

Patients Satisfaction and its Associated Factors in Rural Health Center, Shashogo District, Southern Ethiopia: A Cross Sectional Study

Shemsu Nuriye Hagisso¹, Lakew Abeba Gebretsadika², Abata Lette Wodera² and Temesgen Sidamo Summoro^{3*}

¹Department of Public Health, College of Public Health and Medical Sciences, Mada Walabu University, Ethiopia

²Departments of Public Health, College of Public Health and Medical Sciences, Jimma University, Ethiopia

³Department of Pharmacy, College of Health Sciences and Medicine, Wolaita Sodo University, Ethiopia

Abstract

Background: Patient satisfaction is the most important attribute of any health service providing system. However, health service qualities or patient satisfaction in developing countries are low.

Objective: To assess patient's satisfaction levels with the services at Out Patient Departments (OPDs) and the associated factors in rural health center in Shashogo district, Hadiya Zone, South Ethiopia.

Method: A mixed study design was implemented on 407 patients and four key informants purposively from three health centers in Shashogo district, South Ethiopia from February 1 to June 30, 2016 using a structured questionnaire. The respondents were selected by using consecutive sampling technique. The data was entered to computer by using SPSS version 20.0. When the items identified then the factor score was computed by using varimax rotation method and regression factor score of independent variables.

Results: The model explained 63.8% variation of patient satisfaction means score. Socio demographic and facility related factors were determinant factors in our study. Furthermore, not getting all ordered services ($\beta = -0.967$), not getting ordered drugs from health center pharmacy ($\beta = -0.541$) and waiting for laboratory results <1 hour ($\beta = -0.929$) were evaluated. These had negative impacts in patient satisfaction. On the other hand, less attending time by other staff for injection for 1-2 hour ($\beta = 0.461$) had positive impact on patient services.

Conclusion: The study showed that the patient's satisfactions were rated low when compared to other studies in the same context. Accessibility of medicine with supplies, long waiting time, lengthy attending time by professionals for injection, and lack of all necessary services were major factors related to patients' dissatisfactions.

Keywords: Patient satisfaction; Outpatient; Rural health centers; Supplies; Waiting time; Shashogo district

Introduction

It is patient satisfaction level that indicates a quality of care given by a health facility. Patients need an understanding, respectful and a quality care from a health service system [1]. Patient satisfaction data play significant role in designing policy and practices of health care facilities [2]. Measuring patient satisfaction levels has been a part of primary health care administration strategies across the world. Moreover, it is required for quality assurance and endorsement process in many countries [3]. Donabedian states it as an important measure because it offers information on the providers' success at meeting those expectations of most relevance to patients [4]. Studies revealed that a patient has to adhere to the medicines prescribed, advices and instructions given by health care providers to get most out of the services given by the health facilities [5-8].

Studies reveal that health service qualities in developing nations is low [9]. For example different studies conducted in Ethiopia showed lack of drugs and other supplies, long waiting time, lack of privacy and inadequate visiting hours were major factors related to dissatisfaction among patients [10]. In recent years, Ethiopian health sector has encountered a couple of problems related to poor patients care and services particularly in government healthcare institutions. As a result government health systems failed to satisfy and attract the majority of patient population seeking health service. Obviously this adversely affects the government health care revenue and it leads to acute financial crunch and failure to modernize public health institutions in the way that can satisfy the patients [11,12].

To solve this problem presently Ethiopian government engaged in three stage health care rescue system in Health Sector Development program (HSDP). The aim of HSDP is to recover the health of the public by intensifying Primary Health Care (PHCU). The Federal ministry of health has also authorized different routine administration systems like Balanced Score Card (BSC) and Business Process Re-engineering (BPR) in healthcare institutes to recover institutional structure and worth of health service delivered to the people. It also had launched health facilities authority restructuring by initiating executives for hospitals and prevailing team in health centers which makes the linkage with people smooth and involves in resources mobilization. These are the main contemporary components of the strategies which are meant for quality improvements needed in health facilities [13]. Health centers in Shashogo district particularly in rural areas have to make use of the opportunities with the government strategies towards a quality health care service delivery. However, to the best of our knowledge the patient's satisfaction levels in Shashogo rural health centers outpatient health

***Corresponding author:** Temesgen Sidamo Summoro, Department of Pharmacy, College of Health Sciences and Medicine, Wolaita Sodo University, Ethiopia, Tel: +251911093567; E-mail: teme.yene2003@gmail.com

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care services is not studied so far. Therefore, the aim of the present study was to assess patients' satisfaction levels with the services delivered by the Out Patient Departments (OPDs) and related factors in three rural health centers in the district. We believe the study will generate a base-line information which may be utilized by stakeholders aiming at improving health care quality in the health centers and beyond in Ethiopia.

Methods

A mixed study design was carried out in Shashogo rural district, Hadiya zone, Southern Ethiopia from February 1 to June 30, 2016. The district has 36 smallest administrative structures known as kebeles. The total population size was estimated to be 116,000 in the district during the study. There were 5 primary health centers and 36 community health posts in the district. Two of the health centers are located in urban while three of these are located in rural areas. Our study was based on the three of the health centers located in the rural areas which are selected randomly. In total 407 patients were involved in this study and additional four key informants were also recruited for interview. The sample size was proportionally allocated for each health centers based on the number of patients served at the Out Patients Departments (OPDs) of the health centers. The following assumption was made to calculate the sample size: proportion of level of satisfaction (p) 57.9% done in south west Ethiopia (7), 95% CI and 10% none-response rate, then the final sample size was 411. The patients were distributed among the three health centers proportionally based on the number of total population served at the moment by the facilities. Patients of all age groups above 15 years were included in the study. Sample size for key informants was theoretical sample size which followed the saturation of the data. The data was collected by using in-depth interviews method. Criterion purposive sampling method was applied for participant's selection. This was depended on the participant's position.

Data collectors who completed grade 10 were employed for the data collection and they were supervised by two health officers. Both the supervisors and data collectors were trained for two days before starting the data collection. A structured questionnaire which was intended to acquire the required relevant data on patient satisfaction was developed after reviewing literatures. Likert scale based questionnaire which ranged from, strongly disagree=1 to strongly agree=5 was developed to evaluate patients satisfaction. Participant variables were dichotomized into satisfied (Very satisfied and satisfied) and, dissatisfied (neutral, dissatisfied and very dissatisfied) to categorize the satisfaction level and their association with factors. The questionnaire was pretested prior to the actual data collections.

The data were cleaned, edited, coded and entered into Epi data version 3.1 and transferred to SPSS 20.0 for analysis. Descriptive statistics was done for most of the variables. FAC used for variable extraction especially following the varimax rotation method within the adapted 38-item scale. Internal consistency of the scale was measured by using Cronbach's alpha coefficient and accepted if the Cronbach's alpha value was greater or equal to 0.7. In bi-variate analysis the variables which had p-value<0.25 were considered as candidates for multivariate linear regressions analysis. Multi-linear regression analysis was done to categorize the most significant variable of satisfaction to OPD services. Those variables which had a p-value \leq 0.05 were considered as predictors for dependent variables. Beta with 95% confidence interval that not included 0 and p-value at <0.05 was computed to assess the statistical significance and association between the dependent and predictor variables. Variables which had p-value<0.05 in linear regression were considered significantly associated with dependent

variable. Multi-co linearity among explanatory variables was checked using Pearson correlation coefficients (r). The correlation coefficient between explanatory variables was small ($r<0.07$). There was no multi-co linearity effect on the model. Qualitative data obtained from four key informants was coded and transcribed. A common coding framework and alignment with the quantitative data was developed after transcription by using italic.

Ethical consideration

The ethical approval to conduct this study was obtained from the Ethical Review Committee of the College of Public Health and Medical Sciences at Jimma University. A brief explanation about the purpose, possible benefits and the confidentiality of the information they give during the interview was given to each patient involved in this study. Before involvement each participating patient was asked for oral informed consent. The information about the nature of the research was also available in an introductory letter attached to each questionnaire.

Results

Respondent characteristics

Four hundred sixty eight respondents aged ≥ 15 years were participated yielding a response rate of 98.5%. Two hundred forty six (60.4%) of the respondents were female patients. The mean of the respondent's age was 29.7 (± 5.7) years. More than fifty seven percent (57%) of the study participants reside in the rural area. Two-thirds (64%) of the respondents were married, 32.4% were housewives while 30% of them were farmers. Regarding to literacy status, majority of the respondents (74.7 %) could at least read and write (Table 1).

Bi-variable analysis of demographic predictors

Satisfaction factor score of demographic variables were found to explain only 3.7% of the variability. Accordingly, gender, age, income, and the like were found to be statistically associated with patient score. The patient score for a single participant was decreased by a range of 1.849 (95% CI: -3.715 to 0.017) as contrast to their married counterpart. The patient score for male participants was decreased by a range of 1.035 (95%: -4.098 to 1.489). Urban residents had one unit decrease patient score from rural area (-5.240 to 0.266).

Descriptive analysis on respondent service provision components

From the result, 284 (69.8%) respondents were new visitors whereas the rest of them visited the health facilities more than one time. Regarding the frequency of visits within 12 months, 219 (53.8 %) of the respondents visited 2-3 times to the health facility. More than 210 (52.7%) of the respondents were attended less than 1 hour by other staff for injection/dressing. More than 260 (65.8%) respondents got some ordered services. Less than 160 (39.2%) participant got service of laboratory at 1-2 hours interval while 127 (31.3%) of patients got laboratory service at <1 hour. More than 390 (97%) respondents were ordered for drugs. In regard to the accessibility of medicines with supplies, 289 (71.2%) respondents got some of the prescribed medicines whereas 71(17.5%) respondents did not get the prescribed drugs in the health centers.

Bi-variable analysis of explanatory variables score of patient satisfaction

The final result of model explained 15.4% of the variation among the respondents. Attending time for injection, waiting time for lab

specimen, getting all ordered service, drugs and supplies ordered, getting ordered drugs and types of visit had significant. Patients who had attended time by other staff for injection of 1-2 hour has an average enhance of 2.884 unit in score as contrast to patients who attended by other staff for injection <1 hour (95% CI, 0.675, 5.092), Patients who had wait to get the lab specimen of <1 hour has an average decline of 4.003 unit in satisfaction score as compared to patients who wait 1-2 hour (95% CI, -5.475 to -2.532), Clients who had no drugs and supplies from pharmacy had an average enhance 3.238 unit in satisfaction score as compared to patients who had drugs and supplies from pharmacy (95% CL, 0.991 to 5.485), while, Patient satisfaction mean score was significantly lower for patients who have not get drugs from health center pharmacy as compared to patients who get some ordered drugs from health center pharmacy (-9.272, 95% CI, -11.482, -7.062). Moreover, Patients who have not get all ordered service as compared to patient who get some ordered service provisions from the health centers (-3.802, 95% CI, -5.480, -2.124) (Table 2).

Participant satisfaction score with service provided

The result showed that, 56.8% of participant were “satisfied” with the examination and advice given by the health service provider or the professionals involved in the health care service while 44 (10.8%) of them were dissatisfied. Two hundred seventy nine (68.5%) respondents were dissatisfied with explanation of the causes of their health problem

while 128 (31.5%) of them were satisfied. Three hundred thirty seven (82.8%) of the respondents were satisfied with consulting about preference over alternative treatment options while 70 (17%) of them were dissatisfied. Majority, 277 (68%) of the interviewee were satisfied with time of consultation while 130 (32%) were strongly dissatisfied (Table 3).

Describing patient satisfaction level

Result showed that 51.8% of the participants were satisfied with a given service in a districts at 95% CI computed from items (Figure 1).

Factors associated with patient satisfactions

Factor analysis variables were assessed for reliability test using coefficient alpha (α). Reliability statistics was $\alpha=0.815$, which is above the cut of points of Cronbach's $\alpha >0.7$ i.e., excellent. The goodness-of-fit of the model (p-value=0.001) which was <0.01 and it shows overall goodness-of-fit was 1% which is very significant. Adjusted R-square was 63.8% which also shows that the model was good. To build multivariate model backward method was used with the help of SPSS 20.0. The multivariate model indicate that variables mean score of patient satisfaction were significant and remaining was excluded being insignificant. The significant variables were laboratory procedures ordered, waiting time to get lab specimen, attending time by other staff for injection, drugs and supplies ordered and getting all ordered

Socio-demographic Variable	Categories	No. (%)	p-value	Unstandardized B Coefficients	95% CI for B
Gender	Male	161 (39.6)	0.359	-1.035	(-4.098, 1.489)
	Female	246 (60.2)			
Age in years	14-24	75 (18.4)	0.860	-0.021	(-0.26, 0.217)
	25- 34	244 (59.9)			
	35- 44	79 (19.3)			
	45-54	9 (2.0)			
Monthly income	<1205	326 (80.1)	0.646	0.000	(-0.004, 0.002)
	≥1205	81 (19.9)			
Marital status	Single	103 (25.3)	0.052	-1.849	(-3.715, 0.017)
	Married	263 (64.6)			
	Divorced	16 (3.9)			
	Widowed	25 (6.1)			
Educational status	cannot read or write	103 (25.3)	0.269	0.595	(-0.463, 1.653)
	can read and write	6 (1.5)			
	grade 1-6	71 (17.4)			
	grade 7-12	191 (46.9)			
	diploma and above	66 (16.2)			
Occupational status	gov't employment	64 (15.7)	0.111	-0.906	(-2.023, 0.210)
	Merchant	68 (16.7)			
	Farmer	122 (30)			
	house wife	132 (32.4)			
	Student	8 (2.0)			
	other specify	13 (3.2)			
Residence	Urban	173 (42.5)	0.076	-2.487	(-5.240, 0.266)
	Rural	234 (57.5)			

Table 1: Demographic determinants of patient satisfaction in Shashogo health district, south Ethiopia, May 2016 (n=407).

Institutional Variable	Categories	No. (%)	p-value	Unstandardized B Coefficients	95% CI for B
How long time to be attended by other staff for injection/dressing	Less than 1 hour	214 (52.7)	0.011	2.884	(0.675, 5.092)
	1-2 hour	166 (40.9)			
	>2 hour	26 (6.4)			
Waiting time to get the lab specimen	Not ordered	92 (22.7)	0.000	-4.003	(-5.475, -2.532)
	Less than 1 hour	127 (31.3)			
	1-2 hour	159 (39.2)			
	>2 hour	28 (6.9)			
For getting of all ordered procedures	Not ordered	50 (12.3)	0.000	-3.802	(-5.480, -2.124)
	Yes all	54 (13.3)			
	Some	267 (65.8)			
	None of them	35 (8.6)			
Drugs and supplies ordered	Yes	394 (97.0)	0.005	3.238	(0.991, 5.485)
	No	12 (2.9)			
Have got ordered drugs from health center pharmacy	Yes all	38 (8.3)	0.000	-9.272	(-11.482, -7.062)
	Some	289 (71.2)			
	None of them	71 (17.5)			
Laboratory ordered procedural	Yes	343 (83.5)			
	No	64 (15.6)			
Type of visit	New	284 (69.8)	0.042	0.101	(0.109, 5.932)
	follow up	123 (30.2)			
How much time to visit in 12 months	once initial	39 (9.6)	0.9	-0.006	(-1.591, 1.4)
	2-3 times	219 (53.8)			
	three times	69 (17.0)			
	≥4	80 (19.7)			

Table 2: Institutional explanatory variables of patient satisfaction at rural health centers of Shashogo district, south Ethiopia, May 2016 (n=407).

Items	Very satisfied (No, %)	Satisfied (No, %)	Neutral (No, %)	Dissatisfied (No, %)	Very dissatisfied (No, %)
Satisfied with provider explaining the medication	54 (13.3)	177 (43.5)	131 (32.2)	44 (10.8)	1 (0.2)
Satisfied with explaining causes of health problem	69 (17)	59 (14.5)	5 (1.2)	130 (31.9)	144 (35.4)
Satisfied with consulting about preference over alternative treatment options	103 (25.3)	112 (27.5)	122 (30)	41 (10.1)	29 (7.1)
Satisfied with consultation time	2 (0.5)	66 (16.1)	51 (12.4)	155 (37.7)	133 (32.4)
Satisfied with waiting room cleanliness	115 (28.3)	144 (35.5)	57 (14)	86 (21.2)	4 (1.0)
Satisfied with provider skill	67 (16.5)	33 (8.1)	77 (18.9)	133 (32.7)	97 (23.8)
Satisfied with cleanliness of waiting area	115 (28.3)	144 (35.5)	57 (14)	86 (21.2)	4 (1.0)
Satisfied with the privacy of the room	148 (36.5)	55 (13.5)	117 (28.8)	49 (12.1)	37 (9.1)
Satisfied with consultation time	2 (0.5)	66 (16.1)	51 (12.4)	155 (37.7)	133 (32.4)
Satisfied with encouraging to ask question about your disease	48 (11.8)	60 (14.7)	11 (2.7)	135 (33.2)	153 (37.6)

Table 3: Interviewee satisfaction with the health care services at Shashogo district, Southern Ethiopia, May 2016 (n=407).

services from a health center. Results measured for patients getting the prescribed drugs and supplies from health center pharmacy and patients waiting time to get the lab specimen for more than two hour were not significantly associated with patient satisfaction mean score as shown in multi-co linearity by Variance Inflationary Factor (VIF) of the values which was less than 2 from all variables. Patient satisfaction mean score was significantly lower for patients who have not got drugs and supplies

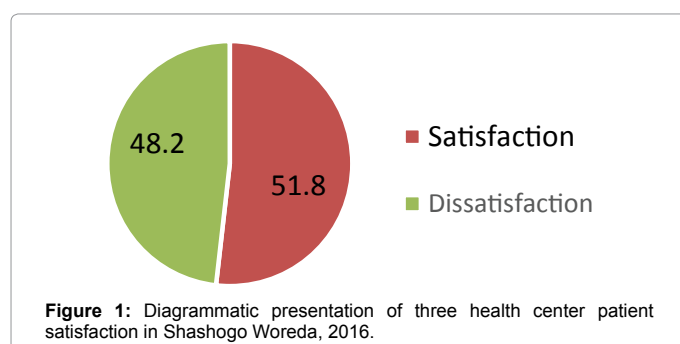
from health center pharmacy as compared to patients who get some ordered drugs and supplies from health center pharmacy (-0.541, 95% CI, -0.977, -0.104) and Patient satisfaction mean score was significantly lower for patients who have not got all ordered services as compared to patient who got some ordered services (-0.967, 95% CI, -0.216, -1.717). Patients who had not waited to get the lab specimen have an average increase of $\beta=1.068$ unit in satisfaction score as compared to patients

Model Variables	Categories	p-value	Unstandardized B Coefficients	95% CI for B		Co-linearity Statistics	
Marital status	Married		1				
	single	.673	-.512	-2.895	1.871	.637	1.569
	Divorced	.895	.299	-4.150	4.748	.915	1.093
	Windowed	.962	.090	-3.642	3.821	.852	1.174
Occupation	Housewife		1				
	Gov employer	.185	2.050	-.988	5.088	.559	1.788
	merchant	.618	.698	-2.053	3.449	.650	1.539
	farmer	.897	.169	-2.410	2.749	.492	2.032
	student	.655	1.478	-5.022	7.978	.840	1.191
Residence	Rural		1				
	urban	.862	.180	-1.861	2.221	.673	1.486
Types of visit	New		1				
	follow up	.379	.815	-1.002	2.632	.965	1.037
How long time to be attended by other staff for injection	<1 hour		1				
	1-2 hour	.001*	.461	.185	.737	.366	2.734
	>2 hour	<0.001	.661	.316	1.006	.883	1.133
Drugs and supplies ordered	Yes		1				
	No	.015*	-0.541	-.977	-.104	.267	3.741
Waiting time to get the lab specimen	1-2 hour		1				
	not ordered	.002*	1.068	.403	1.732	.087	11.545
	<1 hour	.000*	-.929	-1.265	-.594	.279	3.582
Have got ordered drugs and supplies from health center pharmacy	Some		1				
	Yes	<0.001	3.522	3.204	3.839	.667	1.500
For getting all ordered service	Some order		1				
	not ordered	.012*	-.967	-.216	-1.717	.109	9.167

*Determining significance of variables at p-value<0.05, 95% CI.

β- Positive values indicate higher satisfaction score relative to the referent variable category level, while negative values indicate lower satisfaction score compared with the referent category

Table 4: Explanatory factors associated with patient satisfaction in health care services, Shashogo district, Southern Ethiopia, May 2016 (n=407).



who waited 1-2 hour (95% CI, 0.403, 1.732), while, Patient who had waited to get lab specimen <1 hour have an average decrease of $\beta = -0.929$ unit in satisfaction score as compared to patients who wait 1-2 hour (95% CI, -1.265, -0.594). Patients who had attended time by other staff for injection of 1-2 hour have an average increase of $\beta = 0.461$ unit in satisfaction score as compared to patients who attended by other staff for injection <1 hour (95% CI, 0.185, 0.737) (Table 4).

Discussion

The study mentioned low outpatient satisfaction level (51.8%)

compared with the study conducted in central Showa (62.2%) and Illubabor health center in Ethiopia (57.2%) [13,14]. In contrast this study indicated higher level of patient satisfaction than kutablang health center (23%) [14]. Consulting about preference over alternative treatment options (82.8%) and privacy of patients (83.8%) were positively associated with the satisfaction level of patients and seem to be the most potent predictors of patient satisfaction. The result also shows that patients' satisfaction levels are highly affected by the providers' behavior. Another study from Bangladesh reported that, providers gave advice to only 53.5% of clients, and they gave some sort of explanation about the nature of their health problem only to 48.9% [15].

The present study has revealed that majority of patients (91.1%) were encouraged to a return visit to the health centers (91.1%) whereas another study in West Showa Zone reported only 45.2% for the same. In contrary to this a study conducted in central Ethiopia showed about 56% of the patients were not encouraged to return for follow-up visits [13]. Our study has also revealed that about 67.3% of the patients were dissatisfied with provider explaining the causes of diseases. Another study conducted in Sassoon General Hospital Pune showed that only 6.5% of the patients were unsatisfied with the explanation by doctors about their illness or prognosis and time required for treatment [16]. A study in Nigeria revealed that about 82.0% of patients were given

adequate information on drug use and how to manage their illnesses by their doctors [17].

In present study the patient satisfaction score was negatively associated with patient who hadn't got all ordered medicines with supplies from health center pharmacy. Similarly other study in Jimma in 2011 showed that patients were dissatisfied because of unavailability of medicines and other supplies [15,18]. Also similar studies WSUTH and Illubabor Zone showed that patient satisfaction levels were significantly associated with the availability of medicines and other supplies [12,15].

"...Some of the respondents said that availability of drugs were insufficient this was due to less commitments of drug and therapeutic committee/DTC in drug forecasting untimely." [Health office manager, age 43, Head, age 37]

"...Other respondents said that affordability of drugs were inconsistent with patients need this was especially due to less integration of drug forecasting to Pharmaceutical Fund and Supply Agency (PFSA)" [Head, age 42]

"...One of the other respondents said that there was a poor supplies of essential medicines and other medical supplies because of the in adequate allocation of budget from the district management." [Head, age 36]

Another finding in the present study was that patient satisfaction mean score was negatively affected with a patients who hadn't got all ordered service from the health centers. This is similar with other study conducted in Uganda and Ethiopia. It was revealed that the accessibility of overall health services in its broader dimension significantly predicted general satisfaction levels among the outpatient services users [19,20].

"...Most of the respondent agreed that a health care provider is expected to deliver a maximum quality services to their patients in the OPD rooms, but some of the providers who were not passionate to execute their professional duties in an expected manner had less commitment as a result of which patients were occasionally disappointed." [Head, age 36]

The present study also revealed that patient satisfaction was positively associated with patient a less waiting time to get the lab specimen from laboratories. Patients satisfaction level was significantly lower for patient who had waited to get lab specimen for 1-2 hours than those who had waited <1 hour. Our finding was concordant with another study in Tigray zonal hospital which showed that the clients who had waited >2 hours for their laboratory specimen results were more dissatisfied than those who had waited <1 hour [21]. Similarly a low patient satisfaction level was reported in a study conducted in west Showa [19]. Also it was reported in a study conducted in the University of Gondar teaching hospital to assess the overall health service accessibility, about 73.5% of patients had low satisfaction levels [20]. The probable reason may be due to difference of facility factors, providers not to consider service time and geographical setting.

"...I believe that long waiting time during service delivery was the main factor for patients' dissatisfaction. He asserted that the main problem was that the health care providers did not have enough awareness about the standards of service delivery times." [OPD head, age 34]

It seems that health providers in these facilities lack awareness about standard treatment guidelines and quality care practices. This serious gap need to be corrected by providing and updating the standard treatment guidelines to all health providers in the health centers.

Finally, our study revealed that patients' satisfaction was positively associated with less waiting time to attend other staff for injection.

Patients who had waited for injection <1 hour had a better satisfaction level than those waited 1-2 hours. This is similar with other study conducted in Rural Tertiary Care Hospital which showed that patients were satisfied with a less than 30 minutes waiting time period to be attended by their doctors (62.3%) [13].

Conclusion

This study presented low patient satisfaction level compared to other studies conducted in Ethiopia. Less time spent to be attended by other staff for injection and time to get the lab specimen were positively associated with patients' satisfaction levels. Availabilities of all ordered services and medicines and other supplies also have impacts in patient satisfaction levels. The perceptions patients and the provider's compassion also have a significance effect in patient satisfaction levels.

Recommendation

- Health Service Development Program (HSDP) of Ethiopia should be given high attention to ensure patient satisfaction and quality of life.
- Regular supervision and discussion with the local community about the availability of services, medicines, and medical supplies should be conducted.
- Complaint and suggestion boxes should be kept at OPDS in order to patients could freely put their complaints and suggestions about the services being delivered to them.
- Long waiting time should be reduced by introducing token system at the OPD, laboratory and pharmacy of the health centers counter.
- Finally, we recommended health sector development program to assist researchers to conduct further study on patient satisfaction using longitudinal study design to overcome the limitation of this study.

Limitation

Despite the important findings made from this study, there were possible limitations inherent in the study that was worth mentioning. For instance, the fact that the study was conducted in health facilities might have 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". This limitation, however, does not limit the reliability and trustworthiness of the study in any way as the necessary steps needed to make the instrument valid and trustworthy were adhered to. Trends in the patient satisfaction of the facilities, however, may change in future as such trends may differ from current findings made in our study.

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References

1. Staniszewska S, Ahmed L (1998) Patient expectations and satisfaction with health care. *Nurs Stand* 12: 34-38.
2. Andaleeb S (2001) Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. *Soc Sci Med*, 52: 1359-70.
3. Donabiden A (1980) The definition of quality and approaches to its assessment. Ann Arbor, Michigan, Health Administration Press.
4. Ashrafun L, Uddin MJ (2011) Factors determining inpatient satisfaction with hospital care in Bangladesh. *Asian social science*. 7(6): 15-24.
5. Olijira L, Gebre-selassie S (2001) Satisfaction with outpatient health services at Jimma Hospital, South West Ethiopia. *The Ethiopian Journal of Health Development*. 15(3).
6. Donabedian (2002) An Introduction to Quality Assurance in Health Care. Oxford University Press, USA.

7. Kimani FM (2008) Guideline for the establishment and management of ameniety in public hospitals in Kenya.
8. Iliyasu Z, Abubakar I, Lawan U (2010) Patient satisfaction with services obtained from Aminu Kano Teaching Hospital, Kano, and Northern Nigeria. *Niger J Clin Pract.* 13: 371-378.
9. De Geyndt W (1995) Managing the quality of healthcare in developing countries, World Bank. Technical paper. 258-280.
10. Assefa F, Mosse A, Michael Y (2011) Assessment of Clients' satisfaction with service deliveries at Jimma University specialized Hospital. *Ethiop J Health Sci.* 21(2): 101-109.
11. Srinivasan K, Saravanan S (2015) Delivery of public health care services: assessing customer satisfaction using servqual approach. *IJAIEM.* 4 (7): 2319-4847.
12. Samson MT, Waju BS, Fikru TJ (2015) Patient satisfaction and associated factors with outpatient medical Services in rural primary healthcare facilities, Illubabor zone, Oromiya region, south west Ethiopia. *International Journal of Current Research.* 7(9): 20245-20251.
13. Zewdie Birhanu (2010) Determinants of satisfaction with health care provider interactions at health centres in central Ethiopia: a cross sectional study. *BMC Health Serv Res.* 10-78.
14. Nanggore Aceh (2008) Patient Satisfaction with health services at Kuta Blang Health Center in Bireun District, province Indonesia. Mahidol University.
15. Getu Gamo Sagaro (2015) Patients' Satisfaction and Associated Factors among Outpatient Department at Wolaita Sodo University Teaching Hospital, Southern Ethiopia. 4(5): 109-116.
16. Patavegar Bilkish N, Shelke Sangita C, Adhav Prakash, Kamble Manjunath S (2012) A cross-sectional study of patients' satisfaction towards services received at Tertiary Care hospital on OPD basis. *National Journal of Community Medicine.* 3 (2): 232-237.
17. Oluwole Adeyemi Babatunde (2013) Primary Health Care Consumers' Perception of Quality of Care and Its Determinants in North-Central Nigeria. Department Of Community Medicine, Federal Medical Center, Ido-Ekiti, Nigeria. *Journal of Asian Scientific Research.* 3 (7): 775-785.
18. Juliet Nabbuye-Sekandi (2011) Patient satisfaction with services in outpatient clinics at Mulago hospital, Uganda. *Int J Qual Health Care.* 23 (5): 516-523.
19. Nayeri ND, Aghajani M (2010) Patients' privacy and satisfaction in the emergency department: a descriptive analytical study. *Nurs Ethics,* 17: 167-177.
20. Digisie mequanint (2012) Assessment of the level and factors influencing admitted customers' satisfaction with health care service in university of Gondar teaching hospital, North West Ethiopia. *International Journal of Research in Commerce & Management.* 3 (10): 0976-2183.
21. Girmay A (2006) Assessment of clients' satisfaction with outpatient services in Tigray Zonal Hospitals.