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OUTPATIENT SATISFACTION WITH PRIMARY HEALTH CARE SERVICES AND FACILITIES RECEIVED AT A COMMUNITY HEALTH CENTER IN CHANDRAGIRI, TIRUPATI DISTRICT, ANDHRA PRADESH, INDIA: A PROSPECTIVE CROSS-SECTIONAL OBSERVATIONAL STUDY

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ABSTRACT

Background: Patient satisfaction is an important indicator of patients' experiences with healthcare services and can provide useful information for assessing the quality and patient-centeredness of primary healthcare delivery. Community Health Centers provide a range of outpatient services, and systematic assessment of patients' perceptions can help identify areas for maintaining and improving service quality. This study assessed outpatient satisfaction with primary healthcare services and facilities at a Community Health Center (CHC) in Chandragiri, Tirupati District, Andhra Pradesh, India.

Methods: A prospective, cross-sectional, observational, descriptive study was conducted among adult outpatients attending CHC Chandragiri. A total of 300 participants were recruited using convenience sampling during the study period. Participants aged ≥18 years who attended the outpatient department, received the required services, and provided written informed consent were included. Data were collected using a structured, locally reviewed questionnaire administered after completion of the required outpatient services. Satisfaction was assessed using a five-point scale ranging from very poor to excellent across domains including general services and facilities, outpatient registration, paramedical services, and pharmacy services. Overall satisfaction and willingness to recommend the CHC were also assessed. Data were analyzed using Microsoft Excel and summarized using frequencies and percentages. No inferential statistical analysis was performed.

Results: Among the 300 participants, 189 (63.0%) were female and 111 (37.0%) were male. The largest age group was 18–30 years, comprising 125 (41.7%) participants. Across the assessed service domains, responses were predominantly in the good and excellent categories. For overall satisfaction with the CHC, 150 (50.0%) participants rated the facility as excellent, 146 (48.7%) as good, and 4 (1.3%) as average; no participant reported poor or very poor overall satisfaction. Thus, 296 (98.7%) participants reported good or excellent overall satisfaction. Regarding recommendation of the CHC, 204 (68.0%) participants were very likely and 95 (31.7%) were likely to recommend the facility to their friends, family, or relatives, while 1 (0.3%) could not say. Overall, 299 (99.7%) participants were likely or very likely to recommend the CHC.

Conclusion: The study demonstrated a predominantly favorable patient-reported experience among the 300 outpatients surveyed at CHC Chandragiri. Satisfaction was generally rated as good or excellent across the major service domains, with high overall satisfaction and willingness to recommend the facility. These findings provide facility-specific information that may support continued monitoring and quality-improvement initiatives in primary healthcare services. However, the findings should be interpreted in the context of the single-center design and convenience sampling. Further multicenter studies using standardized patient-experience instruments and objective service indicators are warranted.

KEYWORDS: Patient satisfaction; Primary health care; Community Health Center; Outpatient services; Patient experience; Healthcare quality; Chandragiri; Andhra Pradesh; Cross-sectional study.

INTRODUCTION

Primary healthcare represents a fundamental component of an effective health system and serves as an important point of contact between individuals and healthcare services. Government primary and community-level health facilities provide a broad range of services to populations with diverse healthcare needs, particularly in settings where affordability and accessibility are important considerations. The quality of these services depends not only on the availability of clinical care but also on the organization of services, accessibility, communication, interpersonal interactions, availability of medicines and investigations, cleanliness, and the physical environment of the healthcare facility.

Patient satisfaction is an important patient-reported indicator of healthcare quality because it reflects how patients perceive the care and services they receive in relation to their expectations. Although patient satisfaction does not directly measure clinical effectiveness or health outcomes, it provides complementary information about the patient's experience of healthcare delivery. Systematic evidence indicates that satisfaction is a multidimensional construct influenced by several aspects of healthcare, including communication, medical care, interpersonal relationships, accessibility, organization of services, and characteristics of the healthcare environment [1,2]. Consequently, assessment of patient satisfaction can provide healthcare institutions with information that may be useful for identifying areas requiring quality-improvement attention.

The importance of patient experience is particularly relevant in primary healthcare, where patients frequently interact with several components of the health system during a single visit. Registration and reception procedures, waiting areas, interaction with healthcare personnel, availability of diagnostic services, pharmacy services, medicine availability, and the provision of information can all contribute to the overall perception of care. A study assessing patient perceptions in Indian primary healthcare settings demonstrated that patients considered both provider-related and physical-environment characteristics when evaluating their healthcare experience [3]. Similarly, research examining perceived quality among patients attending primary and community health facilities in India demonstrated that several dimensions of perceived quality were associated with patient satisfaction [4].

Evidence from Indian public healthcare facilities has demonstrated considerable variation in patient experiences across different levels of care. Sodani et al. assessed outpatient satisfaction across public health facilities in Madhya Pradesh, including community health centers and primary health centers, and examined domains such as registration, basic amenities, interactions with healthcare personnel, pharmacy services, and dressing-room services [5]. In a large cross-sectional study of public health facilities in Punjab, Kaur et al. reported that satisfaction varied across different aspects of outpatient care, with registration, care providers, and safety-related aspects receiving favorable assessments, whereas waiting time, information about medicines, cleanliness, privacy, and availability of supplies represented areas of concern [6]. These findings demonstrate that overall satisfaction may conceal differences between individual components of healthcare delivery and therefore support the assessment of specific service domains.

Similar observations have been reported in other Indian settings. Kumari et al. found that accessibility, waiting time, duration of outpatient services, and other organizational characteristics influenced patients' perceptions of government healthcare facilities in Lucknow [7]. Research conducted in primary healthcare settings has also demonstrated that patients' assessments encompass both interpersonal and environmental dimensions of care [3,8]. Furthermore, a large multicentre Indian study involving patients attending public primary healthcare facilities across three states found differences in satisfaction across dimensions such as technical quality, communication, safety, cleanliness, and staff behavior, highlighting the importance of evaluating patient experience as part of primary healthcare quality assessment [9].

International evidence likewise indicates that patient satisfaction is influenced by multiple aspects of healthcare delivery. A systematic review of patient-satisfaction literature identified medical care, communication with patients, and patient characteristics among the important factors considered in satisfaction research [1]. Another systematic review examining approaches to measuring patient satisfaction emphasized substantial variation in assessment methods and highlighted the importance of using appropriate and clearly defined measurement approaches when interpreting patient-experience data [2]. Such evidence supports the use of structured assessments covering multiple domains rather than relying exclusively on a single global satisfaction question.

The Community Health Center (CHC), Chandragiri, is a 100-bed government healthcare facility providing both inpatient and outpatient services. The inpatient services include paediatric, maternity, orthopaedic surgery, and casualty facilities. Its outpatient services include orthopaedics, medicine, paediatrics, obstetrics and gynaecology, dental care, surgery, ophthalmology, otorhinolaryngology, AYUSH, and physiotherapy. The range of services provided makes the center an important setting for assessing patients' experiences across different components of outpatient healthcare delivery. The characteristics of the facility described here are derived from the study setting information supplied for the present research.

Despite the established importance of patient satisfaction as a component of healthcare-quality assessment, locally generated information regarding patient experience at individual community health centers remains valuable for service improvement. Assessment of satisfaction at the facility level can provide a baseline against which future quality-improvement initiatives can be evaluated and may help identify specific aspects of service delivery that warrant continued attention. Importantly, such assessments should be interpreted within the context of the study setting and methodology rather than being generalized to the wider population without appropriate evidence.

Therefore, the present study was undertaken to assess outpatient satisfaction with primary healthcare services and facilities at the Community Health Center, Chandragiri, Tirupati District, Andhra Pradesh, India. The study specifically evaluated satisfaction across general facilities, outpatient registration, paramedical services, pharmacy services, and overall experience, with the aim of describing patient-reported satisfaction across key components of outpatient healthcare delivery.

MATERIALS AND METHODS

Study Design

This was a single-center, prospective, observational, descriptive cross-sectional study conducted to assess patient satisfaction with outpatient healthcare services and facilities at a community health center in Chandragiri, Tirupati District, Andhra Pradesh, India.

Study Setting

The study was conducted at the Community Health Center (CHC), Chandragiri, Tirupati District, Andhra Pradesh, India. CHC Chandragiri is a 100-bed government healthcare facility providing both inpatient and outpatient services. The inpatient services include pediatric, maternity, orthopaedic surgery, and casualty care. The outpatient department provides services in orthopaedics, general medicine, pediatrics, obstetrics and gynecology, dentistry, general surgery, ophthalmology, otorhinolaryngology, AYUSH, and physiotherapy.

Study Period

The study was conducted over a one-month period following approval from the Institutional Ethics Committee. The exact calendar dates of the study period were not provided in the available study record and should be inserted before final submission to the journal.

Study Population and Sample Size

The study population consisted of adult patients attending the outpatient department of CHC Chandragiri during the study period.

A total of **300 adult outpatients** who fulfilled the eligibility criteria and provided informed consent were included in the final analysis.

The available study record specifies a target sample of 300 participants but does not document an a priori sample-size calculation or the assumptions used to derive the sample size. Therefore, no retrospective sample-size calculation has been presented in this manuscript.

Sampling Technique

Participants were recruited using convenience sampling. Eligible patients who were willing to participate were enrolled from those available during the study period until the target sample size of 300 participants was achieved.

Eligibility Criteria

Inclusion Criteria

Participants were eligible for inclusion if they:

1. Were **18 years of age or older**;
2. Were of either sex;
3. Attended the outpatient department of CHC Chandragiri during the study period;
4. Had received the required outpatient healthcare services; and
5. Were willing to participate and provided **written informed consent**.

Exclusion Criteria

Patients were excluded if they:

1. Were psychiatrically unstable at the time of assessment;
2. Had a history of substance abuse other than nicotine;
3. Had complicated cerebrovascular accident or coronary artery disease requiring emergency medical care; or
4. Were unable to communicate adequately or understand and respond to the study questionnaire.

Data Collection Procedure

After obtaining written informed consent, eligible participants were administered a structured questionnaire designed to assess their satisfaction with the outpatient services and facilities provided at the health center.

The questionnaire was reviewed and prevalidated by two professors before administration. It was administered in a paper-based format. Participants were approached after completion of their required outpatient healthcare services so that their responses reflected their experience during the healthcare visit.

After completion, the questionnaires were collected by a trained healthcare professional. Participants were enrolled through convenience sampling until the predetermined sample of 300 participants was reached.

Assessment of Patient Satisfaction

Patient satisfaction was assessed using a five-point response scale: Very poor, Poor, Average, Good, Excellent

The questionnaire assessed satisfaction across several components of outpatient healthcare delivery, including: General services and facilities; Outpatient registration services; Paramedical services; Pharmacy services; and Overall satisfaction with the healthcare center.

The questionnaire also assessed participants' willingness to recommend the health center to their friends, family members, or relatives. The specific service domains included items related to cleanliness and hygiene, parking, security, drinking-water availability, toilet facilities, grievance redressal, waiting areas, registration procedures, front-desk services, staff behavior, information provision, clinical and paramedical services, pharmacy services, medicine availability, and medication-related counseling. These domains correspond to the items reported in the study tables. Outpatient Satisfaction Chandra…

Study Variables

The study collected selected sociodemographic characteristics and patient-reported satisfaction measures.

Sociodemographic variables

The demographic variables included: Age; Sex; Marital status; Educational status; and Employment status.

Patient satisfaction variables: The principal outcome measures were patient ratings of: General healthcare facilities; Outpatient registration services; Paramedical services; Pharmacy services; Overall satisfaction; and Willingness to recommend the health center.

Statistical Analysis

The collected data were entered into Microsoft Excel and analyzed using descriptive statistical methods. Categorical variables were summarized using frequencies and percentages. The distribution of participants according to demographic characteristics and responses to individual patient-satisfaction items was presented descriptively. For the overall satisfaction assessment, the numbers and percentages of participants reporting average, good, and excellent satisfaction were calculated. Responses to the recommendation question were

similarly summarized as frequencies and percentages. No inferential statistical tests, confidence intervals, regression analyses, or hypothesis-testing procedures were documented in the original study analysis. Therefore, these were not added to the present manuscript. The analysis was restricted to descriptive reporting of the available data. Outpatient Satisfaction Chandra…

Ethical Considerations

The study was initiated after obtaining approval from the appropriate Institutional Ethics Committee. Written informed consent was obtained from all participants before their enrollment in the study. The source manuscript confirms that institutional ethics approval was obtained before data collection and that written informed consent was obtained. However, the name of the Institutional Ethics Committee, approval/reference number, and approval date were not included in the supplied study record. These details should be inserted in the final manuscript before submission to Cureus rather than being inferred or fabricated.

Methodological Reporting Statement

The study was designed as a **descriptive assessment of patient-reported satisfaction** at a single community health center. Because convenience sampling was used and no inferential statistical analysis was performed, the findings should be interpreted as describing the experiences of the participating outpatients rather than as population-level estimates or evidence of causal relationships.

RESULTS

A. Sociodemographic Characteristics of the Participants

A total of 300 participants were included in the study. Among them, 189 (63.0%) were female and 111 (37.0%) were male.

The largest proportion of participants belonged to the 18–30-year age group, comprising 125 (41.7%) participants, followed by the 31–50-year group with 89 (29.7%) participants and the 51–70-year group with 75 (25.0%). Eleven participants (3.7%) were aged 71 years or older.

Regarding marital status, 207 (69.0%) participants were married and 93 (31.0%) were unmarried. With respect to educational status, 181 (60.3%) participants had education below the 12th standard, whereas 119 (39.7%) had education above the 12th standard. Regarding employment status, 166 (55.3%) participants were employed and 134 (44.7%) were unemployed.

Table 1. Gender Distribution of Participants (N = 300)

Gender	Number (n)	Percentage (%)
Male	111	37.0
Female	189	63.0
Total	**300**	**100.0**

Figure 1. Gender Distribution of Participants (N=300)

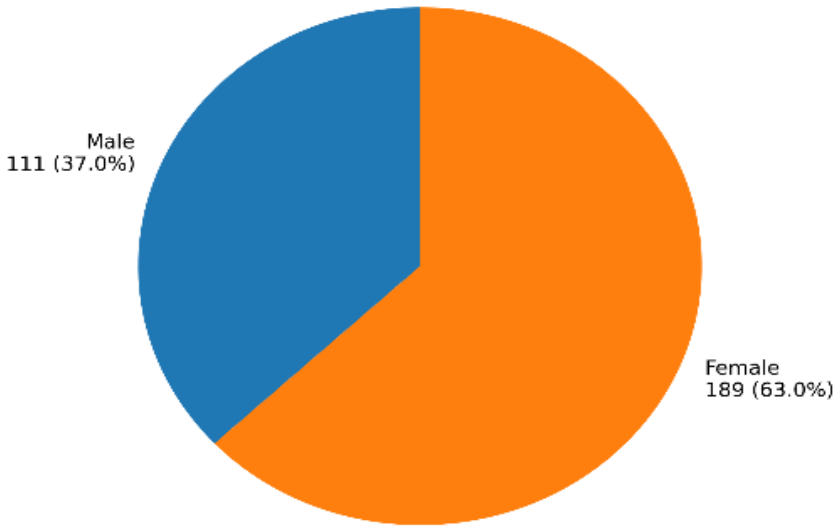


Table 2. Age Distribution of Participants (N = 300)

Age group	Number (n)	Percentage (%)	Mean ± SD (years)
18–30 years	125	41.7	23 ± 5.93
31–50 years	89	29.7	40 ± 6.20
51–70 years	75	25.0	59 ± 7.68
≥71 years	11	3.7	83 ± 7.68
Total	**300**	**100.0**	—

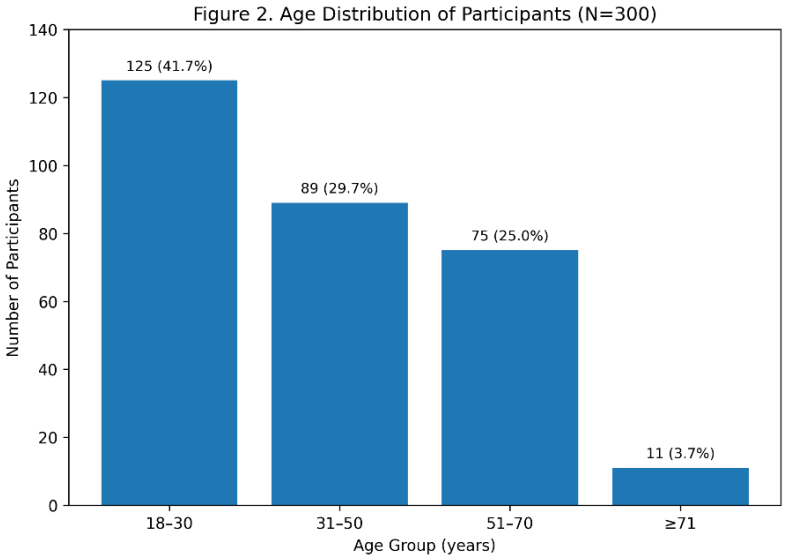


Table 3. Marital Status of Participants (N = 300)

Marital status	Number (n)	Percentage (%)
Married	207	69.0
Unmarried	93	31.0
Total	**300**	**100.0**

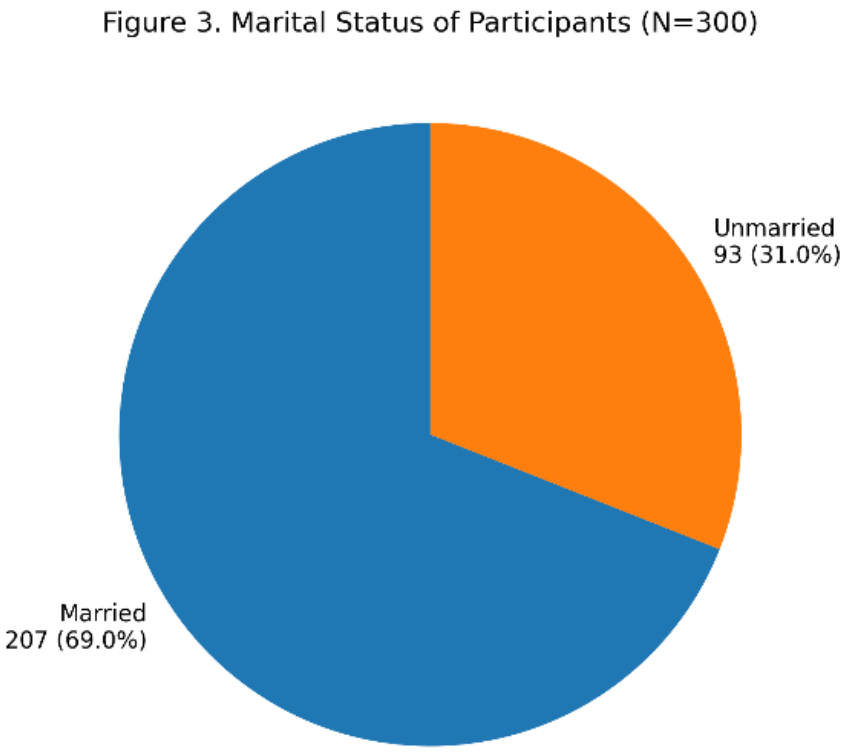
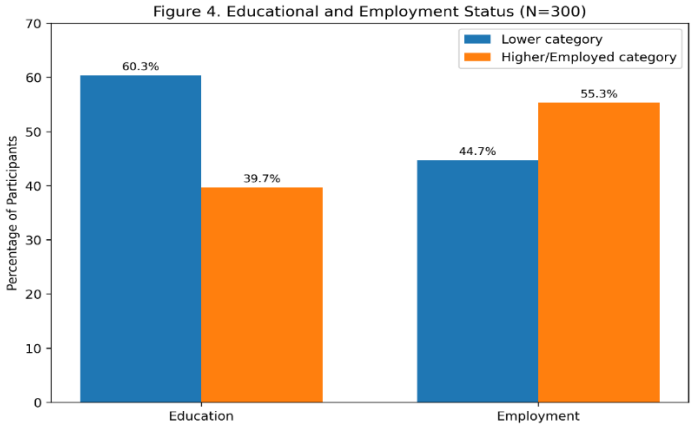


Table 4. Educational and Employment Status of Participants (N = 300)

Characteristic	Category	Number (n)	Percentage (%)
Educational status	<12th standard	181	60.3
	>12th standard	119	39.7
Total		**300**	**100.0**
Employment status	Employed	166	55.3
	Unemployed	134	44.7
Total		**300**	**100.0**



B. Satisfaction With General Services and Facilities

The participants' satisfaction with general services and facilities at the Community Health Center is presented in Table 5. Across the seven assessed domains, the proportion of participants reporting good or excellent satisfaction was consistently high.

The highest proportion of excellent ratings was observed for parking maintenance (64%), followed by availability of RO drinking water (51%) and availability of security personnel (50%). Cleanliness and hygiene of the premises received excellent ratings from 45% of participants, while 49% rated the waiting area and seating arrangements as excellent.

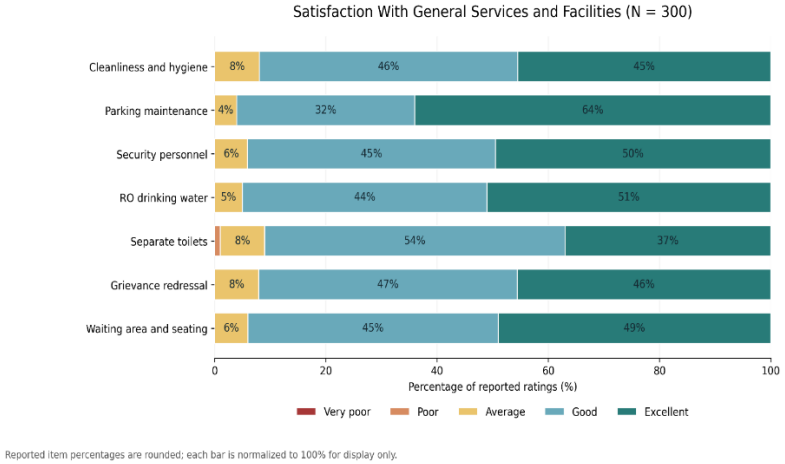
The toilet facilities, including availability and cleanliness of separate male and female toilets, received good ratings from 54% of participants and excellent ratings from 37%. For the complaint box and grievance redressal system, 47% of participants reported a good rating and 46% an excellent rating.

Overall, the reported average distribution across the assessed general facility items was 6% average, 45% good, and 49% excellent, indicating that most participants rated the general services and facilities favorably.

Table 5. Satisfaction with General Services and Facilities Among Outpatients (N = 300)

S. No.	General Services and Facilities	Very Poor (%)	Poor (%)	Average (%)	Good (%)	Excellent (%)
1	Cleanliness and hygiene of the premises	0	0	8	46	45
2	Maintenance of parking facilities	0	0	4	32	64
3	Availability of security personnel	0	0	6	45	50
4	Availability of RO drinking water	0	0	5	44	51
5	Availability and cleanliness of separate male and female toilets	0	1	8	54	37
6	Complaint box and grievance redressal system	0	0	8	47	46
7	Waiting area and seating arrangements	0	0	6	45	49
Average percentage		**0**	**0%**	**6%**	**45%**	**49%**

Figure 5. Satisfaction with General Services and Facilities



C. Satisfaction with General Services and Facilities

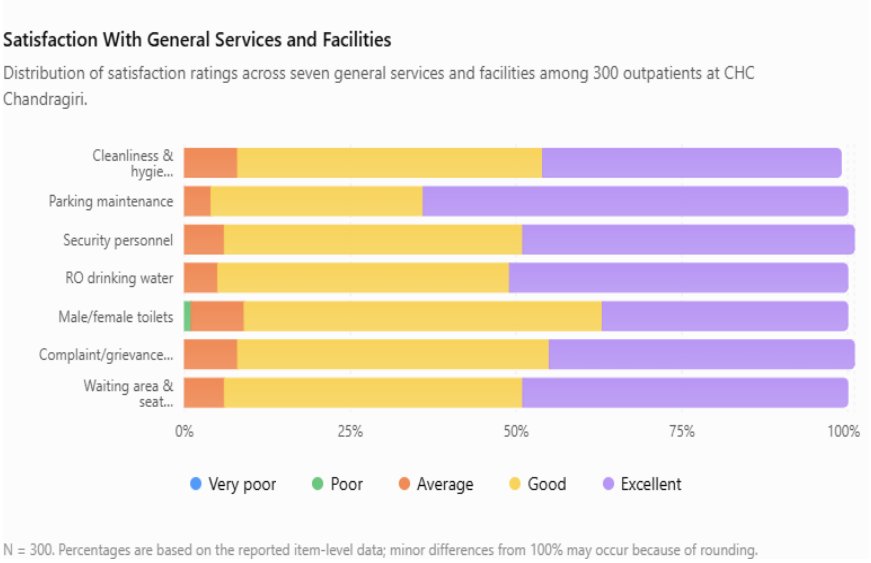
Participants' satisfaction with general services and facilities at the Community Health Center was assessed across seven domains. Overall, the reported responses were predominantly in the good and excellent categories.

The highest proportion of excellent ratings was reported for parking maintenance (64%), followed by RO drinking-water availability (51%) and security personnel availability (50%). Cleanliness and hygiene of the premises received good and excellent ratings of 46% and 45%, respectively.
For the availability and cleanliness of separate male and female toilets, 54% of participants reported a good rating and 37% reported an excellent rating. The complaint box and grievance redressal system received good and excellent ratings of 47% and 46%, respectively. Waiting-area and seating arrangements received good and excellent ratings of 45% and 49%, respectively.
The reported average distribution across the seven assessed items was 6% average, 45% good, and 49% excellent, with no reported very-poor responses and no reported poor responses in the averaged results.

Table 5. Satisfaction with General Services and Facilities Among Outpatients

S. No.	General services and facilities	Very poor (%)	Poor (%)	Average (%)	Good (%)	Excellent (%)
1	Cleanliness and hygiene of the premises	0	0	8	46	45
2	Maintenance of parking facilities	0	0	4	32	64
3	Availability of security personnel	0	0	6	45	50
4	Availability of RO drinking water	0	0	5	44	51
5	Availability and cleanliness of separate male and female toilets	0	1	8	54	37
6	Complaint box and grievance redressal system	0	0	8	47	46
7	Waiting area and seating arrangements	0	0	6	45	49
Average percentage across items		**0**	**0**	**6**	**45**	**49**

Figure 6. Distribution of satisfaction ratings for general services and facilities among outpatients



D. Satisfaction with Outpatient Registration Desk Services

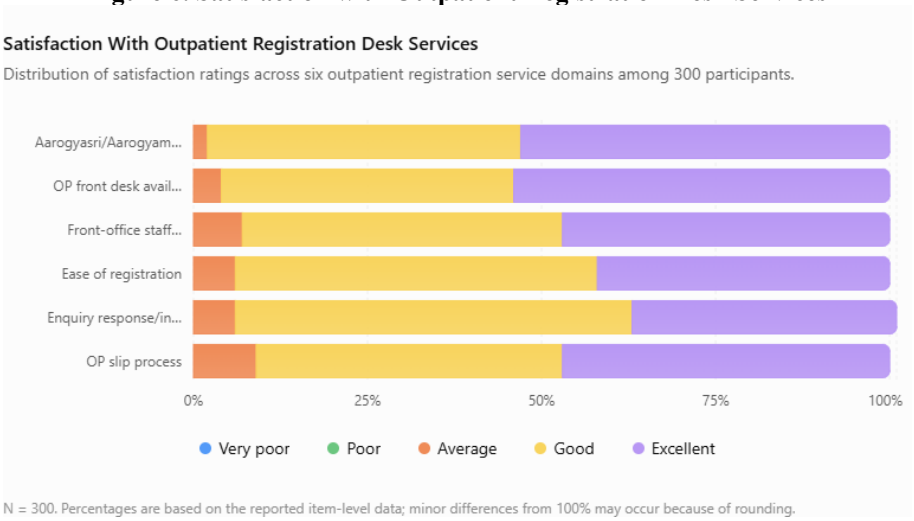
Participants' satisfaction with outpatient registration desk services was assessed across six domains. Overall, the responses were predominantly rated as good or excellent.
The highest proportion of excellent ratings was observed for the availability of the outpatient front desk (54%), followed by Aarogyasri desk/Aarogyamithra services (53%). The behavior and friendliness of front-office staff received excellent and good ratings of 47% and 46%, respectively.
For the convenience and ease of the outpatient registration process, 52% of participants reported a good rating and 42% reported an excellent rating. Enquiry response and information provision received good and excellent ratings of 57% and 38%, respectively. The convenience and comfort of obtaining the outpatient slip received good and excellent ratings of 44% and 47%, respectively.
Across the six assessed registration-service domains, the reported average distribution was 6% average, 47% good, and 47% excellent, with no reported very-poor or poor responses in the averaged results.

Table 6. Satisfaction with Outpatient Registration Desk Services

S. No.	Outpatient registration desk service	Very poor (%)	Poor (%)	Average (%)	Good (%)	Excellent (%)
1	Aarogyasri desk and Aarogyamithra services	0	0	2	45	53
2	Availability of outpatient front desk	0	0	4	42	54

3	Behavior and friendliness of front-office staff	0	0	7	46	47
4	Convenience and ease of outpatient registration process	0	0	6	52	42
5	Enquiry response and information provided	0	0	6	57	38
6	Convenience and comfort of obtaining outpatient slip	0	0	9	44	47
Average percentage across items		**0**	**0**	**6**	**47**	**47**

Figure 6. Satisfaction with Outpatient Registration Desk Services



E. Satisfaction with Paramedical Services

Participants' satisfaction with paramedical services was assessed across five domains. Overall, the responses were predominantly in the good and excellent categories.

The highest proportion of excellent ratings was reported for the availability of blood tests, laboratory tests, and radiology services (53%), followed by dressing-room services (49%). BP and blood-glucose check-up desk services received good and excellent ratings of 54% and 41%, respectively.

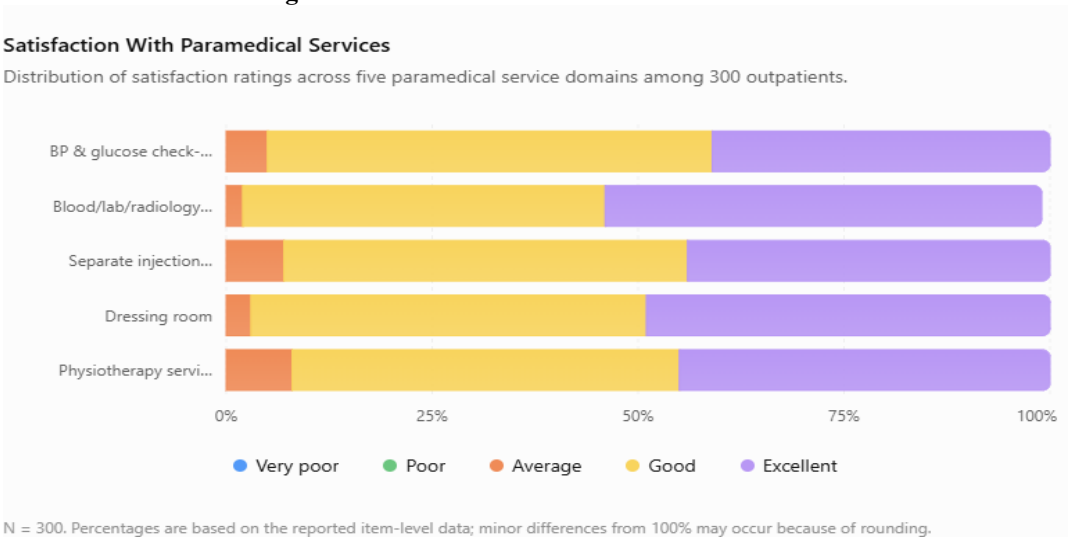
For the availability of separate male and female injection-room services, 49% of participants reported a good rating and 44% reported an excellent rating. Physiotherapy services received good and excellent ratings of 47% and 45%, respectively.

Across the five assessed paramedical service domains, the reported average distribution was 5% average, 49% good, and 47% excellent, with no reported very-poor or poor responses in the averaged results.

Table 7. Satisfaction with Paramedical Services Among Outpatients (N = 300)

S. No.	Paramedical service	Very poor (%)	Poor (%)	Average (%)	Good (%)	Excellent (%)
1	BP and blood-glucose check-up desk services	0	0	5	54	41
2	Availability of blood tests, laboratory tests, and radiology services	0	0	2	44	53
3	Availability of separate male and female injection-room services	0	0	7	49	44
4	Dressing-room services	0	0	3	48	49
5	Physiotherapy services	0	0	8	47	45
Average percentage across items		**0**	**0**	**5**	**49**	**47**

Figure 7. Satisfaction with Paramedical Services



F. Satisfaction With Pharmacy Services

Participants' satisfaction with pharmacy services was assessed across five domains. Overall, the responses were predominantly in the good and excellent categories.

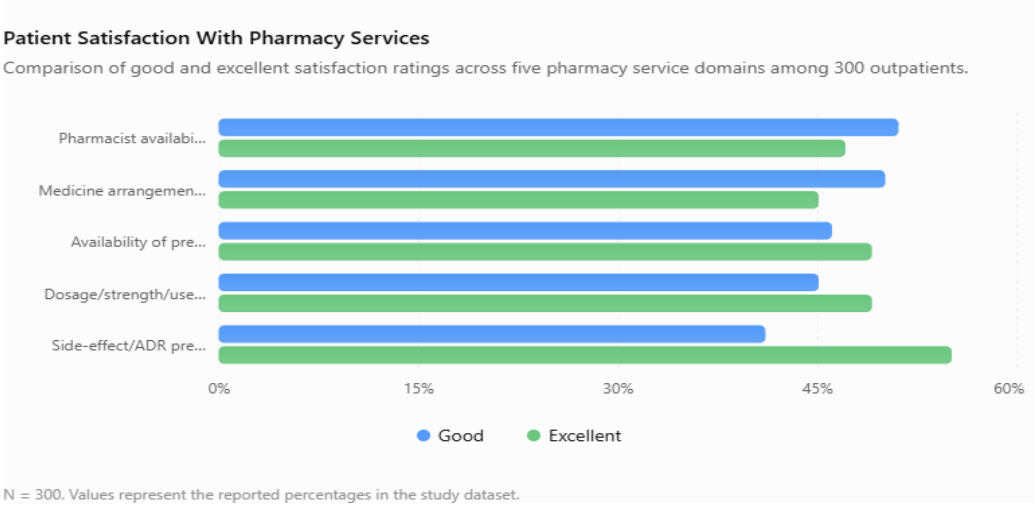
The highest proportion of excellent ratings was observed for information regarding precautions related to side effects and adverse drug reactions (55%). This was followed by availability of prescribed medicines (49%) and explanation of dosage, strength, and method of use (49%).

Pharmacist availability and behavior received good and excellent ratings of 51% and 47%, respectively. The arrangement and handing over of medicines received good and excellent ratings of 50% and 45%, respectively.

Across the five assessed pharmacy-service domains, the reported average distribution was 4% average, 47% good, and 49% excellent, with no reported very-poor or poor responses.

Table 8. Satisfaction with Pharmacy Services Among Outpatients

S. No.	Pharmacy service	Very poor (%)	Poor (%)	Average (%)	Good (%)	Excellent (%)
1	Pharmacist availability and behavior	0	0	2	51	47
2	Arrangement and handing over of medicines	0	0	4	50	45
3	Availability of medicines prescribed by doctors	0	0	5	46	49
4	Explanation of dosage, strength, and method of use	0	0	6	45	49
5	Information regarding precautions, side effects, and adverse drug reactions	0	0	4	41	55
Average percentage across items		**0**	**0**	**4**	**47**	**49**



G. Overall Satisfaction with the Community Health Center

Among the 300 participants, 150 (50.0%) rated their overall satisfaction as excellent**, while** 146 (48.7%) rated it as good**. Only** 4 participants (1.3%) reported an average level of satisfaction**, and none reported poor or very**

poor satisfaction. Thus, 296/300 participants (98.7%) reported good or excellent overall satisfaction **with the Community Health Center.**

S. No.	Question	1	2	3	4	5	Total
1	**Overall satisfaction with the Community Health Center**	0 (0%)	0 (0%)	4 (1.3%)	146 (48.7%)	150 (50.0%)	**300 (100%)**

H. Recommendation of the Community Health Center

Among the 300 participants, 204 (68.0%) reported that they were very likely to recommend the Community Health Center (CHC) **to their friends, family, and relatives, while** 95 (31.7%) were likely to recommend it**. Only** 1 participant (0.3%) could not say**. No participant selected "not likely" or "never." Overall,** 299 participants (99.7%) indicated that they were likely or very likely to recommend the CHC**.**

S. No.	Question	Very Likely	Likely	Can't Say	Not Likely	Never	Total
1	**Will you recommend CHC to your friends, family and relatives?**	204 (68.0%)	95 (31.7%)	1 (0.3%)	0 (0%)	0 (0%)	**300 (100%)**

DISCUSSION

Patient satisfaction is an important patient-reported indicator of healthcare experience and provides useful information about how patients perceive the accessibility, organization, interpersonal aspects, and responsiveness of health services. In primary healthcare settings, satisfaction may reflect multiple components of service delivery, including the physical environment, registration procedures, staff interactions, availability of medicines and diagnostic services, and the overall convenience of obtaining care. Previous studies from India and other countries have demonstrated that patient satisfaction can provide valuable feedback for identifying strengths and areas requiring improvement within public healthcare facilities.[1-5]

The present study assessed outpatient satisfaction with primary healthcare services and facilities at a Community Health Center (CHC) in Chandragiri, Andhra Pradesh, among 300 adult participants. The principal finding was a predominantly favorable assessment of the services provided. Across the major service domains evaluated, responses were concentrated in the "good" and "excellent" categories, while very-poor and poor ratings were uncommon or absent in the reported domain-level distributions. This overall pattern suggests that the participating patients generally perceived the CHC services positively, although the cross-sectional descriptive design does not permit conclusions regarding the causes of satisfaction or the relative contribution of individual service components.

Sociodemographic characteristics

In the present study, females constituted 63.0% of the participants and males 37.0%. The largest age group was 18–30 years, comprising 41.7% of the study population, followed by participants aged 31–50 years (29.7%) and 51–70 years (25.0%). Participants aged ≥71 years constituted 3.7%. Most participants were married (69.0%), while 60.3% had educational attainment below the 12th standard and 55.3% were employed.

The sociodemographic profile is relevant when interpreting patient satisfaction because perceptions of healthcare may vary according to individual expectations, previous healthcare experiences, socioeconomic circumstances, and healthcare-seeking patterns. Studies conducted in different primary healthcare settings have reported variation in the demographic characteristics of service users and have also examined associations between patient characteristics and satisfaction. For example, the large Indian study by Persai et al. evaluated 4,650 patient exit interviews across 55 public health facilities in three states and found differences in satisfaction across levels and domains of care, with patient characteristics also contributing to observed variation.[10] However, because the present study used descriptive analysis only, no statistical association between demographic variables and satisfaction can be established from the available data.

Satisfaction with general services and facilities

General infrastructure and basic amenities form an important part of the outpatient healthcare experience. In the present study, participants reported predominantly good or excellent ratings for cleanliness and hygiene, parking maintenance, security personnel availability, drinking-water facilities, toilet availability and cleanliness, complaint or grievance mechanisms, and waiting-area/seating arrangements.

Parking maintenance received the highest proportion of excellent responses within this domain (64%), followed by RO drinking-water availability (51%) and security personnel availability (50%). Waiting-area and seating arrangements received excellent ratings from 49% of participants, while cleanliness and hygiene received good and excellent ratings from 46% and 45%, respectively. The availability and cleanliness of separate male and female toilets received good and excellent ratings from 54% and 37% of participants, respectively. These findings indicate that basic environmental and facility-related components were generally perceived favorably by the study participants.

These observations are consistent with the broader literature indicating that physical facilities, cleanliness, convenience, and other non-clinical components contribute substantially to patients' perceptions of healthcare quality. Persai et al. reported that safety, cleanliness, communication, and other quality domains were important components of patient satisfaction in public primary care facilities in India.[10] Similarly, Sodani et al., in their

assessment of OPD patients in public health facilities in Madhya Pradesh, evaluated basic amenities together with registration, staff, pharmacy, and other service components, emphasizing the usefulness of patient feedback for quality improvement.[5]

The favorable ratings for cleanliness and waiting-area facilities in the present study should nevertheless be interpreted as perceptions of the participating patients during the study period rather than an objective assessment of infrastructure. Patient-reported satisfaction and independent quality assessment measure related but distinct aspects of healthcare quality.

Satisfaction with outpatient registration services

Registration is often the first point of contact between an outpatient and a healthcare facility. In the present study, satisfaction with the registration desk was predominantly rated as good or excellent across all six assessed domains. The availability of the OP front desk received an excellent rating from 54% of participants, while the Aarogyasri desk/Aarogyamithra service received an excellent rating from 53%. Front-office behavior and friendliness received good and excellent ratings from 46% and 47%, respectively. The convenience of the registration process was rated good by 52% and excellent by 42% of participants. Enquiry response and provision of information received good and excellent ratings from 57% and 38%, respectively. The OP slip process was rated good by 44% and excellent by 47%.

These findings indicate that the administrative interface of the CHC was generally perceived positively. Registration and information services are particularly relevant to the patient experience because delays, unclear procedures, and inadequate information can influence satisfaction independently of the clinical care received. In a study of government healthcare facilities in Lucknow, Kumari et al. identified accessibility, waiting time, OPD duration, signage, and communication as important areas affecting patient satisfaction.[7] Similarly, Quyen et al., using data from 4,372 outpatients in Vietnam, reported that longer waiting times were associated with lower satisfaction, highlighting the importance of efficient outpatient processes.[11]

Although waiting time was not independently analyzed in the present study, the favorable ratings of registration convenience and enquiry services suggest that these administrative components were generally well accepted by the surveyed patients. Future studies incorporating objective waiting-time measurements would be useful to determine whether perceived registration efficiency corresponds to actual service time.

Satisfaction with paramedical services

The present study demonstrated predominantly favorable ratings for paramedical services, including blood pressure and blood glucose assessment, laboratory and radiology availability, injection-room arrangements, dressing-room services, and physiotherapy. The highest excellent rating was observed for the availability of blood tests, laboratory and radiology services (53%). Dressing-room services received excellent ratings from 49% of participants, while physiotherapy received good and excellent ratings from 47% and 45%, respectively. The BP and blood glucose assessment desk received good and excellent ratings from 54% and 41%, respectively.

These findings suggest that the ancillary services encountered by the participating outpatients were generally perceived as satisfactory. The results are broadly compatible with previous Indian studies showing that patients consider multiple components of facility functioning—not only direct clinician interaction—when evaluating public healthcare services.[5,6] Kaur et al., in a cross-sectional study involving public health facilities in Punjab, also assessed satisfaction across different levels of public healthcare delivery, including CHCs and PHCs, emphasizing the importance of assessing satisfaction across multiple service components rather than relying exclusively on overall satisfaction.[6]

Satisfaction with pharmacy services

Pharmacy-related services also received predominantly good and excellent ratings. The highest proportion of excellent responses was observed for information regarding precautions related to side effects/adverse drug reactions (55%). Availability of prescribed medicines and explanation regarding dosage, strength, and use each received excellent ratings from 49% of participants. Pharmacist availability and behavior received good and excellent ratings from 51% and 47%, respectively, while arrangement and handing over of medicines received good and excellent ratings from 50% and 45%.

The favorable assessment of pharmacy services is important because medicine availability and the quality of interaction at the dispensing point can influence patients' confidence in the healthcare facility and their ability to use medicines appropriately. The assessment of pharmacy services in public healthcare facilities has also been incorporated into earlier patient-satisfaction research in India. Sodani et al. specifically included pharmacy and dressing-room services among the components evaluated in public-sector outpatient care.[5]

The relatively high proportion of excellent ratings for information concerning adverse effects and medicine use is encouraging from a patient-experience perspective. However, satisfaction with counseling should not be interpreted as proof that all patients received complete or technically adequate medication counseling. Future studies could complement patient-reported satisfaction with an objective assessment of the completeness and accuracy of medication counseling.

Overall satisfaction

A particularly notable finding was the high level of reported overall satisfaction with the CHC. Among the 300 participants, 150 (50.0%) rated their overall satisfaction as excellent and 146 (48.7%) as good. Only 4 participants (1.3%) reported an average level of satisfaction, while no participant reported poor or very poor satisfaction. Thus, 296 participants (98.7%) reported overall satisfaction in the good or excellent categories.

This high level of overall satisfaction is consistent with the generally favorable pattern observed across the individual service domains. It also broadly corresponds with evidence from other primary healthcare settings. In the Vietnam Health Facilities Assessment, Quyen et al. reported that 85% of outpatients using community health

centers were satisfied with the services, although the methodology and satisfaction measures differed from those used in the present study.[11] In India, Persai et al. reported comparatively higher satisfaction at primary-care facilities than at secondary and tertiary levels across several quality domains in a large multicentre study.[10]

The apparently higher proportion of good or excellent responses in the present study should not be interpreted as evidence that the CHC necessarily performs better than other facilities. Differences in study populations, questionnaires, response scales, facility characteristics, geographic settings, sampling methods, and definitions of satisfaction make direct numerical comparisons inappropriate. In particular, the present study was conducted at a single CHC and used a locally reviewed questionnaire with descriptive analysis.

Recommendation of the CHC

Patient willingness to recommend a healthcare facility can provide an additional patient-experience indicator. In this study, 204 participants (68.0%) stated that they were very likely to recommend the CHC to friends, family, or relatives, while 95 (31.7%) were likely to recommend it. One participant (0.3%) selected "can't say," and none selected "not likely" or "never." Consequently, 299 of 300 participants (99.7%) indicated that they were either likely or very likely to recommend the CHC.

The high recommendation rate is consistent with the favorable overall satisfaction pattern observed in the study. However, recommendation should be considered a related but distinct patient-reported outcome rather than a direct equivalent of satisfaction. A patient may be satisfied with a particular visit but still have reservations about recommending the facility because of factors such as distance, service availability, perceived affordability, or previous experiences.

Research from other primary-care settings has demonstrated that patient satisfaction is influenced by several dimensions of healthcare delivery. Wu et al., in a study of 3,848 patients attending eight community health service centers in Shenzhen, found that satisfaction was related to factors including convenience, waiting time, medical facilities, professional skills, and reimbursement.[12] These findings support the concept that patient experience is multidimensional and cannot be adequately represented by a single overall satisfaction measure.

Comparison with previous Indian studies

The findings of the present study should be considered within the context of previous Indian research. Kumari et al. identified substantial variation in satisfaction across different aspects of government healthcare facilities in Lucknow, including accessibility, waiting time, OPD duration, signage, communication, examination, and consultation.[7] Sodani et al. evaluated multiple components of public-sector outpatient care and demonstrated the usefulness of structured patient feedback for identifying opportunities for quality improvement.[5] Kaur et al. subsequently examined client satisfaction across public health facilities in Punjab, including CHCs and PHCs, further illustrating the value of systematic assessment of patient experience within the public healthcare system.[6] Teli et al., studying patients attending a primary health center in the border areas of Jammu division, also reported that most participants were satisfied, while congestion and time management remained areas requiring attention.[13] Taken together, these studies indicate that patient satisfaction is multidimensional and that apparently favorable overall satisfaction can coexist with specific operational areas requiring improvement. The present study similarly identified predominantly favorable ratings while providing domain-specific information that can be used by the CHC for service monitoring and quality-improvement activities.

Implications for quality improvement

The findings have several practical implications for primary healthcare service delivery. First, patient satisfaction surveys can provide a relatively simple mechanism for obtaining structured feedback from service users. Second, the domain-specific results allow administrators to identify areas that are performing well and areas where continued monitoring may be useful. Third, the absence of poor or very-poor responses in the reported domain-level averages should not lead to complacency; maintaining cleanliness, efficient registration, adequate waiting facilities, medicine availability, and effective communication requires continuous monitoring.

Particular attention should also be given to service characteristics that were not objectively measured in the present study, including actual waiting time, consultation duration, medicine stock-out frequency, diagnostic turnaround time, and staff-to-patient ratios. Previous research has demonstrated that waiting time and convenience may influence satisfaction, suggesting that future quality-improvement initiatives could combine patient-reported outcomes with objective service-performance indicators.[7,8]

Strengths and limitations

An important strength of this study is the assessment of multiple dimensions of outpatient experience rather than relying solely on a single global satisfaction question. The study also provides facility-specific information from a CHC in Andhra Pradesh, where local evidence on patient-reported experience can support context-specific quality-improvement efforts.

Several limitations should be considered. First, this was a single-center study; therefore, the findings may not be generalizable to other CHCs or primary healthcare facilities with different patient populations, infrastructure, staffing, or service availability. Second, participants were recruited using convenience sampling, which introduces the possibility of selection bias. Third, satisfaction was assessed using a structured questionnaire that was reviewed/prevalidated locally; a formally validated standardized patient-experience instrument was not used. Fourth, the study relied on self-reported perceptions, which may be influenced by expectations, recent experiences, courtesy bias, or other subjective factors. Fifth, the analysis was descriptive and used frequencies and percentages; no inferential statistical testing was performed. Consequently, relationships between sociodemographic characteristics and satisfaction cannot be established, and no causal conclusions can be drawn. Finally, because the study assessed patient perceptions during a defined study period, the findings represent the experience of the surveyed participants at that time rather than a longitudinal assessment of service quality.

Future research

Future studies could include multiple CHCs and PHCs from different geographic areas of Andhra Pradesh and use probability-based sampling to improve representativeness. Incorporating a standardized and psychometrically validated patient-experience instrument would facilitate comparison across facilities and over time. Future investigations could also combine satisfaction scores with objective indicators such as waiting time, consultation duration, medicine availability, diagnostic turnaround time, and complaint-resolution time. Inferential analyses could subsequently be used to examine whether demographic or service-related characteristics are independently associated with satisfaction. Repeated assessments following specific quality-improvement interventions would further help determine whether changes in service delivery are accompanied by measurable changes in patient experience.

Overall, the present study demonstrates a predominantly favorable patient-reported experience at the surveyed Community Health Center in Chandragiri. The high proportions of good and excellent ratings across general facilities, registration, paramedical services, pharmacy services, and overall satisfaction, together with the very high willingness to recommend the facility, provide a positive description of the patient experience among the 300 participants studied. At the same time, these findings should be interpreted as descriptive, facility-specific observations rather than as evidence of comparative superiority or causal effectiveness. Continued systematic collection of patient feedback, complemented by objective service indicators, may help sustain strengths and identify opportunities for further improvement in primary healthcare delivery.

CONCLUSION

This study assessed outpatient satisfaction with primary healthcare services and facilities at a Community Health Center in Chandragiri, Andhra Pradesh, among 300 adult participants. Overall, patient-reported satisfaction was predominantly favorable across the major service domains, including general facilities, outpatient registration, paramedical services, and pharmacy services. For overall satisfaction with the CHC, 150 participants (50.0%) rated the facility as excellent and 146 (48.7%) as good, while only 4 (1.3%) reported average satisfaction and none reported poor or very poor satisfaction. Thus, 98.7% of participants reported good or excellent overall satisfaction.

The willingness to recommend the CHC was also high, with 204 participants (68.0%) being very likely and 95 (31.7%) likely to recommend the facility to their friends, family, or relatives. Overall, 99.7% of participants were either likely or very likely to recommend the CHC. The findings provide useful facility-specific information regarding patients' perceptions of outpatient healthcare delivery. Continued attention to cleanliness, infrastructure, registration processes, availability of diagnostic and paramedical services, medicine availability, communication, and patient-friendly services may help sustain positive patient experiences. However, because this was a single-center, descriptive cross-sectional study using convenience sampling, the findings should not be generalized to other healthcare facilities without further study. Future multicenter research using standardized patient-experience instruments and objective service indicators would help strengthen the evidence and facilitate comparisons across primary healthcare facilities.

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