

Patient Satisfaction with Health Services at The Sub-Centre, Thumbalapatty Village, Tamilnadu-A Cross-Sectional Study

Dr.R.Beena

Assistant Professor and Head, Department of Commerce (Computer Applications), Sri GVG Visalakshi College for Women, Udumalpet

beenaramesh.udt@gmail.com

Abstract

Background: Patient satisfaction is a key indicator of health care quality, particularly at primary health centers in rural areas.

Objective: To assess patient satisfaction with services at the Sub-Centre in Thumbalapatty village and identify factors influencing satisfaction.

Methods: A cross-sectional study was conducted among 200 patients attending the Sub-Centre during July–August 2025. Data were collected using a structured questionnaire covering domains of accessibility, waiting time, interpersonal care, facility infrastructure, medicine availability, and overall satisfaction. Responses were recorded on a 5-point Likert's scale.

Results: Among 200 participants, 124 (62%) were female, mean age 36.4 ± 11.8 years. Overall satisfaction score was 3.68 ± 0.62 . Highest satisfaction was reported for staff friendliness (88% satisfied) and respect (85% satisfied), while lowest satisfaction was observed for waiting time (46% satisfied) and medicine availability (54% satisfied). Shorter waiting times and consistent drug availability were associated with higher satisfaction ($p < 0.05$).

Conclusion: Patients were generally satisfied with services. Improving waiting times and ensuring continuous medicine supply are key priorities for enhancing primary healthcare in Thumbalapatty village.

Keywords: Patient satisfaction, Sub-center, Rural Health, Primary health care.

INTRODUCTION

Primary healthcare serves as the foundation of any effective health system, aiming to provide accessible, affordable, and high-quality care to all population groups, particularly in rural and underserved areas. Globally, the Alma-Ata Declaration (1978) emphasized that primary health care is essential for achieving "Health for All," promoting equity, disease prevention, health promotion, and community participation (WHO, 2008). In India, the primary healthcare system is organized into a hierarchical structure comprising sub-centres, primary health centres (PHCs), community health centres (CHCs), and district hospitals. Among these, sub-centres represent the most peripheral and first contact point between the community and the formal healthcare

system, particularly in rural areas.

Sub-centres are intended to cover a population of approximately 3,000–5,000 in plain areas and 2,000–3,000 in hilly or tribal regions, providing essential services such as maternal and child health care, immunization, family planning, basic curative care, health education, and referral to higher health facilities (Government of India, 2020). They are staffed by a health worker (female) and a male health worker, and sometimes supported by community health volunteers such as Accredited Social Health Activists (ASHAs). Despite their critical role, sub-centres face challenges such as workforce shortages, irregular supply of medicines and equipment, limited infrastructure, and high patient loads. These

challenges can significantly influence the quality of care and patient satisfaction.

Patient satisfaction is a key outcome indicator for healthcare quality, encompassing patients' perception of various aspects of service delivery, including accessibility, waiting time, interpersonal communication, privacy, facility cleanliness, availability of medicines, and overall experience. It is a multidimensional construct that not only reflects the effectiveness and efficiency of health services but also affects health-seeking behaviour, adherence to treatment, continuity of care, and trust in the health system. Satisfied patients are more likely to utilize primary healthcare services, follow medical advice, and participate in preventive health programs, thereby improving individual and community health outcomes.

Several studies in India have demonstrated that interpersonal factors, such as the behaviour and communication skills of health workers, are generally well-rated by patients. However, structural and systemic issues, including long waiting times, insufficient privacy, inadequate infrastructure, and stock-outs of essential medicines, frequently contribute to dissatisfaction. For example, a study conducted in rural TamilNadu reported that while 85% of patients were satisfied with staff behaviour, moreover 60% were satisfied with medicine availability, highlighting the gap between human resource performance and systemic capacity. International studies in low- and middle-income countries, including Nigeria and Bangladesh, have reported similar trends, emphasizing that structural barriers often outweigh interpersonal quality in determining overall patient satisfaction.

Patient satisfaction is also influenced by socio-demographic factors such as age, gender, education, occupation, and socio-economic status, as well as the type and purpose of the healthcare visit. Understanding these determinants is essential for tailoring interventions to the local context and improving service delivery.

Thumbalapatty village, located in Udumalpet block of Tiruppur District, TamilNadu, relies heavily on its sub-centre for preventive, promotive and basic

curative healthcare services. Despite its importance, there is a necessity in assessing patient satisfaction in this setting. Conducting a systematic evaluation of patient perceptions can identify strengths and weaknesses in service delivery, provide baseline data for quality improvement initiatives, and inform policy decisions at both local and district levels. Such evidence is critical for planning interventions aimed at improving accessibility, reducing waiting times, ensuring continuous medicine availability, and enhancing the overall quality of care.

Rationale: Given the pivotal role of sub-centers in rural healthcare and the recognized importance of patient satisfaction as an outcome measure, this study was undertaken to assess patient satisfaction with services at the Sub-Centre in Thumbalapatty village.

OBJECTIVES OF THE STUDY

- To assess the level of patient satisfaction with services provided at the Sub-Centre in Thumbalapatty village
- Identify key factors influencing satisfaction.

REVIEW OF LITERATURE

Patient satisfaction serves as a critical indicator of health care quality, particularly in rural settings where access to services is often limited. Recent studies have provided valuable insights into the factors influencing patient satisfaction in rural primary healthcare facilities:

- Barve et al. (2023) conducted a study in a rural community and reported that over 75% of patients expressed high satisfaction with services, highlighting the importance of community engagement and responsiveness.
- Sundhareshwaran et al. (2024) evaluated outpatient satisfaction in rural Bihar, identifying staff behaviour, waiting time, and medicine availability as key determinants of patient satisfaction, emphasizing targeted interventions to address these factors.
- Saha (2025) assessed indoor patient satisfaction in public healthcare settings in Dakshin Dinajpur District, West Bengal, finding that cleanliness and staff behaviour were the most

positively rated aspects, while other service dimensions showed moderate satisfaction.

GAP IN LITERATURE

Although multiple studies have examined rural patient satisfaction in India, limited data exist for sub-centres in Thumbalapatty village, Tiruppur District, Tamil Nadu. Most literature focuses on PHCs or CHCs, or specific services like maternal and child health. Sub-centres, as the first contact point in rural healthcare, require targeted evaluation to identify strengths and weaknesses and inform quality improvement strategies.

MATERIALS AND METHODS

Study Design

The present study was a cross-sectional descriptive study aimed at assessing patient satisfaction with health services provided at the Sub-Centre in Thumbalapatty village. Cross-sectional studies are appropriate for measuring the prevalence of outcomes and for evaluating associations between variables at a single point in time, making this design suitable for exploring patients' perceptions of care and identifying areas requiring improvement.

Study Setting

The study was conducted at the Sub-Centre, Thumbalapatty Village, Tiruppur District, Tamil Nadu, which serves as the primary point of contact for health services among the local rural population. The sub-centre provides essential services, including maternal and child health care, immunization, family planning, basic outpatient care, health education, and referral services to higher-level facilities. The facility is staffed by one female health worker (ANM) and one male health worker, in accordance with Government of India guidelines, and operates under the supervision of the Primary Health Centre.

Study Period

Data collection was conducted over a two-month period, from July to August 2025. This period was chosen to ensure a representative sample of patients attending the sub-centre for various services,

including outpatient care, antenatal care, immunization and family planning.

Study Population

The study population comprised all patients aged 18 years and above attending the sub-centre during the study period. Patients who were seriously ill, cognitively impaired, or otherwise unable to respond to the questionnaire were excluded to ensure reliability and completeness of responses. Inclusion of adult patients ensured that respondents could provide informed consent and valid feedback regarding their healthcare experience.

Sample Size and Sampling Technique

A total of 200 patients were recruited using a consecutive sampling method, whereby every eligible patient visiting the sub-centre during the study period was approached for participation until the sample size was achieved. This non-probability sampling approach is suitable for health facility-based studies, allowing collection of data from a representative set of attendees within a defined timeframe.

Data Collection Tool: Data were collected using a structured, pre-tested questionnaire designed specifically for assessing patient satisfaction in primary healthcare settings. The questionnaire included two main sections:

Demographic information: Age, gender, education level, occupation, and purpose of visit. Responses were recorded on a 5-point Likert's scale, where 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, and 5 = very satisfied. The questionnaire was pre-tested on a small subset of patients (n=20) in a neighboring village to ensure clarity, relevance, and reliability, and minor modifications were made based on feedback.

Data Collection Procedure: Data collection was carried out through face-to-face interviews conducted by trained investigators in a private area within the sub-centre to ensure confidentiality. Each interview lasted approximately 10–15 minutes. Participants were first explained the purpose of the study, assured of confidentiality, and provided informed consent before participation. Respondents were encouraged to answer honestly and were allowed to seek

clarification on any question.

Data Analysis: Completed questionnaires were checked daily for completeness and accuracy before data entry. Data were entered into Microsoft Excel and subsequently analysed using SPSS version.

- Descriptive statistics were used to summarize demographic characteristics and satisfaction scores, including mean, standard deviation, frequencies, and percentages.
- Inferential statistics were applied to explore associations between overall satisfaction and demographic or service-related variables. Chi-square tests were used for categorical variables, while t-tests and ANOVA were applied for continuous variables as appropriate.
- Reliability of the satisfaction scale was assessed using Cronbach’s alpha, with values ≥ 0.7 considered acceptable, indicating good internal consistency of the questionnaire.
- Statistical significance was set at $p < 0.05$.

RESULTS

Table 1
Demographics and Visit Characteristics

Variable	Frequency(n=200)	Percentage(%)
Age (mean±SD)	34.7±11.8	-
Gender	Male	76
	Female	124
Education	No formal	38
	Primary	52
	Secondary	70
	Higher secondary	30
	Graduate+	10
Occupation	Agriculture	76
	Housewife	64

	Daily wage /Labour	32
	Others	28
Visit Purpose	Out-Patient(OP)	110
	Ante Natal Care(ANC)	40
	Immunization	30
	Family Planning	20

Table 2
Satisfaction scores by Domain

Domain	Mean Score±SD	%Satisfied (≥ 4)	%Dissatisfied (≤ 2)
Accessibility	3.85±0.70	80%	8%
Waiting time	3.10±0.85	45%	25%

Table 3

Domain	Mean Score±SD	%Satisfied (≥ 4)	%Dissatisfied (≤ 2)
Staff friendliness	4.42±0.60	88%	2%
Privacy	3.75±0.68	70%	10%
Clarity of explanations	3.95±0.65	78%	6%
Medicine availability	3.20±0.80	50%	20%
Cleanliness	3.60±0.72	65%	12%
Overall satisfaction	3.72±0.62	68%	8%

Associations:

- Shorter waiting times (< 30 min) associated with higher satisfaction (mean 4.0 vs 3.5; $p = 0.01$).
- Participants reporting availability of essential medicines had higher satisfaction (mean 3.9 vs 3.3; $p = 0.02$).
- No significant differences by age, gender or education.

DISCUSSION

The study reveals that patients attending the Thumbalapatty Sub-Centre reported moderate-to-high overall satisfaction (mean score 3.72/5). High satisfaction was noted for staff behaviour, interpersonal communication, and clarity of explanations, indicating effective patient-provider interaction, which is consistent with studies from rural Tamil Nadu.

Dissatisfaction was primarily related to waiting times and medicine availability. Long waiting times in primary care are linked to workforce shortages and high patient load, while medicine stock-outs reflect logistical and supply chain issues.

Accessibility and privacy received moderate satisfaction scores, highlighting infrastructure and space constraints common in rural sub-centres. These findings underscore the importance of continuous monitoring and quality improvement initiatives in primary healthcare.

Improving patient satisfaction is not only important for service quality but also impacts health-seeking behaviour, adherence, and health outcomes. Regular training for staff on communication and patient-centered care, efficient patient flow strategies and ensuring consistent drug availability are recommended interventions.

ABBREVIATIONS

- ANC–Antenatal Care
- ANM–Auxiliary Nurse Midwife
- ASHA–Accredited Social Health Activist
- CHC– Community Health Centre
- GOI–Government of India
- JAMA–Journal of the American Medical Association
- NHM–National Health Mission
- OP– Out-Patient
- PHC–Primary Health Centre

- SD – Standard Deviation
- SPSS–Statistical Package for the Social Sciences
- WHO–World Health Organization

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