



## Original Research Article

# Health care seeking behaviour of patients reporting to a dental health Institution- A cross sectional study

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## ABSTRACT

**Aim:** This study aimed to assess the factors influencing healthcare-seeking behaviour among patients presenting to a dental institution.

**Background:** Oral diseases, such as dental caries and periodontal diseases are prevalent global health concerns, particularly in developed countries, whereas oral cancers are more common in developing countries. In India, there is observed lower utilization of dental care services and higher rates of dental problems.

**Materials and Methods:** This descriptive study involved 220 patients who visited a dental college and hospital in India. Patients were interviewed to gather information on their chief complaint, history of previous treatment for the complaint, and reasons for delaying dental treatment.

**Results:** The study identified several key factors contributing to delays in seeking dental treatment. Negligence was cited by 27.1% of patients, absence of symptoms by 14.5%, and financial constraints by 9%. Gender, occupation, and education level of patients also showed varying impacts on healthcare-seeking behaviour.

**Conclusion:** Negligence, lack of symptom awareness, and financial constraints, particularly in rural and suburban areas were the significant barriers to timely dental treatment among patients in a dental institution in India.

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## 1. Introduction

Oral diseases like dental caries and periodontal diseases pose significant global health challenges, particularly in developed countries, while oral cancers are more prevalent in developing nations. In the Indian context, there is a striking pattern of underutilization of dental care services alongside high rates of dental caries, periodontal diseases, and premature tooth loss.<sup>1-3</sup> These conditions are preventable with effective oral hygiene practices, but when untreated, they can severely impact an individual's quality of life.<sup>3,4</sup> Early prevention or treatment of these conditions not only improves health outcomes but also

reduces the economic burden associated with advanced dental interventions.

Despite recommendations for regular dental check-ups every six months, a majority of patients delay seeking dental care until they experience pain or swelling.<sup>2</sup> This delay can be attributed to several factors: lack of awareness about oral health, misconceptions regarding dental treatments, limited access to dental facilities, financial constraints, the inconvenience of multiple appointments, and various social and cultural factors.<sup>1-8</sup> Furthermore, dental anxiety plays a significant role in discouraging timely dental visits.<sup>4</sup> Particularly in rural areas, where dental services are sparse, there is a notable lack of awareness about oral health, leading to prevalent myths and misunderstandings about

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dental treatments.

Understanding these barriers is crucial for raising public awareness and promoting the effective utilization of dental services.<sup>3,4</sup> The aim of the current study was to investigate the factors influencing patients' healthcare-seeking behaviour at dental institutions, with the goal of identifying strategies to encourage more proactive oral health practices and reduce the incidence of preventable dental diseases.

## 2. Materials and Methods

This descriptive study was conducted at a private dental college and hospital in Dharwad, India, from January to March 2024. The study included all consenting patients during this period.

### 2.1. Sample size estimation

The sample size was calculated using the population adjustment formula for single proportion estimation. Based on a 95% confidence level, a 5% precision, power of 0.8, and an expected proportion of 83%, a total sample size of 221 was arrived. The chief complaints of patients were categorized into 11 groups, including Pain, Caries, Periodontal problems, Missing tooth/teeth, Malocclusion, Fractured tooth/dicoloured teeth, Tooth sensitivity, Precancerous lesions, Tumour/cancer, and problems with deciduous dentition. From each category, 20 patients were randomly selected, resulting in a total sample size of 220 patients.

### 2.2. Data collection

Participants who agreed to take part in the study were interviewed by a single interviewer. Patients were asked about their chief complaint, history of previous treatments for the complaint, and reasons for delaying dental treatment. The data was collected through personal interviews after obtaining informed consent from each participant.

Data Analysis: Descriptive statistics were used to analyse the collected data, while the Chi-square test was employed to assess differences between groups. The significance level for statistical analysis was set at  $p \leq 0.05$ .

## 3. Results

Table 1 depicts the Demographic Characteristics of Study Participants. The participants in the study were evenly distributed by gender, with an equal representation of male and female subjects. The majority of participants were unemployed, and the largest proportion of the sample had attained education beyond middle school.

Provides an overview of the distribution of study participants based on their chief complaints. The data categorizes participants into various groups, reflecting the

prevalence of different dental issues among the sample population.

Um summarizes the primary factors identified as contributing to delays in seeking dental treatments among study participants. These factors include negligence (27.1%), absence of symptoms (14.5%), and financial constraints related to treatment costs (9%).

Although the gender differences in the delay of seeking dental treatment revealed distinct patterns, these differences were not statistically significant. Among males, primary reasons included bad general health (66.7%), negligence (63.3%), work pressure (62.5%), and lack of symptoms (59.4%). Conversely, females cited family problems (100%), dental fear (77.8%), symptoms alleviating with home remedies (70%), cost of treatment (70%), and symptom relief through self-medication (62.5%) as their main deterrents.

A statistically significant difference was observed among different educational levels ( $\chi^2 = 140$ ,  $p = 0.048$ ). Based on educational background, the various reasons for delaying dental treatment were: Illiterate individuals commonly cited beliefs that milk teeth naturally fall out (80%), treatment postponement due to parental constraints (40%), past painful dental encounters (25%), and self-medication for symptom relief (25%). Those with primary school education highlighted treatment delays due to parental unavailability (20%), symptom alleviation through home remedies (20%), and concerns about treatment costs (10%). Middle school-educated individuals often experienced prolonged orthodontic treatments (50%), relied on self-medication for symptom management (25%), believed in the natural loss of milk teeth (20%), or were unaware of dental issues like tumours (20%). High school graduates frequently refused tooth extraction recommendations (100%), faced service unavailability (100%), encountered family problems (44.4%), or experienced work-related pressures (37.5%). Intermediate/diploma holders commonly dealt with family issues (44.4%), lacked leave from work (40%), faced parental obstacles to treatment (40%), or displayed negligence (35%). Graduates struggled with study pressures/exams (50%), poor general health (50%), prolonged orthodontic treatments (50%), and work-related leave issues (40%). Professionals often cited previous painful dental experiences (25%), lack of leave from work (20%), and work-related pressures (12.5%) as reasons for delaying treatment.

Different occupations exhibited variations in reasons for delaying dental treatment ( $\chi^2 = 259$ ,  $p < 0.01$ ). The following reasons for delays were identified based on occupation: Unemployed individuals commonly experienced delays due to study pressures/exams (100%), the belief that milk teeth will naturally fall out (100%), parental constraints on treatment (100%), prolonged orthodontic treatments (100%), refusal of tooth extraction

recommendations (100%), and family issues (88.9%). Those in elementary occupations often faced work pressures (12.5%), family problems (11.1%), treatment costs (5%), and negligence (5%) as reasons for delay. Plant and machine operators & assemblers frequently cited service unavailability (100%), seeking symptom relief from local dentists (27.3%), lack of awareness of dental issues like tumours (26.7%), and previous painful dental experiences (25%). Craft-related trade workers experienced delays due to lack of symptom awareness (9.4%) and negligence (3.3%), with some being unaware of dental issues like tumours (20%). Skilled agricultural and fishery workers commonly relied on home remedies for symptom relief (10%), consulted local dentists for symptom management (9.1%), and sometimes lacked awareness of dental problems (6.7%). Skilled workers and shop/market sales workers frequently faced obstacles such as lack of leave from work (40%), work-related pressures, previous painful dental experiences (25%), and poor general health (16.7%) when seeking dental treatment. Technicians and associate professionals often experienced delays due to symptom alleviation with home remedies (10%), lack of noticeable symptoms (9.4%), treatment costs (5%), and occasional negligence (1.7%). Professionals commonly faced obstacles such as lack of leave from work (40%), past painful dental experiences (25%), and work-related pressures (12.5%). Legislators, senior officers, and managers frequently cited work pressures (12.5%) as the primary reason for delaying dental treatment.

#### 4. Discussion

The present study indicates that a higher percentage of males (52%) tend to delay seeking dental treatment compared to females (48%). This trend aligns with findings from previous studies, which have also observed a similar pattern.<sup>2,9,10</sup>

The reasons behind the higher percentage of males delaying dental treatment compared to females could be multifaceted. One possible explanation might be differences in health-seeking behaviours between genders. Historically, societal norms and perceptions of masculinity may have influenced men to prioritize stoicism and downplay health concerns, including dental issues, leading to delays in seeking treatment. Additionally, logistical factors such as work or family responsibilities may disproportionately affect men, making it more challenging for them to prioritize dental appointments. Furthermore, access to dental care and awareness of oral health issues could differ between genders due to various socio-economic and cultural factors. These reasons, among others, could contribute to the observed trend in the present study and align with findings from previous research.

In contrast, previous studies have reported varying rates of female participation, such as 53.33% and 66%, which

**Table 1:** Demographic details of the study subjects

Demographic details	Category	Frequency	Percentage
Gender	Male	115	52
	Female	106	48
	Total	221	100
Occupation	Unemployed	126	57
	Elementary occupation	7	3.2
	Plant & machine operators and assemblers	37	16.7
	Craft & related trade workers	9	4.1
	Skilled agricultural % fishery workers	8	3.6
	Skilled workers and shop & market sales workers	19	8.6
	Clerks	1	0.5
	Technicians & associate professionals	6	2.7
	Professionals	7	3.2
	Legislators, senior officers & managers	1	0.5
Education	Total	221	100
	Illiterate	25	11.3
	Primary school certificate	9	4.1
	Middle school certificate	17	7.7
	High school certificate	58	26.2
	Intermediate/diploma	60	27.1
	Graduates	49	22.2
	Profession or honors	3	1.4
Total	221	100	

may be influenced by factors like household responsibilities, financial dependency on males, limited awareness of oral health issues, and insufficient self-care practices.<sup>4,6,11</sup>

Regarding the educational and occupational profiles of individuals in our study, a notable proportion has education levels beyond high school (27.1%) and is unemployed (57%). Similar trends have been observed in studies conducted in Tanzania and by CG Devaraj et al.<sup>1,3</sup> Factors contributing to these trends include inadequate awareness about oral health in rural areas, limited access to healthcare facilities, fewer job opportunities, inadequate educational resources, and high treatment costs.

**Table 2:** Distribution of the study subjects based on chief complaints

	Category	Frequency	Percentage
Chief complaints	Replacement of all the missing teeth	10	4.5
	Replacement of few missing teeth	11	5.0
	Decay	20	9.0
	Loose teeth	10	4.5
	Bleeding gums	5	2.3
	Food lodgement	20	9.0
	Fractured tooth	20	9.0
	Teeth cleaning	5	2.3
	Pain	20	9.0
	Sensitivity	20	9.0
	Deciduous tooth decay	10	4.5
	Deciduous tooth pain	10	4.5
	Premalignant condition	20	9.0
	Tumours/ Cancer	20	9.0
	Orthodontic irregular teeth	20	9.0
	Total	221	100.0

**Table 3:** Reasons for delay in seeking the dental treatment

	Category	Frequency	Percentage
Reasons for not visiting doctors till now	Cost of treatment	20	9.0
	Bad general health	6	2.7
	Dental fear	9	4.1
	Negligence	60	27.1
	Work pressure	8	3.6
	Lack of symptoms	32	14.5
	No leave from work	5	2.3
	Study pressure/exams	6	2.7
	Previous painful dental experience	6	2.7
	Family problems	9	4.1
	Symptoms reduced with Self medication	8	3.6
	Symptoms reduced by consultation with local dentist	11	5.0
	Symptoms reduced with home Remedies	10	4.5
	Unavailability of service at their place	1	0.5
	Milk teeth will fall anyway	5	2.3
	Treatment postponed because parents couldn't get	5	2.3
	long duration of orthodontic treatment	2	0.9
	Patient refused treatment as orthodontic extraction was advised	1	0.5
Patient was not aware of the problem (tumour)	15	6.8	
Others	2	0.9	
Total	221	100	

Many participants in our study reported various dental issues, including decay, pain, sensitivity, tumours/cancerous lesions, precancerous lesions and orthodontic irregularities. These findings highlight a tendency among patients to seek treatment only after their dental conditions has significantly progressed, negatively impacting their quality of life. Similar delays in seeking dental treatment have been documented in other studies.<sup>1-3,5</sup>

Participants identified several primary reasons for delaying dental treatment, including negligence (27.1%), lack of awareness about symptoms (14.5%), and concerns about treatment costs (9%). Neglecting early dental care is particularly concerning as it can lead to the exacerbation of dental diseases, increased pain, and the need for more complex and expensive treatments. Therefore, it is essential for individuals to prioritize oral health and seek timely professional dental care. This issue has been consistently

highlighted in numerous global studies.<sup>1,3–5,8,11</sup> In our study, only 3.6% of participants reported practicing self-medication. This contrasts sharply with another study where a significant 81% of participants had used self-medication for dental issues.<sup>12</sup>

Several participants in the study indicated that they did not seek dental treatment because they did not experience any symptoms. However, it is crucial to emphasize that early intervention, even in the absence of symptoms, is essential for preventing the progression of dental diseases. This finding is consistent with previous studies which have also identified the lack of symptoms as a significant barrier to seeking timely dental care.<sup>2–4,6,10</sup>

In this study, a significant number of participants hail from rural and suburban areas where the cost of dental treatment emerged as a prominent factor preventing early care-seeking behaviour. In countries like India, where financial constraints often limit access to dental care, many individuals may delay seeking treatment until conditions worsen, often opting for extractions as a more cost-effective solution at a later stage. Similar observations have been reported in other studies.<sup>1,2,9,11,13–15</sup>

## 5. Conclusions

This study highlights significant barriers to timely dental treatment among patients in Dharwad, India, including negligence, lack of symptom awareness, and financial constraints, particularly in rural and suburban areas. Patients often delay seeking care until symptoms arise, influenced by misconceptions about dental health and cost considerations favouring extraction over preventive measures.

Addressing these challenges requires targeted efforts to enhance oral health awareness, promote early preventive care, and improve access to affordable dental services, especially for underserved populations. Policy initiatives aimed at reducing treatment costs and expanding healthcare infrastructure could play a pivotal role in improving oral health outcomes and reducing the burden of advanced dental diseases in India.

## 6. Ethical Considerations

The study received ethical clearance from the institutional ethical board before commencement. (SDMCDS IEC No. 2023/HS/Public Health Dent./77 dated 30/12/2023).

## 7. Conflict of Interest

None.

## 8. Source of Funding


None.

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