

## **Common Reasons for Visiting A Dental Hospital- A Retrospective Study**

**Type of the study:** Original study

**Running title:** Common reasons for visiting a dental hospital.

**V. Ranjith Akshay Seshadri**

Postgraduate Student  
Saveetha Dental College and Hospitals,  
Saveetha Institute Of Medical and Technical Sciences,  
Saveetha University,  
Chennai, India  
Mail Id: 152011006.sdc@saveetha.com

**Vignesh Ravindran**

Senior Lecturer,  
Department of Pediatric and Preventive Dentistry,  
Saveetha Dental College and Hospitals,  
Saveetha Institute Of Medical and Technical Sciences,  
Saveetha University,  
Chennai, India  
Mail Id: vigneshr.sdc@saveetha.com

**Corresponding Author**

**Vignesh Ravindran**

Senior Lecturer,  
Department of Pediatric and Preventive Dentistry,  
Saveetha Dental College and Hospitals,  
Saveetha University,  
162, PH Road, Chennai-77  
Tamilnadu, India  
Contact No: +91 9789934476  
Mail Id: seshadriyer10@gmail.com

### **ABSTRACT**

**Background:** The diseases of the oral cavity are a major source of public health concern and have a significant impact on people's quality of life. People's quality of life and capacity to function properly can be harmed by tooth pain.

**Aim:** The purpose of this research was to determine the common reasons for visiting a dental hospital over a five year period.

**Materials and Methods:** This study had a sample size of 1,75,721 patients of 1-90 years visiting a university dental hospital, Chennai. The common reasons were divided into 10 sub categories and over a period of 5 years from 2015-2019. Data was collected and compared by year, gender, and age groups using the Chi-square test, which was judged statistically significant when the p value was less than 0.05.

**Results and Discussion:** The results of the present study shows that males predominantly visited the dental facility for reasons of deposits/bad breath (65.7%) and deleterious oral habits (63.6%) and females for routine dental checkup followed by pain and dental caries ( $p=0.007$ ). Patients less than 17 years of age reported with deleterious oral habits (80.9%), 15-35 years reported with pain/sensitivity (46.1%), 36-50 years reported for routine visits (46.9%) and above 50 years reported for management of missing teeth (67%) ( $p=0.032$ ).

**Conclusion:** Majority of males reported for oral hygiene concerns while the females reported for routine dental checkup. Patients and their parents must be educated about the need of good oral hygiene and regular dental checkups.

**Keywords:** Dental hospital, Common reasons, Patients, Oral health.

## INTRODUCTION

In low-income countries, oral diseases such as dental caries, periodontitis, and oral cancer are important health problems and are particularly prevalent among men (1). These disorders are rarely self-limiting, and if left untreated, they can have serious consequences for a person's general health and oral health (2). Oral diseases can be mostly prevented by regular home oral care and frequent dental visits (3). Other than the common reasons, there are certain emergency dental visits which are for the care of patients who present with oral problems, like the dental and orofacial pain. The main objective of such problems is to remove pain and uncomfortable stimuli (4).

Early dental visits have also resulted in fewer treatment needs and decreased expenditures (5). In children, lack of dental care resulting in early childhood caries during their childhood can affect their speech, nutrition and quality of life. In most cases, a child's first dental appointment occurs during his or her first year of life (6). In countries like India, there are several dental colleges that emphasise the need for pediatric oral health care to children at affordable costs (7).

People who live in cities and semi-urban areas have easier access to and lower costs for dental treatment (8). Dentists must know about the common dental diseases and its complications that cause pain in order to assist in the management of the patient's symptoms. Appropriate advice and details regarding analgesics and other drugs prescribed to the patient for tooth pain is important. Pain and sensitivity is one of the most common symptoms and these can be due to various reasons such as food impaction, dental caries, pulpitis, root caries, mobility etc (9). As a result, the primary goal of this study was to evaluate the most common causes for visiting a dental hospital over the course of five years.

## MATERIALS AND METHODS

### Study design

This cross-sectional study took place in a University setting in the outpatient department in a private dental institute in Chennai. The study included all male and female patients visiting the dental OPD between 1-90 years old who presented with chief complaints related to dental treatment needs. Written consents were obtained from all the patients for the usage of dental records for scientific purposes.

### Data collection

The ethical approval was obtained by the institutional ethical review board. Data were collected from analysing the case sheet records of 2,03,488 patients. Inclusion criteria were all the patients who visited the hospital's outpatient department during the time of January 2015 to December 2019. Exclusion criteria were patients who reported due to road traffic accidents, emergency conditions like severe facial cellulitis, Ludwig's angina which required immediate admission, case sheets with incomplete records of the chief complaint and dental status examination and patients who were not willing to participate and not willing to provide consent for the study. All the case sheets of the patients were analysed and the chief complaints along with the demographic details of the patients were recorded. Routine dental checkups, dental caries, deposits/bad breath, trauma, pain/sensitivity, malocclusion, missing/extra teeth, movable teeth, detrimental behaviours, and others (cleft lip/palate, soft tissue lesions) were all divided into ten subcategories. The collected data were randomly verified by one external reviewer by cross verification of the chief complaint and intra oral examination reports. If any

discrepancy was noticed, the data was excluded from the study. All the data that were collected were tabulated in MS excel software.

### **Statistical analysis**

Descriptive statistics was done using IBM SPSS software version 23.0(IBM software, Chicago, IL, USA). The Chi-square test was used to compare data by year, gender, and age groups, and statistical significance was determined when the p value was less than 0.05.

## **RESULTS**

A total of 2,03,488 case sheets were analysed. Among the case sheets analysed 27,767 were excluded from the study (22,517 case sheets had incomplete records of the chief complaint and dental status examination, 5250 patients reported due to emergency dental treatments). So a total of 1,75,721 case sheets were considered for the study. Among the case sheets analysed 22454 patients reported during 2015, 42611 patients reported during 2016, 40430 patients reported during 2017, 38475 patients reported during 2018 and 31751 patients reported during 2019. Among the case sheets analyzed, 43.3% (n=75835) were males, 56. 7% (n=99867) were females and 0.02% (n=19) were transgenders. Among the case sheets analyzed, 13.09% (n=23003) were < 17 years of age, 47.4% (n=83418) were 18-35 years of age, 24.4% (n=42914) were 36-50 years of age and 15.01% (n=26386) were >50 years of age. The most common reason for the dental visit was pain or sensitivity (31.1%; n=54628) followed by mobile tooth (20.7%; n=36312) and deposits/bad breath (13.3%; n=23365). The least common reason being routine dental checkup (0.3%; n=593) [Fig.1]

On comparing the results based on gender of the patient and year of the dental visit statistically significant results were obtained, while no statistical significant difference was obtained when compared based on the age group of the patient. Males predominantly visited the dental facility for reasons of deposits/bad breath (65.7%) and deleterious oral habits (63.6%). Females predominantly visited the dental facility for routine dental checkup followed by pain and dental caries (p=0.007) [Fig.2]

Patients reported to the dental facility for reasons of deposits/bad breath in 2015 (n=10677), missing tooth in 2016 (n=22879), mobile tooth in 2017 (n=20362), while a predominant number of patients visited for routine dental checkup in 2018 (n=13980) (p=0.032) [Fig.3]. Patients below 17 years of age commonly reported for management of deleterious oral habits (n=10288), 18-35 years for management of pain (n=21838) 36-50 for routine dental checkup (n=18923) and above 50 years for management for missing teeth (n=16567) (p=0.369) [Fig.4].

## **DISCUSSION**

Oral diseases are a serious public health concern and have a significant impact on an individual's quality of life (10). Dental caries is a multifactorial disease that leads to various complications in the oral cavity. Dental caries occurs in the presence of dietary fermentable carbohydrates and has been characterized as a “dietobacterial” disease (11). Another major component is the dietary sugars that lead to formation of dental caries. The measures to control caries is limited because modern diets contain refined sugars and sugar substitutes. Parents and caregivers of young children can reduce children's caries risk by limiting their consumption of sugar-containing soft drinks (12).

People's quality of life and capacity to function properly can be harmed by tooth pain. Most of the people visit dentists just for their immediate relief of pain (13). Patients in India typically visit dentists in the later stages of dental disease, when they begin to experience symptoms of pain and discomfort, which is a problem-oriented appointment rather than a preventive visit (14). According to studies, one of the most common causes for dental appointments is pain (15,16).

The findings of this survey suggest that deposits (65.7 percent) and harmful oral practises (63.6 percent) were the most common reasons for guys to visit a dental institution. This could be due to improper oral hygiene and habits such as smoking and chewing pan, whereas females reported to the dental facility with pain/sensitivity (54.1%) which can be due to dental caries and for routine dental visit (55.9%). In 2015, most of the patients reported with deposits on their teeth (26.5%) , in 2016 with missing teeth (32.7%) , in 2017 with mobile teeth (30.4%), in 2018 for routine visit (42.3%) and

in 2019 with dental caries (26.8%). From the present study, the results show that patients less than 17 years of age reported with deleterious oral habits (80.9%) and this could be for orthodontic management, 15-35 years reported with pain/sensitivity (46.1%) which could be due to improper food habits leading to formation of dental caries and pain, 36-50 years reported for routine visit (46.9%) for proper maintenance of oral health and above 50 years reported for management of missing teeth (67%) for functional concerns of mastication and slight aesthetic concerns.

An early dental checkup, before the child reaches the age of twelve months, will enable the dentist to detect early lesions, evaluate craniofacial and dental development, provide anticipatory guidance, parent counselling, and diet counselling, and encourage parents to engage in preventive therapies. Common reasons for dental neglect are the oral health knowledge is limited and its complications, unproductive education, limited availability of private health centres and dental care and lower socioeconomic status of patients (17). Few of the patients reported with chief complaint with secondary caries from their previous dental visits and the bulk of the patients got dental restorations, which were afterwards followed by oral prophylaxis.(18).

From the five-year data collected (2015-2019), a meagre number of patients visited for routine dental checkup. This indicates that only few patients were aware of prevention of oral diseases and oral health. As a result, the top reasons for not seeking early treatment were a lack of information, dental neglect, and financial insecurity. It is recommended that individuals be educated on the need of visiting dental clinics for treatment. Prevention and care should be at the forefront of oral health care, according to health care professionals. A person's ability to eat, speak, and socialize is dependent on their dental health. It helps with nutrition, general health, and overall quality of life.

This is one among the very few studies in assessing and analyzing the dental requirements through a five year period with a large sample size. The drawback of the study was that the data collected were patients reporting to a limited geographic location(i.e) a single private dental institute. Further studies with different geographic location, race, ethnicity and a multicentric data collection would further improve the data validation.

## CONCLUSION

Within the confines of the current study's limitations, pain or sensitivity and mobile teeth were the common reasons for dental visit. Majority of males reported for oral hygiene concerns while the females reported for routine dental checkup. Younger patients reported for management of deleterious oral habits causing malocclusion while the elders reported for management of edentulous conditions. Practitioners must impart knowledge and educate the patients and their parents about the importance of routine dental visits and promote changes towards positive health seeking behaviour.

## ACKNOWLEDGEMENT

The authors would like to express their gratitude to the Saveetha Dental College and Hospitals' Department of Pediatric and Preventive Dentistry, as well as the management, for their ongoing assistance with the research.

## CONFLICTS OF INTEREST

There are no conflicts of interest.

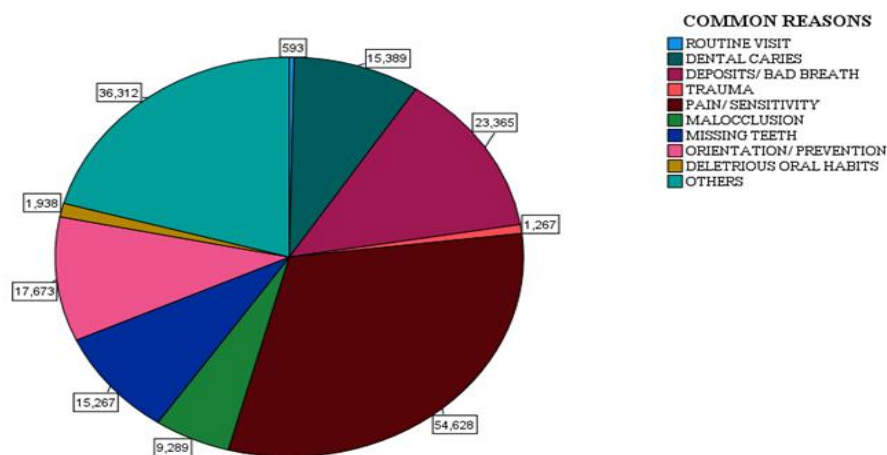
## REFERENCES

1. Petersen PE. Global policy for improvement of oral health in the 21st century--implications to oral health research of World Health Assembly 2007, World Health Organization. Community Dent Oral Epidemiol. 2009 Feb;37(1):1-8.
2. Cohen LA, Bonito AJ, Eicheldinger C, Manski RJ, Macek MD, Edwards RR, et al. Behavioral and Socioeconomic Correlates of Dental Problem Experience and Patterns of Health Care-Seeking. Vol. 142, The Journal of the American Dental Association. 2011. p. 137-49. <http://dx.doi.org/10.14219/jada.archive.2011.0056>
3. Arora SA, Jayna A, Sharma A, Atri M. Socio-demographic factors influencing Preventive Dental Behaviours in

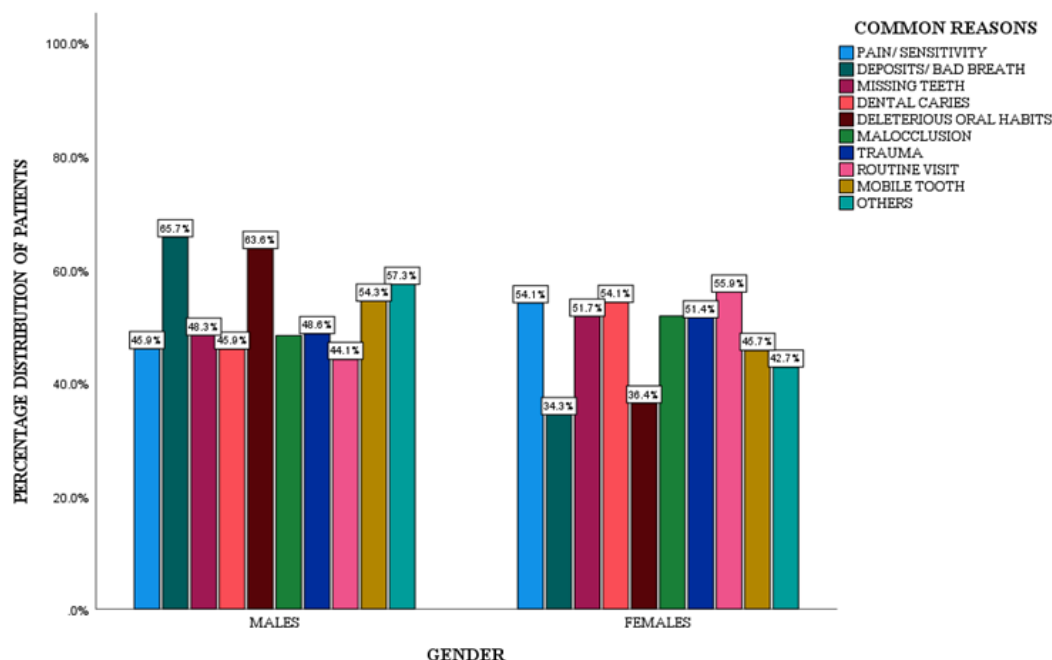
- an Adult Dentate population: A questionnaire based survey .Vol. 3, Indian Journal of Dental Advancements. 2011. p. 483–91. <http://dx.doi.org/10.5866/3.2.483>
4. Cunha RF, Pugliesi DMC, De Mello Vieira AE. Oral trauma in Brazilian patients aged 0-3 years. Vol. 17, Dental Traumatology. 2001. p. 206–8. <http://dx.doi.org/10.1034/j.1600-9657.2001.170504.x>
  5. Savage MF, Lee JY, Kotch JB, Vann WF Jr. Early preventive dental visits: effects on subsequent utilization and costs. Pediatrics. 2004 Oct;114(4):e418–23.
  6. Fleming P, Gregg TA, Saunders IDF. Analysis of an emergency dental service provided at a children's hospital . Vol. 1, International Journal of Paediatric Dentistry. 1991. p. 25–30. <http://dx.doi.org/10.1111/j.1365-263x.1991.tb00317.x>
  7. Baliga M. Child's first dental visit in India: A reappraisal .Vol. 37, Journal of Indian Society of Pedodontics and Preventive Dentistry. 2019. p. 113. [http://dx.doi.org/10.4103/jisppd.jisppd\\_195\\_19](http://dx.doi.org/10.4103/jisppd.jisppd_195_19)
  8. Mittal R, Kumar S, Bhondey A, Rath A. Assessment of the Age of First Dental Visit among Dental Students in Nagpur, Maharashtra, India: A Cross-sectional Study .Vol. 4, International Journal of Oral Care & Research. 2016. p. 251–4. <http://dx.doi.org/10.5005/jp-journals-10051-0056>
  9. Mäntyselkä P, Kumpusalo E, Ahonen R, Kumpusalo A, Kauhanen J, Viinamäki H, et al. Pain as a reason to visit the doctor: a study in Finnish primary health care . Vol. 89, Pain. 2001. p. 175–80. [http://dx.doi.org/10.1016/s0304-3959\(00\)00361-4](http://dx.doi.org/10.1016/s0304-3959(00)00361-4)
  10. Das G, Qamar K, Rana MH, Ahmed S, Chachar ZH, Mushtaque K. Oral health related quality of life by means of functional changes in Geriatric Oral Health Assessment Index (GOHAI) before and after insertion of new conventional complete dentures in completely edentulous patients. Vol. 26, The Professional Medical Journal. 2019. p. 2085–9. <http://dx.doi.org/10.29309/tpmj/2019.26.12.3128>
  11. Bowen WH, Birkhed D. Dental Caries: Dietary and Microbiology Factors .Systematized Prevention of Oral Disease: Theory and Practice. 2019. p. 19–41. <http://dx.doi.org/10.1201/9780429283758-3>
  12. Sohn W, Burt BA, Sowers MR. Carbonated Soft Drinks and Dental Caries in the Primary Dentition . Vol. 85, Journal of Dental Research. 2006. p. 262–6. <http://dx.doi.org/10.1177/154405910608500311>
  13. Al-Shammari KF, Al-Ansari JM, Al-Khabbaz AK, Honkala S. Barriers to Seeking Preventive Dental Care by Kuwaiti Adults .Vol. 16, Medical Principles and Practice. 2007. p. 413–9. <http://dx.doi.org/10.1159/000107733>
  14. Manski RJ, Magder LS. DEMOGRAPHIC AND SOCIOECONOMIC PREDICTORS OF DENTAL CARE UTILIZATION . Vol. 129, The Journal of the American Dental Association. 1998. p. 195–200. <http://dx.doi.org/10.14219/jada.archive.1998.0177>
  15. Ekanayake L, Mendis R. Self reported use of dental services among employed adults in Sri Lanka . Vol. 52, International Dental Journal. 2002. p. 151–5. <http://dx.doi.org/10.1111/j.1875-595x.2002.tb00620.x>
  16. Jaafar N, Jalalluddin RL, Razak IA, Esa R. Investigation of delay in utilization of government dental services in Malaysia . Vol. 20, Community Dentistry and Oral Epidemiology. 1992. p. 144–7. <http://dx.doi.org/10.1111/j.1600-0528.1992.tb01549.x>
  17. Jamieson LM, Murray Thomson W. The Dental Neglect and Dental Indifference scales compared . Vol. 30, Community Dentistry and Oral Epidemiology. 2002. p. 168–75. <http://dx.doi.org/10.1034/j.1600-0528.2002.300302.x>
  18. Heaton LJ, Smith TA, Raybould TP. Factors Influencing Use of Dental Services in Rural and Urban

Communities: Considerations for Practitioners in Underserved Areas. Vol. 68, Journal of Dental Education. 2004. p. 1081–9. <http://dx.doi.org/10.1002/j.0022-0337.2004.68.10.tb03853.x>

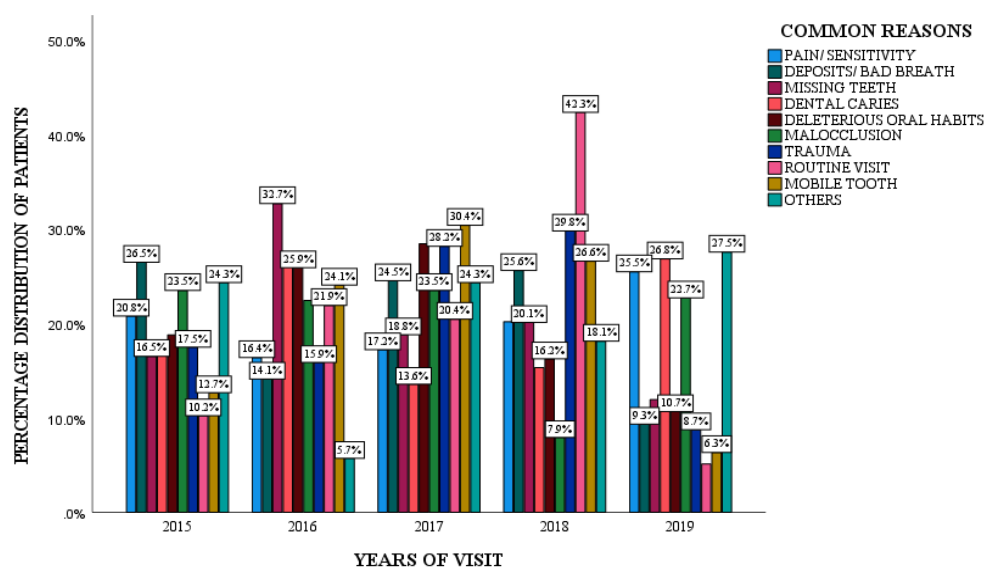
**Figure 1: Pie chart depicting the number of patients visiting the dental OPD based on the categorised chief complaint.**



**Figure 2: Bar graph representing the comparison of reasons of dental visit based on gender of the patients. [P <0.05 (Chi square test, P=0.007)]**



**Figure 3: Bar graph representing the comparison of reasons of dental visit based on the year of dental visit. [P <0.05 (Chi square test, P=0.032)]**



**Figure 4: Bar graph representing the comparison of reasons of dental visit based on the age group of the patients. [P >0.05 (Chi square test, P=0.369)]**

