

Original Research Article

Knowledge, attitude and practices towards oral health among law students in Davangere city: a cross sectional survey

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Received: 12 November 2024

Revised: 19 December 2024

Accepted: 20 December 2024

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ABSTRACT

Background: Law students play an important role in health promotion and preventive information dissemination among family members and society. A study was done to assess knowledge, attitude practices towards oral health among law students in Davangere city. Aim of the study was to assess knowledge, attitude, and practices related to oral health among law students in Davangere city.

Methods: A cross sectional survey was done involving 200 law students of R. L. Law College in Davangere. Data regarding demographic details and knowledge, attitude and practices regarding oral health was collected from research participants using a questionnaire which was tested for validity and reliability. Responses were presented in percentages and Pearson's correlation test was used for data analysis.

Results: Majority (79.5%) of law students had good oral health related knowledge. Majority (93%) of them agreed to the fact that oral health is important for overall health of the body. There was no significant correlation ($p > 0.05$) between knowledge scores and gender and the year of academic course of the law students.

Conclusions: Knowledge, attitude and practices towards oral health among law students in Davangere city was fair.

Keywords: Law students, Oral health, Knowledge, Attitude, Practices, Oral hygiene

INTRODUCTION

Oral health is an integral component of general health. Oral cavity is considered as "mirror of general health".¹ Neglect of oral health, on the other hand, can lead to pain and suffering, which can affect individuals' quality of life and hinder productivity. Oral hygiene knowledge is considered to be an essential prerequisite for health-related behaviour.² Good oral health enables an individual to eat, speak and socialize without discomfort and contributes to general well-being.³

Dental diseases are a significant public health burden in India as well as across the globe. This scenario of oral health might be related to the rapid development of oral

diseases following lifestyle changes such as consumption of a sugar-rich diet, lack of water fluoridation, and other socio-environmental factors. The consequences of widespread poor oral health can be seen on the personal, population, and health systems level, as caries and periodontal disease deteriorates the individual health and wellbeing, decrease economic productivity, and act as significant risk factors for other systemic health ailments.⁴

Promotion of self-oral care goal by WHO may improve the oral health of the individuals.⁵ Oral self-care includes tooth brushing twice a day, lesser consumption of sugar containing snacks and regular use of fluoride containing tooth paste. There is an association between increased knowledge regarding oral hygiene and better oral health.⁶ The young students play an important role in health

promotion and preventive information dissemination among family members and society. As a result, it is important, their oral health knowledge is good.⁷ The high incidence and prevalence of oral diseases universally qualifies oral health as a serious public health issue. According to the World Health Organization (WHO), oral health problems are still not overcome universally despite the considerable improvements in oral health measures among populations. Establishing a standard of detailed information regarding oral health knowledge and healthy oral hygiene habits will help policymakers set attainable goals and track changes. Moreover, this standard information will strengthen oral health programs through the application of effective prevention measures. The law students are less exposed to health care knowledge and literature revealed limited studies among law students related to oral health.⁷ So, the present study was planned to assess knowledge, attitude and practices towards oral health among law students in Davangere city.

METHODS

Study design was observational, cross sectional questionnaire survey. The study was conducted at Law college premises. The duration of study period was from January 2023 to March 2023. All students (around 300) studying in the college who fulfilled the eligibility criteria were invited to take part in the study. Law college students studying in Law college in Davangere city who were present on the day of survey and consented to participate were involved in the study. Ethical approval was obtained from the Institutional Review Board of Bapuji Dental College and Hospital, Davangere (Reference Number-Reg. No. ECR/1652/Inst/KA/2022/23/08-003). Voluntary informed consent was obtained from the study participants prior to the start of the study after informing about the research details through a participant information form.

Description of the proforma used for data collection

Data was collected using structured proforma containing provision to record demographic profile (name, age, sex, year of study) and validated questionnaire to assess the Knowledge, Attitude and Practices related to oral health.

Description of questionnaire

A pretested, predesigned questionnaire was adopted from a previous study and was modified, which consisted of close ended 21 items among which there were 7 items assessing the knowledge, 5 items assessed attitude and 9 items were based on practices related to oral health.⁷

Content validity of the questionnaire

Modified version of the questionnaire was tested for validity by five validators (two public health dentists, one periodontist, an English high school teacher and an advocate). Items in the questionnaire was assessed for relevance, simplicity, clarity and ambiguity. The content

validity index (CVI) of questionnaire was computed and validity was tested. The content validity index score for relevance, clarity, simplicity and ambiguity were 0.73, 0.75, 0.76 and 0.89, respectively. These CVI values suggested that the questionnaire had a good content validity. Necessary modifications were done based on comments of the validators.

Method of administration of questionnaire

Prior schedule was made to meet the law college students and were asked to assemble in their respective classrooms during the free hours. The objectives of the study were explained and informed consent was obtained from the participants by the investigator before the start of study. The validated questionnaire was provided to the law students in the respective class rooms and 30 minutes was be given to them to complete the questionnaire. Participating law students were instructed not to discuss among themselves while answering the questionnaire. Care was taken to avoid any type of influence on the responses in any manner. Questionnaires were collected after checking its completeness.

Statistical analyses

IBM statistical package for the social sciences (SPSS) Statistics for Windows, version 20 (IBM Corp., Armonk, N.Y., USA) was used for statistical analysis. The significant level was fixed at $p < 0.05$. Descriptive statistics were generated in terms of frequencies and percentages. Responses to knowledge based questions were given weights and score for an individual was calculated by summing up the weights of all responses to knowledge based questions. The total scores for each participant ranged between 0-12, which was categorized as 0-4 – poor knowledge, 4.1-8 – fair knowledge, and 8.1-12 – good knowledge. Student's unpaired "t" test, one-way analysis of variance (ANOVA) tests were used to compare knowledge scores between groups since data followed normal distribution.

RESULTS

Mean age of the participants was 23.06 ± 4.61 years. Overall mean knowledge score of the participants was 6 ± 1.63 which reflected fair knowledge about oral health among participants. Majority of the students were from 1st year (55%) and the rest belonged to 2nd (23%), 3rd (8%), 4th (11%) and final year (3%) and most of the participants were females (51%).

Based on the responses to knowledge-based questions (Table 1), majority (79.5%) of students were aware of number of permanent teeth in an adult. Most of the participants were aware of calculus and answered that it leads to gum infections (40%). They knew the identifying characteristics of tooth decay (60%) and were aware of the ability of fluoride to prevent tooth decay (40%). Majority of them knew that mouthwashes are used to prevent or

reduce gum problems (70.5%). Around 93% of them agreed to the fact that oral health is important for overall health of the body.

Based on the responses to attitude based questions (Table 2), a higher percentage (54.5%) of them were comfortable meeting a dentist and maximum number (74%) of students felt dental treatment was expensive. Half of the participants (54.5%) replied that they were concerned about oral health for aesthetics, to prevent bad breath and to sustain the tooth for longer duration of time. Around 51% of the participants believed that a visit to the dentist was necessary only when there was a problem.

The responses based on practices (Table 3) showed that around 42-45% percentage of students brushed their teeth once or twice daily and most of them used medium bristled tooth brush (47%). Majority of them changed their tooth brush in every 3 months (64.5%) and only few of them used dental floss (5.5%). Around 30.5% of students consumed carbonated drinks rarely and 36.5% of them consumed sweets 3-4 times a week. Majority of students rinsed their mouth with water after eating food (53.5%). Gender wise and Year wise comparison of mean knowledge scores across groups showed no difference in the knowledge scores ($p>0.05$) (Table 4).

Table 1: Responses of participants towards knowledge based questions.

Questions	Response	Frequency	Percentage
How many permanent teeth are present in adult's mouth?	20	5	2.5
	28	27	13.5
	32	159	79.5
	26	9	4.5
If bleeding occurs while brushing, what does it mean?	Gum infections	80	40
	Healthy gums	53	26.5
	Unhealthy gums	67	33.5
If there is yellowish or brownish discolouration near tooth/gum, what is it?	Food particles	51	25.5
	Calculus/tartar	14	7
	Stains	11	5.5
	All of the above	84	42
	Don't know	40	20
What do you notice, if there is tooth decay/cavity?	Black spot	41	20.5
	Hole in the tooth	29	14.5
	Tooth pain	33	16.5
	Don't know	37	18.5
	All of the above	60	30
Fluorides prevent tooth decay/cavity?	Agree	80	40
	Disagree	45	22.5
	Don't know	75	37.5
Mouthwashes contain medications that can prevent or reduce gum problem?	Agree	141	70.5
	Disagree	47	23.5
	Don't know	12	6
Do you think oral health is important for overall health of our body?	Yes	186	93.0
	No	14	7.0

Table 2: Responses of participants to attitude based questions.

Questions	Options	Frequency	Percentage
Where do you learn about oral health?	T.V	15	7.5
	Internet	45	22.5
	Newspaper	14	7
	All of the above	126	63
Why should you take care of your teeth and gums?	To have a good smile	35	17.5
	To prevent bad breath	9	4.5
	To keep teeth in healthy condition as long as possible	47	23.5
	All of the above	109	54.5
Do you feel dental treatment is expensive?	Yes	148	74.0
	No	52	26.0

Continued.

Questions	Options	Frequency	Percentage
Do you have anxiety or fear to visit a dentist for routine check-up or any treatment?	Yes	91	45.5
	No	109	54.5
How often do you think, you should visit the dentist?	Once in 6 months	43	21.5
	Once in a year	45	22.5
	Once in two years	9	4.5
	When there is a problem	103	51.5

Table 3: Distribution of responses of participants towards practice based questions.

Questions	Options	Frequency	Percentage
How many times do you brush your teeth daily?	Once	85	42.5
	Twice	84	42.0
	More than two times	24	12.0
	After every meal	7	3.5
How much time do you take to brush your teeth?	1-2 min	38	19.0
	2-3 min	63	31.5
	3-4 min	42	21.0
	More than 5 min	57	28.5
In addition to tooth brush and tooth paste what else do you use to keep your tooth clean?	Dental floss	11	5.5
	Tongue cleaner	53	26.5
	Mouthwash	57	28.5
	Any other	46	23.0
	None	33	16.5
What type of tooth brush do you use?	Hard	25	12.5
	Medium	94	47.0
	Soft	78	39.0
	Don't know	3	1.5
How often do you change your tooth brush?	Every 3 months	129	64.5
	Every 6 months	27	13.5
	When it gets spoiled	22	11.0
	Cannot decide	22	11.0
How frequently do you eat sweets?	Daily	53	26.5
	3-4 times a week	73	36.5
	Rarely	61	30.5
	Never	13	6.5
How frequently do you take carbonated drinks?	Daily	25	12.5
	3-4 times a week	37	18.5
	Rarely	90	45.0
	Never	48	24.0
Do you rinse your mouth with water after eating?	Always	107	53.5
	Sometimes	78	39.0
	Never	15	7.5
Have you ever visited a dentist?	Yes	124	62.0
	No	76	38.0

Table 4: Gender and year wise comparison of mean knowledge scores.

Variables	N	Mean knowledge score	T/F value	P value
Gender				
Male	99	5.95±1.67	T value -0.47	0.65
Female	101	6.06±1.60		
Total population	200	6±1.63		
Year of study				
1 st	110	6.13±1.43	F value	0.20

Continued.

Variables	N	Mean knowledge score	T/F value	P value
2 nd	46	6.19±1.97	1.5	
3 rd	16	5.81±2.07		
4 th	22	5.36±1.73		
Final	6	5.33±1.96		

DISCUSSION

The present study results indicated a fair knowledge towards oral health among law students in Davangere city. Similar results were observed in studies done among law students of Chennai city.⁷⁻⁹ Majority of the law students correctly identified the number of adult teeth in our study. Similar result was observed in a study done by Santosh et al.⁷ Many students in our study believed that fluoride helped in prevention of dental caries. Similar observations were found in studies by Muthu et al and Karthavya et al.^{8,9} Many in the present study, believed that oral health was related to general health. Similar results were seen in few studies.⁷⁻¹⁰ Many acquired knowledge related to oral health through television, internet and newspaper. Role of dentist in this regard was undermined. This calls for oral health awareness programs focusing prevention of oral diseases among lawyers by dental professionals. Majority of the students felt dental treatment to be expensive. This calls for screening programs for law students addressing their dental needs along with provision for referral services at subsidiary or free cost. Many visited a dentist when they had a problem. This highlights the low felt need among the law students which needs to be addressed by planning oral health awareness programs. Many brushed twice daily indicating good oral hygiene practice. Similar results were seen in studies done by Karthavya et al, Babitha et al, and Kumar et al, Ravishankar et al, and Agarahari et al.^{7,9-12} However, in the study done by Muthu et al, majority of the students brushed only once daily.⁸ Most of the students had the habit of mouth rinsing after meals. Similar results were seen in the study by Santhosh et al.⁷ There was no difference in the knowledge scores between males and females. Comparison of this result could not be done with other studies as no other study compared knowledge scores gender wise. Similarly, the knowledge scores were similar across the students of all the academic years. The generalizability of the study is limited since the study is conducted in one city and it was the only law college of the city. Social desirability bias cannot be ignored since it was a questionnaire-based survey. Study did not consider assessing oral health status and self-perceived oral health of law students which could have been correlated with their oral health related knowledge and practices. The candour of the responses cannot be judged as no means are available to assess the same.

CONCLUSION

Knowledge of the law students of Davangere city towards oral health and its maintenance was fair and their attitude as well as their practices towards good oral health were favorable. Based on the results of the study it can be

recommended to organize screening programs for law students addressing their dental needs along with provision for referral services at subsidiary or free cost. Designing and implementation of awareness programs among the law students can done in order to enhance their knowledge and ensure commendatory attitude and practices towards oral health.

ACKNOWLEDGEMENTS

Authors would like to acknowledge the support of administrative staff and students of R. L. Law College, Davanagere for their support.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Veeresh DJ, Yavagal PC, Verma PJ, Poornananda, Vijapur P, Basavaraj P. Knowledge, attitude and practices towards oral health among law students in Davangere city: a cross sectional survey. *Int J Community Med Public Health* 2025;12:401-6.