728) and 0.454(0.22,0.929) lower satisfaction level than those who spent less than 2 hours and who said the place of health facility is convenient for them. Similar study conducted in Turkey showed that long waiting time was one of the reasons for low satisfaction. Long waiting time, travel time and convenience were the reason for low patient satisfaction this finding was similar with studies conducted in west show a central Ethiopia and Jimma (10,13). The mean waiting time recorded to see health worker in minutes was 10.264(±4.5) and for actual consultation was 14.046(±3.78) in minutes and for OPD consultation transit time 57.4(±16.7). Furthermore 50.8% of respondents reported that they waited for more than 10 minutes to get services, 20.5% of respondents spent greater than two hours to get services in the facilities and 11% of respondents reported that they spent <10 minutes for consultation in examination room.

On the top of that long waiting time to see health worker, long waiting time spent in the facilities were factors that are associated with patient satisfaction. This finding is higher than study conducted in Addis Abeba and health centers in western shoa of central Ethiopia which are actual consultation was 7.825(±4.78) and 6.26(±2.55) minutes respectively. The difference might be due to facility factor, professional mix and geographical settings. However this implies the importance of sufficient consultation duration when providing satisfactory health services to patients in all settings. But this finding shows that highest waiting time greater than five minutes and OPD consultation transit time that was lower than two hours which are set as standards in National satisfaction survey of Ethiopia (Zewdie Berhanu, 2010 and Tateke, 2012). Similarly the mean travel time in minutes and distance from health center in Km responded by patients were 117.25(±63.016) and 15.76(±9.5) Km respectively. This was consistent with National standards in national satisfaction

survey which states a patient (client) should not move more than two hours (120min) to reach health facility with a maximum distance of 10KM. But the difference in observed in distance were might be due to social desirability bias. However, both categories display a nearest point with national standards (FDRE, 2010).

Another factors related to patient satisfaction were socio-demographic characteristics. Even though socio-demographic characters are claimed as minor predictor for satisfaction, Age in years, occupational status and payment status were associated with patient satisfaction. When all of these factors entered to logistic regression model the model tried to explain 15.9% of variation in the model. This study is similar to study conducted in western shoa central Ethiopia, Jimma hospital and Tigray hospitals in which Payment status, age in years and occupational status were significant predictors of patient satisfaction (Girmay, 2006 and Zewdie Berhanu, 2010). Moreover, this study showed that 57.9% of the respondents were satisfied with medical outpatient services. This finding is comparable with different studies conducted in different settings Mettu, 2012 and Fekadu, 2011). Findings in this study indicated that lower satisfaction level with provider characteristics, higher satisfaction level (more than 3/4th) for amenities variable. Also long waiting time, travel time, availability of drugs, long waiting time to get services, distance from health facility and convenience were also associated with patient satisfaction. This was also observed in similar findings (Leulseged Agezew, 2011 and Fekadu, 2011) and observed in qualitative finding parts of this study.

Limitation of the study

There might be social desirability bias due to the fact that facility based studies can produce more positive response by the patient which may result in short-lived "halo effect".

Conclusions

Based on the findings, the following conclusion can be drawn.

- The overall satisfaction level was low when compared to some local studies
- The main reasons for dissatisfaction with service provided were lack of drugs and supplies in the facilities, inadequate information provision, courtesy and respect, poor privacy keeping, long waiting time, long waiting time to see health provider and unavailability of enough equipment in the facilities.

Thus, it was recommended that the responsible bodies at district level should work to improve provision of supplies, the behavior of the care providers by short term trainings.

Acknowledgments

We would like to thank College of public health and medical sciences of Jimma University for funding this research. Our gratitude goes to Illuababora zonal health bureau and Mettu district health office for their permission to conduct the study in the area. We are also grateful to all data

collectors, supervisors for their appropriate data collection and study participants for their voluntarism to participate in the study process.

Abbreviations

AIDS Acquired Immune Deficiency Syndrome
 BPR Business Process and Reengineering
 DHS Demographic Health Survey
 HC Health Center
 HIV Human Immune Virus
 HP Health Post
 HSDP Health Sector Development Program
 MDG Millennium Development Goal
 MMR Maternal Mortality Rate
 MOH Ministry of Health
 OPD Outpatient Department
 PHC Primary Health Care
 PPHCF Public Primary Health Care Facilities
 PHCU Primary Health Care Unit
 WHO World Health Organization

Competing interests

There is no competing interest on the presented data with any person or organization. There was not financial interest between the funder, the research area community and us. We, the researchers have no any form of competing financial and non-financial interest between us.

Authors' contributions

We, the three researchers, have made significant contribution in the proposal development, defending for fund obtaining, data collection and data analysis and manuscript preparation process of this work. We, the three, authors read and approved the final manuscript.

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