

*Full Length Research Paper*

# Patient satisfaction with outpatient health services in Hawassa University Teaching Hospital, Southern Ethiopia

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The level of patients' satisfaction is one among the mechanisms used in assessing the quality of health care services. This cross sectional study was conducted in Hawassa University Teaching Hospital to assess level of satisfaction of patients with outpatient health services and factors associated with it. Multiple logistic regression was used to assess the relationship between patients' satisfaction and possible predictors. Four-fifth (80.1%) of patients reported to be satisfied with the hospital's outpatient services. Respondents who claimed to have had a long stay in the hospital were found to be more satisfied than those who claimed to have had a very long stay (adjusted odds ratio (AOR) = 4.54, 95% CI: 2.38, 8.65). Furthermore, there was negative association between patients' satisfaction and not getting required services in the hospital (AOR = 0.78, 95% CI: 0.41, 0.96), lack of privacy (AOR = 0.52, 95% CI: 0.27, 0.78), and absence of good dialogue with outpatient service providers (AOR = 0.28, 95% CI: 0.12, 0.41). Health managers and service providers should devise innovative ways to reduce waiting time, have good dialogue with patients, and maintain privacy of patients in order to improve the level of satisfaction of patients.

**Key words:** Patient, outpatient, satisfaction, hospital.

## INTRODUCTION

Growing demand for health care, rising costs, constrained resources, and evidence of variations in clinical practice have increased interest in measuring and improving the quality of health care in many countries of the world (Campbell et al., 2000). Avedis Donabedian described quality in three dimensions (structures, processes, and outcomes) which are important for the determination of clients' satisfaction, which is by far an indicator of quality of service (USA Institute of Medicine,

2001). Therefore, the level of patients' satisfaction is one among the mechanisms used in assessing the quality of health care services (Aldebasi and Ahmed, 2011) and addressing patients' expectations was found to be associated with high client satisfaction and better health outcomes (Ruiz et al., 2007; McKinley et al., 2002; Williams et al., 1995). But, patients' perceptions about health care systems seem to have been largely ignored by health care managers in developing countries (Yildiz

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and Erdogmus, 2004) and clinicians lack both awareness and adequate training to address patients' expectations (Rozenblum et al., 2011). It is inherently problematic to link outcome and patient satisfaction. One reason is that a particular course of treatment may take weeks or even months to resolve into "cure," whereas satisfaction surveys are mostly conducted immediately after treatment service use or discharge.

According to the current health tier system of Ethiopia, hospitals in the country are categorized into three groups. The first categories of hospitals are primary hospitals which serve a catchment population of 60,000 to 100,000 each. General hospitals which serve 1 to 1.5 million people constitute the second categories. Hospitals like Hawassa University Teaching hospital constitute the third category (specialized hospitals) which serve 3.5 to 5 million people each (Ethiopia Health Sector Development Program IV, 2010).

The aim of this study is to assess the level of patients' satisfaction with outpatient health services and factors associated with it in Hawassa University Teaching Hospital. Hence, this study can contribute to the delivery of evidence based information which can be used by stakeholders aiming at improving quality of hospital services in Ethiopia and other low and middle income countries.

## MATERIALS AND METHODS

### Study setting

Hawassa University Teaching Hospital is found in the Southern Nations Nationalities and People's Region State (SNNPRS), Ethiopia. The teaching hospital is located in Hawassa city, the capital city of SNNPRS, Ethiopia which is 273 km far from Addis Ababa. The teaching hospital is established and started its activities in 2005, serving a catchment population of 5 million. The hospital was selected purposively since it is the largest hospital in the region which provides a range of services in its outpatient and inpatient units.

### Study design and population

A cross-sectional study which deployed interviewer administered questionnaires was carried out to assess the level of patients' satisfaction with outpatient services. Stable patients who received care from four main outpatient clinics (medical, surgical, obstetrics/gynecology, and pediatrics) in June, 2011 were the study subjects of the study. For pediatric age group patients, adult caregivers who accompanied them were used as respondents.

### Sample size and sampling

A single population proportion sample size determination formula was used with the following assumption: Proportion of patients satisfied with hospital care services to be 54%, according to a study done in Eastern Ethiopia (Abdosh, 2006), margin of error of 0.047,

non response rate of 10%, and the desired confidence level of 95%. Thus the final sample size calculated was 475. Allocation of samples into outpatient departments was done proportionately. The proportionate allocation was done by considering the average number of patient flow of the four departments in the same month of the preceding year (June, 2010) and the month prior to the actual data collection period (April, 2011). A systematic random sampling method which used patients' registration book as a sampling frame was employed to select respondents.

### Study variables

#### *Dependent variable*

Patients' satisfaction was the independent variable of this study. Patients' satisfaction was assessed using a Likert scale to identify the level of satisfaction respondents claimed. The options were: very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied. In this study patients who have reported to be satisfied and very satisfied were considered as satisfied whereas those who reported to be neutral, dissatisfied and very dissatisfied were considered as unsatisfied.

#### *Independent variables*

In this study, socio-demographic characteristics (age, religion, marital status, level of education, occupation, estimated monthly income), outpatient service related characteristics (length of stay in the hospital, amount of payment paid, comfortableness of waiting areas, existence of good dialogue with service providers, availability of required medical services and drugs, presence of privacy in the clinics, and favorability of conditions to ask questions) were the independent variables.

### Data collection

Exit interviews of patients were conducted in four confidential rooms using a structured and pre-tested questionnaire. Data were collected by literate and trained data collectors who were not health professionals to minimize the risk of information bias.

### Statistical analysis

Data were entered using EPI INFO software version 3.5.1 and analyzed using statistical package for social sciences (SPSS) 18. Both descriptive and analytical statistical procedures were employed. Univariate, bivariate and multivariate logistic regressions with odds ratios along with the 95% confidence intervals were used to ascertain the association between covariates and the dependent variable. The Cornfield approximation was used for calculating the 95% confidence intervals (CI) for the odds ratio (OR). A logistic regression was carried out to determine the adjusted effect of each factor on patients' satisfaction. Variables with more than two categories were entered in the model in the form of two "indicator" contrasts comparing each category to the first group as a reference. A backward stepwise procedure based on the likelihood ratio was used to select the variables included in the final model. The significance for variable removal and entry was set to 0.10 and 0.05, respectively. The Hosmer and Lomeshow test was used to check the goodness-of-fit of the model. Odds ratios and 95% confidence intervals were derived from each variable coefficient in

the final model. The significance of each coefficient was tested by the Wald test, and statistical significance was considered at  $p < 0.05$ .

### **Ethical considerations**

Ethical clearance was obtained from the Institutional Review Board of College of Medicine and Health Sciences, Hawassa University. Oral informed consent was secured from all respondents.

## **RESULTS**

### **Socio-demographic characteristics of respondents**

A total of 452 study participants were included in the study, this makes the response rate of the study 95.2%. Majority (56.6%) of the respondents were from Hawassa city and the remaining (43.4%) were from outside Hawassa city. Concerning religion of respondents, 39.2 and 36.1% of the respondents were Protestant Christians and Orthodox Christians, respectively. With regards to educational status of respondents, 13.5% of them were not able to read and write and 31.9% have attended college level and/or more level of education. More than three-fifth (62.8%) of the respondents were married whereas nearly one-fourth (23.9%) of the respondents were students by occupation followed by government employees (17.5%) and farmers (17%). The self reported median (IQR) monthly income of the respondents was 500 (200 to 1000) Ethiopian Birr, and 45.5% of them estimated their average monthly income to be less than 650 Ethiopian Birr (Table 1).

### **Means of transport used and estimated time taken to arrive at the hospital**

Nearly one-third (66.4%) of respondents used public transport such as bus, taxi, and three wheel vehicles to come to the hospital. As to how the patients visited the hospital, 57.5% of them visited the hospital by their personal decision and 29.6% of respondents came after referral from another health institution. As the time taken to arrive at the hospital is concerned, 73% of the respondents took one hour or less to arrive at the hospital (Table 2).

### **Departments visited, and resources spent (time and money) in the hospital by respondents**

Among the total respondents, 35.2 and 31.9% visited the medical and surgical outpatient departments of the hospital, respectively. The remaining 17.3 and 15.7% of

respondents visited the gynecologic/obstetrics and pediatrics departments, respectively. Respondents were asked to estimate the amount of time they spent to use various hospital services to determine the total waiting time. Nearly one-third (32.7%) of patients waited for more than 90 min to enter to the outpatient departments after they have gone through the registration process. The estimated median (IQR) time respondents claimed to have spent waiting to enter the outpatient departments was calculated to be 60 (25 to 120) min. Among the total respondents, 50.5% had a length of stay of more than two hours in the hospital, and the estimated median (IQR) length of stay in the hospital was found to be 125 (60 to 219) min (Table 3). Based on the respondents' rating of the length of stay they had to receive care, the length of stay was reported to be very long by more than one-fourth (26.3%) of respondents. On the other side, 37.4, 21.7 and 13.9% of the respondents reported the length of stay in the hospital to be long, fair and short, respectively (Table 3). As shown in Table 3, among the total respondents, 369 (83.2%) have paid for services and the median (IQR) amount of money paid was 67 (42.3 to 111) Birr. This payment may be for registration, drug, treatment procedures, laboratory investigation or any of the combinations. As to the patients' perception towards the amount of payment requested by the hospital for the aforementioned activities/services, 44.7 and 1.6% of the respondents rated the payment to be fair and very expensive, respectively.

### **Friendliness of outpatient services and availability of advised medical services or drugs in the hospital**

Nearly 86% of respondents reported the outpatient department they visited to be convenient to ask questions. Furthermore, the setup in which outpatient services were provided was claimed to maintain the privacy of patients by 81% the respondents and 92.7% of respondents declared to have had a good dialogue with outpatient service providers (Table 4). A scale (very politely, politely, neither politely nor impolitely, impolitely, and very impolitely) was used to assess the degree of politeness/impoliteness of outpatient service providers who served the respondents. Thus, 15.7 and 69.7% of respondents described outpatient service providers as very polite and polite during service provision. The remaining 10.8, 3.1 and 0.7% of respondents described outpatient service providers as neither polite nor impolite, impolite, and very impolite, respectively. Among the total patients interviewed, 71.2% reported to have got all ordered services from the hospital (laboratory tests, diagnostic services and drugs). Exactly 92.5 and 87.6% of the respondents wish the hospital for their future visit and would like to recommend the hospital to their friend

**Table 1.** Socio-demographic characteristics of outpatient service users, Hawassa University Teaching Hospital, Hawassa, 2011.

<b>Variables</b>	<b>Frequency (%)</b>
<b>Place of residence</b>	
Hawassa city	256 (56.6)
Out of Hawassa city ≤50 km	74 (16.4)
Out of Hawassa city > 50km	122 (27.0)
Total	452 (100.0)
<b>Religion</b>	
Protestant	177 (39.2)
Orthodox	163 (36.1)
Muslim	90 (19.9)
Catholic	7 (1.5)
Others	15 (3.3)
Total	452 (100.0)
<b>Marital status</b>	
Married	284 (62.8)
Single	154 (34.1)
Widowed	8 (1.77)
Divorced	6 (1.33)
Total	452 (100.0)
<b>Educational status</b>	
Not able to read and write	61 (13.5)
Able to read and/or write	14 (3.1)
Grade 1 – 6	82 (18.1)
Grade 7 – 12	151 (33.4)
College and above	144 (31.9)
Total	452 (100.0)
<b>Occupation</b>	
Housewife	74 (16.4)
Merchant	49 (10.8)
Government employee	79 (17.5)
Private employee	36 (8.0)
Student	108 (23.9)
Farmer	77 (17.0)
Others	29 (6.6)
Total	452 (100.0)
<b>Estimated average monthly income (n=367)</b>	
< 650 birr	167 (45.5)
≥ 650 birr	200 (54.5)
Total	367 (100.0)
Median (IQR)	500 (200 - 1000)

**Table 2.** Pre-outpatient service use characteristics of respondents, Hawassa University Teaching Hospital, Hawassa, 2011.

Variables	Frequency (%)
<b>Mode of transport used to arrive at the hospital</b>	
Walking	32 (7.1)
Private vehicle	117 (25.9)
Public transport	300 (66.4)
Others	3 (0.7)
Total	452 (100.0)
<b>How respondents visited the hospital</b>	
Came after referral	134 (29.6)
Came upon recommendation from friend or relative	47 (10.4)
Came due to emergency	9 (2.0)
Came upon personal decision	260 (57.5)
Others	2 (0.4)
Total	452 (100.0)
<b>Time taken to arrive at the hospital (in minutes)</b>	
≤ 60	330 (73.0)
60-120	43 (9.5)
121-240	29 (6.4)
>240	50 (11.1)
Total	452 (100.0)

or relative, respectively (Table 4).

### Patients' satisfaction with outpatient services

Among the total respondents, 80.1% were found to be satisfied (those who reported to be very satisfied and satisfied) with the outpatient services of the hospital whereas the remaining 19.9% were dissatisfied. Level of satisfaction by fully exhausted scales showed that 11.7, 68.4, 2.4, 12.2, and 5.3% of respondents reported to be very satisfied, satisfied, neutral, dissatisfied and very dissatisfied, respectively (Table 4). Binary and multiple logistic regressions were performed to identify factors associated with patients' satisfaction using different covariates. As depicted in Table 5, respondents who claimed to have had a long stay in the hospital were found to be more satisfied than those who claimed to have had a very long stay (AOR = 4.54, 95% CI: 2.38, 8.65). On the other hand, respondents who did not get all the required items/services from the hospital were less satisfied than their counterparts (AOR = 0.78, 95% CI: 0.41, 0.96). Besides, respondents who did not report the presence of adequate privacy in the clinic they visited were less likely satisfied with the outpatient service they

received (AOR = 0.52, 95% CI: 0.27, 0.78). Absence of good dialogue with outpatient service providers was also found to be negatively associated with respondents' satisfaction (AOR = 0.28, 95% CI: 0.12, 0.41). Sociodemographic factors, perceived comfortableness of the hospital's waiting area, and cost of services were not found to affect the satisfaction status of respondents (Table 5).

### DISCUSSION

The results of this study showed that 80.1% of patients were satisfied with the outpatient health service they received. Patients' satisfaction was associated with length of stay to receive care, presence of good dialogue with service providers, maintenance of privacy during care, the favorability of situations to ask questions, and availability of required services. Most of these variables were also found to be determinants of patient satisfaction in studies carried out in Thailand (Net et al., 2007) and Tanzania (Muhondwa et al., 2008). But sociodemographic characteristics were not found to be associated with patients' satisfaction. This finding is in agreement with the finding of a study carried out at Calabar Teaching

**Table 3.** Outpatient departments visited and resources spent by respondents, Hawassa University Teaching Hospital, Hawassa, July 2011.

<b>Variables</b>	<b>Frequency (%)</b>
<b>Outpatient department visited</b>	
Internal medicine	159 (35.2)
Surgery	144 (31.9)
Gynecology/obstetrics	78 (17.3)
Pediatrics	71 (15.7)
Total	452 (100.0)
<b>Time taken to get entered into outpatient clinics (in minutes)<sup>†</sup></b>	
< 15	61 (13.5)
15-30	111 (24.6)
31-60	118 (26.1)
61-90	14 (3.1)
> 90	148 (32.7)
Total	452 (100.0)
Median (IQR)	60 (25-120)
<b>Length of stay in the hospital for outpatient service use (in minutes)</b>	
< 60	107 (23.7)
61-120	117 (25.9)
121-180	78 (17.3)
> 180	150 (33.2)
Total	452 (100.0)
Median (IQR)	125 (60-219)
<b>Respondents' rating of length of stay in the hospital</b>	
Very long	119 (26.3)
Long	169 (37.4)
Fair	98 (21.7)
Short	63 (13.9)
Very short	3 (0.7)
Total	452 (100.0)
<b>Total amount of money paid for services (in Ethiopian birr) (n=376)</b>	
< 20	45 (12.0)
20-70	149 (39.6)
> 70	182 (48.4)
Total	376 (100.0)
Median (IQR)	67 (42.3–111)
<b>Respondents' rating of the amount of money paid for services in the hospital (n=376)</b>	
Very cheap	20 (5.3%)
Cheap	149 (39.6%)
Fair	168 (44.7%)
Expensive	33 (8.8%)
Very expensive	6 (1.6%)
Total	376 (100.0)

<sup>†</sup>Non paying patients and fee waived services

**Table 4.** Outpatient service characteristics and perceptions of respondents, Hawassa University Teaching Hospital, Hawassa, July 2011.

<b>Variables</b>	<b>Frequency (%)</b>
<b>The environment was convenient to ask questions</b>	
Yes	388 (85.8)
No	60 (13.3)
Don't know/no response	4( 0.9)
Total	452 (100.0)
<b>Patient's privacy was maintained in the outpatient department</b>	
Yes	368(81.4)
No	84(18.6)
Total	452 (100.0)
<b>Had good dialogue with outpatient service provider</b>	
Yes	419(92.7)
No	25 (5.5)
Don't know/no response	8(1.8)
Total	452 (100.0)
<b>Politeness of outpatient service providers</b>	
Very polite	71 (15.7)
Polite	315 (69.7)
Neither polite nor impolite	49 (10.8)
Impolite	14 (3.1)
Very impolite	3 (0.7)
Total	452 (100.0)
<b>Have got all ordered diagnostic or laboratory tests and/or drugs from the hospital</b>	
Yes	322(71.2)
No	130( 28.8)
Total	452 (100.0)
<b>Wish the hospital for future visit</b>	
Yes	418(92.5)
No	34(7.5)
Total	452 (100.0)
<b>Would like to recommend this hospital for a friend or relative</b>	
Yes	396(87.6)
No	56(12.4)
Total	452 (100.0)
<b>Satisfaction with outpatient services</b>	
Very satisfied	53 (11.7)
Satisfied	309 (68.4)
Neutral	11 (2.4)
Dissatisfied	55 (12.2)
Very dissatisfied	24 (5.3)
Total	452 (100.0)

**Table 5.** Factors affecting respondents' satisfaction with outpatient services, Hawassa University Teaching Hospital. Hawassa, July 2011.

Explanatory characteristics	Satisfaction status		COR (95% CI)*	AOR (95% CI)*†
	Satisfied	Unsatisfied		
<b>Respondents' rating of the amount of money they paid for services</b>				
Very cheap	17	3	1.00	
Cheap	124	25	0.86 (0.24, 3.21)	0.51 (0.11, 2.49)
Fair	134	34	0.69 (0.19, 2.51)	0.47 (0.10, 2.26)
Expensive	21	12	0.31 (0.08, 1.28)	0.35 (0.06, 1.96)
Very expensive	4	2	0.35 (0.04, 2.87)	0.52 (0.03, 8.10)
<b>Respondents' rating of length of stay in the hospital</b>				
Very long	66	53	1.00	
Long	143	26	4.42 (2.54, 7.68)**	4.54 (2.38, 8.65)**
Fair	91	7	10.44 (4.46, 24.4)**	11.09 (3.87, 31.77)**
Short	59	4	11.85 (4.04, 34.71)**	36.07 (4.55, 285.98)**
Very short	3	0	-	-
<b>Patients' perception of the waiting area</b>				
Very comfortable	7	1	1.00	
Comfortable	311	66	0.67 (0.08, 5.56)	2.91 (0.25, 34.30)
Uncomfortable	37	17	0.31 (0.04, 2.73)	1.76 (0.13, 23.31)
Very uncomfortable	2	5	0.06 (0.01, 0.82)	0.28 (0.01, 6.17)
Not applicable	5	1	0.71 (0.04, 14.33)	1.97 (0.07, 52.97)
<b>Had good dialogue with outpatient service provider</b>				
Yes	349	70	1.00	
No	11	14	0.16 (0.07, 0.36)	0.28 (0.12, 0.41)**
Don't know	2	6	0.07 (0.01, 0.34)	0.12 (0.05, 0.39)**
<b>Have got all ordered services or drugs from the hospital</b>				
Yes	266	56	1.00	
No	96	34	0.59 (0.37, 0.97)	0.78 (0.41, 0.6)**
<b>There was adequate privacy</b>				
Yes	309	59	1.00	
No	53	31	(0.19, 0.55)	0.52 (0.27, 0.78)**
<b>There was convenient environment to ask question/s</b>				
Yes	324	64	1.00	
No	38	26	0.29 (0.16, 0.51)	0.38 (0.17, 0.83)**

\*p value&lt;0.05\*\*statistically significant, †controlled for age, marital status, educational status, occupation, average monthly income, residential place

Hospital in Nigeria (Udonwa and Ogbonna, 2012).

The level of patient satisfaction in this study is in agreement with a study conducted in six regions of

Ethiopia (Bekele et al., 2008), and higher when compared with other studies conducted in Eastern Ethiopia (Abdosh, 2006), Jimma (Oljira and Gebreselassie, 2011),

and Addis Ababa (Tateke et al., 2012), which revealed level of patient satisfaction to be 54, 57.1 and 65.9%, respectively. A systematic review made on measurement of patient satisfaction with health care showed personal contact and interview methods usually result in higher recorded satisfaction than other methods (Crow et al., 2002). Hence, similar condition might have happened and inflate proportion of satisfied patients in this study.

Moreover, a high proportion of satisfied patients in this study may not imply that the services rendered in the outpatient departments were of high quality. This is because patient satisfaction cannot show the real treatment outcome, which is another indicator of quality of health services (Yildiz and Erdogmus, 2004). Besides, patients who did not claim the existence of a convenient environment to ask questions and patients who did not have a good dialogue with outpatient health service providers were less satisfied. A study carried out in health centers in central Ethiopia also revealed that good dialogue and non-verbal communications to be predictors of high degree of patients' satisfaction (Birhanu et al., 2010). This is also supported by a study conducted in United Arab Emirates public hospitals which identified perceived welcoming approach of service providers as a significant determinant of patient satisfaction (Masood et al., 2008).

Perceived long length of stay in the hospital negatively affected patients' satisfaction in this study. This is in agreement with other studies conducted in outpatient setups in Ethiopia (Abdosh, 2006; Tateke et al., 2012; Oljira and Gebreselassie, 2010) and studies conducted in inpatient setups in Vietnam (Thi et al., 2002). However, studies of mental health services have found the opposite to be true and those seem to be areas more likely conditioned by a long stay (Rosenheck et al., 1997). Mostly patients do not want to get partial service or transfer somewhere else unless there is special personal need (Mirzaei et al., 2013). The same is true in this study where patients who did not get all required services or drugs from the hospital were less satisfied than their counterparts (AOR = 0.78, 95% CI: 0.41, 0.96). This study assessed patient experiences in the hospital, which definitely affects patient satisfaction. But a study done in Norway showed it is not only patient-reported experiences which affect patient satisfaction, but also the fulfillment of expectations, which is distinct in its scope (Bjertnaes et al., 2011).

High proportion of self-referred patients in this study is due to the fact that the hospital is not operating as a full blown referral hospital and it provides outpatient services to patients coming without any referral slip. Besides, the hospital is providing fee-waived outpatient health services for students coming from government owned higher institutions. These conditions may bias the patients' evaluation of satisfaction with services rendered. Thus,

this study is limited in measuring all possible factors which can affect patients' satisfaction with outpatient health services and we recommend future studies to address this gap and identify all possible predictors of patients' satisfaction so that appropriate remedies will be undertaken by health managers and service providers.

## Conclusion

This study revealed that satisfaction of patients with outpatient health services is related to financial and interpersonal factors. The interpersonal factors might have happened due to the fact that there are student medical practitioners providing services in the hospital who do not have previous skill and experience of handling patients. Thus, the interpretation of the findings of this study may not apply to other non-teaching hospitals. Health managers and service providers should devise innovative ways to reduce waiting time, ensure existence of good dialogue with patients, and maintain privacy of patients in order to improve the level of satisfaction of patients.

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