



## Research Article

# A Cross-Sectional Study of Client Satisfaction towards Services Received at Boru Meda Hospital Pharmacy on Opd Basis and Community Pharmacy

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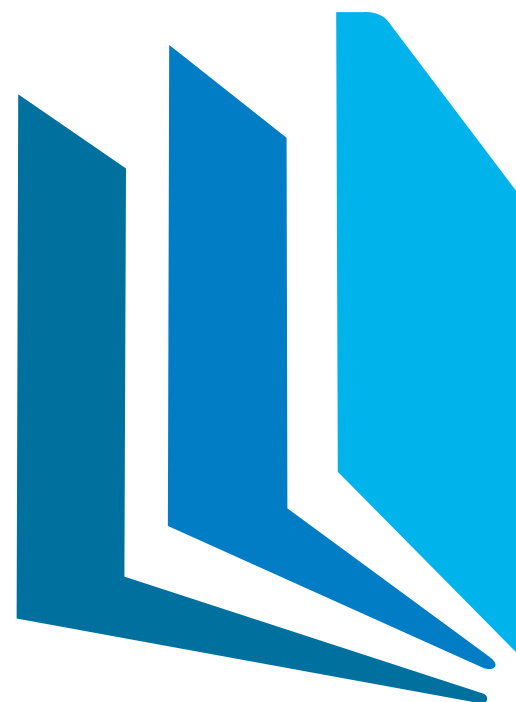
### Abstract

**Background:** Client satisfaction is a multidimensional construct that reflects the quality of service provided by healthcare providers. The objective of this study was to develop a client satisfaction scale that could be used to assess the quality of pharmacy services provided in Boru media hospital community and hospital pharmacy in respect of client perception of specific aspects of service performance.

**Methods:** Institutional based quantitative cross sectional study was conducted with clients exit interview at hospital outpatient pharmacy and community pharmacy during the period from February 30, 2017 to March 30, 2017. The study was carried out in 417 participants who were selected by systematic random sampling technique. The data was collected on predesigned and pretested questionnaire.

**Results:** Regarding availability of pharmaceutical items at community pharmacy 114 (54%) had gotten a chance of all prescribed items. About patronage of participants 153(72.5%) were repeat visit in community pharmacy. with regards the courtesy and respect shown by the pharmacy staff 96.7%, 95.6% participants were found satisfied in community and hospital pharmacy respectively. Near about 39(18.5%) participants in community pharmacy and 70(34%) participants in hospital pharmacy replied that they were unsatisfied with information gives about the proper storage of their medication.

**Conclusions:** This study showed that the overall satisfaction level of clients of both hospital and community pharmacy was high. About fairness of cost of medications in the community pharmacy only 6(2.8%) were found very dissatisfactory, whereas 3(1.5%) Participants at hospital pharmacy were very dissatisfactory.



**Keywords:** Satisfaction; Pharmacy; Clients; Community pharmacy; Boru meda hospital

## Introduction

Evaluating of client satisfaction is along-established and vital aspect of measuring the quality and sustainability of a service [1,2]. Client satisfaction, as a performance measure is considered as the personal evaluation or appraisal of health care services and providers. Although an increasing focus of client satisfaction in pharmacy is being shifted from dispensing functions, error rates, and costs to the quality of pharmacy performance, including patient care services, available literature on pharmacist performance of patient care services in comprehensive medication management is limited [2].

Without appropriate client satisfaction measures demonstrating value, pharmacists can be at a shortcoming when requesting reimbursement for these pharmacy services [3]. It serves as a bond between patients' desires and services that are provided and allows an assessment that directly reflects the patients' perspective on a service [4].

Boru meda Hospital (BMH) has therefore already a competitive advantage. But the hospital should not only gain its important position through this channel but also through becoming more customer oriented, as patients should become more willingly to enter the hospital. This research will focus on differences between satisfaction in pharmacy service of patients and improvements to obtain better quality care through service quality strategies.

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## Methods

### Study design and period

Institutional based quantitative cross sectional study were conducted with patient exit interview and study participants were selected by systematic random sampling technique. The study was conducted from February 30, 2017 to March 30, 2017.

### Study area

The study was conducted at BMH pharmacy and community pharmacy, which are found in south Wollo Zone of Amhara regional state and are located 4010 km, and 400 km away from Addis Ababa the capital city of Ethiopia respectively.

### Source population

The source population for this study was all clients to visit pharmacy at BMH OPD pharmacy and community pharmacy.

### Study population

All clients whose age ranges are from 18 years to 65 years old to visit pharmacy at BMH OPD pharmacy and community pharmacy during data collection period.

### Inclusion criteria

- All clients visited outpatient pharmacy and community pharmacy whose age ranges are from 18 years to 65 years old.
- The clients who were willing to give consent.

### Exclusion criteria

- Clients who are mentally and seriously ill.
- Clients who have hearing and speaking difficulty will be excluded.
- Clients who had not finished the interview process.

### Sample size determination

By using single population proportion formula and taking the following assumptions the total sample size was calculated as,

$$n = \frac{Z(\alpha/2)^2 P(1-P)}{(D)^2}$$

$n$ =sample size;  $Z(\alpha/2) = 1.96$ , which is the upper percentile of the standard normal distribution;  $P$ = patient satisfaction on pharmacy service, In order to obtain the largest possible sample size by assuming that 50% patient satisfaction rate.  $D$ =marginal error assumed to be 5%, the sample size will be

$$n = \frac{(1.96)^2 0.5(1-0.5)}{(0.05)^2}$$

This gives  $n=384$

At last 10% of non-response rate is added, and it will be  $384 + 38 = 422$

### Sampling procedure

Systematic random sampling technique was used to select the study participants. Based on the last three month clients flow trend 15,235 clients in community pharmacy and 15,540 clients in hospital outpatient pharmacy attendants recorded. So we can estimate the monthly average number of hospital OPD pharmacy and community pharmacy clients are 5,180 and 5,078 respectively. The number of actual study participants from both pharmacies are calculated and taken disproportionately.

### Variables of the Study

#### Dependent variable

- Client satisfaction

#### Independent variable

#### Socio- demographic characteristics

- Age
- Sex
- Marital status
- Educational status
- Occupational status
- Religion
- Ethnicity
- Payment status
- Place of residence

#### Availability of pharmaceutical items, Service sought and patronage

- no. of drugs prescribed
- no. of drugs dispensed
- Patronage
- Service sought

#### Satisfaction level of measurements

- clarity of instructions
- Availability of drugs
- Waiting time of patients
- Courteousness of staff
- Affordability of cost
- Counseling time
- professionalism of pharmacy staff
- Storage of medication
- Cleanliness and comfort of the waiting
- privacy of conversations



## Operational Definition

Patient waiting time: The interval between departure from the proceeding pharmacy station and receiving pharmacy service

Satisfaction: Attaining one's need or desire.

Very satisfactory: Above one's expectation.

Satisfactory: Just one's expectation.

Dissatisfactory: Below one's expectation.

Very dissatisfactory: Fail to meet one's expectation usually leading to disappointment

Service: any activity undertaken in the pharmacy to meet the rational use of medication

Data Collection Method and tool

Structured interview questionnaires were adapted and modified from different related literatures to collect data on the socio-demographic variables and associated factors [5-9]. It was prepared in English and then translated to Amharic language and then retranslated to English to check for its consistency. The data was collected through face to face interview by trained collectors.

## Data quality control

To assure data quality, the instrument was retranslated to local language (Amharic). The recruited data collectors were trained for two days on the objective, confidentiality of information, relevance of the study and respondent's right, pretest, informed consent and techniques of interview. Before going in to data collection, the structured questionnaire was pre-tested on 5% of the total sample on other than selected health centers for consistence of understanding the survey tool and modifications was done accordingly. Close supervision was undertaken during data collection.

## Ethics

This study was approved by chief executive officer, and the head of the pharmacy department in the BMH. Respondents were assured that their responses would be kept confidential.

## Data Processing and Analysis

After collection of the data, the responses were coded and entered in to SPSS version 20 for analysis. Then, the frequency distribution of dependent and independent variables were worked out.

## Result

Out of 211 participants in community pharmacy 108 (51.2%) male, 103 (48.8%) female, a maximum of 77 (36.5%) were between 18 and 30 years, followed by 70 (33.2%) between 31 and 45 years. majority of 171 (81%) of participants Place of residence were urban and the rest 40 (19%) of participants were rural. The participants were asked about payment status 197 (93.4%) were cash, whereas 40 (19%) were insurance (Table1).

The study also included 206 clients attending at OPD hospital pharmacy. There were 94 (45.6%) male, 112 (54.4%) females, the majority 95 (46.1%) of the participants were belongs to 18-30years age group followed by 60 (29.1%) from 31-45 age group (Table1).

As shown in Table 2 regarding availability of pharmaceutical items at community pharmacy, 114 (54%) participants were found all prescribed items. The maximum number of prescribed items was 8 and prescriptions contain 3 items accounts the maximum number 69 (32.7%). About patronage of participants 153 (72.5%) were repeat visit (Table 2).

About availability of pharmaceutical items at hospital pharmacy, 114 (55.3%) participants only had gotten a chance of all prescribed items. The maximum number of prescribed items was 5 and prescriptions contain 3 items accounts the maximum number 69 (32.7%).

Regarding the counseling time of community pharmacy 40 (19 %) participants were found unsatisfied, whereas 14 (6.8%) participants in the hospital pharmacy were found unsatisfied. About the pharmacy professional well answers clients questions all participants were satisfied in community pharmacy personals, while 19 (9.2) participants in hospital pharmacy were found unsatisfied. Near about 39 (18.5%) participants in community pharmacy and 70 (34%) participants in hospital pharmacy replied that they were unsatisfied with information gives about the proper storage of their medication.

Regarding the cashers was courteous to clients 99.1% and 83% participants were satisfied in community and hospital pharmacy respectively. Participants who were very dissatisfactory, dissatisfactory with statement were considered as unsatisfied and the rests were considered as satisfied.

About the courtesy and respect shown by the pharmacy staff 96.7%, 95.6% participants were found satisfied in community and hospital pharmacy respectively. When asked about fairness of cost of medications in the community pharmacy only 6 (2.8%) were found very dissatisfactory, whereas 3 (1.5%) Participants were very dissatisfactory at hospital pharmacy. Maximum numbers of community pharmacy Participants 123 (58.3%) were satisfactory with regarding the community pharmacy services overall and also 149 (72.3%) in hospital pharmacy. Only 2 (0.9%), 3 (1.5) participants were unsatisfied with the overall cleanliness and comfort of the waiting area in community and hospital pharmacy respectively (Table 3 and 4).

## Discussion

Pharmaceutical services that are provided in health care institutions need to be satisfactory so as to provide the intended effects of the services. This study has clearly demonstrated that the proportion of participants who were at least satisfied is higher at Borumeda hospital pharmacy and community pharmacy. Most of the variables were also found to be determinants of patient satisfaction in studies carried out elsewhere [10-15].

Patient satisfaction is an important measure of how well services are provided. The majority of participants in this study



Variables		Community	Pharmacy	Hospital	pharmacy
		Frequency	%	frequency	%
Gender	Male	108	51.2	94	45.6
	Female	103	48.8	112	54.4
Age	18-30	77	36.5	95	46.1
	31-45	70	33.2	60	29.1
	46-55	34	16.1	32	15.5
	56-65	30	14.2	19	9.2
Religion	Orthodox	95	45	51	24.8
	Muslim	108	51.2	138	67.0
	Protestant	8	3.8	14	6.8
Marital status	Married	133	63	139	67.5
	Single	51	24.2	51	24.8
	Widowed	11	5.2	11	5.3
	Divorced	16	7.6	5	2.4
Educational status	Unable to read and write	33	15.6	81	39.3
	Primary school(1-8)	56	26.5	57	27.7
	Secondary school(9-12)	57	27	34	16.5
	Collage/university	65	30.8	34	16.5
Occupation	governmental Employee	38	18	26	12.6
	privet Employee	33	15.6	9	4.4
	None employee	17	8.1	18	8.7
	Merchant	47	22.3	28	13.6
	Farmer	19	9	74	35.9
	Others	57	27	51	24.8
Ethnic group	Amhara	179	84.4	189	91.7
	Tigre	18	8.5	4	1.9
	Oromo	14	6.6	14	6.4
Payment status	Cash	197	93.4	149	72.3
	Insurance	14	6.6	40	19.4
	Free	0	0	10	4.9
	Staff	0	0	7	3.4
Place of residence	Urban	171	81	84	40.8
	Rural	40	19	122	59.2

Others=students, housewife and pensioner

**Table 1:** Socio- demographic characteristics of clients attending in BMH pharmacy and community pharmacy.

Variables	No. of items prescription	Community Frequency	Pharmacy Presents (%)	Hospital Frequency	Pharmacy Presents (%)
No. of drugs prescribed	1	26	12.3	47	22.8
	2	41	19.4	55	26.7
	3	69	32.7	58	28.2
	4	42	19.9	28	13.6
	5	18	8.5	18	8.7
	6	13	6.2	0	0
	8	2	0.9	0	0
No. of drugs dispensed	All	114	54	114	55.3
	One	17	8.1	30	14.6
	Two	39	18.5	43	20.9
	Three	37	17.5	11	5.3
	>four	4	1.9	5	2.4
	None	0	0	3	1.5
Service sought	For self	146	69.2	136	66
	For others	65	30.8	70	34
Patronage	First time visit	58	27.5	98	47.6
	Repeat visit	153	72.5	108	52.4

**Table 2:** Availability of pharmaceutical items, Service sought and patronage of clients attending in BMH pharmacy and community pharmacy.



were very or moderately satisfactory with a number of pharmacist characteristics. Similar findings were obtained in the USA, the UK and the Netherlands. The majority of participants in this study frequently or always visited the same community pharmacy; indicating a high pharmacy patronage (72.5%), while participants in the hospital pharmacy the repeat and new visits ratio were closest one, which accounts 52.4%, 47.6% respectively.

This study had done in BMH pharmacy and community pharmacy, the authors are not familiar with any study published discussed this issues. The maximum satisfactions level of community pharmacy, 48.8% participants were satisfactory with regards the professionalism of all the pharmacy staff.

While satisfactions of participants in the hospital pharmacy with professionalism of all the pharmacy staff, 44.2% participants were moderately satisfactory whereas 31.6% participants were satisfactory. A similar study was conducted in Saudi Arabia, 56%

participants were moderately satisfactory and followed by 20.8% participants were satisfactory.

With regard to the courtesy and respect shown by the pharmacy staff only 4.4% hospital pharmacy, 3.3% community pharmacy participants were unsatisfied. Similar study was conducted at Gondar university referral hospital opd pharmacy with the findings of Surur et al, only 24.5% patient's unsatisfied.

In this study all the participants in community pharmacy were satisfied with the clarity of instructions about how to take their medication and how well the pharmacy professional answers their questions, while 90.8, 86.5% participants in hospital pharmacy were only satisfied respectively. A cross-sectional study conducted in Malta shows that the majority of the consumers were highly or moderately satisfied with various pharmacist characteristics, such as, provision of instructions on how to take medications (94%), pharmacist knowledge and ability to answer questions (81%).

Variables	Level of satisfaction (Likert's 5 point scale) (%)				
	1	2	3	4	5
The professionalism of all the pharmacy staff	8 (3.8)	3 (1.4)	28 (13.3)	103 (48.8)	69 (32.7)
The courtesy and respect shown to you by the pharmacy staff	0 (0)	7 (3.3)	35 (16.6)	99 (46.9)	70 (33.2)
The privacy of your conversations with the pharmacist	8 (3.8)	16 (7.6)	100 (47.4)	57 (27)	30 (14.2)
The cashier is courteous to clients	2 (0.9)	0 (0)	21 (10)	119 (56.4)	69 (32.7)
The care the pharmacy professional takes while supplying your medications	2 (0.9)	2 (0.9)	29 (13.7)	113 (53.6)	65 (30.8)
The fairness of cost of medications in the pharmacy	0 (0)	6 (2.8)	24 (11.4)	99 (46.9)	82 (38.9)
The amount of time the pharmacy professional spends with you	24 (11.4)	16 (7.6)	99 (46.9)	54 (25.6)	18 (8.5)
The clarity of instructions about how to take your medication	0 (0)	0 (0)	40 (19)	100 (47.4)	71 (33.6)
The information gives you about the proper storage of your medication	34 (16.1)	5 (2.4)	52 (24.6)	73 (34.6)	47 (22.3)
How well the pharmacy professional answers your questions	0 (0)	0 (0)	26 (12.3)	105 (49.8)	80 (37.9)
The amount of time you spend waiting for your prescription to be filled	2 (0.9)	2 (0.9)	130 (61.6)	66 (31.3)	11 (5.2)
The availability of medications that are prescribed to you in the pharmacy	10 (4.7)	4 (1.9)	86 (40.8)	82 (38.9)	29 (13.7)
Your feelings of the quality of medication dispensed to you	0 (0)	0 (0)	14 (6.6)	123 (58.3)	74 (35.1)
The overall cleanliness and comfort of the waiting area	2 (0.9)	0 (0)	73 (34.6)	86 (40.8)	50 (23.7)
The pharmacy services overall	0 (0)	0 (0)	6 (2.8)	123 (58.3)	82 (38.9)

5=very satisfactory; 4= satisfactory; 3=moderately satisfactory; 2= very dissatisfactory; 1= dissatisfactory

**Table 3:** Satisfaction level of measurements of clients attending in BMH community pharmacy.

Variables	Level of satisfaction (Likert's 5 point scale) (%)				
	1	2	3	4	5
The professionalism of all the pharmacy staff	6 (2.9)	6(2.9)	91 (44.2)	65 (31.6)	38 (18.4)
The courtesy and respect shown to you by the pharmacy staff	3 (1.5)	6 (2.9)	87 (42.2)	71(34.5)	39 (18.9)
The privacy of your conversations with the pharmacist	9 (4.4)	6 (2.9)	89 (43.2)	57 (33)	34 (16.5)
The cashier is courteous to clients	25 (12.1)	10 (4.9)	85 (41.3)	53 (25.7)	33 (16)
The care the pharmacy professional takes while supplying your medications	15 (5)	5 (2.4)	80 (38.8)	74 (35.9)	32 (15.5)
The fairness of cost of medications in the pharmacy	3 (1.5)	3 (1.5)	72 (35)	109 (52.9)	19 (9.2)
The amount of time the pharmacy professional spends with you	6 (2.9)	8 (3.9)	90 (43.7)	65 (31.6)	37 (18)
The clarity of instructions about how to take your medication	7(3.4)	22 (10.7)	68 (33)	66 (32)	43 (20.9)
The information gives you about the proper storage of your medication	34 (16.5)	36 (17.5)	68 (33)	46 (22.3)	22 (10.7)
How well the pharmacy professional answers your questions	12 (5.8)	7 (3.4)	101(49)	55 (26.7)	31 (15)
The amount of time you spend waiting for your prescription to be filled	3 (1.5)	8 (3.9)	78 (37.9)	95 (46.1)	22 (10.7)
The availability of medications that are prescribed to you in the pharmacy	5 (2.4)	13 (6.3)	77 (37.4)	88 (42.7)	23 (11.2)
Your feelings of the quality of medication dispensed to you	5 (2.4)	2 (1)	95 (46.1)	58 (28.1)	46 (22.3)
The overall cleanliness and comfort of the waiting area	3 (1.5)	0 (0)	67 (32.5)	87 (42.2)	49 (23.8)
The pharmacy services overall	3 (1.5)	0 (0)	88 (42.7)	81 (39.3)	34 (16.5)

5=very satisfactory; 4= satisfactory; 3=moderately satisfactory; 2= very dissatisfactory; 1= dissatisfactory

**Table 4:** Satisfaction level of measurements of clients attending in BMH OPD pharmacy.





Pharmacists in the hospital pharmacy (93.2%) were better satisfied than the community pharmacy (81%) With amount of time the pharmacy professional spends with clients (counseling time). in other study on community pharmacy in Malata shows that amount of time the pharmacist spends with them , were 73% participants satisfied.

In this study also asses the cashers characteristics, the community pharmacy cashers, were highly satisfied (99.1%) their clients than the hospital pharmacy cashers (83%).

The regular provision of adequate amounts of appropriate health commodities is crucial if health services are to be effective and credible. A third of the world's population, including almost half of the population on the African continent, lacks systematic access to essential drugs. The availability of essential medicines is a persistent challenge in developing countries. The availability of essential medicines is a persistent challenge in developing countries. The health consequences from such low levels of availability is pronounced. In this study were showed that Participants found their medications fully, in community pharmacy (54%) and in hospital pharmacy (55.3%).

As shown in table 1 Place of residence of participants in community pharmacy, majority were urban (81%) while in hospital pharmacy, were rural (59.2%) higher than urban (40.8%) participants. Majority of participants both in community and hospital pharmacy, were accounts in 18-30 years 36.5%, 46.1% respectively.

## Conclusions

This study showed that the overall satisfaction level of clients of both hospital and community pharmacy was high. About fairness of cost of medications in the community pharmacy only 6 (2.8%) were found very dissatisfactory, whereas 3 (1.5%) Participants were very dissatisfactory at hospital pharmacy.

## Recommendation

Based on the major findings of the study, the following recommendations are suggested.

### To BMH

The hospital should be given more attention to assure availability of pharmaceuticals in both hospital and community pharmacy.

### To pharmacists

The pharmacists should be given more attention to: The clarity of instructions about how to take medication to clients, the amount of time the pharmacy professional spends with clients and the information gives about the proper storage of medication to client.

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