

# Assessment of Patient Satisfaction Attaining Primary Health Care Services at Health Centers in Mogadishu, Somalia

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**Background:** Patient satisfaction in healthcare a crucial aspect of quality assessment, especially in resource-limited settings like Mogadishu, Somalia, where challenges in service quality persist due to socioeconomic and infrastructural constraints. It plays a significant role in evaluating the overall healthcare experience and provides valuable insights into healthcare system strengths and weaknesses.

**Objective:** This study aimed to assess patient satisfaction in primary health care facilities in Mogadishu to identify areas for improvement.

**Methodology:** A facility-based cross-sectional survey of 358 patients was conducted from August 2023 to November 2023; Data was collected through questionnaires and analyzed using SPSS software. Quantitative data was analyzed using appropriate statistical methods, such as descriptive statistics and chi-square tests, to examine the relationships between patient satisfaction and various factors the statistical significance was declared at  $p$ -value  $< 0.05$ . Ethical approval was obtained from the Ministry of health Somalia before data collection permission was also obtained from the health facility in charges.

**Results:** While a majority of respondents, 71.5% express overall satisfaction with the healthcare services provided, there were significant concerns regarding empathy, privacy, facility cleanliness, and waiting times. There is a statistically significant association between patients' visit frequency and their perceptions of various healthcare aspects. Patients who visited the healthcare facility 2–4 times expressed significantly more positive perceptions of healthcare providers' competence ( $p < 0.020$ ), empathy ( $p < 0.009$ ), time spent ( $p < 0.001$ ), pharmacy services ( $p < 0.001$ ), and facility cleanliness ( $p < 0.001$ ) when compared to those with first-time visits or more frequent visits.

**Conclusion:** The study highlights the importance of addressing communication gaps, enhancing facility hygiene, and reducing waiting times to improve patient satisfaction. To enhance patient satisfaction and overall healthcare quality, recommendations include healthcare provider training, facility hygiene upgrades, and the implementation of strengthened privacy protocols in Mogadishu's primary healthcare facilities.

**Keywords:** patient satisfaction, primary, healthcare, services and health centers

## Introduction

Patient satisfaction is a crucial aspect of healthcare quality, serving as a key indicator of effective and patient-centered services. It plays a significant role in evaluating the overall healthcare experience and provides valuable insights into healthcare system strengths and weaknesses.<sup>1</sup> Globally, patients are increasingly frustrated with the commercialization of medical services, bureaucratic healthcare systems, and the declining patient-provider relationship. These concerns include issues of affordability, accessibility, administrative complexity, long wait times, and a lack of patient-centered care.<sup>2</sup>

The available healthcare services receive appreciation from a few numbers of patients, while the majority express dissatisfaction with the quality-of-service delivery.<sup>3</sup> Common complaints include limited contact time between patients

and healthcare providers, unethical practices, a lack of physical comfort, and concerns about cleanliness and safety within healthcare environments. Patients feel that these factors contribute to the poor quality of care they receive.<sup>4</sup>

Examining patient satisfaction within the specific context of Africa is crucial for understanding the unique factors and challenges that influence the delivery of quality care in the region.<sup>5</sup> By exploring patient satisfaction in Africa, healthcare providers and policymakers can identify areas for improvement and implement strategies to enhance the quality of care provided.<sup>6</sup>

The satisfaction levels of patients with basic services offered at outpatient departments (OPD) differ between developed and developing countries. In developed countries, the satisfaction rate is notably high, ranging from 90% to 95%. Conversely, in developing countries, the range of patient satisfaction varies between 95% to less than 50%. For instance, in Nigeria, approximately 84% of patients express satisfaction with the health services provided at the OPD, while in Ethiopia, the satisfaction rate stands at 77%.<sup>7–9</sup> Satisfaction levels with the quality of services provided at different hospitals in Tanzania varied. At Muhimbili National Hospital, the satisfaction level was high, ranging from 90% to 95%. In Morogoro, specifically at Kilosa District Hospital, the satisfaction level was moderate, at 70%. However, at Mwananyamala Referral Hospital, the satisfaction level was found to be low, being less than 50%.<sup>10–12</sup>

An important and commonly used indicator for measuring the quality of healthcare is indirectly by asking patients to rate their satisfaction with the health services they have received or to report their experiences.<sup>12</sup>

The observed problems in studies conducted in Outpatient Departments (OPD) of various hospitals in Ethiopia included long wait times during registration and doctor visits, lack of privacy in examination rooms, issues with laboratory procedures and doctor revisiting for evaluation with laboratory results, difficulties in obtaining prescribed drugs and supplies from hospital pharmacies, and insufficient information provided to patients.<sup>13,14</sup>

Quantifying healthcare quality can be achieved through assessing patients' satisfaction with the services they receive.<sup>15</sup>

The modern patients are more informed and educated, with easier access to information, and they have higher expectations of the healthcare system. This makes it crucial to address any problems in service delivery to meet their needs effectively.<sup>16</sup>

Positive patient attitudes significantly increase the likelihood of positive outcomes. Conversely, negative attitudes and dissatisfaction with healthcare services can result in low compliance and, in extreme cases, patients spreading negative word-of-mouth, dissuading others from seeking healthcare services.<sup>17</sup>

Studies have shown that individuals in Africa, even when facing serious illnesses, tend to avoid visiting their local primary healthcare centers. This behavior is primarily driven by a perception of the inadequate quality of care provided at these centers.<sup>18</sup>

The study conducted in Somalia aimed to assess the level of patient satisfaction with healthcare services provided at selected public hospitals. The findings revealed that the overall patient satisfaction level was 62.7%.<sup>19</sup>

Somalia is recovering from a prolonged conflict that has severely weakened its public health infrastructure. Over the past decade, the Federal MOH, in collaboration with health partners, has embarked on a process of health system rehabilitation with the goal of ensuring access to essential health services for all. The federal ministry of health developed a platform for delivering health services which is known as Essential packages of health services (EPHS).

The goal of the EPHS (Essential packages of health services) is to put the country onto a path towards achievement of equity in health service delivery, and to lay the foundation for progress towards UHC by 2030. Core health indicators indicate some early achievements, but there is still significant work to be done. Somalia is in the early phases of an epidemiological transition, marked by decreasing maternal, infant, and child mortality rates and a rise in life expectancy at birth.<sup>20</sup>

As part of the effort to progress towards UHC and following a UHC index assessment showing only 22% of Somali population having access to essential services,<sup>21</sup> Somalia launched the HSSPII 2017–2021, and the Somali Roadmap towards Achieving UHC 2019–2023, demonstrating strong political commitment and paving the way for the roll out of UHC in the country. The 2020 update of the EPHS seeks to optimize the balance among the three dimensions of UHC: i) service coverage; ii) population coverage; and iii) financial protection. It also aims to align with the strategic direction outlined in the Somali Roadmap towards Achieving UHC 2030.<sup>20</sup>

According to the Service Availability and Readiness Assessment (SARA) survey of the Somali health sector the majority of Somali regions are under-performing when compared to the global targets for each of the General Service Availability indicators. In addition, nationally none of the General Service Availability targets have been met and there is a large gap

between current levels of service availability and suggested global targets. With less than one health facility per 10,000 people (0.76 facilities per 10,000 people), Somalia has reached 38% of its target for facility density, aiming for two health facilities per 10,000 people. In other words, Somalia has one health facility, regardless of level, for 13,158 thousand people. A national inpatient bed density of 5.34 indicates the country is 21% of the way towards achieving the inpatient bed density target of 25 inpatient beds per 10,000 populations. Similarly, the national maternity bed density of 2.55 indicates that the country is 25% of the way toward achieving the maternity bed density target of 10 maternity beds per 1,000 pregnant women. Result from the health workforce domain indicate that Somalia has 4.28 core health workers per 10,000 people, which is 19% of the way towards the target of 23 core health workers per 10,000 people. Regarding health service utilization, indicators show limited availability and access to health services. Nationally, Somalia is 5% of the way towards the outpatient visit target and 8% of the way towards the hospital discharge target (10 per 100 people per year).<sup>22</sup>

Some studies on patient satisfaction have been conducted in Somalia, but they have primarily focused on hospital settings. There has been little research on the level of patient satisfaction in primary healthcare settings, particularly among patient attendants at health centers. Thus, this study therefore investigated the level of patient-satisfaction among patient attendants in Mogadishu, focusing on understanding patient perceptions and experiences. The findings will significantly influence policy-makers, healthcare providers, especially those in primary healthcare settings, and clients. They will help guide personal decisions on seeking services to meet their needs and preferences. The findings will also seek to provide valuable insights into the areas requiring improvement and support the Ministry of Health efforts to enhance quality of care initiatives. The goal is to contribute to the provision of high-quality healthcare services and achieve universal health coverage.

## Methodology

### Study Design

A facility-based cross-sectional survey, employing quantitative methods, was conducted from August to October 2023 at four health centers in Mogadishu, Somalia, within the Benadir Region. These centers included Wabari MCH, Arif MCH, Abdulaziz MCH, and Galmudug MCH, selected to represent a diverse range of healthcare services in the area.

### Study Population

This study specifically targeted patients attending the outpatient departments of these facilities, who formed the study population.

### Sample Size Determination

Patients attending 4 different health centers were considered as the study population. The sample size was calculated from the following formula.

$n = z^2 p(1-p)/d^2$ , where  $z$  = z-value for 95% confidence level,  $p$  = prevalence of patients' satisfaction and  $d$  = precision of error. Assuming the prevalence of patients' satisfaction as 63%, evidenced in a previous study conducted in two referral hospitals of Mogadishu Somalia,<sup>22</sup> for 5% precision of error, the calculated sample size was 358.

### Sampling Procedure

A multistage sampling technique was utilized for participant selection. Initially, four health facilities were randomly chosen from the Benadir Region Administration's list. Subsequently, patients attending these facilities were systematically sampled.

### Data Collection Method

Data was collected using structured questionnaires, designed on the basis of validated scales and adapted to the local context. These questionnaires, administered digitally, focused on aspects such as waiting times, communication, service accessibility, facility cleanliness, and overall satisfaction. The administration team, composed of trained health professionals in public health, was well-versed in the techniques of interviewing and data collection. Each questionnaire was pre-tested for accuracy and consistency.

## Data Analysis

The gathered quantitative data underwent thorough analysis using SPSS software and statistical methods such as descriptive statistics and chi-square tests. The aim was to discern patterns and correlations between patient satisfaction and various service aspects.

## Inclusion and Exclusion Criteria

Patients over 18 years old visiting the health centers during the study period were included. Those severely ill were excluded to ensure reliable and coherent responses.

## Ethical Consideration

The study received ethical approval from the ethical committee Ministry of Health Somalia, and permissions from relevant local authorities. Informed consent was obtained from all participants, with a strong emphasis on maintaining their anonymity, confidentiality, and voluntary participation.

## Data Security and Limitations

Data security and participant privacy were prioritized throughout the study. A notable limitation of this study is the absence of similar studies at the health center level for comparative analysis. Additionally, the study acknowledges the potential for social desirability bias, given that interviews were conducted within the health center premises.

## Results

### Demographic Information

The data from the table provides a comprehensive view of the demographic and behavioral characteristics of the respondents. There is a notable gender imbalance, with female respondents dominating at 97.8% (350 out of 358), compared to a minimal male representation of 2.2% (8 out of 358). In terms of marital status, the majority are married, representing 84.6% (303 out of 358) of the sample, while singles account for only 3.4% (12 out of 358), and those divorced or widowed comprise 12.0% (43 out of 358). The age distribution shows a skew towards the middle-aged, with the largest group being between 31–37 years old at 46.4% (166 out of 358), followed by the 25–30 years' age group at 28.8% (103 out of 358), and the 18–24 years' age group at 14.5% (52 out of 358). The older age group of those above 38 years forms a smaller portion at 10.3% (37 out of 358). Educationally, a significant 78.2% (280 out of 358) of the respondents are illiterate, with only a small fraction having primary education at 12.0% (43 out of 358), Secondary education at 8% (28 out of 358), and university education at 2.0% (7 out of 358).

Employment status reveals that a majority, 66.2% (237 out of 358), are unemployed, with self-employed individuals making up 32.1% (115 out of 358), and students and government staff being minimally represented at 1.4% (5 out of 358) and 0.3% (1 out of 358), respectively. In terms of visit frequency, there is a balanced distribution among first-time visitors at 27.1% (97 out of 358) and those who have visited more than four times at 26.5% (95 out of 358), with the largest group consisting of individuals who have visited 2–4 times, accounting for 46.4% (166 out of 358) of the respondent (Table 1).

### Technical Quality

The data from the table reveals varied perceptions and opinions about different aspects of healthcare services. Firstly, regarding the thoroughness of medical care, only a small fraction (0.3%) of respondents strongly disagree that medical care providers are careful, while a notable minority (13.4%) strongly agree, and a majority (42.5%) agree that care is provided with careful attention. However, there is a significant portion who feels differently, with 12.8% remaining neutral and 31.3% disagreeing, indicating diverse perceptions of thoroughness in medical care. In terms of confidence in healthcare providers' abilities, the responses show a range of confidence levels. A minimal portion of respondents, 7% strongly agree, and 28.5% agree that they have doubts about their healthcare providers' abilities.

Yet, 15.4% are neutral while the largest group (43.9%) disagree, and a smaller fraction (5.3%) strongly disagrees. When it comes to the explanation of medical tests, the data suggests varying levels of satisfaction. The healthcare providers, 12.3% strongly agree and 39.7% agree that they are good at explaining medical tests. On the other hand,

**Table 1** Sociodemographic Information

Variable Name	Response Category	Frequency	Percent
Gender	Male	8	2.2
	Female	350	97.8
Marital Status	Single	12	3.4
	Married	303	84.6
	Divorced/widow	43	12.0
Educational background	18–24 years	52	14.5
	25–30 years	103	28.8
	31–37 years	166	46.4
	> 38 years	37	10.3
Occupational background	Student	5	1.4
	Unemployment	237	66.2
	Self-employed	115	32.1
	Government staff	1	0.3
Facility visits	First time	97	27.1
	2–4 times	166	46.4
	More than 4 times	95	26.5

**Table 2** Technical Quality

Variable Name	Response Category	Frequency	Percent
Thoroughness of Medical Examinations & Treatments	Strongly agree	48	13.1
	Agree	152	42.5
	Neutral	46	12.8
	Disagree	112	31.3
Confidence in Healthcare Providers' Abilities	Strongly agree	25	7
	Agree	102	28.5
	Neutral	55	15.4
	Disagree	157	43.9
Explanation of Medical Tests	Strongly disagree	19	5.3
	Strongly agree	44	12.3
	Agree	142	39.7
	Neutral	56	15.6
Competence and Training of Healthcare Providers	Disagree	112	31.3
	Strongly disagree	4	1.1
	Strongly agree	49	13.7
	Agree	108	30.2
Overall Technical Quality Evaluation	Neutral	91	25.4
	Disagree	107	29.9
	Strongly disagree	3	0.8
	Excellent	63	17.6
	Good	138	38.5
	Acceptable	95	26.5
	Unacceptable	62	17.3

15.6% hold a neutral position, but 31.3% disagree and 1.1% strongly disagree. Regarding the competence and training of healthcare providers, there are mixed opinions. While 13.7% of respondents strongly agree and 30.2% agree that healthcare providers are competent and well-trained. However, 25.4% are neutral on this matter, while a considerable 29.9% disagree and a small minority (0.8%) strongly disagrees. Lastly, the overall technical quality evaluation shows a spectrum of views from high satisfaction to significant concerns. A minority of respondents rate the overall technical quality as excellent (17.6%) or good (38.5%), while 26.5% find it just acceptable and 17.3% consider it unacceptable, illustrating a range of experiences and perceptions regarding the technical aspects of healthcare (Table 2).

## Communication & Interpersonal Manner

When it comes to the friendly and courteous treatment by healthcare providers, 9.8% strongly agree, while 36.9% agree with this statement. Additionally, 16.8% remain neutral, 34.6% disagree, and 2.2% strongly disagree. In relation to the use of medical terms without explanation, 7.0% strongly agree, and 26.5% agree that healthcare providers sometimes use medical terms without providing explanations. Furthermore, 16.2% express neutrality, 40.5% disagree, and 9.8% strongly disagree. As for the table on providers listening to and addressing concerns, 7.6% strongly agree, and 41.6% agree that healthcare providers take the time to listen to their concerns and address them appropriately. Moreover, 20.1% remain neutral, 30.2% disagree, and 0.8% strongly disagree. Regarding the display of empathy and compassion from healthcare providers, 11.5% strongly agree, and 39.6% agree that healthcare providers show empathy and compassion towards them as patients. Additionally, 14.2% express neutrality, 33.0% disagree, and 1.7% strongly disagree.

In terms of effective communication by healthcare providers, 12.6% strongly agree, and 36% agree that healthcare providers effectively communicate with them in a clear and understandable manner. Furthermore, 22.9% remain neutral, 28.2% disagree, and 0.6% strongly disagree. When it comes to involvement in the decision-making process, 6% strongly agree, and 35.2% agree that healthcare providers include them in the decision-making process regarding their treatment options. Additionally, 24.3% express neutrality, 33.2% disagree, and 1.4% strongly disagree. Concerning the respect for privacy and confidentiality, 5.6% strongly agree, and 27.1% agree that healthcare providers respect their privacy and confidentiality during medical consultations. Moreover, 16.2% remain neutral, 38.5% disagree, and 12.6% strongly disagree. In terms of the overall evaluation of communication and interpersonal manners, 13.4% rate it as excellent, 42.5% as good, 26.5% as acceptable, and 17.6% as unacceptable (Table 3).

## Accessibility and Timeliness

According to the perception of healthcare providers' hurry, a small group of 10 respondents (2.8%) strongly agree that healthcare providers hurry too much, while 97 respondents (27%) agree, indicating some concern. However, the largest portions, 181 respondents (50.6%), disagree with this statement, suggesting overall satisfaction. A neutral stance is taken by 50 respondents (14.0%), and 20 respondents (5.6%) strongly disagree, showing confidence in the provider's time management. Regarding the time spent by healthcare providers, for the time spent by healthcare providers, 36 respondents (10.3%) strongly agree that it is sufficient, and 121 respondents (34%) agree. On the other hand, 123 respondents (34.4%) disagree, and 7 respondents (2.0%) strongly disagree, highlighting a division in patient perception. 70 respondents (19.6%) remain neutral on this matter. In terms of the waiting time in the provider's room, concerning the waiting time in the provider's room, 19 respondents (5.3%) strongly agree its long and 84 respondents (23.5%) agree. However, a significant number, 164 respondents (46%), disagree, and 25 respondents (7.0%) strongly disagree, indicating satisfaction with waiting times. 65 respondents (18.2%) are neutral. According to the appropriateness of consultation waiting time, on the appropriateness of consultation waiting time, 27 respondents (7.5%) strongly agree, and 105 respondents (29.3%) agree that it's appropriate. In contrast, 139 respondents (38.8%) disagree, and 4 respondents (1.2%) strongly disagree, showing varied experiences. 83 respondents (23.2%) hold a neutral view. According to the waiting time for emergency treatment above, regarding emergency treatment, 23 respondents (6.4%) strongly agree, and 49 respondents (13.9%) agree that the waiting time is too long. However, the majorities, 176 respondents (49.2%), disagree, and 60 respondents (16.8%) strongly disagree, reflecting a generally positive view of emergency response times. 49 respondents (13.7%) are neutral. According to the ease of admission for healthcare above, for ease of admission, 50 respondents (14.0%) strongly agree, and 108 respondents (30.2%) agree that admission is trouble-free. On the flip side, 135 respondents (37.7%) disagree, and 17 respondents (4.7%) strongly disagree, indicating some difficulties. 48 respondents (13.4%) are neutral. According to the quality of medical care above, in terms of the quality of medical care, 40 respondents (11.2%) strongly agree, and 130 respondents (36.3%) agree that it's nearly perfect. Conversely, 114 respondents (31.8%) disagree, and 1 respondent (0.3%) strongly disagrees, pointing to varied satisfaction levels. 73 respondents (20.4%) remain neutral. According to the benefit from pharmacy services above, regarding pharmacy services, 38 respondents (10.6%) strongly agree, and 103 respondents (28.8%) agree that they have benefited. However, 109 respondents (30.4%) disagree, and 7 respondents (2.0%) strongly disagree, showing mixed experiences. One hundred one respondents (28.2%) are neutral. According to the benefit from laboratory services above, as for laboratory services, 35 respondents (9.8%)



**Table 3** Communication & Interpersonal Manner

Variable Name	Response Category	Frequency	Percent
<b>Healthcare Providers' Businesslike Attitude</b>	Strongly agree	19	5.3
	Agree	77	21.5
	Neutral	36	10.1
	Disagree	196	54.7
	Strongly disagree	31	8.7
<b>Friendly &amp; Courteous Treatment by Healthcare Providers</b>	Strongly agree	35	9.8
	Agree	132	36.9
	Neutral	60	16.8
	Disagree	124	34.6
	Strongly disagree	8	2.2
<b>Use of Medical Terms without Explanation</b>	Strongly agree	26	7.3
	Agree	95	26.5
	Neutral	58	16.2
	Disagree	145	40.5
	Strongly disagree	35	9.8
<b>Providers Listening to and Addressing Concerns</b>	Strongly agree	27	7.6
	Agree	149	41.6
	Neutral	72	20.1
	Disagree	108	30.2
	Strongly disagree	3	0.8
<b>Empathy and Compassion from Healthcare Providers</b>	Strongly agree	42	11.8
	Agree	141	39.6
	Neutral	51	14.2
	Disagree	118	33.0
	Strongly disagree	6	1.7
<b>Effective Communication by Healthcare Providers</b>	Strongly agree	45	12.6
	Agree	128	36.0
	Neutral	82	22.9
	Disagree	101	28.2
	Strongly disagree	2	0.6
<b>Involvement in Decision-Making Process</b>	Strongly agree	23	6.5
	Agree	126	35.2
	Neutral	87	24.3
	Disagree	119	33.2
	Strongly disagree	5	1.4
<b>Respect for Privacy and Confidentiality</b>	Strongly agree	21	5.9
	Agree	97	27.1
	Neutral	58	16.2
	Disagree	138	38.5
	Strongly disagree	45	12.6

strongly agree, and 94 respondents (26.3%) agree they have benefited. In contrast, 95 respondents (26.5%) disagree, and 9 respondents (2.5%) strongly disagree, indicating diverse opinions. 125 respondents (34.9%) take a neutral stance. The knowledge of complaint or suggestion filing process above, only 34 respondents (9.5%) know how to file a complaint or suggestion, while a large majority of 318 respondents (88.8%) do not, highlighting a significant information gap. 6 respondents (1.7%) find the question not applicable. According to the free dispensation of services above, unanimously, all 358 respondents (100%) confirm that services were dispensed freely, indicating a strong positive aspect of the service. Overall accessibility and timeline evaluation, in evaluating overall accessibility and timeline, 42 respondents (11.7%) rate it as excellent and 155 respondents (43.3%) as good. However, 70 respondents (19.6%) find it unacceptable, and 91 respondents (25.4%) consider it just acceptable, showing arrange of opinion (Table 4).

**Table 4** Accessibility and Timeliness

Variable Name	Response Category	Frequency	Percent
Perception of Healthcare Providers' Hurry	Strongly agree	10	2.8
	Strongly disagree	20	5.6
	Disagree	181	50.6
	Agree	97	27
	Neutral	50	14.0
Time Spent by Healthcare Providers	Strongly agree	37	10.3
	Agree	122	34
	Neutral	70	19.6
	Disagree	123	34.4
Waiting Time in Provider's Room	Strongly disagree	7	2.0
	Neutral	66	18.5
	Disagree	165	46
	Strongly disagree	25	7.0
	Strongly agree	19	5.3
Appropriateness of Consultation Waiting Time	Agree	84	23.5
	Agree	105	29.3
	Strongly agree	27	7.5
	Neutral	83	23.2
Waiting Time for Emergency Treatment	Disagree	139	38.8
	Strongly disagree	4	1.2
	Strongly disagree	61	17.1
	Strongly agree	23	6.4
	Agree	50	13.9
Ease of Admission for Healthcare	Neutral	49	13.7
	Disagree	176	49.2
	Strongly disagree	17	4.7
	Agree	108	30.2
	Strongly agree	50	14.0
Quality of Medical Care	Neutral	48	13.4
	Disagree	135	37.7
	Strongly agree	40	11.2
	Agree	130	36.3
	Disagree	114	31.8
Benefit from Pharmacy Services	Strongly disagree	1	0.3
	Neutral	73	20.4
	Strongly agree	38	10.6
	Agree	103	28.8
	Disagree	109	30.4
Knowledge of Complaint or Suggestion Filing Process	Strongly disagree	7	2.0
	Neutral	101	28.2
	Yes	34	9.5
	No	318	88.8
Free Dispensation of Services	Not applicable	6	1.7
	Yes	358	100
	No	0	0.00
Overall Accessibility and Timeline Evaluation	Excellent	155	43.3
	Good	91	25.4
	Acceptable	70	19.6
	Unacceptable	155	43.3



## Environment

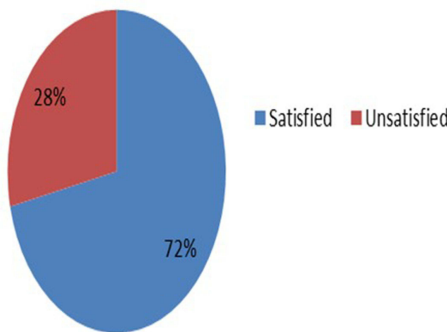
According to the cleanliness and tidiness of healthcare facility, regarding the cleanliness and tidiness of the healthcare facility, 4.7% of respondents strongly agree, 34.9% agree, 26.8% are neutral, 30.2% disagree, and 3.4% strongly disagree that it is very good. Examination room cleanliness and maintenance, 4.5% strongly agree, 27.9% agree, 35.2% remain neutral, 29.6% disagree, and 2.8% strongly disagree about it being clean and well-maintained. According to the availability of the toilets in the health facility, on the availability of enough toilets in the health facility, 4.7% of respondents strongly agree, 24.6% agree, 34.1% are neutral, 33.5% disagree, and 3.1% strongly disagree with the facility having an adequate number of toilets. According to presence of hand washing area in the health facility, concerning the presence of a hand washing area in the health facility, 3.9% of respondents strongly agree, 24.9% agree, 34.9% are neutral, 34.1% disagree, and 2.2% strongly disagree about its adequacy. Water supply in the health facility, the health facility having enough water supply, 4.7% strongly agree, 28.2% agree, 32.4% are neutral, 31.6% disagree, and 3.1% strongly disagree that the facility is well-Supplied with water.

According to the table above, when evaluating the overall environment of the health facility, 7.8% rate it as excellent, 35.2% as good, 38.8% as acceptable, and 18.2% find it unacceptable (Table 5).

**Table 5** Environment

Variable Name	Response Category	Frequency	Percent
Cleanliness and tidiness of the healthcare facility	Strongly agree	17	4.7
	Agree	125	34.9
	Neutral	96	26.8
	Disagree	108	30.2
	Strongly disagree	12	3.4
Examination Room Cleanliness and Maintenance	E. Strongly disagree	10	2.8
	A. Strongly agree	16	4.5
	B. Agree	100	27.9
	C. Neutral	126	35.2
	D. Disagree	106	29.6
Availability of Toilets in the Health Facility	Strongly disagree	11	3.1
	Strongly agree	17	4.7
	Agree	88	24.6
	Neutral	122	34.1
	Disagree	120	33.5
Presence of Hand Washing Area in the Health Facility	D. Disagree	122	34.1
	Strongly agree	14	3.9
	Agree	89	24.9
	Neutral	125	34.9
	Strongly disagree	8	2.2
Water Supply in the Health Facility	Strongly agree	17	4.7
	Agree	101	28.2
	Neutral	116	32.4
	Disagree	113	31.6
	Strongly disagree	11	3.1
Overall Environmental Evaluation of the Health Facility	Excellent	28	7.8
	Good	126	35.2
	Acceptable	139	38.8
	Unacceptable	65	18.2

Overall satisfaction Level



**Figure 1** Showed prevalence of level satisfaction or overall satisfaction. showing a considerable level of dissatisfaction that could be addressed to improve overall service satisfaction.

Level of Satisfactory

This assessment showed that most respondents, 71.5%, fall into the Satisfied which indicate a general positive reception of the services provided. However, a significant minority 28.5%, are in the Unsatisfied, showing a considerable level of dissatisfaction that could be addressed to improve overall service satisfaction (Figure 1) the figure showed prevalence of level satisfaction or overall satisfaction.

Association Between Level of Satisfaction and Demographic Factors

Patients who have visited the healthcare facility 2–4 times exhibit statistically significant associations with more positive perceptions of healthcare providers’ competence and training compared to first-time visitors or those with more frequent visits ( $p < 0.020$ ). Furthermore, they also demonstrate a highly statistically significant association with more positive perceptions of healthcare providers’ empathy and compassion compared to first-time visitors or those with more frequent visits ( $p < 0.009$ ). In addition to this, these patients show a very highly statistically significant association with more positive perceptions of healthcare providers’ time spent with patients ( $p < 0.001$ ). Moreover, they report benefiting from pharmacy services to a greater extent ( $p < 0.001$ ). Lastly, they manifest a very highly statistically significant association with more positive perceptions of the cleanliness and tidiness of the facility ( $p < 0.001$ ), all in contrast to first-time visitors or those with more frequent visits (Table 6).

**Table 6** Association Between Level of Satisfaction and Demographic Factors

The Health Care Providers are Very Competent and Well-Trained	Facility Visits			P-value
	First Time	2–4 Times	More than 4 Times	
Strongly agree	11	24	13	<0.020
Agree	28	57	23	
Neutral	36	38	17	
Disagree	22	45	40	
Strongly disagree	0	1	2	

(Continued)

Table 6 (Continued).

The Health Care Providers are Very Competent and Well-Trained	Facility Visits			P-value
	First Time	2–4 Times	More than 4 Times	
The healthcare providers show empathy and compassion towards me as a patient.	Facility visits			P-value
	First time	2–4 times	More than 4 times	<0.009
Strongly agree	7	19	15	
Agree	49	68	24	
Neutral	19	21	11	
Disagree	21	54	43	
Strongly disagree	1	3	2	
The health care providers usually spend plenty of time with me.	Facility Visit			P-value
	First time	2–4 times	More than 4 times	<0.001
Strongly agree	9	12	15	
Agree	32	69	20	
Neutral	29	33	8	
Disagree	24	47	52	
Strongly disagree	3	4	0	
I have benefited from the pharmacy services	Facility Visit			P-value
	First time	2–4 times	More than 4 times	<0.001
Strongly agree	5	19	14	
Agree	37	48	18	
Disagree	16	49	44	
Strongly disagree	3	4	0	
Neutral	36	46	19	
The cleanliness and tidiness of the healthcare facility is very good	Facility Visit			P-value
	First time	2–4 times	More than 4 times	<0.001
Strongly agree	0	5	12	
Agree	46	60	19	
Neutral	32	47	17	
Disagree	18	49	41	

## Discussion

Patient satisfaction is a crucial component of healthcare quality assessment and an essential indicator of effective and patient-centered services. This study aimed to assess patient satisfaction in primary healthcare facilities in Mogadishu, Somalia, focusing on various aspects of care delivery.

The findings of this study revealed that 71.5% of the patients who visited the health centers were satisfied with the quality of care. This finding is higher than a study conducted in the two referral hospitals of Mogadishu Somalia, which reported 62.7% satisfaction among admitted patients in wards consecutively.<sup>23</sup> The satisfaction level of this study was also lower compared to the reports of the studies conducted in Jimma University Specialized Hospital (77%) and Hawassa University Teaching Hospital (80.1%), India (78%), Egypt (86.2%), Kenya (84%).<sup>14,15,24–26</sup>

The discrepancy could stem from the fact that those studies were carried out in specialized teaching and referral hospitals, which are well-equipped and offer a diverse range of healthcare services professionals, better diagnostic facilities, health service infrastructures, and awareness of service providers of different levels that are expected to demonstrate the standard way of patient examination resulting in higher level satisfaction.

In terms of Competence and Training of Healthcare Providers, only 30.2% of the respondents agreed that healthcare providers are competent and well-trained. On the other hand, a study conducted in central Ethiopia<sup>27</sup> reported that 51.6% of respondents rated provider technical competency as medium.

The difference in perception regarding the competence and training of healthcare providers could be attributed to several factors. Changes in the healthcare system, training methods, or policies over time might have influenced the perceived competence of providers. When it comes to the friendly and courteous treatment by healthcare providers 36.9% of respondents agreed that the healthcare providers treat them in a friendly and courteous manner. In a similar study carried out in Jubail city,<sup>28</sup> majority of patients (60%) reported that the doctor treats them very nicely.

The differences between the two studies on friendly and courteous treatment by healthcare providers can be attributed to several factors. These include variations in the capacity of healthcare providers, incentives provided to healthcare providers, differences in policy and guidelines, as well as cultural and regional disparities that influence patient expectations and perceptions. These factors collectively contribute to variations in the experiences and perceptions of patients regarding the treatment they receive from healthcare providers.

The findings from this study showed that 52% of the participants were satisfied with the explanations of medical tests offered by the healthcare providers and this is in contrast to the observations made in other studies, where over 90% of the respondents expressed satisfaction with the explanations of the consulting.<sup>29,30</sup> In these studies, this could be due to factors such as the healthcare providers may have had better capacity in terms of their communication skills and knowledge. They could also have received proper training on patient communication and had the necessary resources and time to provide thorough explanations. The policies within the healthcare system may have emphasized the importance of patient-centered care and accountability, leading to a higher level of satisfaction among patients.

According to the current study, 34.7.1% of the respondents disagreed that healthcare providers showed empathy and compassion Comparing this to the other study conducted in Gambella Region, Southwest Ethiopia, it reveals some differences in specific aspects of empathy. While the majority of the respondents, 64.6%, in the study expressed dissatisfaction the way they were treated without respect and good behavior.<sup>31</sup>

In terms of privacy and confidentiality in this study, a significant proportion 38.5% disagreed that healthcare providers respect their privacy and confidentiality during medical consultations. However, when comparing this to a study conducted in South Wollo health facilities, Ethiopia, a high percentage 98.1% of respondents reported that their privacy at the out-patient department was maintained.

The difference in findings between the two studies could be influenced by various factors. Possible reasons for the disparity could include differences in the study populations, cultural or societal norms regarding privacy, variations in healthcare provider practices or policies, or variations in the methodologies used to assess privacy and confidentiality.<sup>32</sup>

In the study conducted in Bangladesh, the majority of respondents (62.84%) expressed the waiting time before seeing the doctor was appropriate.<sup>33</sup> However, in this study, a lower percentage of respondents (29.3%) agreed that the

consultation waiting time was appropriate. These findings suggest those patients' perceptions of the length of stay and waiting time in healthcare settings can vary between different studies.

Factors such as regional differences, healthcare facility capacities, and individual expectations may contribute to these variations in patient perception.

In this study, 109 respondents (30.4%) expressed dissatisfaction with the benefits they felt they received from pharmacy services. In contrast, a study conducted in South Wollo health facilities, Ethiopia, found that 294 patients (54.8%) reported receiving all their prescribed medications from the health centers.<sup>32</sup>

In comparing the study results between regions in Somalia and Ethiopia, several factors can contribute to the differing outcomes. One key factor is the availability and accessibility of pharmacy services. In Somalia, challenges such as limited government capacity and financial resources allocated to health centers, along with limited support from international organizations, may impact the provision of pharmacy services. In contrast, Ethiopia may have better access to pharmacies within health centers, leading to a higher proportion of patients receiving their medications.

Furthermore, variations in healthcare infrastructure and resources between the two locations can influence the outcomes. Differences in medication availability, staffing levels, and overall quality of pharmacy services might contribute to varying patient experiences and their perceived benefits.

This study indicated that a significant portion of the respondents, 38.8% rated the cleanliness as "acceptable", suggesting that it met their minimum expectations. In contrast, a study conducted in Saudi Arabia showed a higher average rating of 100 for cleanliness,<sup>34</sup> indicating that respondents highly valued and considered it an important aspect.

This suggests that there is a variation in perception and expectations regarding cleanliness between different populations or regions. The second study's higher average rating for cleanliness implies a stronger emphasis on cleanliness in the Saudi Arabian context.

Overall, this study highlights the varying perceptions of patients regarding healthcare services in primary healthcare facilities in Mogadishu, Somalia. While some aspects of care received positive feedback, such as patient-provided communication and provider competence, there were areas of concern, particularly in terms of waiting times and the facility's cleanliness and maintenance. Additionally, the study revealed limited knowledge about the process of filing complaints or suggestions about services.

## Conclusion

Respondents generally perceive healthcare providers as professional and courteous, but areas such as empathy, involvement in decision-making, and respect for privacy need improvement. Communication gaps, especially in explaining medical terms, highlight the need for strategies tailored to patients with limited literacy. While some aspects of facility maintenance and cleanliness meet expectations, dissatisfaction with amenities like toilets and hand-washing areas suggests room for enhancement.

Most respondents view emergency response times positively, with 49.2% disagreeing that the waiting time is too long. Overall, 71.5% of respondents are satisfied with the healthcare services, but the concerns of the 28.5% who are unsatisfied emphasize the need for continuous improvements in service quality and facility management.

## Recommendation

To enhance patient satisfaction and overall healthcare quality, the study recommended several key points. Training healthcare providers in clear, non-medical language can enhance patient understanding, particularly in areas with high illiteracy rates. Emphasizing empathetic care and involving patients more in decision-making processes can significantly improve their healthcare experience. Regular audits and upgrades of facility cleanliness and essential amenities, focusing on areas like toilets and handwashing stations, are crucial.

Reinforcing patient privacy and confidentiality protocols builds trust and comfort in the healthcare setting and reviewing and improving appointment and emergency care processes can reduce waiting times and enhance patient satisfaction.

Finally, offering accessible health education tailored to the patient demographic and establishing a user-friendly feedback system are essential for continuous service improvement.

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