

# Assessment of the Age of First Dental Visit among Dental Students in Nagpur, Maharashtra, India: A Cross-sectional Study

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## ABSTRACT

**Aim:** The aim of the article is to assess the age of the first dental visit among dental students in two reputed private dental institutions situated in Nagpur, Maharashtra, India.

**Materials and methods:** A cross-sectional study was conducted to evaluate the age of first dental visit among dental students including undergraduates, interns, and postgraduates in two reputed private dental institutions situated in Nagpur, Maharashtra, India. Ethical clearance for this study was obtained from the Institutional Ethical Committee and the Dean of the respected dental colleges. A total of 537 dental students, irrespective of their gender, who were willing to be part of the study were enrolled, and a questionnaire was provided to them, which included the questions related to their first dental visit and experiences related to it. The data thus obtained were analyzed using Epi Info software version 6.

**Results:** Based on the individual questions in the questionnaire, the results were interpreted. It was found that only 2.6% had visited the dentist in the early age, i.e., 0 to 5 years, whereas 44.4% had visited the dentist when they were older than 17 years. The most common reason for visiting the dentist was caries. About 78.5% of dental students had experienced dental treatment, with 77.3% among them clearly remembering the dental treatment provided to them. Maximum subjects had undergone dental restorations. It was observed that only for 47.7% subjects, recall visits were scheduled, and among these subjects, only 44.06% had reported for the recall visits. About 30.3% had rated that their first visit to the dentist was good, whereas 5.2% had reported it to be painful.

**Conclusion:** Thus, from the present study, it is evident that the necessary awareness regarding the first dental visit is very low, with the subjects approaching the dentist after the establishment of oral ill health thus demanding interception rather than prevention of diseases.

**Keywords:** First dental visit, Dental students, Dental awareness.

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## INTRODUCTION

As rightly said, "the child is the father of man"; therefore, the patterns and practices inculcated in early childhood and thereafter, positively reinforced, will definitely lead to regular implementation of the same in adulthood. Similarly, early dental visits help in primary prevention by early diagnosis of risk factors, parental counseling, allaying of anxiety and neglect toward dentistry among children and parents, instilling a positive behavior in the child for dental treatment, providing age-appropriate anticipatory guidelines, and establishment of dental home.<sup>1</sup> To achieve these goals, the American Academy of Pediatric Dentistry (AAPD) and the American Dental Association (ADA) recommend that "a child should visit the dentist within 6 months of eruption of the first primary tooth and no later than 12 months of age whereas American Academy of Pediatrics recommends oral health risk assessment by 6 months of age and establishment of Dental Home for all infants by 12 months."<sup>2-4</sup>

However, to create this awareness, the dentist has to work synchronously with pediatricians, general practitioners, various government and nongovernment aided organizations. In India, currently, there are 310 dental colleges admitting around 30,570 dental undergraduates and about 3,000 postgraduates per year.<sup>5-7</sup> This number of dental undergraduates can play a magnificent role in providing awareness among common population regarding the importance of oral health, its impact on general health, and the need for early and regular dental visits. Further, out of the 310 dental colleges in the country, 292 are owned privately and many of these institutions are facing paucity of patients, thus requiring conductance of frequent oral health camps.<sup>5</sup> Here the question arises whether the undergraduates who are participating in huge numbers in these dental camps are themselves aware of the importance of first dental visit, their age of the first dental visit, whether they had ever visited a dentist before the arousal of problem in the oral cavity, or they just participate to

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attract patients and increase the outpatient department (OPD) of the institution. Therefore, the present study was carried out with the aim to assess the age of the first dental visit among dental students in two reputed private dental institutions situated in Nagpur, Maharashtra, India.

## MATERIALS AND METHODS

The present study was a cross-sectional study conducted to evaluate the age of first dental visit among dental

students including undergraduates, interns, and post-graduates in two reputed private dental institutions situated in Nagpur, Maharashtra, India, from November 2015 to April 2016. Ethical clearance for this study was obtained from the Institutional Ethical Committee and the dean of the respected dental colleges. A total of 537 dental students, irrespective of their gender, who were willing to be part of the study were enrolled in Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital.

### Questionnaire 1: Assessment of the age of the first dental visit of dental students

Name:	Designation:
1. Have you ever visited any dentist? a. Yes b. No	6. If yes, then what was the treatment given? a. Filling b. Ortho-treatment c. Extraction d. Cleaning of tooth e. Root canal treatment f. Crowns g. Any other
2. If yes, then at what age did you visit the dentist for the first time?	7. Did the dentist call you for a further visit? a. Yes b. No
3. What was the reason for first dental visit? a. Tooth pain b. Caries c. Fracture/trauma d. Ulcers e. Irregular teeth f. Routine check up g. Any other reason	8. If yes, then did you revisit the dentist again on recall?
4. Did you undergo any treatment? a. Yes b. No	9. How do you rate your first experience with the dentist? a. Excellent b. Very good c. Good d. Satisfactory e. Painful
5. If yes, then do you remember the treatment given to you?	

It was made sure that the questionnaire was completely filled following which the results were statistically analyzed.

## RESULTS

In the present cross-sectional study, 78.7% (423 out of 537) of the dental students had made a visit to the dentist (Table 1) and only 2.6% (11 out of 423) had visited the dentist at an early age, i.e., 0 to 5 years (Table 2), whereas 44.4% (188 out of 423) had visited the dentist when they were older than 17 years (Table 2), i.e., after joining dental college. It was documented that the most common reason for visiting the dentist was caries followed by routine dental checkup, irregular teeth, tooth pain, for various other reasons, fracture/trauma, and ulcers in the oral cavity (Table 3). About 78.5% of the dental students (332 out of 423) had experienced dental treatment (Table 4), with 77.3% (327 out of 423) clearly remembering the dental treatment provided to them (Table 5). Among the various treatments that were delivered, maximum

**Table 1:** Visit to any dentist

Visited to dentist	No. of persons	%
Yes	423	78.77
No	114	21.23
Total	537	100

**Table 2:** Age of visit to a dentist

Age group (years)	No. of persons	%
0–5	11	2.60
6–12	141	33.33
13–16	83	19.63
More than 17	188	44.44
Total	423	100

**Table 3:** Reasons for first dental visit

Reason	No. of persons	%
Tooth pain	50	11.82
Caries	145	34.28
Fracture/trauma	26	6.15
Ulcer	25	5.91
Irregular teeth	55	13.00
Routine checkup	79	18.68
Any other reason	43	10.16
Total	423	100

**Table 4:** Treatment taken

	No. of persons	%
Yes	332	78.49
No	91	21.51
Total	423	100

**Table 6:** Name of treatment

Treatment	No. of persons	%
Filling	123	29.08
Ortho treatment	64	15.13
Extraction	72	17.02
Cleaning of teeth	67	15.84
Root canal treatment	44	10.40
Crowns	20	4.73
Any other	33	7.80
Total	423	100

**Table 5:** If yes, do you remember treatment?

	No. of persons	%
Yes	327	77.30
No	96	22.70
Total	423	100

**Table 7:** Next visit

	No. of persons	%
Yes	202	47.76
No	221	52.24
Total	423	100

**Table 8:** If yes, whether visited or not?

	No. of persons	%
Yes	89	44.06
No	113	55.94
Total	202	100

**Table 9:** Rate your first experience with the dentist

Treatment	No. of persons	%
Excellent	92	21.75
Very good	104	24.59
Good	128	30.26
Satisfactory	77	18.20
Painful	22	5.20
Total	423	100

subjects had undergone restorations (29%), followed by extractions (17%), cleaning of teeth (15.8%), orthodontic treatment (15.1%), root canal treatment (10.4%), various other treatments (7.8%), and crowns (4.3%) (Table 6). It was observed that only for 47.7% subjects (202 out of 423) recalled visits were scheduled (Table 7), and among these subjects, only 44.06% (89 out of 202) had reported for the recall visits (Table 8). It was observed that 30.3% (128 out of 423) had rated their first visit to dentist as good, whereas 5.2% (22 out of 423) had reported it to be painful (Table 9).

## DISCUSSION

People believe that dental treatment is expensive, but rightly speaking it is not the dental treatment, but the neglect toward dentition accounting to the added expenditure. This dental neglect stems from lack of awareness among the population in developing as well as developed countries regarding the need for early dental visits and, thereafter, regular routine dental visit. Early dental visits aid in the early diagnosis of risk factors, provide effective parental counseling, allay anxiety, instill a positive behavior toward dentistry, provide anticipatory guidelines, and establish a dental home.<sup>1-4</sup>

The study involved a total of 537 dental students among whom the gender identification was omitted, since it is a well-known fact that the ratio of females to males enrolled in the dental institution is approximately 70:30, which might have resulted as a bias in the study. In the present pioneer study among the dental students, 78.7% of them had had a visit to a dentist (Table 1), with only 2.6% visiting the dentist at an early age, i.e., 0 to 5 years, and 44.4% (188 out of 423) visited the dentist only after joining the dental college when they were older than 17 years of age (Table 2), thus exhibiting low awareness among the study population. Considering other studies

carried by Meera et al,<sup>8</sup> which estimated the age of first dental visit to be more than 6 years, Ghimire<sup>9</sup> found it to be in the age group of 7 to 11 years, and Atulkar et al<sup>10</sup> reported that most of the subjects enrolled in their study had not visited the dentist until 17 years of age.

It was found that the most common reason for visiting the dentist was caries followed by routine dental checkup, irregular teeth, and tooth pain, for various other reasons, fracture/trauma, and ulcers in the oral cavity (Table 3), indicating that the visits were for interception rather than prevention of diseases. Similar results were reported by Nino,<sup>11</sup> Masiga,<sup>12</sup> Soxman<sup>13</sup> and Draidi et al.<sup>14</sup> The present pioneer study had found that as high as 78.5% of dental students had experienced some sort of dental treatment following the first dental visit (Table 4), and 77.3% of the subjects clearly remembered the type of dental treatment provided, the most common being restorations (Tables 5 and 6). Also, it was observed that recall dental visits were scheduled for about 47.7% subjects and among these subjects only 44.06% had reported for the recall visits (Table 8). This can be attributed to reduced awareness regarding the importance of regular dental visits among the study population.<sup>15</sup>

When enquired regarding the experience of the first dental visit, 30.3% of the subjects rated it as good, whereas 5.2% had reported it to be painful (Table 9). Thus, a pleasant experience during first dental visit can serve as an

effective measure to reduce anxiety and uncooperative behavior during subsequent dental visits.<sup>16</sup>

In early childhood, children pay frequent visits for various reasons to the family physicians and pediatricians.<sup>17</sup> Therefore, these medical professionals can play a vital role by making their patients aware regarding the importance of oral health and the need for regular dental visits by making appropriate referrals to the dentist. An underreferral to the dentist of children requiring dental treatment by medical practitioners has been well documented.<sup>18</sup> However, the study conducted by Nammalwar and Rangeeth<sup>19</sup> found that the pediatrician and physicians were aware regarding the importance of primary dentition, but did not refer the pediatric patients to the dentist predicting that the parents may pose a barrier.

## CONCLUSION

Thus, from the present study, it is evident that the necessary awareness regarding the first dental visit is very low, with the subjects approaching the dentist after the establishment of oral ill health, thus demanding interception rather than prevention of diseases. This can be prevented by undertaking the following measures:

- Creating awareness among pediatricians and obstetricians regarding oral health education and promoting referral of expecting mothers and infants to the dentist for providing anticipatory guidelines and establishment of dental home.
- Targeting the population at high risk and providing them the needed dental care.
- Working in conjugation with regulatory bodies like the Dental Council of India for establishment of a proper dentist to population ratio, especially in rural areas.
- Working in association with the Indian Dental Association to create oral health awareness, checkups, and treatment camps.
- Periodic dental checkup camps conducted by dental colleges should not only be limited to increase the OPD in the college, but also create awareness of the population regarding the importance of prevention and early and regular dental visits.

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