



## Research Article

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## Brushing Up on Quality: A Deep Dive into Dental Services in Cuddalore District

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### Abstract

Background: Oral health significantly influences overall well-being, happiness, and quality of life. Primary Health Care (PHC) aims to offer accessible, affordable, and effective health services, focusing on prevention and health promotion. This study evaluates the dental care services at Primary Health Care Centers (PHCs) in Vellakurai, Cuddalore District, assessing service awareness, utilization, and quality. Objective: To assess the awareness of dental services among patients, evaluate the utilization and quality of treatments provided by PHCs, determine the knowledge and practices of PHC staff concerning dental care, and identify the types of treatments utilized by patients. Methods: A cross-sectional study was conducted with 120 participants using a self-administered semi-structured questionnaire. Data were analyzed with SPSS software to measure knowledge, service utilization, treatment satisfaction, and quality of care. Results: The study found that 90% of participants had good knowledge of dental medicine, and 93% were aware of the dental services available at PHCs. Treatment satisfaction was high, with 89% expressing positive feedback. Awareness of dental camps was lower, with only 63% knowledgeable about them. The quality of treatment was rated positively by 79% of participants. Utilization of tobacco awareness programs was low at 71%. Overall, awareness and knowledge of dental services were 67%, quality and treatment assessment was 79%, and service utilization was 45%. Conclusion: While awareness and satisfaction with dental services are high, improvements are needed in areas such as dental camp awareness and preventive program utilization. Enhancing facilities, such as adding x-ray capabilities and improving hygiene and ventilation, is recommended to better meet community needs.

**Keywords:** Oral health, Primary Health Care, Dental Services, Health Awareness, Dental Camps, Community Health.

### INTRODUCTION

India's economy is among the fastest-growing globally, averaging an impressive 8.5% annual growth rate. Despite this progress, the dental care infrastructure remains inadequate, with the World Health Organization (WHO) recommending a dentist-to-population ratio of 1:7,500. Historically, India's ratio improved from 1:300,000 in the 1960s to 1:10,000 by 2011. However, in rural areas, the situation is dire, with only one dentist available for every 250,000 people [1].

A significant barrier to improving oral health care is the insufficient implementation of primary health care approaches. Although dental services are recognized as part of primary health care in India, they are primarily accessible in a few states [2]. Oral diseases rank among the most prevalent chronic conditions, yet effective dental care systems are lacking, and existing services often exceed the financial reach of many individuals [3].

Dentistry faces a critical challenge in ensuring equitable access to care. In many developing regions, including India, dental practitioners are concentrated in urban centers, catering mainly to affluent populations. Consequently, the poorer urban and rural communities struggle to obtain even emergency dental services, highlighting the urgent need for reforms that prioritize accessibility and affordability in oral health care across the country [4].

The study aims to provide insights into the effectiveness of dental care delivery in primary health settings and inform strategies for improving oral health services in the community.

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## METHODOLOGY

This study utilized a cross-sectional survey design to evaluate the awareness, utilization, and quality of dental care services at primary health care centers (PHCs) in Vellakarai, Cuddalore District. The research targeted patients visiting the outpatient department (OPD) of a primary healthcare center in Vellakarai. Data collection occurred over a two-month period, from November 2022 to December 2022. Based on previous literature, the sample size was determined to be 120 participants. A non-probability convenience sampling method was employed to recruit individuals, enabling easy access to those willing to participate in the study. Data were gathered using a structured questionnaire created in Google Forms. The questionnaire was distributed to medical and MBA distance education students. Participants were informed about the study's purpose and had to provide consent before proceeding to the questionnaire. Those who chose not to participate were not directed to the subsequent sections of the form.

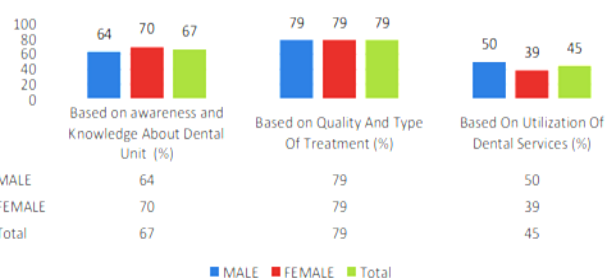
## RESULTS

The data analysis reveals several key findings from the questionnaire completed by 120 participants (Table 1 and Figure 1). Notably, the gender distribution indicates a slight majority of female respondents (53%) compared to males (47%). The age demographics show that the largest group of participants falls within the 26-35 age range (36%), with fewer respondents in the older age brackets. Marital status data indicates that a significant majority (78%) are married. In terms of education, most participants are undergraduates (53%) or have education below the 12th standard (45%). Health screenings reveal that 18% of participants are affected by diabetic mellitus, while 17% report hypertension. Encouragingly, 90% of respondents are aware of dental medicine and 93% know about dental services provided in primary health centers (PHC). However, there is a notable lack of awareness regarding dental camps in their villages, with only 38% acknowledging their existence. Despite high satisfaction levels regarding treatment (89%), a significant portion expressed a need for improvements, particularly in adding an X-ray unit (46%) and enhancing cleanliness. Lastly, the comparison between male and female participants shows that females demonstrate greater awareness about dental services, while males utilize these services more frequently. Overall, the findings indicate a strong awareness of dental services in PHC, yet highlight areas for improvement in service accessibility and education, particularly regarding community dental camps and tobacco awareness programs.

**Table 1:** Overview of awareness and attitudes towards dental services among respondents

Response	Yes Count	Yes Percentage (%)	No Count	No Percentage (%)
Awareness about Dental Medicine	108	90%	12	10%
Awareness about Dental Services in PHC	111	93%	9	8%
Source of Information (Neighbours)	47	39%	-	-
Source of Information (Friends)	34	28%	-	-
Source of Information (Mass Media)	30	25%	-	-
Source of Information (PHC Faculty)	9	8%	-	-

Dental Camps Conducted in Village	46	38%	74	62%
Awareness Programs in PHC	69	57%	51	43%
Knowledge about Treatment Types	99	82%	21	18%
Satisfaction with Treatment	107	89%	13	11%
Dental Drugs Provided in PHC	110	92%	10	8%
Hygiene Maintained in Dental Unit	112	93%	8	7%
Dental Records Maintained	95	79%	25	21%
Visit to Dental Unit (First Time)	27	23%	93	77%
Last Treatment Done (Within 1 Year)	42	35%	-	-
Tobacco Awareness Program Awareness	35	29%	85	71%
Attendance at Awareness Programs	10	8%	110	92%
Consultation with Dental Surgeon	113	94%	7	6%



**Figure 1:** Comparison of Overall Awareness and Knowledge, Quality and Type of Treatment & Utilization of Dental Services in PHC

## DISCUSSION

Primary health care serves as the initial point of contact for individuals, families, and communities within the national health system, delivering essential health services. As per the IPHS guidelines of 2012, oral health is recognized as a crucial service at primary health centers (PHCs), community health centers (CHCs), area hospitals (AHs), and district hospitals (DHs) [5].

Our results provide valuable insights into participant demographics, their understanding of dental health, and experiences with dental services. The sample was predominantly female (53%) and aged 26 to 35 years (36%), reflecting a trend seen in health surveys where women often prioritize health services. This demographic data can inform targeted health promotion strategies.

Notably, 90% of respondents were aware of dental medicine, and 93% recognized the dental services at primary health centers (PHCs). However, awareness of dental camps was much lower at 38%, indicating a gap in outreach that needs to be addressed to enhance community resource visibility.

Participants rated the quality of dental services positively, with 79% acknowledging good standards of hygiene. Nevertheless, only 11% reported difficulties post-treatment, pointing to a need for improved aftercare and communication. The high satisfaction rate (89%) suggests that while immediate care is effective, overall patient experience could benefit from enhancements.

Concerningly, 45% of participants indicated ineffective utilization of dental services, highlighting the necessity for educational programs on the importance of regular dental check-ups. This could lead to improved health outcomes by encouraging more consistent visits and reducing untreated dental issues.

A significant 46% expressed a need for an X-ray unit, revealing a demand for advanced diagnostic tools that are currently lacking at the PHC. Additionally, requests for better ventilation and increased waiting areas suggest that physical improvements to the dental unit could enhance the patient experience.

Despite tobacco awareness programs being in place, only 29% of participants reported receiving this education, signaling an opportunity to improve the visibility and accessibility of such initiatives, especially given the link between tobacco use and oral health.

Lastly, the findings indicate a gender disparity in service utilization, with males more actively participating in tobacco awareness programs. Targeted outreach efforts could be beneficial in engaging female participants, particularly regarding preventive health measures.

## CONCLUSION

The study underscores the importance of enhancing awareness, improving service quality, and increasing the utilization of dental services at the PHC in Vellakarai. While participants showed a good level of knowledge regarding dental health, there is a clear need for more targeted educational initiatives, especially regarding community resources like dental camps and tobacco cessation programs. Future research should explore the correlation between systemic health problems and oral health, as well as investigate community barriers and misconceptions about dental care. Additionally, employing health care workers to focus on dental health education could bridge the knowledge gap and improve overall community health outcomes.

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## Conflicts of Interest

The author reports no conflicts of interest.

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## REFERENCES

1. Simon AK, Rao A, Rajesh G, Shenoy R, Pai MB. Oral health care availability in health centers of Mangalore Taluk, India. *Indian J Community Med.* 2014;39(4):218–22.
2. Verma H, Aggarwal AK, Rattan V, Mohanty U. Access to public dental care facilities in Chandigarh. *Indian J Dent Res.* 2012;23:121.
3. Sheiham A. Oral health, general health and quality of life. *Bull World Health Organ.* 2005;83:644.

4. Tandon S. Challenges to the oral health workforce in India. *J Dent Educ.* 2004;68:28–33.
5. Vuyyuru CR, Ponnaiah M, Rangari RN. Status of public sector dental health-care services in Nellore District, Andhra Pradesh, India. *J Indian Assoc Public Health Dent.* 2022;20(3):304–9.

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