Quality of Primary Health Care during COVID-19 Pandemic in Addis Ababa Ethiopia: Patients-side and facility level assessment

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Abstract

Background: Quality is increasingly becoming an important aspect of health care that is given a priority nowadays. The assessment and assurance of quality depends on reliable evidence. It is evident that there is no comprehensive study related to quality of health care in public primary health care facilities during COVID-19 pandemic in Ethiopia. Even if the formulation and launching of health facility standards nationally has been made in 2013 and quality has been taken as one pillar for the past two decades, quality of health services has been poor. Unfortunately, the occurrence of COVID 19 pandemic poses another threat to the already existing poor quality of health service. Therefore, this assessment of selected quality dimensions of primary health care in Addis Ababa could be used for future monitoring and evaluation of quality improvement in the country as well as prepare the primary health facilities against possible future pandemics.

Objective: The objective of the study is to assess the selected dimension of health care quality at the time of COVID 19 in the selected primary health care facilities in Addis Ababa, Ethiopia

Methods: A facility-based cross-sectional study design was used. The study was done in six health facilities in Addis Ababa, Ethiopia. Patients, health service providers and health facilities were the study participants. An observation checklist and interviewer administered questionnaire were used to assess the routine service provision. Data cleaning, management and analysis was done using SPSS version 23 statistical software. Both descriptive and analytical results were used to present the findings.

Result: The overall patient satisfaction was 77.9 %. From the quality dimension, the grand mean satisfaction score for health service accessibility, patient centeredness, equitability, and timeliness were 54.7%, 67.9%, 72.1%, 63.4% respectively. From the facility level analysis only two facilities indicated employees receive ongoing Continuing Professional Development (CPD). All the facilities maintain employment record of each staff; however, with regard to the content only two facilities contain credential information, health examination record, in-service education /training and copies of annual evaluation. In half of the facilities lack of procedure room and hand washing room was observed. Toilets were not clean. Poor continuity of care was also identified and only two facilities indicated they had feedback providing mechanism in the referral system.

Conclusion: Most of the respondents were satisfied with the quality of primary health care service. Gaps, however, were identified in the human resource management, infrastructure, referral system and continuity of care from the facilities' perspective. Incomplete recording of most of the content of employee was identified as well. Thus, it is recommended to improve the identified challenges through provision of a system (guideline), continuous supervision, mentorship, and training. [*Ethiop. J. Health Dev.* 2021; 35(SI-1):98-107]

Keyword: quality of service, patient satisfaction, continuing professional development

Introduction

Quality is a comprehensive and multifaceted concept and, has now becoming part of everyday life including health. Unfortunately, there is no universally agreed definition for what "quality" is to-date. Therefore, the word "quality" has several different meanings [1, 2]But for the purpose of this report, the definition given by the US Institute of Medicine(IOM) is used. Accordingly, quality *is defined* as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge"[2, 3].

Quality could also be defined as the ability to get the desired services from the chosen provider at the right price (satisfaction), which implies that quality is in close relation between customers and the organization and between expectations for excellent services and perceptions of service delivered. In process, quality satisfaction is the intensity of various emotions tied to specific requirements during a period[1].When clients define healthcare quality, they include high-value healthcare that achieves good outcomes at reasonable prices and time with dignity. Currently, the cost–quality ratio is far from ideal. Quality shortfalls exist in "areas as diverse as patient safety, the evidence basis for care, care coordination, access to care, and health disparities"[3, 4].

Efforts to operationalize this broad definition have included the identification of key characteristics of quality, namely care that is safe, timely, effective, equitable, efficient, and people centered[3, 5]. Such endeavors have lead that quality of care can be measured, and hence ultimately aimed at health improvements[5, 6].

And also, according to Donabedian, healthcare quality has traditionally been divided into 3 domains and measured: namely structure or inputs to care, process or content of care, and outcomes of care[7]. Because of the several factors used in the defining of quality of care, there are also several factors that determine quality of services For instance, Mosadeghrad reported these factors as *Patient related factors Patient socio-demographic variables,* Provider *related factors , Provider competence and Environmental factors[8].* In another study, quality was found to be affected by

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income, education, and frequency of visits in community health centre and patient satisfaction is affected by income [9].

Since 1990, the Ethiopian ministry of health has taken quality of care as one of its major pillars on the health agenda as objectively expressed in its national quality strategy[10-12]. It has also defined quality as "comprehensive care that is measured by safe, effective, patient centered, and uniformly delivered in a timely way that is affordable to the Ethiopian population and appropriately utilizes resources and service efficiently." However, there are reports that the quality of service provision is low in most resource poor countries such as Ethiopia[13-15].

Unfortunately, unexpected a Novel Coronavirus infection engulfed the world since December 2019[15]. For the first time, The World Health Organization (WHO) notified COVID-19 as pandemic on March 12, 2020[16]and Ethiopia had the first COVID-19 positive case March 13th, 2020)[16-18].

To tackle the pandemic, the government of Ethiopia has been taking several measures prior to the first case detection and still modifying them accordingly. These include preparing health institutions that will fully serve the patients of COVID-19, organizing the teams that will facilitate the control and prevention of the disease in different levels, declaring the state of emergency, preparing isolation and quarantine centers, and creating awareness through different methods and resource mobilization from different bodies to support vulnerable groups and others [19-22]

It is obvious that COVID-19 brings an extra strain to the health system of countries in the world. Ethiopia, being one of the developing countries trying to address the diverse needs of its people, is currently at the verge of the epidemic[23].This becomes more complicated for countries like Ethiopia whose health system could not provide basic and regular health services adequately for their citizens in normal situations. In these countries it is estimated that additional morbidity and mortality may occur among vulnerable groups like mothers and children [24].

The health need of the country is not being addressed adequately and unplanned COVID-19 related needs are worsening the problem. Another bad scenario is that the health professionals, who are considered to be the pillars of the health systems, are among the high-risk groups to COVID-19[19, 25, 26]. Thus, if the significant number are going to be infected by COVID19 virus the health system may collapse.

The quality and quantity of nonhuman resources is also limited in Ethiopia. The health facilities are very few and they are not well equipped. Currently it was reported that Ethiopia has only 557 mechanical ventilators and 570 intensive care unit (ICU) beds for a population of 110 million[19, 26].

The COVID-19 pandemic has overwhelmed the capacity of some domestic healthcare systems, highlighting the need to allow scarce healthcare resources to move, including across borders to where outbreaks emerge and are worse [27, 28].To date almost all the confirmed cases are restricted to urban areas (21% of the population) with a majority of cases (67%) occurring in the capital, Addis Ababa [3]. [29, 30]. Therefore, the aim of this study is intended to assess quality of service in selected public primary health facilities at the time of COVID 19 in Addis Ababa, Ethiopia

Method and Materials
Study Area: The study was conducted in six public primary health facilities selected from three sub cities (Gulele, Kirkose and Addis Ketema) in Addis Ababa city administration. In Addis Ababa city administration there are 6 hospitals, 1 Public health laboratory and 2 health science colleges. There are also 10 sub-city health offices, which are directly accountable to their respective sub-city administration. There are also 52 hospitals in the metropolis of which 6 are owned by Addis Ababa regional health office AARHB, Five by federal government, 3 by NGO's, 3 by Defence force and police and 35 by the private owners. There are 86 health centres owned by the city administration, and 3 by NGOs at present. There are also more than 760 private clinics at different levels[4].

Study design and period
Facility based cross-sectional study design was implemented to assess quality of service in selected public primary health facilities during COVID 19 in Addis Ababa, Ethiopia. The study period was between May and June 2020.

Source population
All health workers, clients, administrative staff, and managers in all public health facilities of the Addis Ababa were the source population of the study.

Study Population
Selected patients, administrative staff, health providers and managers from the selected primary public health facilities in Addis Ababa City administration constituted the study population.

Inclusion and Exclusion criteria: administrative staff and managers working in the selected health facilities and who served for at least six months were included. Patients present at the time of data collection were included. Respondents who were seriously ill and cannot respond to questions during data collection period were excluded.

Sampling Procedure
Three sub-cities were selected randomly from ten sub cities of Addis Ababa city administration. From the three sub cities with nine to ten public primary health facilities, two facilities were selected randomly. A total of six public primary public health facilities were included from the three sub-cities. For patient exit interviews, the total sample size was equally distributed to the health facility since the facilities have similar catchment area. Thus, 41 patients were randomly

selected and exit interview was conducted until the required sample was obtained from each facility.

Sample Size determination

The sample size was determined using the single population proportion by Epi Info window version 3.5.3 statistical software formula based on the following assumptions: the magnitude of patient satisfaction was taken as 89.1 % from similar study conducted in Jimma district **[31]**, desired degree of precision was 5%,95% confidence interval and 1.5 design effect. Using a contingency of 5% for non-response rate, the final sample size was 246 by using single proportion formula for sample size determination, n= $Z^2\alpha/2$ p (1-p)/d^2 where z= the standard score corresponding 95% confidence level

P=proportion of patient satisfaction =56
d=margin of sampling error =5%

Variables of the study

Effective – providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse).

Responsiveness/Patient-centred – providing care that is respectful and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

Timely – reducing waits and sometimes harmful delays for both those who receive and those who give care**.**

Continuity: - means that the client receives the complete range of health services that he or she needs, without interruption, cessation, or unnecessary repetition of diagnosis or treatment. Services must be offered on an ongoing basis.

Data collection tool and procedure

An interviewer –administered questionnaire was used to assess patient's satisfaction. WHO standard quality assessment tool and review of different literature were used to develop a structured questionnaire [1, 32, 33] containing three areas of health service quality: structure, process and outcome.For the patient perspective, assessment tool consisted of questions on sociodemographic characteristics (8 items) and WHO recommended dimensions health service qualities used were accessibility(4 items), patient centeredness (6 items), equitability (3 items), timeliness (3 items), referral system (3 items), overall satisfaction (5 items). Respondents were asked to rate the items of the selected dimensions as 1; strongly dissatisfied, 2; Dissatisfied, 3; Neutral, 4; Satisfied, and 5; strongly satisfied. The second part of questionnaire for health facility quality assessment tool contain human resource (6 item), Material resource (5 item), Governance (6 item), Advisory management committee (6 item), physical

facility (5 items), Availability of Infrastructure (7 item), Referral system (5 item). the third tool consisted of a two-item observational check list to assess Continuity of care (2 item).

Data quality assurance

To assure quality of the data the questionnaire was pretested two weeks before data collection on two health facilities in Addis Ababa that are not included in the actual study.

Nine health professionals with previous data collection experience were recruited as data collectors and trained for two days about the objective of the study, data collection tools and interview techniques by the principal investigators.

Data processing and analysis

Data were daily checked for completeness and coded on a hard copy of the questionnaire after data collection. Data cleaning, management and analysis was done using SPSS version 23 statistical software by controlling the errors. The data were summarized in texts, tables, graphs, and figures using descriptive statistics. Proportions and means were calculated.

Ethical clearance

Ethical clearance was obtained from the College of Health Sciences Institutional Review Board, Addis Ababa University. Ethical clearance was also obtained from Addis Ababa Regional Health bureau. Each respondent was informed about the purpose, scope, and benefits of the research by providing an information sheet. Both written and verbal informed consent was obtained from study participants before their enrolment. Confidentiality of respondents was assured throughout the study by keeping all relevant documents in a secured place after anonymity of personal information.

Result

Socio-Demographic Characteristic of respondents: From the total of 246 sample, 236 participants successfully responded to the questionnaire, yielding a response rate of 96%.

In this study, most of the respondents (66.5%) are between the age of 25and 54 with mean and SD age of (39.3, ± 15.2). Two fourth of the respondents were males. Hundred and ten (46.6%) of respondents were married and more than two third (68.2%) live with their family. More than one fourth (23.7%) of the patients have college and above level of education, 28 (11.9%) attended primary and secondary schools and about 24 (10.2%) have no formal education. Near three fourth (72%) were daily labourers. By region residence, the highest number of respondents resides in Addis Ababa (88.9%). (Table 1)

Table 1: **Socio- Demographic characteristic of the respondents in primary health care facility in Addis Ababa, 2020 (n=236)**

Variable	Response	Frequency (n)	Percent (%)
Age	17-24	34	14.4
	25-54	157	66.5
	55-64	21	8.9
	65 and above	24	10.2
Sex	Male	121	51.3
	Female	115	48.7
Marital status	Married	110	46.6
	Single	97	41.1
	Widowed	17	7.2
	Separated	12	5.1
Living condition	Alone	72	30.5
	With family	164	69.5
Educational status	No Education	24	10.1
	Able to write and read.	49	20.8
	Elementary completed.	28	11.9
	High school completed.	28	11.9
	Vocational	51	21.6
	College graduate & above	56	23.7
Occupation	Government worker	71	30.1
	Merchant	33	14
	Private company employee	55	23.3
	Daily labourer	17	7.2
	Housewife	40	16.4
	Retired	20	8.5

Dimensions of Health Service Quality: A Patient Perspective
Patient satisfaction with health service accessibility: One hundred one (47%) of the participants were satisfied with the time of the health care delivery, while 28 (11.9%) dissatisfied, and 97 (41.1%) remained neutral (Table 2). With the geographical place of the facility, 136 (57.6%) were satisfied, 70 (29.7%) remained neutral and 30 (8.9%) dissatisfied. One hundred fifty-six (66.1%) of the respondents were satisfied with the health service received with skilled health professionals, while sixty-four (27.1%) remained neutral. To the appropriateness of the equipment to medical needs of the health facility, 84 (35.6%) of the participants remained neutral and 131 (55.5%) satisfied.

Table 2: **Satisfaction level to accessibility in primary health care facility in Addis Ababa, 2020 (n=236)**

Accessibility	Response	Frequency (n)	Percent (%)
Health care delivered timely	Dissatisfied	28	11.9
	Neutral	97	41.1
	Satisfied	111	47
Facility is in a good geo place	Dissatisfied	30	12.7
	Neutral	70	29.7
	Satisfied	136	57.6
Received health service with skilled HP	Dissatisfied	16	6.8
	Neutral	64	27.1
	Satisfied	156	66.1
Facility equipped with resource appropriate to medical need	Dissatisfied	21	8.9
	Neutral	84	35.6
	Satisfied	131	55.5

The grand mean satisfaction and dissatisfaction with health service accessibility were 54.5% and 9.4% respectively.

Patient satisfaction to health service's patient centeredness: Most of the respondents (67.8 %) were satisfied with the health care delivery with the patients need (Table 3). Similarly, 68.6% of the respondents were satisfied with health care deliverance with patient preference. One hundred sixty-two (68.6%) of the participants were satisfied with the health professional responses and 157 (66.5%) and 163 (69%) were satisfied with the implementation of patients right and availability of information, respectively.

Table 3: **Patient satisfaction to the centeredness of the health service in primary health care facility in Addis Ababa, 2020 (n=236)**

User centeredness	Response	Frequency (n)	Percent (%)
Health care delivered with patient preference.	Dissatisfied	17	7.2
	Neutral	57	24.1
	Satisfied	162	68.6
Health care delivered with the patients need.	Dissatisfied	6	2.5
	Neutral	70	29.7
	Satisfied	160	67.8
Health professional listen to your questions concerns and answer it.	Dissatisfied	12	5.5
	Neutral	62	26.3
	Satisfied	162	68.6
Health professional Co-develop the core management plan with active involvement.	Dissatisfied	13	5.5
	Neutral	66	28
	Satisfied	157	66.5
Health professionals implement pts right.	Dissatisfied	11	4.7
	Neutral	50	21.2
	Satisfied	175	74.1
Availability of information	Dissatisfied	11	4.7
	Neutral	62	26.3
	Satisfied	163	69

The grand mean satisfaction and dissatisfaction to health service patient centeredness is 67.9% and 5% respectively.

Patient satisfaction to the health service equitability: For the health service equitability, 175 (74.2%) and 173 (73.3%) of the respondents were satisfied with the health service, which did not vary in quality with gender, ethnicity, and socio-economic status (Table 4).

Table 4: **patients' satisfaction to the health service equitability in primary health care facility in Addis Ababa, 2020 (n=236)**

Equitability	Response	Frequency (n)	Percent (%)
Health care delivered which does not vary in quality b/c of gender	Dissatisfied	10	4.2
	Neutral	51	21.6
	Satisfied	175	74.2
Health care delivered which does not vary in quality b/c of ethnicity	Dissatisfied	9	3.8
	Neutral	52	22
	Satisfied	175	74.2
Health care delivered which does not vary in quality b/c of socio-economic status	Dissatisfied	11	4.7
	Neutral	52	22
	Satisfied	173	73.3

The grand mean satisfaction and dissatisfaction for the health service equitability is 72.1% and 10% respectively.

Satisfaction to health service delivery timeliness: For the health service delivery timeliness, twenty-two (9.3%) of the respondents were dissatisfied with the long waiting time and 149 (63.1%) satisfied with receiving health service delivery on time (Table 5).

Table 5: **patients' satisfaction to timeliness of the health service in primary health care facility in Addis Ababa, 2020 (n=236)**

Timeliness	Response	Frequency (n)	Percent (%)
Delay in receiving service.	Dissatisfied	18	7.6
	Neutral	59	25
	Satisfied	159	67.4
Long waiting time while receiving service	Dissatisfied	22	9.3
	Neutral	64	27.1
	Satisfied	150	63.6
Receive Health Service timely	Dissatisfied	25	10.6
	Neutral	62	26.3
	Satisfied	149	63.1

The grand mean satisfaction and dissatisfaction to the health service delivery timeliness are 63.4% and 9.1% respectively (Figure 1).
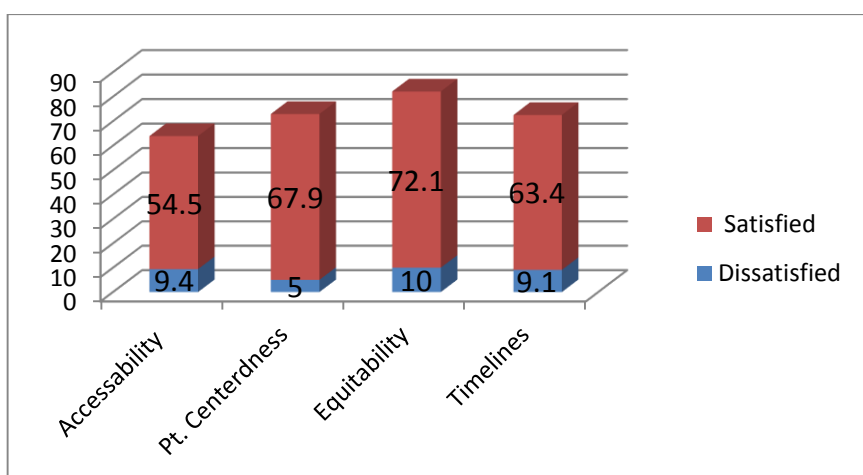

Figure 1: **Grand mean satisfaction to the dimensions of health service quality in primary health care facility in Addis Ababa, 2020**

Satisfaction with referral system: From those who needed a referral service, 158 (66.9%) and 154 (65.2%) were satisfied with the smooth referral system and feedback whereas 71 (30.1%) and 75 (31.8 %) remained neutral, respectively.

Table 6: **patients' satisfaction to the referral systems of the health facility in Addis Ababa, 2020 (n=236)**

Referral systems	Response	Frequency (n)	Percent (%)
Denial of referral to the respective service while there was a need for a referral	Dissatisfied	7	3
	Neutral	83	35.1
	Satisfied	146	61.9
Smoothness of the process when there was referral directly to respective services	Dissatisfied	7	3
	Neutral	71	30.1
	Satisfied	158	66.9
Being asked to give feedback when there was referral directly to respective services	Dissatisfied	7	3
	Neutral	75	31.8
	Satisfied	154	65.2

Overall patient Satisfaction: One hundred seventy-one (72.4%) and hundred and seventy-eight (75.4%) of client's reported as satisfied with the service they received and their current health status respectively (Figure 2). With the overall health service, 77.9% and 44 (18.9%) of patients were satisfied and neutral, respectively.
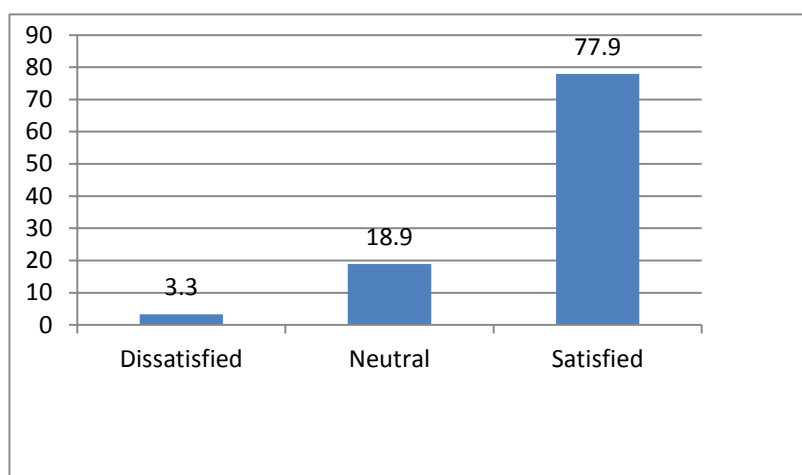
Figure 2: Overall Patient Satisfaction in primary health care facility in Addis Ababa, 2020

Patient recommendation to the health facility: Two hundred twenty-five (95.3%) of the respondents recommended for others to visit the health facility, 121 (51.2%), recommended for the health facility to improve and 158 (66.9%) recommended for the availability of medication and administrative issue.

Health facilities Quality service provision and availability of the selected facilities
Human resource: With regard to human resource management only two facilities indicated employees receive ongoing Continuing Professional Development (CPD) while 4 facilities received partial.

In five facilities the report of each examination was kept on file in the health centre. In four health facilities the health professional sign the report of each examination.

Many of the facilities (5 out of 6 facilities) indicated there was adequate number of health professionals in their facilities. All the facilities-maintained employment record of each staff; however, with regard to the content, only two facilities contain credential information, health examination record, in-service education /training, and copies of annual evaluation (Table 2).

Table 7: Human resource related documentation in health facility in Addis Ababa, 2020

Documents included in the record	Number of health facilities (n=6)	Percent (%)
Information on credential	2	33.3%
Health examination	2	33.3%
Work history,	3	50%
Current job description,	4	66.6%
Evidence of orientation,	1	16.6%
In-service education/training	2	33.3%
Copies of annual evaluation	2	33.3%

Material resource: Three health facilities indicated there is adequate supply of safe medicine or drug.

Policy perspective: Majority of the health facilities (4) indicated that the regulatory body conduct on-site inspection to determine compliance with the applicable laws and standards governing the health centre and almost all (5) facilities indicated the regulatory body send a written report of the findings to the health centre after the conclusion of the inspection.

Governance: Five of the health facilities indicated that their health centres have management committee or governing body charged with ensuring the quality of all services, care and treatment provided to patients. In addition, in all the facilities management committees have the authority and responsibility for the direction and policy of the facilities. The management committees formulate all policies and guidelines to be used in four of the facilities. In the three facilities, the committee announces vacancy within 30 working days if there is

free position as well as establish a means for effective communication and coordination among the board, head of the health centre and the staffs.

Advisory management committee: Three of the health facilities have Advisory management committee, where in only one facility the head of the health centre, head of the medical department and head of the administrative department are members of the committee. In two facilities, committees meet up regularly and minutes of the meeting recorded are available.

Physical facility: In five of the facilities, the facilities' entrance and exit were easily accessible, clearly marked/labelled and located. Road access, water supply, electric city and communication facilities were also accessible. However, only three facilities were located away from unordinary conditions of undue noises, smoke, dust l, odour, and are not located adjacent to railroads as well.

Availability of Infrastructure: In half of the facilities unavailability of procedure room and hand washing basin at each room was observed and toilets were not clean. (Figure 3).

In five facilities the report of each examination was kept on file in the health centre. In four health facilities the health professionals sign the report of each examination. However, only two facilities have cafeteria and/or break room (equipped with a television and other recreational equipment) and provide library, adequate toilet and shower facilities to employees.
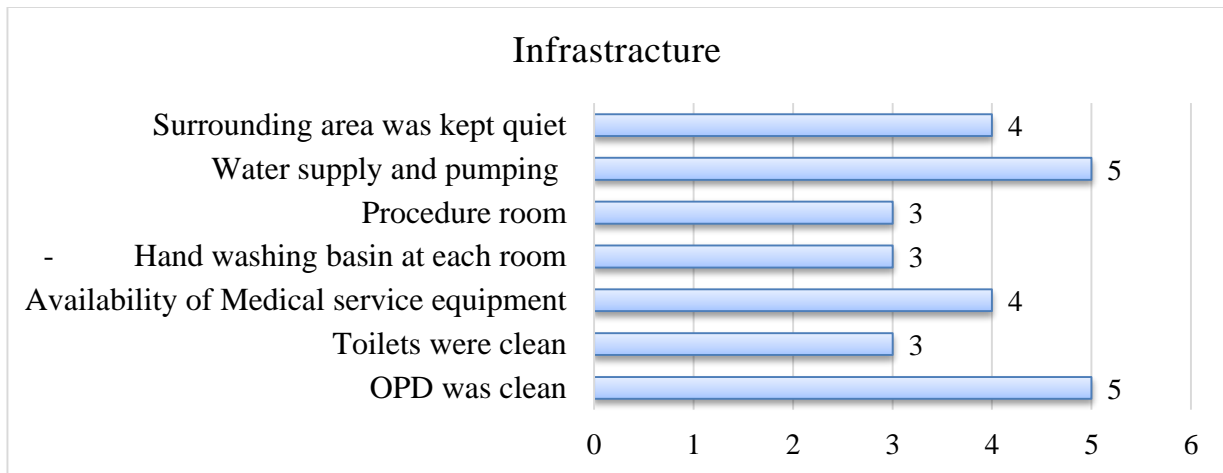

Figure 3: **Health facilities infrastructure of public primary health facilities in Addis Ababa, 2020**

Referral system: List of potential referral sites with contact address, availability of referral forms, the existence of referral tracing mechanism, and status of documentation of referred clients was assessed in the 5 health facilities visited. In our survey, three facilities reported as having the list of potential referral sites, referral tracing mechanism and documentation of referred clients and while only two facilities indicated they have feedback providing mechanism (table 8).

Table 8: **Indicators of the Referral System in public primary health facilities in Addis Ababa, 2020**

Required variable for referral system	Number of facilities
List of potential referral sites with contact address	5
Referral forms	4
Referral tracing mechanism	5
Documentation of referred clients	5
Feedback providing mechanism	2

Continuity of care: In most of the facilities (five out six facilities), the frequency of information transfer was a problem where clinicians do not know recent history, results of recent tests, or changes made by other clinicians, a patient has to provide information, repeat tests, or repeat information almost always. It was also indicated clinicians were sometimes (in one out of six health facilities) failing to work together with or giving the patient conflicting information. (Figure 4)
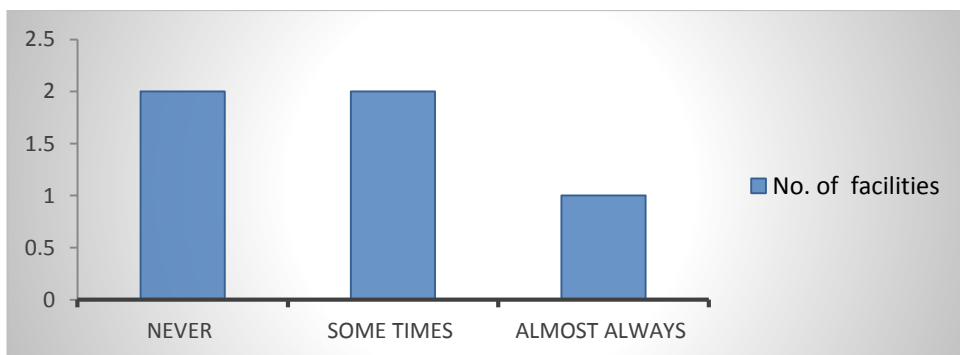

Figure 4: *Continuity of care in in public primary health facilities in Addis Ababa, 2020*

Discussion
This study was aimed to assess the quality of primary health care in Addis Ababa from patient and providers perspective during COVID-19 pandemic.

In this study we found that patient satisfaction to the dimensions of health service quality which are health service accessibility, health service patient centeredness, health service equitability, and health service timeliness to be above average. With the referral system of the health facilities, nearly half of the patients were satisfied. And almost all of them recommended others to visit the health facilities with some reservation to the

availability of medication in the health facilities and administrative issues.

Regarding the overall satisfaction level, patients were satisfied with the service provision and this finding is slightly lower than the study done in health centres of Jimma zone [31]. The main reason for the variation could be that this study was conduct immediately after the reporting of COVID-19 in Ethiopia [18]. As COVID 19 has posed a huge challenge on the already existing inadequate health system, the patients satisfaction as well would be affected [25]. In addition, this pandemic might cause health professionals to panic as much has not been known about COVID 19, thus when this health professionals fail to respond to the patients need that may reduce the patient's satisfaction.

For the facility level analysis, this study assesses the human resource, material resource, governance, advisory management committee, physical facility infrastructure aspect of the health facility, referral system and continuity of care as per the health centre standard of Ethiopia [33]

With regard to human resource management there are adequate number of health professionals in each health facility, the report of each examination is kept on file in the health centre, and the health professionals sign the report of each examination, fulfilling the health centre standard. Most of the health facilities do not maintain employment record for each staff as required by the health centre standard. As per the standards, employment record for each staff shall contain at minimum information on credentials, health examination, work history, job description, evidence of orientation, in service education/training, and copies of annual evaluation. The majority of the health facilities' employees have received on-going continuing professional development only partially while the health centre standard requires that health centre shall maintain a sufficient number of staff with the qualification, training and skills necessary to meet patients' needs [33]. In addition, the Federal Ministry of Health has indicated capable health work force is essential to continually improve the quality of health service delivery in the country. The competency of health professionals must be continually developed through standardized in-service training. Thus, maintaining professional competence in an environment of numerous challenges, rapid organizational changes, information technology, increasing public expectations and demand for quality and greater accountability is very important. Thus, the lack of continuous professional development in the study may be related to the lack of resource or lack of coordination between the different organs [11].

Even though about half of the providers indicate there is adequate supply and safe medicine/ drug, patients complained on the challenges they face to receive medication when they need it. The reason could be due to lack of availability of drugs which is mostly prescribed for the patients [33].

As per the health centre standard of Ethiopia indicates, almost all health centres have management committee or governing body to ensure the quality of services. The committees have an authority and responsibility for directing the health centres. Again, according to the health centre standard, health centres shall establish advisory management committee consisting of heads of the medical and administrative department. The committee shall be an advisor of the head of the health centre and should meet on regular basis. In half of the health facilities, however, the head of the health centre are not a member of advisor management committee and the committees do not meet on regular basis [33]. Thus, the effort and commitment of the governing body in ensuring quality service delivery is required.

With regard to physical facility, almost all facilities meet the requirement of site selection which is the entrance and exit of the health centre easily accessible, clearly labelled and located. Whereas only half of the health facilities are located away from unordinary condition of undue noise, make dust or foul, odour and not located adjacent to railroads. For the infrastructure aspect most of the health facilities meet the standard [33].

In the referral system, more than half of the health facilities do not have any feedback mechanism in place and this is similar to the case in Gonder where few patients referred from Gonder teaching hospital to Addis Ababa had no feedback[34]. According to Almeta declaration, referral system is critical for primary health care to function properly [35].

Limitation
The current study is limited in addressing all the dimensions of quality. In addition, the provider perspective of quality is not well assessed with adequate sample size but health service providers in the selected service unit were included as part of the facility level analysis.

Conclusion and recommendation
The study found that patients were satisfied with the dimension of quality of the health service mentioned above. With regard to overall satisfaction level 75.9 % patients were satisfied.

However, at facility level, gaps have been identified in the human resource management, infrastructure, referral system and continuity of care. On-going Continuing Professional Development was also lacking. Incomplete recording of most of the information on employees was also identified. In addition, in half of the facilities, procedure room and hand washing basin at each room was unavailable. The feedback providing mechanism was also lacking at most of the facilities.

Therefore, it is recommended to improve medication availability in the facilities as well as improve the infrastructure like toilet facilities, washing basins, library, and cafeterias for employees at each facility nationally. Additionally, regional health bureaus are advised to mobilize resources to support and strengthen continuous capacity development, conduct regular

supportive supervision to improve the continuity of care and human resource recordings.

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