

Original Article

Client Satisfaction with Outpatient Department Services and Associated Factor at Public Health Centers in Hawassa City, Sidama Region, Southern Ethiopia: A Facility-Based Cross Sectional Study

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Abstract

Background: Client satisfaction is defined as the degree to which a healthcare recipient is satisfied with significant aspects of the conditions, process, and result of their service experience. Client's experiences with the treatment process may have an impact on treatment outcomes as well as the other way around. Therefore, the aim of this study was to determine the client satisfaction with outpatient department (OPD) services and associated factors at public health centers in Hawassa city, Sidama region, Southern Ethiopia 2023.

Methods: A facility based cross-sectional study was conducted from April 15 - May 15, 2023 among randomly selected 576 clients using outpatient department services in public health centers in Hawassa city. A pre-tested and structured face-to-face interviewer administered questionnaire was used to collect data. The data were coded and entered by Epi-info version 7.2.2.6 and exported to SPSS version 27 for analysis. Bi-variable and multivariable binary logistic regressions were used to identify associated factors to clients' satisfaction. A p-value less than 0.05 and adjusted odds ratio with 95% Confidence Interval (CI) was considered as significance level for associations.

Results: The results of the study found that the overall level of client satisfaction with outpatient services was 74% (95% CI: 70.2% -77.5%). The factors that demonstrated a statistically significant association with client satisfaction were number of visits [AOR=3.20; 95% CI:(1.11, 9.24)], receiving triage service [AOR =2.14; 95% CI:(1.22, 3.75)], treated with respect [AOR =6.07; 95% CI:(2.71,13.56)], recommendation of service [AOR =3.05; 95% CI:(1.65, 5.64)] and presence of setup to leave comments [AOR=1.83; 95% CI:(1.06, 3.14)].

Conclusion: The finding of this study indicates a good level of satisfaction of clients with outpatient department services. On top of that, several factors were significantly associated with client satisfaction, including number of visits, receiving triage service, treated with respect, recommendation of service and setup to leave comments. Based on these results, it is recommended that healthcare providers focus on improving these factors to enhance client satisfaction.

Keywords: Client satisfaction, outpatient department, associated factors, Hawassa city administration

Introduction

The achievement of a customer's expectations from a service or product is known as customer satisfaction. Ensuring that clients are satisfied is one of the primary goals of any health care system; however, because patient satisfaction is influenced by both clinical and nonclinical outcomes of care, evaluating patient satisfaction and the responsiveness of healthcare organizations can be difficult (1). Outpatient department (OPD) is viewed as the front door of medical institutions, and it is here that clients will establish their initial opinions about the caliber of care (2).

Patient satisfaction is an essential indicator in medical practice and research (3) and it is one of the most important factors to determine the success of a health care facility (4). The importance of patient satisfaction with primary care is being increasingly recognized because of its influence on medication adherence and the enhancement of life quality (5). Presumably, meeting the client's expectations is one of the elements that determine whether or not an outcome is satisfactory (6). Clients and service providers would both agree that more programs tailored to patient requirements would be adopted if there was a greater grasp of the factors influencing customer satisfaction (7).

According to the World Health Organization (WHO) report, health systems need to adapt to the health care needs of the community and their

clients (8). Despite an increasing number of evidences, satisfaction studies showed inconsistent results about the level of client satisfaction with OPD services. For instance, according to a study conducted in Sri Lanka, 45.8% and 44.2% of patients were highly satisfied with courtesy and quality of care respectively (9). On the other hand, a study conducted in china reported a 98.2% satisfaction with OPD services (3). Meanwhile, surveys conducted in Ethiopia and India found that just 57% and 61.1% of respondents, respectively, were satisfied with the health service they received at the OPD's (10).

Studies have reported a range of factors that affect patient satisfaction with the OPD health services. According to a study in Iraq, patients residents in rural regions, married, unemployed and low educated exhibited higher service satisfaction score compared to urban residents, single, employed and high educated participants respectively (11). A study conducted in Malaysia also reported gender, income level, and purpose of visit to the clinic as important correlates of patient satisfaction (12). Similar, according to a study conducted in Ethiopia patient satisfaction was affected by female sex, long waiting time, information on the prevention of recurrent illnesses, and information on drug use and side effects (13).

The public health centers must ensure effective delivery of quality health care services to the

highest satisfaction level of their clients. To ensure this, it is necessary to assess the level of satisfaction and its determinants. However, majority of the studies conducted to assess level of client satisfaction in Ethiopia were conducted at Hospitals. Therefore, in the Hawassa city of Sidama region, where patient satisfaction with health care services might be a proxy indicator of patient care, this study intends to demonstrate patient satisfaction with OPD services and associated factors at public health centers.

Methods

Study design, setting, and period

A health facility-based cross-sectional study design was employed in Hawassa city, Sidama region, Southern Ethiopia in selected Public Health Centers including Millennium, Alamura, Adare and Gara Riketa Health Centers from April 15-May15, 2023.

Population

Source population

All clients who visited public health centers for OPD services (Adult OPD, Emergency OPD, ANC, EPI, FP and PNC) in Hawassa city administration were the source population.

Study population

Randomly selected adult OPD service users at the selected public health centers found during data collection period were study population.

Exclusion criteria

Seriously ill clients who did not have somebody to accompany them and clients who came for the second time during the study period were excluded from the study.

Sample size determination

The sample size was determined by using a single population proportion formula considering the following assumptions; proportion of client satisfaction with the services was (66.5%) from a study conducted in Wolkite, Ethiopia (14) with confidence level of 95% and degree of precision 4% and a non-response rate of 10% was also considered. The total sample size was 587. The sample size for second objective has been determined by using a double population proportion using Epi-info version 7.2.2.6 by considering power of the study of 80%, CI of 95%, waiting time to visit service provider (in minutes) < 30 as significant variable from previous study done at Wolaita Sodo University Teaching Hospital, Southern Ethiopia (15) with 30.5% proportion among unexposed, AOR of 3.16 and 10% non-response rate which yields sample size of 125.

A simple random sampling technique was used to select public health centers. Based on the total number of clients at each health center, the sample size was allocated proportionately. Then, eligible clients were selected from each

health center using the systematic sampling method.

Data collection tools, procedure and quality assurance

The data were collected using structured face-to-face interviewer administered questionnaire. The questionnaire was constructed by adapting from previous literature and contextualized to fit the research objective and the local context. The questionnaire was initially prepared in English and then translated into Amharic (local language) by the language experts and then translated back to English to check its consistency. The questionnaire included socio-demographic data, client's experience towards OPD's services and accessibilities towards services. Two days training was given for data collectors on the objective of the research, data collection tools and procedures. The questionnaire was pretested on 5% of the sample size at Chafe Kote-jebesa Health Center. The final questionnaire was refined based on the findings from the pretest. Data were checked for completeness and accuracy on daily bases.

Study variables

Dependent variable

Client satisfaction.

Independent variables

Socio-demographic characteristics:

including age, sex, married status, religion,

educational attainment, occupation, partner's occupation, residence, and monthly income.

Client's experience towards OPD's

services: the experience of clients with OPD's services and facilities, including registration, triage, client-provider interactions, proper treatment information, cleanliness of the facility and rooms, privacy, and consultation time.

Accessibility towards services:

accessibility factors for services include; waiting time, working hours of OPD, work processes, health insurance coverage, reliable laboratory services, and distance of the health center were explanatory variables.

Operational definitions

Outpatient department:

is an area in which the patient is treated in ambulatory care. In this study, outpatient department is to specify areas in the health center where clients are evaluated, diagnosed and treated by health workers.

Clients:

refers to any individual who receives health services from an OPD of the selected health centers which includes patients who present for consultations, treatments, follow-ups, or preventive services.

Satisfaction:

qualitatively describes clients' positive reactions to services performed (16).

Level of client satisfaction:

Fifteen five-point Likert scale (5 = Very Satisfied, 4 = Satisfied, 3 = neutral, 2 = Dissatisfied and 1 =

Very dissatisfied) questions were used to assess level of client satisfaction. An overall response of the participants was added and the variable was dichotomized by using mean score of 2.5 as cut-off value to categorize clients. Based on that calculated mean score cut-point scores clients who scored overall mean score above or equal to 2.5 were classified as satisfied and those with mean score below 2.5 were categorized as dissatisfied (14).

Data processing and analysis

After manually coded and verified that the data was complete, it was imported into Epi-info version 7.2.2.6 for cleaning and it was then exported to SPSS version 27 for analysis. Descriptive statistics were used to display the data, and suitable graphs, charts, and frequency tables were used. Bi-variable Logistic Regression analyses were used to examine the unrefined link between the independent factors and the desired outcome. Variables that had a p-value less than 0.25 during the bi-variable logistic regression analyses were included in the final model. Finally, Multivariable Logistic Regression analysis was used to identify factors associated with client satisfaction and control of

confounding. Significant associations were defined as P-value < 0.05 and adjusted odds ratio (AOR) with 95% CI. The variation inflation factor (VIF) was used to test for multicollinearity between independent variables, and it was less than 10. The Hosmer-Lemeshow test was used to determine the model's fitness. After doing a reliability analysis, the questionnaires passed the acceptable reliability number ($\alpha = 0.749$) according to Cronbach's alpha.

Results

Socio-demographic characteristics of study participants

A total of 576 study participants were interviewed with a response rate of 98%. The mean age of study participants and Interquartile range (IQR) were 26 and 10, respectively. More than one fourth, 175 (30.4%) of study participants were found in the age group of 21-25. Moreover, higher proportions (66.5%) of the study participants were females by sex. Regarding the marital status and religion of participants, majority 456 (79.2%) and 378(65.6%) of the study participants were married and Protestants, respectively (Table 1).

Table 1: Socio-demographic characteristics of respondents among adult clients receiving outpatient department services at public health facility in Hawassa City, 2023(n=576)

Variables	Frequency	Percentage (%)
Age		
≤20	104	18.1
21-25	175	30.4
26-30	148	25.7
≥31	149	25.9
Sex		
Female	383	66.5
Male	193	33.5
Marital Status		
Single	105	18.2
Married	456	79.2
Other's	15	2.6
Religion		
Orthodox	132	22.9
Muslim	28	4.9
Protestant	378	65.6
Other's	38	6.6
Educational Status		
No formal education	42	7.3
Primary school (1-8)	180	31.3
Secondary school (9-12)	163	28.3
College and above	191	33.2
Occupational Status		
Employed	168	29.2
Merchant	76	13.2
Daily laborer	30	5.2
Unemployed	225	39.1
Others*	77	13.4
Partners Occupation		
Employed	165	28.6
Merchant	98	17.0
Daily laborer	52	9.0
Unemployed	63	10.9
Others [#]	78	13.5
Residence		
Rural	50	8.7
Urban	526	91.3
Monthly income		
No income	164	28.5
<800 ETB	37	6.4
800-1500 ETB	80	13.9
>1500 ETB	295	51.2

*Others: Private, Farmer, CSW, Driver, Cajoler, Housemaid, cook, adjutant, porter, Pastor, Priest, Retirement, House rent, Waitress/er. #Others: Adventist, hawaryate, Jehovah, athiet, Catholic

Study participants past experience towards OPD's service

A total of 378 (65.6%) study participants reported visiting the health center more than three times. Of the total responders, 394 (68.4%) reported to get registered on time and triage service was provided to 335 individuals (57.3%). Regarding the health care provider's provision of a suitable greeting, 338 (58.7%) of the respondents

reported receiving of suitable greeting from the health care provider. Moreover, most (87.8%) of the study participants responded that the healthcare providers were respectful. Majority 448 (77.8%) of the overall responders received sufficient information about their course of therapy, and 376 (65.3%) received all of the laboratory orders. In addition to this, 512 (88.9%) of the respondents had their privacy respected (Table 2).

Table 2: Clients experience towards outpatient department services of respondents at public health centers in Hawassa city, Southern Ethiopia, 2023.

Variables	Frequency	Percentage (%)
Number of visits		
New (first) visit	84	14.6
Second visit	74	12.8
Third visit	40	6.9
Above three visits	378	65.6
Availability of signs boards		
Yes	422	73.3
No	112	19.4
Timely registration service		
Yes	394	68.4
No	182	31.6
Availability of triage service		
Yes	330	57.3
No	120	20.8
Welcomed with greeting by health care provider		
Yes	338	58.7
No	238	41.3
Treated with respect		
Yes	506	87.8
No	70	12.2
Received information about the treatment		
Yes	448	77.8
No	128	22.8
Getting all laboratory orders		
Yes	376	65.3
No	23	23.0
Privacy maintained		
Yes	512	88.9
No	64	11.1
Got all prescribed drugs		
Yes	200	34.7
No	376	65.3
Recommendations regarding services		
Yes	459	79.7
No	117	20.3

Health facility related responses of clients

A significant proportion of the respondents, 530 (92%) said that the health facilities kept their surroundings clean, and 85 (14.8%) said

that they received health education while they were at the health facility. Of all those surveyed, 311 (54%) expressed satisfaction with the facility's hygienic provisions (Table 3).

Table 3: Health facility related response of clients using the outpatient department services at selected public health centers in Hawassa southern, Ethiopia 2023.

Variables	Frequency	Percentage (%)
Clean environment		
Yes	530	92.0
No	46	8.0
Health education		
Yes	85	14.8
No	491	85.2
Refreshing garden areas		
Yes	517	89.8
No	59	10.2
Latrine cleanness		
Yes	311	54.0
No	167	29.0
Cleanness of examination rooms		
Yes	507	88.0
No	69	12.0
Availability of setups for feedback		
Yes	289	50.2
No	245	42.5

Magnitude of client satisfaction with outpatient department services

According to the findings of the current study, 177 (30.7%) of the study participants were very satisfied with the waiting time to

receive health care service and 262 (45.5%) of them were satisfied. On the other hand, 73 (12.7%) of the study participants were dissatisfied and 59 (10.2%) of them were very dissatisfied (Table 4).

Table 4: Magnitude of client's satisfaction with outpatient department services at public health facilities in Hawassa city administration, Southern Ethiopia, 2023 (n=576).

Measurement tools	Very satisfied N (%)	Satisfied N (%)	Neutral N (%)	Dissatisfied N (%)	Very dissatisfied N (%)
How do you rate your satisfaction level with waiting time to receive health care service	177(30.7)	262(45.5)	5(0.9)	73(12.7)	59(10.2)
How do you rate your satisfaction with provider's discussion on problem concerns about your health condition?	161(28.0)	301(52.3)	7(1.2)	54(9.4)	53(9.2)
How do you rate your satisfaction with privacy maintained during examination?	400(69.4)	134(23.3)	8(1.4)	14(2.4)	20(3.5)
How do you rate your satisfaction with sufficient investigations that are available?	173(30.0)	286(49.7)	58(10.7)	34(5.9)	25(4.3)
How do you rate your satisfaction with Information given to you about the diagnosis?	171(29.7)	292(50.7)	13(2.3)	51(8.9)	49(8.5)
How do you rate your satisfaction with cleanness of the facility?	78(13.5)	403(70.0)	3(0.5)	67(11.6)	25(4.3)
How do you rate your satisfaction with providers' greeting and friendly approach?	125(21.7)	215(37.3)	11(1.9)	115(20)	110(19.1)
How do you rate your satisfaction with providers' knowledge to perform the health care?	120(20.8)	374(64.9)	16(2.8)	37(6.4)	29(5)
Did you get all prescribed drugs in the health center?	57(9.9)	143(24.8)	97(16.8)	63(10.9)	216(37.5)
How do you rate your satisfaction with the opening time of the facility?	152(26.4)	359(62.3)	14(2.4)	30(5.2)	21(3.6)
How do you rate your satisfaction with the service charge?	427(74.1)	104(18.1)	16(2.8)	16(2.8)	13(2.3)
How do you rate your satisfaction with the health insurance service?	94(16.3)	22(3.8)	447(77.6)	9(1.6)	4(0.7)
How do you rate your satisfaction with effective working procedure?	135(23.4)	341(59.2)	6(1.0)	57(9.9)	37(6.4)
How do you rate your satisfaction with the distance of the facility?	133(23.1)	300(52.1)	5(0.9)	117(20.3)	21(3.6)
How do you rate your satisfaction with availability of transport?	146(25.3)	274(47.6)	9(1.6)	79(13.7)	68(11.8)

Factors associated with client satisfaction with OPD services

Based on the results of bi-variable logistic regression fourteen variables including age, sex, occupational status, monthly income, number of visits, leading signs, timely registration, triage services, treatment with respect, recommendations for a closer person, availability of health education, presence of sufficiently refreshing vegetation, examination rooms, and a setup where clients could leave their comments were selected for multi variable binary logistic regression model using p-value cut-off of 0.25. Those variables that had p-value less than 0.25 during bivariate analysis were further taken to a multiple variable analyses to adjust for the effect of confounding. Meanwhile, five of the fourteen variables such as the number of visits, the triage service, the recommendation, and the treated with respect were found to be statistically significant based on the results of multivariable logistic regression factors having association were with p -value less than 0.05.

Respondents who returned for a second visit to the health centers were 3.20 times more likely to be satisfied compared to first-time visitors [AOR = 3.20; 95% CI: 1.11, 9.24]. Clients who received triage services were 2.14 times more likely to be satisfied compared to those who did not receive triage [AOR = 2.14; 95% CI: 1.22, 3.75].

Additionally, those who were treated with respect had a 6.07-fold higher likelihood of being satisfied compared to those who were not treated with respect [AOR = 6.07; 95% CI: 2.71, 13.56]. Clients who were recommended about the service by others were 3.05 times more likely to be satisfied compared to those who did not receive recommendations [AOR = 3.05; 95% CI: 1.65, 5.64] (Table 5).

Table 5: Factors associated with client satisfaction with outpatient department services respondents at public health facilities in Hawassa city, Southern Ethiopia, 2023.

Variables	Client Satisfaction		COR (95%)	AOR (95%)
	Satisfied (%)	Dissatisfied (%)		
Age				
≤20	65(32.5)	39(37.5)	1.00	1.00
21-25	133(76.0)	42(24.0)	1.90(1.12,3.22)	1.37(0.64,2.94)
26-30	114(77.0)	34(23.0)	2.01(1.16,3.49)	1.30(0.47,2.27)
≥31	114(76.5)	35(23.5)	1.95(1.13,3.38)	1.04(0.44,2.47)
Sex				
Female	277(72.3)	106(27.7)	0.77(0.52,1.16)	0.79(0.41,1.55)
Male	149(77.2)	44(22.8)	1.00	1.00
Occupational status				
Employed	130(77.4)	38(22.6)	1.00	1.00
Merchant	58(76.3)	18(23.7)	0.94(0.50,1.79)	2.05(0.78,5.33)
Daily laborer	26(86.7)	4(13.3)	1.90(0.62,5.78)	2.09(0.39,11.31)
Unemployed	158(70.2)	67(29.8)	0.69(0.44,1.09)	1.236(0.48,3.15)
Others	54(70.1)	23(29.9)	0.69(0.37,1.26)	0.665(0.28,1.58)
Monthly income				
No income	115(70.1)	49(29.9)	1.00	1.00
< 800 ETB	30(81.1)	7(18.9)	1.86(0.75,4.44)	1.46(0.42,5.10)
800-1500 ETB	66(82.5)	14(17.5)	2.01(1.03,3.91)	2.45(0.77,7.80)
>1500	215(72.9)	80(27.1)	1.15(0.75,1.75)	1.70(0.67,4.326)
Number of visits				
First visit	55(65.5)	29(34.5)	1.00	1.00
Second visit	59(79.7)	15(20.3)	2.07(1.01,4.28)	3.20(1.11,9.24) *
Three visits	27(67.5)	13(32.5)	1.09(0.49,2.44)	1.16(0.35,3.39)
Above three visits	285(75.4)	93(24.6)	1.62(0.97,2.68)	2.48(1.18,5.19) *
Sign board				
Yes	330(78.2)	92(21.8)	2.99(1.94,4.65)	1.61(0.87,2.97)
No	61(54.5)	51(45.5)	1.00	1.00

Timely registration service				
Yes	299(75.9)	95(24.1)	1.36(0.92,2.02)	0.92(0.52,1.63)
No	127(69.8)	55(30.2)	1.00	1.00
Triage service				
Yes	265(80.3)	65(19.7)	2.63(1.66,4.14)	2.14(1.22,3.75) *
No	73(60.8)	47(39.2)	1.00	1.00
Treated with respect				
Yes	401(79.2)	105(20.8)	6.87(4.03,11.73)	6.07(2.71,13.56) **
No	25(35.7)	45(64.3)	1.00	1.00
Recommendation of service				
Yes	368(80.2)	91(19.8)	4.11(2.68,6.32)	3.05(1.65,5.64) **
No	58(49.6)	59(50.4)	1.00	1.00
Examination rooms				
Yes	392(77.3)	115(22.7)	3.51(2.10,5.88)	1.95(0.91,4.19)
No	34(49.3)	35(50.7)	1.00	1.00
Provision of health education				
Yes	72(84.7)	13(15.3)	2.14(1.15,3.99)	1.48(0.63,3.49)
No	354(72.1)	137(27.9)	1.00	1.00
Refreshing vegetation				
Yes	396(76.6)	121(23.4)	3.16(1.83,5.48)	1.21(0.51,2.91)
No	30(50.8)	29(49.2)	1.00	1.00
Set up to leave comments				
Yes	236(81.7)	53(18.3)	2.59(1.74,3.84)	1.83(1.06,3.14) *
No	155(63.3)	90(36.7)	1.00	1.00

*Significant for $P < 0.05$; **Significant for $P < 0.001$; ***Significant for $P < 0.0001$; COR is crude odds ratio; AOR is adjusted odds ratio and 1.00 indicates for reference group.

Discussion

Client's satisfaction surveys are crucial in acquiring a comprehensive understanding of the client's need and their opinion of the service received. This study was conducted with the objective of determining client's satisfaction with OPD services and associated factors at public health centers in Hawassa city, Sidama region, Southern Ethiopia 2023.

The results of the study indicate that most of the respondents (74%) interviewed were satisfied with the services they received. This result is higher than the studies conducted in Dangila Primary Hospital, Awi zone, which was 48.2% (16), Addis Ababa Yekatite 12 Hospital which was 47% (17), South Wollo health facilities accounting for 64.4%, Wolita Sodo teaching university hospital 54.2% (15) and lower than Jimma University Specialized Hospital 77% (18). The difference might be due to variation of socio-demographic characteristics, variation of time by which the studies were conducted, difference in methodology, difference in the nature of services provided, difference in the number of clients that health centers and hospitals address and the way clients respond.

According to the results of the current study, one of the variables that were strongly associated with how satisfied clients were with the services provided by the OPD was the number of visits. This result was in line with the research conducted in Jimma (18).

Similarly, according to a study conducted in India, patients with repeated visits were more satisfied with the OPD service as compared to those with first visit (19). This may be the case since a client who is dissatisfied with a health center is unlikely to return to the facility on a regular basis.

A high statistical association was found between a client's satisfaction with outpatient department services and receiving respectful treatment. This result was in agreement with that obtained in Gondar, Northwest Ethiopia (20). The finding of the current study was also in line with a study conducted in Ghana (21). Moreover, according to a study conducted in Pakistan, patients found more satisfaction with the OPD service when their doctors appeared respectful, confidential, and ethically appropriate (22). The studies' recentness and the natural limitations that humans must respect in nature may be the causes of this commonality, as well as any methodological similarities.

Furthermore, receiving a triage service, receiving recommendation about the service and a setup were also among the significantly associated factors, which could be considered as a new finding in this study, since other source literatures did not consider these variables in their questioners. These factors are crucial to clients attending an outpatient department service.

In general, providing high-quality healthcare requires a significant amount of ongoing data gathering and analysis in order to maximize the availability of scientific information that aids in the development of strategic plans to meet societal demands. Furthermore, a good measure of the caliber of medical care is client contentment.

The findings of the current study should be interpreted in line with considering the following limitations. First, as the cross-sectional study design was, the study could be limited by lack of temporal relationship. Second, selection bias could be one of the limitations of the study. Third, the study might not be free of recall bias. Fourth, this study used investigator constructed questionnaire to assess level satisfaction and was not fully validated. Fifth, as association between the exposure and the outcome were measured using odds ratio, the true relationship might have been overestimated. There is a universal agreement that with increasing prevalence of the outcome, OR tends to overestimated the relative risk. However, in spite of these limitations, this study provides some important insights into the level of satisfaction and associated factors towards OPD services in the selected health centers.

Conclusions

The finding of this study indicated a good level of satisfaction of clients with outpatient department services. Several factors were significantly associated with client satisfaction, including number of visits, receiving triage service, treated with respect, recommendation of service and setup to leave comments. Based on these results, it is recommended that healthcare providers focus on improving these factors to enhance client satisfaction.

Authors' contributions

BW conceptualized the paper, conducted, and supervised the data collection process, analyzed, and interpreted the data, wrote the draft of the manuscript. HT & AZ reviewed and edited the manuscript. All the authors reviewed and edited the manuscript and approved the final version of the manuscript.

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Availability of data and materials

Upon reasonable request, the author and corresponding author will make the datasets used in this analysis public.

Ethics approval and consent to participate

The Institutional Research Ethics Review Committee (IRERC) of the Department of Public Health, Pharma College has granted ethical clearance (Reference Number: PH/C/H/C/334/15). Furthermore, Sidama Public Health Institute (SPHI) offered a clearance letter to the study facilities. Then permission letter was given to the selected four primary health centers located in Hawassa. The questionnaire that was provided to them was explicitly outlined each respondent's rights, and privacy was maintained. The respondents were asked to provide written consent after being given a high level of security, informed about the study's goal and importance, and asked to participate in the study. To protect their privacy, names of respondents was not listed in the questioner.

Consent for publication

Not applicable

Competing interest

The authors declare that they have no competing interests

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