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Research Article

Patients Satisfaction Towards Services of Primary Health Centres

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ABSTRACT

Healthcare quality assessment and effectiveness evaluation in Indian Public Health Centres (PHCs) depends heavily on patient satisfaction metrics as the basic healthcare infrastructure. This research study reviews service satisfaction at Coimbatore district PHCs to analyze patient profiles and identify core service satisfaction aspects. The Factor Analysis under a systematic approach divides healthcare services into three main clusters where PHCs operate core medical treatment centers alongside emergency centers with prevention routines as well as specialized services. Patient satisfaction reached its highest levels when patients accessed outpatient care in addition to receiving essential drugs and receiving maternal-newborn medical care together with diagnosis services. Preventive services composed of immunization and health education programs with specialized assistance for nutrition and mental health services strongly improve patient happiness levels. Numerous studies indicate that patient satisfaction emerges from hospital delivery at the present moment as well as long-term health requirements. Total healthcare delivery presents better patient satisfaction results when service providers offer accessible services with patient-centered approaches. The study presents various strategic approaches for policy makers to execute changes that decrease patient-public healthcare service gaps and build trust in the healthcare system. New healthcare models demand continuous research about technology integration and time-based and rural-to-urban comparative studies of PHCs for providing comprehensive healthcare models.

Keywords: Patient Satisfaction, Primary Health Centres, Healthcare Services, Factor Analysis, Public Healthcare System

INTRODUCTION

Medical practitioners primarily employ patient satisfaction assessments to measure service quality standards and healthcare facility operational performance. Patient satisfaction evaluations utilize two essential elements for assessment which combine the standards of medical care perceived by patients and the operational capability and service delivery elements of healthcare systems. Healthcare quality evaluation depends substantially on patient satisfaction because it determines the behaviors patients show and their willingness to follow medical guidance according to Donabedian (1988). The delivery of patient satisfaction remains vital for public healthcare systems through primary health centers that provide services to rural and semi-urban areas. The extensive range of treatments at Coimbatore District PHCs includes fundamental healthcare delivery with prevention strategies for different groups in the population. Paciente-centric care delivery capability determines the success of PHCs to achieve their core functions. Patient satisfaction demands five essential dimensions as researched by Parasuraman, Zeithaml and Berry (1988) namely tangibility, reliability, responsiveness, assurance, and empathy. The service quality dimensions retain their essential value for PHC facilities despite these facilities facing issues with insufficient resources and inadequate staffing and inadequate infrastructure affecting delivery performance. Patient satisfaction directly affects the entire success of public health initiatives though service quality influences exactly how patients judge these programs.

PHCs in Coimbatore District operate in regions containing populations showing different social economic configurations together with distinct demographic groups. Detailed understanding about patient health service encounters becomes necessary because of multiple population types in this area. The satisfaction of patients results from their evaluation of three core components explained by Anderson and Newman (1973) that integrate both healthcare provider interactions and service accessibility with treatment facilities. Kumar et al. (2017) and other research studies show that patient satisfaction in PHCs depends heavily on three factors including waiting times and facility upkeep together with patient provider interactions. The research establishes the necessity of strategic interventions to solve structural operational problems. A detailed examination of Coimbatore District PHC patient satisfaction holds multiple important reasons. Service delivery assessment enables healthcare professionals to locate specific services that need prompt action and validate the levels of staffing, infrastructure and pharmaceutical capital. The evaluation offers practical recommendations which administrators along with policy specialists need to shape and launch outcome-based healthcare services. According to Rao et al. (2006) service quality within public health systems improves alongside trust levels when healthcare planners use patient feedback for decision-making.

Healthcare services get better usage while patient health improves when patients demonstrate satisfaction with the care they receive. Therapeutic services which prove reliable along with being efficient plus showing empathy result in patients who promptly access care and consistently follow their treatments and spread positive word-of-mouth about medical services (Ware et al., 1983). The positive health outcomes from this cycle enhance both healthcare system strength and multiple public health aims such as decreasing disease frequency and mortality rates. Analysis of patient satisfaction with primary healthcare services in Coimbatore District creates a foundation for strengthening the local healthcare system. The research study uses patient-centric analyses to discover valuable PHC service quality data together with improvement opportunities which help progress healthcare delivery throughout the studied area.

REVIEW OF LITERATURE

The assessment tool that healthcare professionals predominantly utilize serves dual purposes for measuring health facility performance and service quality standards. The evaluation examines two essential elements which include patient evaluations of medical care levels and operational system performance with accessibility and responsiveness levels. Donabedian (1988) establishes that measuring healthcare quality depends on patient satisfaction because patient behaviors along with adherence to medical guidance hinge on this factor. The delivery of patient satisfaction serves as an essential basic requirement for public healthcare systems working through Primary Health Centers (PHCs) that serve populations in rural and semi-urban areas. The PHCs in Coimbatore District manage basic patient care through preventive treatments for people of all backgrounds. Patient-centered care delivery ability directly influences the achievement of core functions by PHCs. A study by Parasuraman, Zeithaml, and Berry (1988) revealed that patients need to grasp five essential service quality features such as tangibility, reliability, responsiveness, assurance, and empathy for satisfaction enhancement. Service quality dimensions stay applicable to primary health care centers because their delivery outcomes suffer from insufficient resources, untrained staff and poor infrastructure facilities. Patient satisfaction determines public health initiative success whereas service quality defines patients evaluation process of these plans.

The communities of Coimbatore District have distinct socioeconomic backgrounds that also exhibit varying demographic schedules. The understanding of patient healthcare experiences needs thorough development due to numerous different demographic elements in the area. The satisfaction of patients relies on three important factors as described by Anderson and Newman (1973): patients must receive good treatment, testing and accessible healthcare services provided by health providers. Kumar et al. (2017) documented research data from PHCs that demonstrated alongside other studies how patient satisfaction in primary health facilities depends on waiting times and maintenance quality and intensive care team interactions. The research establishes the necessity of strategic interventions to solve structural operational problems. A detailed examination of Coimbatore District PHC patient satisfaction holds multiple important reasons. Service delivery assessment enables healthcare professionals to locate specific services that need prompt action and validate the levels of staffing and infrastructure and pharmaceutical capital. The evaluation offers practical recommendations which administrators along with policy specialists need to shape and launch outcome-based healthcare services. According to Rao et al. (2006) service

quality within public health systems improves alongside trust levels when healthcare planners use patient feedback for decision-making.

Healthcare services get better usage while patient health improves when patients demonstrate satisfaction with the care they receive. Therapeutic services which prove reliable along with being efficient plus showing empathy result in patients who promptly access care and consistently follow their treatments and spread positive word-of-mouth about medical services (Ware et al., 1983). The positive feedback loop between patient satisfaction strengthens both healthcare infrastructure and reduces patient disease and death rates. Analysis of patient satisfaction with primary healthcare services in Coimbatore District creates a foundation for strengthening the local healthcare system. The research study uses patient-centric analyses to discover valuable PHC service quality data together with improvement opportunities which help progress healthcare delivery throughout the studied area.

RESEARCH GAP

Primary healthcare research continues to reveal important gaps in understanding. Digital solutions for outpatient waiting time reduction receive minimal research attention while maternal and child care services need research on remote healthcare quality and internet health platform integration. Immunization programs require new strategies to combat vaccine avoidance as well as transportation issues yet family planning research remains silent about culturally appropriate programs. High-risk disease management approaches need to join forces with psychological care, dietary support programs and diagnostic testing solutions must provide both budget-friendly and easy access pathways. Several important service areas have gaps affecting emergency care together with supply chains and referral systems and preventive services. The resolution of these observed gaps will prove essential for improving healthcare delivery through both better access and quality with better results.

STATEMENT OF THE PROBLEM

India bases its healthcare structure on Primary Health Centres which support population health needs through affordable standard and consistent treatments primarily in rural community areas (Berman et al., 2010). The primary healthcare centers within Coimbatore District function as essential healthcare providers by offering outpatient healthcare alongside maternal, child care, immunizations family planning resources, continuous disease treatment and emergency support services. The fundamental role of Primary Health Care (PHC) services is threatened by continuing patient dissatisfaction which stems from infrastructure quality along with resource availability and staff behavior standards as well as wait times and care quality (Donabedian, 1988; Oche & Adamu, 2013).

Healthcare quality and utilization depends heavily on patient satisfaction since the system performs more efficiently when its basic accessibility matches patient needs while being responsive to their requirements (Ware et al., 1983). Only sparse research has studied patients' opinions about Public Health Centers in Coimbatore District systematically. Existing concerns about healthcare delivery service gaps and public healthcare system accessibility as well as patient trust relate to the work of Kumar et al. (2017). Patient satisfaction within primary healthcare facilities depends heavily on both waiting durations and medicine availability and staff communication effectiveness (Banerjee et al., 2015; Cameron et al., 2009). Patient satisfaction research allows healthcare facilities to both recognize areas that need improvement and validate their ability to meet community healthcare requirements (Parasuraman et al., 1988; Rao et al., 2006). This research tackles the existing knowledge gap through evaluations of patient contentment with PHC services within Coimbatore District alongside an exploration of factors shaping satisfaction together with possible improvements to strengthen fundamental healthcare delivery systems.

OBJECTIVE OF THE STUDY

- To identify factors influencing patients satisfaction on Primary Health Centres

SCOPE OF THE STUDY

Analyzing patient socio-economic data and service satisfaction amongst primary health care visitors at the Coimbatore district primary health centers stands as the main research objective.

RESEARCH METHODOLOGY

Data

The data required for this study is of primary nature and has been collected using an interview schedule.

Sampling

By employing judgement sampling, patients who make use of primary health centres data have been from 260 patients.

Framework of Analysis

The collected data have been analyzed by employing simple percentage and factor analysis.

SIGNIFICANCE OF THE STUDY

Patient satisfaction functions as a critical sign of healthcare quality enabling decision-making about healthcare service effective as well as utilization. This study about patient satisfaction with services at Primary Health Centres (PHCs) in Coimbatore district provides critical feedback to various stakeholders. Through this research patients gain insight into healthcare determinants alongside their demands and anticipated quality of care. The study provides healthcare providers and administrators with concrete guidelines about necessary service upgrades extending to service delivery methods and staff conduct and funding allocations and building stability. Public healthcare systems require these insights for better care quality as well as patient trust development.

The findings support policy decision-making with evidence which helps authorities create solutions for delivering patient-centered improvements to primary healthcare systems. The evaluation exposes regional weaknesses and untapped potential which enables healthcare services to better match community needs throughout rural and underserved areas. The research findings stress that socio-economic elements determine patient satisfaction while working to develop healthcare fairness across access and results-based metrics. Strengthening the core functions of PHCs is a key public health objective that builds the fundamentals of medical services which leads to better patient results and lightens tertiary facilities' workloads. The research develops a fundamental framework for enhancing the technical performance along with accessibility and quality of PHC services throughout Coimbatore district and better healthcare quality for community populations.

LIMITATIONS OF THE STUDY

The data collection based on primary sources contains an essential drawback which consists of possible biased interpretation. The researchers need to exercise careful attention when they extend these findings to validate their accuracy and reliability.

FINDINGS

SOCIO-ECONOMIC PROFILE

Healthcare professionals need to study patient groups at Primary Health Centres (PHCs) to create patient-focused service adjustments and assess service barriers and healthcare utilization behaviors. Individuals from various demographic groups decide their healthcare approach based on their age and gender as well as their income level and educational background and occupational status. Healthcare providers and policymakers benefit from examining these characteristics because this knowledge enables them to make resource distribution decisions and plan inclusively. Socio-economic profiling tools help healthcare providers evaluate how well PHCs perform while tracking community health behavior changes and verify health service effectiveness according to population needs.

Table 1 : Socio-Economic Profile

Particulars	Numbers (n=260)	Percentage (%)
Gender		
Male	140	53.9
Female	120	46.2
Age		
Below 20	40	15.4
21-40	100	38.5

Particulars	Numbers (n=260)	Percentage (%)
41-60	80	30.8
Above 60	40	15.4
Educational Qualification		
Illiterate	50	19.2
Primary	60	23.1
Secondary	80	30.8
Higher Education	70	26.9
Occupation		
Unemployed	20	7.7
Agriculture	80	30.8
Labor	50	19.2
Service	60	23.1
Business	50	19.2
Monthly Income (Rs.)		
Below 5000	40	15.4
5001-10000	90	34.6
10001-20000	80	30.8
Above 20000	50	19.2
Family Income (Rs.)		
Below 10000	50	19.2
10001-20000	90	34.6
20001-30000	70	26.9
Above 30000	50	19.2
Family Expenditure (Rs.)		
Below 5000	60	23.1
5001-10000	100	38.5
10001-20000	70	26.9
Above 20000	30	11.5
Type of Family		
Nuclear	140	53.9
Joint	120	46.2

Gender

The surveyed patient population consisted of 140 male patients and 120 female patients resulting in a male-dominated utilization ratio of 53.9% to 46.2% in primary healthcare services.

Age

The patient demographic shows 15.4% (n=40) of treated subjects are 20 years younger than 21-40 year-olds who constitute 38.5% (n=100) followed by 30.8% (n=80) of 41-60 year-olds and 15.4% (n=40) over 60 year-olds. Working-age population members between 21-40 exhibit the peak utilization which indicates enhanced involvement.

Educational Qualification

Patients show diverse educational backgrounds: 19.2% of the patients studied (n=50) have no formal learning and 23.1% (n=60) finished primary school, secondary education levels are present in 30.8% (n=80) while 26.9% (n=70) achieved higher education. Secondary education represents the largest percentage at 30.8% of the patient group.

Occupation

The occupational information shows 7.7% (n=20) patients have no employment while 30.8% (n=80) work in agriculture and 19.2% (n=50) conduct manual labor with 23.1% (n=60) in service sectors alongside 19.2% (n=50) in business. The occupation of agriculture stands out as the largest employment category because PHCs maintain their rural focus.

Monthly Income

The data shows that 15.4% (n=40) earn monthly income under Rs. 5000 while 34.6% (n=90) earn Rs. 5001-10000, 30.8% (n=80) earn Rs. 10001-20000 and 19.2% (n=50) earn more than Rs. 20000. Most patients who comprise members of the Rs. 5001-10000 income group fall within the lower-middle social class range.

Family Income

Family earnings reveal that 19.2% (n=50) earn less than Rs. 10000 while 34.6% (n=90) earn between Rs. 10001-20000 and 26.9% (n=70) earn within Rs. 20001-30000 range and 19.2% (n=50) report earnings above Rs. 30000. The income range from Rs. 10001 to Rs. 20000 shows the greatest distribution of individuals among all categories.

Family Expenditure

An analysis of family monthly monetary outflows indicates that 23.1% (n=60) of families dedicate less than Rs. 5000 while 38.5% (n=100) allocate funds between Rs. 5001 and Rs. 10000 and 26.9% (n=70) utilize Rs. 10001-20000 with 11.5% (n=30) spending over Rs. The Rs. 5001-10000 spending bracket represents 38.5% of all surveyed families.

Type of Family

An analysis of family structure reveals nuclear families (53.9% - n=140) outnumber joint families (46.2% - n=120) among patients utilizing PHC services.

The analysis creates detailed descriptions of PHC patients that reveal demographic and socioeconomic information which directs targeted healthcare policy development.

FACTORS INFLUENCING PATIENTS' SATISFACTION

To identify the key factors influencing patient satisfaction with services provided at Primary Health Centres, Factor Analysis was utilized. As a pre-analysis step, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity were applied to assess the suitability of the dataset for factor analysis. The results showed a KMO value of 0.850, which exceeds the recommended threshold of 0.70, indicating sample adequacy. Additionally, Bartlett's Test of Sphericity yielded a significant result ($\chi^2 = 1842.758$, df = 105, Sig = 0.000), confirming the appropriateness of factor analysis for the dataset. Thus, the data was deemed fit for this analytical approach.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	Approx. Chi-Square	1842.758
	df	105
	Sig.	.000

Table 3: Factors Influencing Patients Satisfaction

Particulars	1	2	3
Outpatient Services	.796		
Supply of Essential Medicines	.774		
Maternal and Child Health Services	.772		

Diagnostic Services (Laboratory and Radiology)	.698		
Emergency and First Aid Services	.648		
Chronic Disease Management	.622		
Immunization Programs		.873	
Health Education and Counseling		.802	
Referral Services to Higher Centers		.786	
Preventive and Promotive Health Services		.660	
Family Planning Services		.593	
Nutritional Support Programs			.864
Mental Health Services			.831
Vector-Borne Disease Control Programs			.690
Tuberculosis and Leprosy Treatment Programs			.677
Eigen Values	5.205	2.859	1.388
% of Variance	34.702	19.062	9.256
Cumulative % of Variance	34.702	53.764	63.020

Three key factors were identified in the analysis by selecting Eigenvalues greater than 1, indicating their significance. Components with a loading of 0.5 or higher were considered significant contributors to patient satisfaction. The rotated component matrix provided insights into the grouping of variables across these factors.

In the first factor, significant contributors to patient satisfaction include outpatient services, the supply of essential medicines, maternal and child health services, diagnostic services (laboratory and radiology), emergency and first aid services, and chronic disease management. This factor reflects the core medical and emergency services that directly impact patients immediate healthcare needs and experiences.

The second factor comprises immunization programs, health education and counseling, referral services to higher centers, preventive and promotive health services, and family planning services. These elements emphasize preventive care, health awareness, and the integration of supportive healthcare systems, which are essential for building trust and ensuring long-term patient satisfaction.

The third factor includes nutritional support programs, mental health services, vector-borne disease control programs, and tuberculosis and leprosy treatment programs. These services cater to specific health needs and public health concerns, contributing to improved patient outcomes and satisfaction.

The component labeled Factor One demonstrates the strongest influence on satisfaction by explaining 34.702% of variance. The importance of preventive and promotive healthcare services emerges as evident through the 19.062% contribution of Factor Two. Specialized health concern contributions to explaining patient satisfaction reach 9.256% per this factor. 34.702% of the variance, indicating its dominant role in influencing satisfaction.

- Preventive and promotive healthcare services have the highest impact on patient ratings as indicated by the 19.062% contribution of Factor Two.

The concurrent factors contribute 9.256% affecting specialized health care treatment.

The three factors combine to explain 63.020% of the overall variation in patient assessment of Primary Health Centre services thus elucidating important aspects that impact their evaluations. The comprehensive investigation demonstrates patient satisfaction exists across core medical settings as well as preventive care provision and specialized healthcare interventions.

SUGGESTIONS

Based on the findings of the study, the following suggestions have been putforth.

Outpatient Services

PHCs must introduce modern appointment scheduling and queue control systems as part of their plan to minimize outpatient service delays. Outpatient facilities experience better patient satisfaction when patients encounter sufficient staff during busy times alongside a properly maintained clean space.

Supply of Essential Medicines

Critical at this time and always would be maintaining a steady availability of vital pharmaceutical products. A solid medication supply chain together with routine inventory tracking, immediate shortage resolution and easy-to-understand medicine prescriptions leads to better patient medication adherence.

Maternal and Child Health Services

Maternal and child health services improve when antenatal and postnatal care receive increased support through scheduled health camps combined with house visits. Public access to affordable nutritional support combined with compassionate healthcare-training for workers represents vital components of improving maternal and child healthcare.

Diagnostic Services (Laboratory and Radiology)

The diagnostic services at PHCs will improve when PHCs receive updated diagnostic equipment together with qualified technical staff and scheduled maintenance. Faster test result delivery permits doctors to make both correct and prompt treatment choices.

Emergency and First Aid Services

Life-saving drugs together with medical equipment need to be consistently available at all PHCs. By training healthcare staff in critical life-saving methods and developing better ambulance operations emergency responses will improve alongside patient treatment quality.

Chronic Disease Management

PHCs should establish dedicated clinics that care for patients with diabetes and hypertension. Follow-up appointments together with lifestyle education services and reduced-cost medication for low-income patients will advance patient care management thus increasing satisfaction rates.

Immunization Programs

Different control measures need to deal with vaccine hesitancy in order to boost immunization coverage among target populations. The availability of extended hours in vaccination services alongside continuous program monitoring enhances both delivery efficiency and improves public trust in immunization outcomes.

Health Education and Counseling

Public awareness campaigns must address vaccine hesitancy to boost immunization coverage. The availability of extended hours in vaccination services alongside continuous program monitoring enhances both delivery efficiency and improves public trust in immunization outcomes.

Referral Services to Higher Centers

Better referral services should establish specific effective pathways to specialized care along with transport assistance for referred patients and monitoring feedback between primary healthcare centers and referral facilities to track patient results.

Preventive and Promotive Health Services

The implementation of health camps and screening events should become regular to detect health conditions as they develop. The combination of outreach programs and health awareness initiatives enables people to protect themselves from illness and establish healthier neighbourhoods.

Family Planning Services

Family planning programs require enhanced counselling practices along with steady contraceptive distribution and active promotion of joint discussion about family planning to achieve mutual responsibility in decision-making.

Nutritional Support Programs

Family planning programs require enhanced counselling practices along with steady contraceptive distribution and active promotion of joint discussion about family planning to achieve mutual responsibility in decision-making.

Mental Health Services

Current Primary Health Care programs need the essential integration of mental health treatment methods. Healthcare facilities should provide basic guidance and treat the stigma and provide specialist medical referrals to achieve better mental health outcomes.

Vector-Borne Disease Control Programs

Community involvement serves as the vital component for successful vector-borne disease education spreads and preventative measures that lead to effective disease control solutions. Field monitoring operations unite with modern disease control methods that include insecticide-treated nets to decrease disease occurrences.

Tuberculosis and Leprosy Treatment Programs

Public Health Center staff should enhance tuberculosis and leprosy care by developing stronger diagnostic measures and ensuring medicine accessibility and using public outreach to tackle prejudice. The success rate of treatment mainly depends on maintaining regular patient check-ups.

CONCLUSION

This study analyses Primary Health Centres (PHCs) patient demographics as well as factors that impact their end-to-end satisfaction. The patient population in PHC demonstrates diversity in age groups and contains equal distributions of male and female patients mainly comprised of working adults from lower-middle-income families. The level of patient satisfaction arises from basic medical treatment, disease prevention efforts and disease-specific treatment methods. Patients experience maximum contentment when they have both open access to outpatient care, diagnostic services, medicine and social facilities as the primary health care components. Patient trust and sustained connection between providers and patients depends heavily upon distributing both educational health initiatives with preventative health programs. Public health needs require specialized solutions as well as disease control programs which enhance patient satisfaction. Several aspects identified in satisfaction evaluations show that healthcare facilities must extend their complete accessible service to focus on individual patient needs.

SCOPE FOR FURTHER RESEARCH

The research on patient satisfaction at Primary Health Centres (PHCs) in Coimbatore district produces valuable findings that guide further academic research. Research into patient satisfaction requires additional study of new technological platforms and their impact on measurement results between digital health records and telehealth services. Service satisfaction measurements in all PHCs across rural and urban locations in the district would help detect differences between these locations in satisfaction patterns. Studies that evaluate satisfaction trends through time when new policies and services take effect constitute a key information gap which needs investigation. The investigation of minority groups and other underserved populations would help researchers discover better solutions to preserve healthcare access. The emerging public health situation would be enhanced by research which expands its focus to study patient perceptions about mental healthcare together with primary healthcare integration. The conducted research creates healthcare models that incorporate personalization and maintain effectiveness in their delivery of care to patients.

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