ORIGINAL ARTICLE

CLIENTS' EXPECTATION, SATISFACTION AND DETERMINANT FACTORS ON OUTPATIENT SERVICES DELIVERIESIN ETHIOPIAN PRIMARY HOSPITALS: MULTI-CENTER CROSS-SECTIONAL SURVEY"

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ABSTRACT

Introduction: *Satisfaction is the measures of clients' perceived positive feelings on the healthcare services they got after the service deliveries compared to their initial expectations. It is an integral tool which is used to measure the service deliveries. Although it is an integral tool to measure service deliveries, it is quite different across countries. The aim of this study was to assess the expectations and satisfactions of the clients on the outpatient healthcare service deliveries, and the determinant factors in Ethiopian primary hospitals.*

Method: *Institutional-based cross-sectional survey was conducted from October 2017- December 2017 in Ethiopian public primary hospitals which were selected using simple random sampling technique. We included 404 participants, and we allocated the respondents proportionally to each hospital. Essential information about the expectation and satisfaction levels of the clients was gained by administering structured interview and questionnaire prepared using a Likert scale of 1–5. Logistics regression was applied to describe a statistical significance of potential variables. P-value< 0.05 and 95% CI were used as cut-off points for determining the statistical significance of associations among predictor variables.*

Result: *Among the 404 respondents, more than half (57.7%) were males, and the mean (±SD) age was 33.6 ±12.3 years. Overall mean expectation on healthcare services and satisfaction level of the respondents was 74.7 % and 67.2%, respectively. Clients were satisfied with facility settings (71%), accessibility of information (69%), provisions of examination and consultation (68.8%). On the other hand, high service costs, fewer service accessibility and provisions (35.6%), longer waiting time (34.2%), disrespect of privacy (33.8%) and failure to maintain the good provider-patient interactions (33.6%) were the most dissatisfying components. Being civil servants (AOR: 0.304; 95%CI: 0.126-0.736); P=0.008) were more dissatisfied components rated by farmers. In contrast, availability of the prescribed drugs (AOR: 3.966; 95%CI: 2.068-7.606); P<0.001), clean environments (AOR: 2.139; 95%CI: 1.086-4.216); P<0.028) and equal service provisions (AOR: 5.73; 95%CI: 2.48-13.241); P<0.001) were the most satisfying factors.*

Conclusion: *Overall satisfaction levels of the clients on the healthcare service provisions were moderate. Facility settings, information accessibility, provisions of examination and consultation increase the clients' satisfaction levels. However, it was compromised by unavailability of the prescribed drugs, high service costs, inaccessibility of service and provisions, long waiting time, disrespect of the privacies and failure to maintain good provider-client interactions. Improving the affordability and availability of service costs and accessibility, client-provider communications, clients' perceived perceptions and facilitating service deliveries are recommended.*

Key words: *Client, satisfaction, expectation, outpatient, primary hospital, Ethiopia.*

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BACKGROUND

Client satisfaction is the degree of an optimistic feeling on the healthcare services that clients got after the services delivered compared to their initial expectations (1, 2). It also points out the breach between the expected quality of services, and the concrete practices provided from the clients points of view(3). Satisfaction is measurable, and it provides baseline point of reference for the clients. It also considers the "emotional" aspects related to a medical action having a noteworthy effect on the clients' own health(4, 5). Patient satisfaction is becoming an important components of the standards of healthcare services(6), and it is widely used tool to measure the achievements of customers' health needs and expectations on health care services (7, 8). As a result, it decides the fortune of healthcare providers and the delivery systems(3). However, it is subjective to individual clients.

Even though the patient satisfaction is an integral tool which is used to measure the services delivered, the rate of satisfaction is quite different across countries. In the six central and eastern European countries, the general clients' satisfaction with the quality and access to healthcare services was moderately good(9). Similarly, the satisfaction rates in Uganda were found moderately higher in lower health facilities than in the higher facilities(10). Conversely, as the studies done in South West Ethiopia indicated, the satisfaction rates of patients were decreased from 77% (11) to 27.8%(12). Likewise, a report from North East Ethiopia also indicated that insured patients perceived a higher quality of care and satisfaction levels than those who were not insured(13). In addition, clients' satisfaction levels were low in healthcare deliveries in West Amhara region, Ethiopia(14).

Since one-half of the world's population is still in need of essential health services(15), it could compromise the overall patients' satisfaction levels. Poor satisfaction level reveals the existing gaps of the current experiences and the expected services, and it pushed the patients to distant and costly health institutions in search of better satisfaction (16). To improve this levels, it is important to recommend the delivery of the services should be for the whole population without economic differences(17). Solving these types of hardships is very important for developing nations like Ethiopia where out-of-pocket (OOP) is the main fee strategy for healthcare services. In Ethiopia, the low level of socio- economic status, social services and poor environmental conditions became the major causes for a poor health status of the people, and their dissatisfaction rates(18). Even though Ethiopia strives to meet the clients' satisfaction by implementing the Health Sector Development Program IV (HSDP IV), most clients of various health care facilities still kept complaining of the services(19, 20).

Patients' satisfaction is considered as one of the anticipated outcomes of the healthcare provisions, and it is directly related with several factors. As to the many comparative studies done on public health expenditures, service providers, socio-demographic and socioeconomic status showed, the general health status have been associated with clients' satisfaction (9, 21). Many scholars also showed that weak healthcare management systems due to poor service coverage, scarce of staffing, lack of drugs and supplies, low infection prevention and information provision, high patient flow, long waiting time, poor cleanliness, lack of privacy and short visiting hours were found major causes of dissatisfaction(11, 22, 23).

Nowadays, healthcare service has been improved by using different tools such as electronic health technologies(24). Client-centered care has been accepted as one of the pillars for health services to realize quality of care, and it should be actively involved in the medical decision making process to the achievement of good health outcomes (25-27). Satisfied patients are using health care services, maintain the relationship with care providers, and they recommend others to use the services (25). Investigating the clients' thought about the care and treatment they received is an important step towards improving the quality of care, and to ensure local health services whether it satisfies clients' needs or not(28). Customer satisfaction can also be improved when healthcare governance make the key policy goals accessibility and qualified(9) by expansion of health facilities in remote areas, maintaining drug availability, improving cleanliness of health facilities, and fast health service deliverance (14). Client satisfaction is a useful indicator of health care system performance which allied to treatment compliance, and it maintain patient-care provider relationships and communications with care providers including receptionists, service attitudes, expenditure and environment(29, 30).

Level of satisfaction, therefore, needs to be measured periodically to improve the quality of services (3). Moreover, most of the hospitals in the study areas are newly constructed, and there are no previous studies that presented the clients' expectations and satisfaction with the health care provision systems. The prime aim of this study was to assess level of clients' satisfaction, expectation, and to identify factors that determine the clients' satisfaction on healthcare service at public primary hospitals in Northwest Ethiopia.

METHOD

Study setting and population: Multicenter cross-sectional survey was conducted in Northwest Ethiopian public primary hospitals from October 2017 to December 2017. In the study area, there is one comprehensive specialized referral teaching hospital, one private general hospital, ten public primary hospitals and several health centers. The study population consisted all outpatients who visited the hospitals which were selected using a simple random sampling technique (Metema, Debark, Wogera, Abrajirha and Kolladiba) during the study period. As to the point of estimations of the respective hospitals' reports in the year 2017, a total of 163, 216 patients were served. Out of these, Metema (41,208), Debark (40,804), Wogera (27,472), Abrajirha (27,472) and Kolladiba (26,260) delivered the services respectively(31). Every volunteer participant who came for healthcare provisions, and who met the inclusion criteria were included in this study. Clients who were incapable to respond to the interview due to their serious illness, cognitive impairment, hearing and speaking problems, and who were under the age of 18 years were excluded due to difficulty of getting consent from them.

Sample size determination and Sampling procedure: The sample size was calculated by considering on the single population formula assumptions. Thereby, the outpatient satisfaction level was 39.3% with health care service was used from a study done in West Amhara region, Northern Ethiopia(14). Level of significance to be 5% (α = 0.05), Z the degree of accuracy required at 95% confidence level, $Z_{\alpha/2}$ = 1.96 and absolute precision or margin of error to be 5% (d = 0.05) and adding the contingency (10%) for the non-response rate was used. With a stratified sampling method, a total of

404 respondents from the OPD service users were included. Then we stratified and allocate the study participants proportionally to each selected hospital using simple random technique. Based on that, 102, 101, 68, 68 and 65 respondents were involved in Metema, Debark, Wogera, Abrajirha and Kolladiba hospitals, respectively.

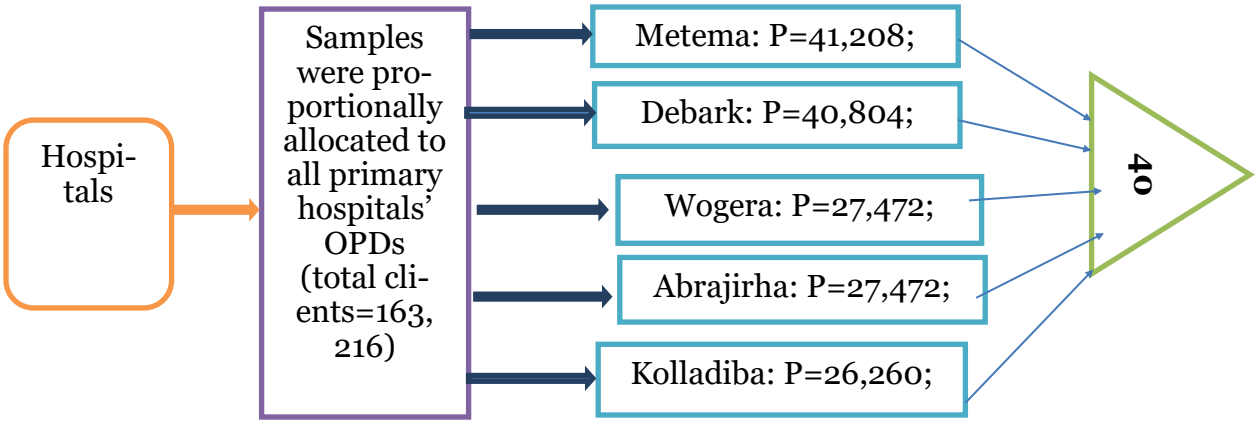

Figure 1: *Schematic representation procedures for clients' expectations, satisfactions and determinant factors on outpatient service deliveries in Ethiopian primary hospitals.*

Data collection instruments quality, procedure and management: The data collection format was initially prepared in English. It was then translated to the local language (Amharic), and back-translated to English to ensure proper meaning. The instrument was adopted from the tool employed by Mulatu M. et al. 2017(14) with some expertise modification. The Cronbach's Alpha reliability test of the internal consistency of the instrument for satisfaction and expectation were 0.9 and 0.82, respectively. Five trained senior nurse professionals from each respective hospital under investigators' supervision collected the data. Essential information was collected using structured interviews and questionnaire.. The questionnaire focused on socio-demographic and related information, expectations of clients from the health care services, and their satisfaction level on the provided services. Ten indicators of healthcare service measurements (waiting time to receive the service, information provision by the health workers, service accessibility and provision, the physical facility, availability of drugs, treatment cost, health workers and client interactions, privacy of clients, cleanliness of the health facility, and examination and consultation services) were used to evaluate the service quality. Five Likert's scale types were prepared for items measuring the clients expectation (Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5)). Similarly, the same scale was prepared for satisfaction (very dissatisfied (1), Dissatisfied (2), Neutral (3), Satisfied (4), Very satisfied (5)). Zero was coded for dissatisfied and disagreed, and 1 was used for satisfied and agreed for each indicator. The total score for each indicator was summed to yield an overall expectation and satisfaction score 0 to 10. The respondents who responded >5 scores from the given 10 indicators were rated as satisfied and agreed, and those responded ≤ 5 considered as dissatisfied and disagreed with the given healthcare services.

Operational definition: For this study, we operationalized the satisfaction levels of the clients, and we classified them into three categories based on the mean scores. Hence, the study subjects who scored a

mean of <5, 5-7.5 and >7.5 from a total of ten points had low, moderate and acceptable satisfaction levels respectively on the healthcare services.

Data entry, analyses and interpretation: Data were collected using quantitative methods, and they were entered and analyzed using IBM SPSS Statistics for Windows, version 25.0(32). Socio-demographic, satisfaction and expectation levels were stated with mean (±SD), median, proportions. Chi-square (X^2) test was used to determine if there is association among categorical variables. Multivariate analyses were used to identify variables which had significant effects on the clients' satisfaction levels, and were eliminated the potential confounder. First, all the possible predictors were considered in the crude univariate logistics regression and variables with P>0.2 were excluded from the adjusted multivariate analyses. P-value < 0.05 and 95% confidence interval (CI) was used as cut-off points for determining statistical significance among the variables.

Data quality control: Pre-test was given to 25 clients who work in one of randomly selected hospitals prior to the actual data collection which was excluded from the final analyses. These patients were not included in the final data analyses. Important amendments were made, and modified based on the pre-test findings. The data accuracy and completeness were consistently checked by using double entry, and errors and omissions were corrected.

RESULT

Socio- demographic characteristics of the respondents: Among the 404 respondents, more than half (57.7%) were males, and the mean (±SD) age was 33.6 ±12.3 years. Almost two-thirds of the participants were married (64.4%). However, about one third (32.9%), of them were not educated, and 28.7% were farmers. Educational level differences were noted among the hospitals (p<0.001). Higher proportion (77%) of clients used out-of-pocket (OOP) payment strategy for the health services deliveries whereas the rest got charge free. More than ninety percent of the clients visited the health facilities because of illness. About more than one-third (36.4%) of the individuals were interviewed on their second visit within a one-year period, and substantial difference was noticed among the hospitals (p=0.008). Large numbers (85.4%) of the clients reported that there was a complete signboard that guided and provided a clear information for the service provision areas (p = 0.037**)** (see Table 1).

Waiting time to get outpatient services in health facilities: The longer total waiting time was reported by 34.2% of the participants. However, 28.2% of them expected that it could be longer. Almost one-thirds (30.2%) of the respondents thought that the facility opened at two hours in the early morning. The median (IQR) time took to be registered was 20 (30-10) minutes, and about 46.8% the clients had spent about ≤ 15 minutes for registration. Clients took about ≤30 minutes to be seen by physicians/clinicians (68.1%), but < 1 hour to get laboratory services (70%). The median (IQR) time took to be clerked by clinicians, and having laboratory services were 30 minutes. Similarly, about 70% of the participants spent less than 15 minutes to get the pharmacy services, and almost 65% of them were reached the hospitals within one hour. Generally, a greater number of clients reported that time to get laboratory services (35.1%) and seen by clinician's (30.2%) took longer time than the other services (see Table 2).

Table 1: Basic information concerning respondents' demographic characteristics

Variables	Locations of the Hospitals						
	Wogera	**Debark**	**Metema**	**Kolladiba**	**Abrajirha**	**Total**	**p-value**
	68	**101**	**102**	**65**	**68**	**404 (100%)**	
Sex: Male	30	57	70	35	41	233(57.7)	**0.029**
Female	38	44	32	30	27	171(42.3)	
Age 18-37	43	69	66	48	46	272(67.3)	-
38-57	20	29	32	17	16	114(28.2)	
58-77	5	3	4	0	6	18(4.5)	
Marital Status: Single	16	32	51	20	15	134(33.2)	-
Married	50	65	50	44	51	260(64.4)	
Widowed	2	3	1	1	2	9(2.2)	
Divorced	0	1	0	0	0	1(0.2)	
Educational level: Illiterate	28	31	38	18	18	133(32.9)	**<0.001**
Grade 1-8	3	18	18	5	6	50(12.4)	
Grade 9-12	11	17	12	25	28	93(23)	
Diploma	14	21	21	9	11	76(18.8)	
Degree and above	12	14	13	8	5	51(12.9)	
Occupational status: Farmer	8	37	25	19	27	116 (28.7)	-
Self-employer	9	11	16	9	9	53 (13.12)	
Civil servant	19	24	14	6	10	73 (18.1)	
Student	5	14	26	12	7	64 (15.84)	
House wife	23	13	10	16	12	74 (18.32)	
Other[a]	5	2	11	3	3	24 (5.94%)	
Service charge status: Free	14	19	29	21	10	93 (23)	0.068
Payment	54	82	73	44	58	311 (77)	
Purpose for visit: Illness	61	95	87	61	67	366 (90.6)	-
Family planning	7	6	15	4	1	33 (8.2)	
Rate of visit (within 1 year):							
1st Visit	29	31	32	21	29	142 (35.1)	**0.008**
2nd Visit	14	32	46	27	28	147 (36.4)	
More than twice	25	38	24	17	11	115 (28.5)	
Presence of signboard: Yes	63	84	89	58	51	354 (85.4%)	**0.037**
No	5	17	13	7	17	59 (14.6%)	

Table 2: Waiting time to get OPD service in health facilities of Northwest region of Ethiopian primary Hospitals, October- December 2017 (N = 404).

Variables	Category	N (%)	Median (IQR) time taken (in minutes)
Expected time to open the facility to the public in the morning	24 hours remains opened	108 (26.7)	120 (0-150)
	<1 hour	32 (7.9)	
	1-2 hours	142 (35.1)	
	>2 hours	122 (30.2)	
Time spent to register	≤15 minutes	189 (46.8)	20 (10-30)
	16-30 minutes	130 (32.2)	
	31-60 minutes	85 (21)	
Time spent to see a Doctor	≤ 30 minutes	275 (68.1)	30 (10-60)
	31-60 minutes	91 (22.5)	
	>61 minutes	38 (9.4)	
Time to receive laboratory services	< 1 hour	283 (70)	30 (20-60)
	1-2 hours	38 (9.4)	
	2-3 hours	(1)	
	>3 hours	(1.2)	
Time taken to re-see clinicians after receiving the x-ray and or lab results	Did not send for lab and x-ray	74 (18.3)	35 (20-60)
	< 30 minutes	163 (40.3)	
	30-60 minutes	133 (32.9)	
	>1 hour	34 (8.4)	
Time to receive Pharmacy service	<15 minutes	279 (69.1)	10 (5-20)
	16-30 minutes	70 (17.3)	
	31-60 minutes	55 (13.6)	
Patients' expected time to reach the health facility	< 1 hour	343 (84.9)	30 (20-60)
	1-2 hour	39 (9.7)	
	2-3 hours	13 (3.2)	
	>3 hours	9 (2.2)	
Real time taken to reach the health facility	<1 hour	262 (64.9)	60 (20-120)
	1-2 hours	49 (12.1)	
	2-3 hours	31 (7.7)	
	>3 hours	62 (15.3)	
Service type which took longer time	Time spent to be registered	65 (16.1)	-
	Time spent to see a clinician for examination	122 (30.2)	-
	Time spent to receive lab service	142 (35.1)	-
	Time spent to see a clinician after lab & x-ray results	61 (15.1)	-
	Time spent to receive pharmacy service	14 (3.5)	-

Expectation of clients towards the hospital health service provisions: The overall mean (±SD) of the clients' expectation levels on the health service provision was 7.5 (±1.14) out of 10 (74.7%). The highest expectation levels of patients on the health service provision were noted for the cleanness of the facility (79.8%), set-ups of the physical facility (76.8) and provider-client interactions (76.6%). On the other hand, the expectation levels were lower on the costs of the services (70.4%), waiting time to get the services (71.8%) and availability of the prescribed drugs in the facility (72%) (Fig 1).

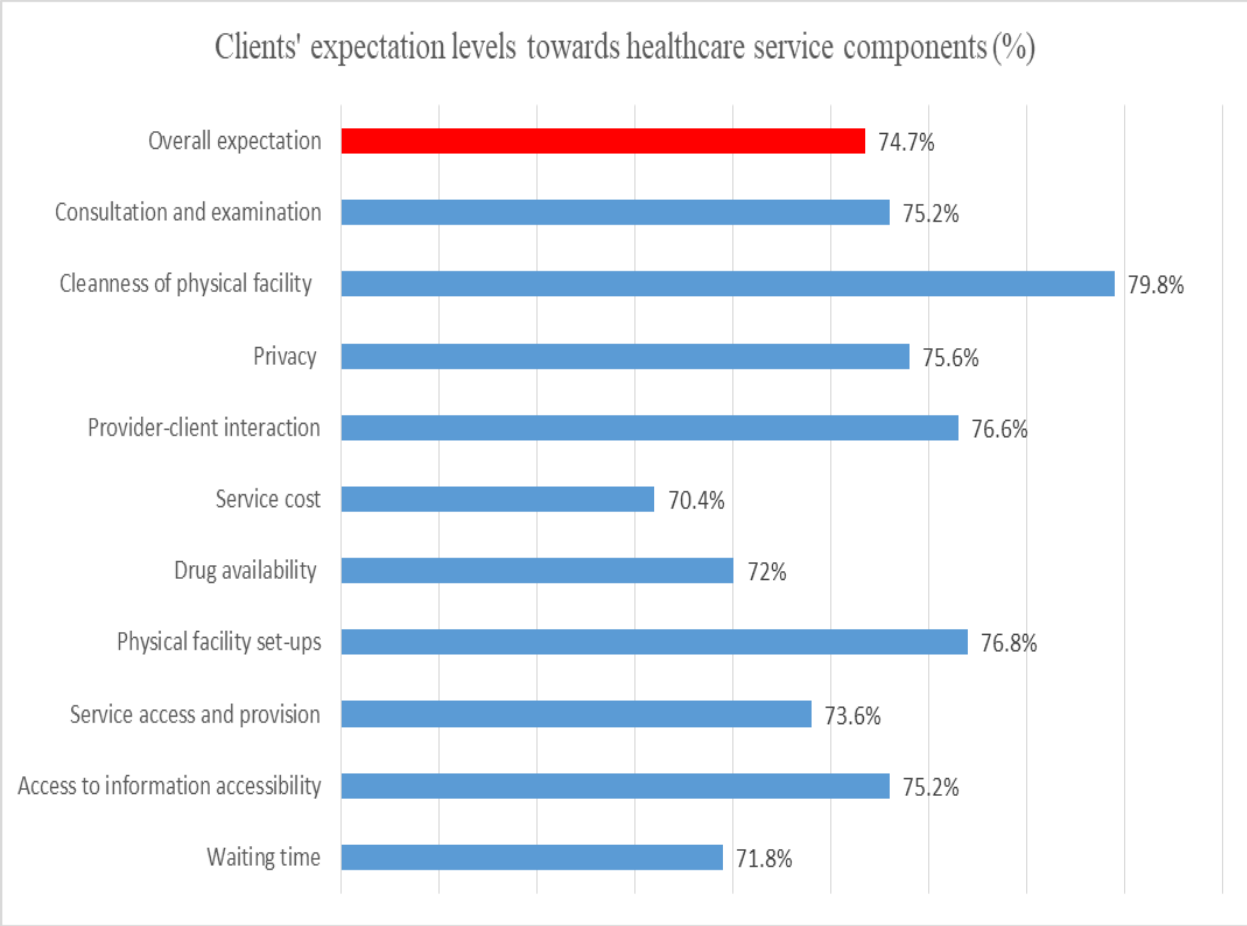

Figure 1: *Expectation levels of clients towards the healthcare facilities of Northwest region of Ethiopia, 2017.*

Satisfactions of the clients with the health service provisions: The mean of the satisfaction rates of the respondents were also assessed with the ten components of the healthcare items. The overall mean (±SD) of the clients' satisfaction level with the hospital health service provisions was 6.7 (±1.4) out of 10 (67.2%). Fulfilments of the set-ups of the facility (71%), accessibility of information (69%), provisions of examination and consultation (68.8%) were rated as the highest satisfaction levels. In contrast, both the higher costs of the services and fewer service accessibility and provisions (35.6%), longer waiting time (34.2%), inability to respect the patients' privacies (33.8%), and maintaining the good manners of service provider-patient interactions (33.6%) were the most dissatisfying components of healthcare services (Fig 2).

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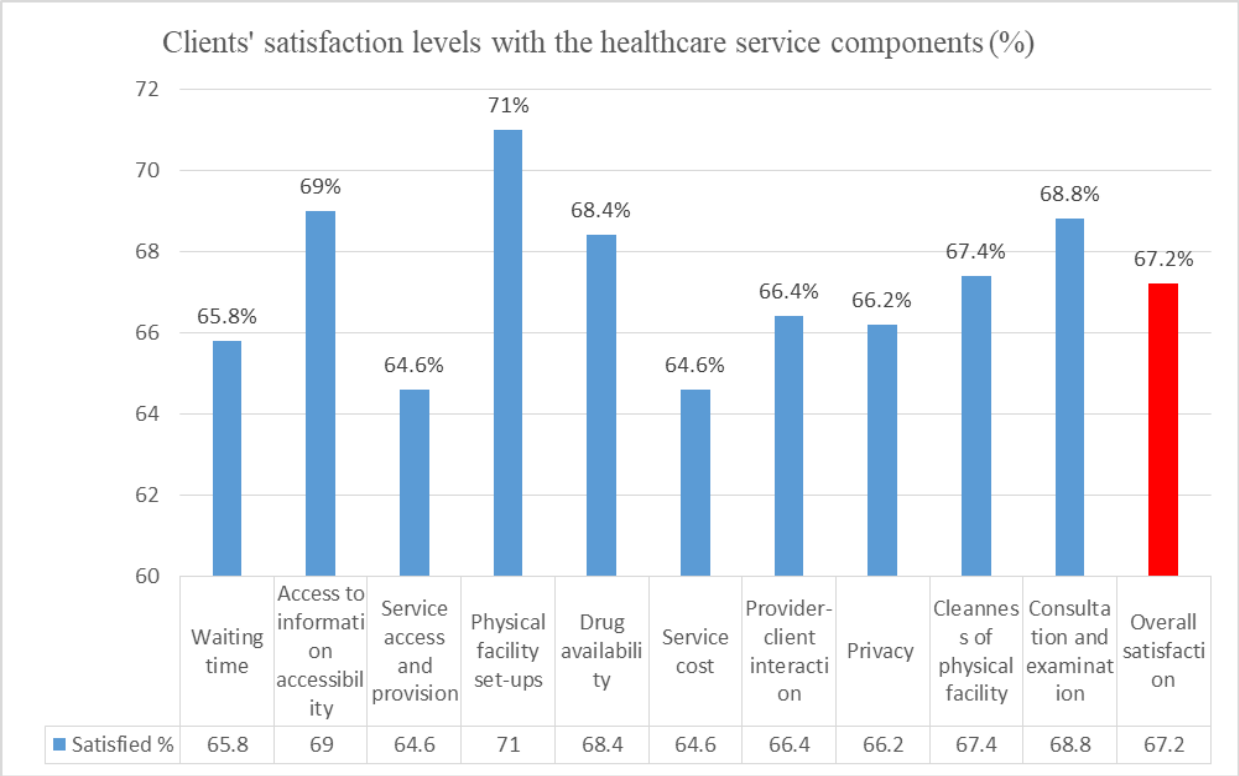

Figure 2: *Satisfaction levels of patients with the services provisions of health facilities Northwest region of Ethiopia, 2017.*

Factors determining the satisfaction levels of the clients: To determine the factors which were potentially associated with the clients' satisfaction levels, the multivariate logistics analyses was done. Civil servants were less satisfied (69.6%) than farmers, 0.304 (AOR: 0.304; 95%CI: 0.126-0.736); *P=0.008*). In the same way, patients who found the prescribed drugs in the facility had about 4 times more likely satisfied than who did not, 3.966 (AOR: 3.966; 95%CI: 2.068-7.606); *P<0.001*). Similarly, the rate of satisfaction was about 1.14 times more for respondents who found clean environment outside the facility than those who found it untidy, 2.139 (AOR: 2.139; 95%CI: 1.086-4.216); *P<0.028)*. Likewise, clients who believed that they received the services equally like other clients had a 4.73 times more satisfaction levels than those who did not, 5.73 (AOR: 5.73; 95%CI: 2.48-13.241); *P<0.001)* (Table 3).

Table 3: Association of socio-demographic characteristics with level of satisfaction and expectations

Variables and Category		Satisfied	Dissatisfied	COR	P-value	AOR	P-value
Education: Uneducated		115	18	2.59(1.189-5.644)	0.017	-	-
status	Grades 1-8	43	7	2.49(0.917-6.763)	0.073	-	-
	Grades 9-12	84	9	3.784(1.519-9.423)	0.004	-	-
	Diploma	64	12	2.162(0.915-5.111)	0.079	-	-
	Degree and above	37	15	1			
Occupation:	Farmer	103	13	1		1	
	Self-employer	41	12	0.431(0.182-1.023)	0.056	0.508(0.187-1.385)	0.186
	Civil servant	54	19	0.359(0.165-0.781)	0.01	0.304(0.126-0.736)	**0.008**
	Student	54	10	0.682(0.281-1.656)	0.397	1.158(0.402-3.333)	0.786
	House wife	68	6	1.43(0.519-3.946)	0.489	1.221(0.398-3.744)	0.727
	Other	23	1	2.903(0.361-23.319)	0.316	3.115(0.366-26.49)	-
Received adequate	Yes	322	47	4.567(2.174-9.595)	P<0.001	-	-
information:	No	21	14	1			
Drugs availability	Yes	286	30	5.185(2.912-9.231)	P<0.001	3.966(2.068-7.606)	**<0.001**
in facility:	No	57	31	1		1	
Clean waiting	Yes	321	49	3.573(1.663-7.678)	0.001	-	-
Area	No	22	12	1			
Clean outside	Yes	256	33	2.497(1.427-4.368)	0.001	2.139(1.086-4.216)	**0.028**
environment:	No	87	28	1		1	
Separated room for	Yes	307	49	2.088(1.017-4.289)	0.045		
examination:	No	48	12	1		-	-
Comfortable	Yes	307	48	2.31(1.143-4.667)	0.02	-	-
examination rooms:	No	36	13	1			
Treated equally with							
other clients:	Yes	327	40	10.73(5.178-22.233)	P<0.001	5.73(2.48-13.241)	**<0.001**
	No	16	21	1		1	
Time spent to register:							
	≤ 15 min	174	15	3.116(1.486-6.538)	0.003	1.988 (0.858-4.607)	0.109
	16-30 min	102	28	0.979(0.502-1.908)	0.950	0.815(0.37-1.794)	0.611
	31-60 min	67	18	1		1	
Time spent to see	clini-						
cians:	< 30 min	248	27	2.851(1.222-6.648)	0.015	-	-
	30-60 min	66	25	0.819(0.34-1.972)	0.656	-	-
	>60 min	29	9	1			
Time to receive	pharma-						
cy	<15 min	246	33	2.545(1.255-5.163)	0.01	-	-
service:	16-30 min	56	14	1.366(0.588-3.174)	0.469	-	-
	31-60 min	41	14	1			

DISCUSSION

As it mentioned above, satisfaction is the measures of clients' perceived positive feelings they got with the provided services compared to their initial expectations. When evaluating the clients' expectations and satisfaction levels, our study revealed that the overall mean of the clients' expectation and satisfaction rates for the healthcare provision were 74.7% and 67.2%, respectively. This finding is greater than the research reports from other areas of Ethiopian public (18.0%) and private hospitals (47.9%)(27) which are found in South West Ethiopia (27.8%)(12) and in Northwest Ethiopian region (39.3%)(14). Though the satisfaction levels in the present study was found higher than the overall satisfaction levels (52.2%) reported in Ethiopia (33), yet it is lower than the national targeted satisfaction level (80%)(20). Similarly, it is also lower than the satisfaction level reported from Jimma university specialized hospital (77%)(11), and it is much lower than the satisfaction levels of Kuwait primary health care (99.6%)(34) and in China (89.75%) (30). These level of expectation and satisfaction might resulted from: the integrated involvements of adequate number of healthcare personnel who have appropriate skills and hardworking habits, availability of diagnostic equipment, quality service providing areas, and accessibility of hospitals to the peripheries. Since the present study revealed that the satisfaction levels in primary hospitals are still less than the national target levels, it requires that the responsible bodies and other stakeholders need to be committed for achieving the national target satisfaction levels through: close supervisions, better policy implementation, quality care provisions and regular assessments.

However, the clients' expectation rates regarding cleanness of the facility were higher (79.8%). Expectation rates which are lower than this numbers were found to be satisfied (67.4%). This was comparable with a study done at Gondar university hospital (65.3%)(35), and higher than the study done in Northwest Ethiopian region (26.8%)(14) and in India (27.3%)(36). However, it is lower than the six regions of Ethiopia (76.5±79.6%)(37). The possible explanations for this could be that there are adequate numbers of cleaners assigned at every service areas and well-designed infrastructures. Moreover, the hospitals could give awareness trainings to the clients and providers about the benefits of clean facilities. Regarding the fulfillments of the set-ups of the facility, it was found as the second most highly expected service component, and the highest satisfaction level was noted (76.8%) and (71%), respectively. With what? This was greater than the reports in other regions of Ethiopia (43.4%)(14). This could be due to the reason that most of the hospitals are newly constructed that almost all includes all the necessary service delivery set-ups, and possibly they incudes the areas that were missed in the previous health facilities.

Our study revealed that the service costs (laboratory, drugs and total medical costs) and service accessibility and provisions (ease of getting variety of services and provision, occurrences of competent providers and facility distances) were the most influential dissatisfying factors for clients and was rated as (64.6%). However, it was greater compared to a study done in other regions of Ethiopia (14), and it is lower than the satisfaction level in the government health facility in India (88.3%) (36). The possible reasons which made this one greater than a report in Ethiopia, but lower than Indian is that clients in this area could have accessed the facilities in shorter distances because of the expansions of more health facilities to the communities, the recruitment of competent providers, and avail service costs in affordable prices.

The longer waiting time to get the healthcare services was the second most dissatisfying component for large numbers of clients (34.2%), but fewer than this were expected that could be longer. This was greater as compared with a study conducted in Jimma Hospital (20.4%) (38), but lower than a report done by Fekadu et al (37.2%) (11) and Derebe MM et al (59.2%)(14). Similarly, the dissatisfaction rate with the total waiting time for receiving the services in Nigeria public hospitals was 48% (39), and it was rated as 35.5% in India(36). The lower levels of dissatisfaction rate with the total waiting time may be attributed to: a complement proportional client-provider numbers, the expansions of the health facilities to the communities and commitments of the healthcare managers and staff members. On the other hand, the median (IQR) time took to be registered, to get the pharmacy and laboratory services and time spent to see physicians/clinicians was about 30 minutes or less whereas it was longer than 30 minutes to re-see clinicians/physicians after receiving the investigation results and to arrive the health facility.

This study revealed that the availability of the prescribed drugs in the facility was found as a significant as the determinant factors of the satisfaction levels of clients with the healthcare services. Nevertheless, accessibility of prescribed drugs within the facility was highly recommended to achieve the planed goal of service quality and treatment results for users. Significant numbers of the clients (31.6 %) lacked the prescribed drugs in the facility. Yet, it was better than studies conducted in Jimma Hospital (70%) (11), in west Gojjam region (65.6%) (14) and in Tigray zonal hospital (61%) (40) where the prescribed drugs were not available. The possible reason for this might be fair and proportional budget allocation for drugs procurement in the study areas. In addition, the facility managers and the drug therapeutic committees might build well programmed and good procurements capabilities that centered the clients need to avail the prescribed drugs.

Keeping the facility environments clean, providing services for all the clients equally and being civil servants were also other determinant factors of the satisfaction levels. The possible explanations for these could be that satisfaction has subjective and psychological aspects that require clean and tidy service provision areas, and all the clients want to be served and treated alike. Likewise, civil servants were more dissatisfied as compared with farmers because civil servants are possibly expecting more than their counter parts.

Limitations: Since we only included the patients who visited the selected healthcare facilities, all possible participants might not be participated while there were many that needed to be involved. Moreover, as the data were collected in the hospitals where care providers are presented all the time, the respondents might favor service providers and probably thought that they would blame of who they served. Sometimes the client self-reports may overestimate the satisfaction levels and they might have experienced an immediate short-lived satisfaction after consultations.

CONCLUSION AND RECOMMENDATION

The overall satisfaction levels of the respondents for the service provisions in northwest Ethiopian primary hospitals were moderate. The satisfaction levels were improved by the facility settings, accessibility of information, provisions of examination and consultation. Conversely, it was compromised with a high service costs, fewer service accessibility and provisions, longer waiting time, disrespect of the privacy and failure to maintain good provider-client interactions. Lack of the prescribed drugs in the facility, poor clean environments outside the service

delivery areas, unable to being civil servants and serving clients in unequal manner were the most dissatisfying factors. Therefore, improving the affordability and availability of service costs and accessibility, improving client-provider communications, clients' perceived perceptions, facilitating and hastening of the time used to get the services and modernize the customer privacy in healthcare provision areas are recommended.

Abbreviations: AOR: adjusted odds ratio; COR: Crude odds ratio; CI: confidence interval; HSDP IV: Health Sector Development Program IV; MD: mean difference; SD: standard deviation; SPSS: Statistical packages for social science.

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Ethics approval and consent to participate: The Amhara Regional Health Bureau Research ethics committee reviewed and ethically approved with a reference number of HRTT/01/787/01/2010. Verbal and written informed consent was taken from each of the included participants before starting the interview, and after the aim of the study was explained clearly. The data collected was kept anonymous and recorded in such a way that involved the pharmacy professionals could not be known. The exit interviews were conducted where questions and answers did not overhear to ensure privacy and confidentiality of clients. The information obtained from the study was not disclosed to the third body. Only coded numbers were used to identify study participants.

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