

ORAL HEALTH RELATED KNOWLEDGE, ATTITUDE AND BEHAVIORS OF DIFFERENT PROFESSIONAL COLLEGE STUDENTS IN HUBLI-DHARWAD, KARNATAKA, INDIA.

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ABSTRACT:

Objectives: The purpose of this study was to assess the Oral health Knowledge, Attitude and Behaviors of different Professional College (Agricultural, Pharmacy, Law, Engineering and Medical) Students in Hubli-Dharwad, Karnataka, India.

Materials and methods: 500 students from different professional colleges were selected for the study. From each college 100 students were selected randomly by using simple random sampling technique. The data was collected by pre-tested questionnaire on Oral health Knowledge, Attitude and Behaviors.

Results: A higher mean score of oral health knowledge was observed in Medical students (297.20) compared to Pharmacy (248.40), Law (247.37), Engineering (243.30) and Agriculture (216.15). A better attitude towards oral health mean scores were observed in Medical students (260.93) followed by Agriculture (256.94), Engineering (249.80), Law (246.63) and Pharmacy (238.2) students. But a significant higher oral health behavioral scores were found in Pharmacy (272.59) followed by Law (269.76), Agriculture (265.24), Engineering (254.59) and Medical (189.33) students.

Conclusion: Medical college students have significantly better oral health knowledge scores ($H=43.7600$, <0.01 , S) than the other professional college students. But, Pharmacy students have significantly higher behavioral scores ($H=52.3400$, <0.01 , S) than the other professional college students.

Key Words: Oral Health, Knowledge, Attitude Behavior, Professional college students and Kruskal Wallis Test.

INTRODUCTION

Prevention of oral disease is considered to be the most effective, acceptable and efficient method implicated to pave the way to oral health. Ideally adults should be educated to prevent the initiation and progression of the spectrum of dental disease they are likely to encounter throughout life. However dental health education has been largely aimed at young and adults because it is felt that they deserve priority 1, 9 and Adolescence is one of the key development periods of life¹

Health education, which is based on the principles of community development approach, is most promising for modification and change in health behavior^{2,3} In the last two decades more emphasis has been put on oral health education in India through mass media, dental health campaigns, school dental services and general practitioners. Oral health education like health education in general, works better when taking account of the state of knowledge and concern³ The purpose this study was to assess the knowledge, attitude and behaviors towards oral health among different professional college students. This was in order to develop community profiles to aid in the

design of appropriate dental health programmes especially aimed at different professional college students in Hubli-Dharwad, Karnataka, India.

Materials and Methods

The study population consisted of five different professional College (Agricultural, Pharmacy, Law, Engineering and Medical) Students ($n=500$) in Hubli-Dharwad, Karnataka. Convenience samples of five different professional colleges were selected for the study. A prior-permission was obtained from the concerned college authorities. From each college, 100 students were selected randomly by using simple random sampling technique. Data was collected by means of pre-tested questionnaire prepared to assess the knowledge, attitude and behaviors towards oral health among different professional college students. The questionnaire consisted of twenty multiple choices and closed-ended questions to obtain fixed answers. In which, ten questions about oral health knowledge, five questions about attitude and five questions concerning about behavior were included.

Table-1: Mean scores of oral health knowledge, attitude and behaviors of the total study according to different professional college students.

| Variables | Different professional colleges | | | | |
|-----------------------|---------------------------------|----------|--------|-------------|---------|
| | Agriculture | Pharmacy | Law | Engineering | Medical |
| Oral Health Knowledge | 216.15 | 248.40 | 247.37 | 243.30 | 297.20 |
| Oral Health Attitude | 256.94 | 238.2 | 246.63 | 249.8 | 260.93 |
| Oral Health Behavior | 265.24 | 272.59 | 269.76 | 254.59 | 189.33 |

Table-2: Mean scores and their differences on oral health knowledge among different professional college students.

| Knowledge related questions | Different professional colleges | | | | | K-W Test (H) |
|---|---------------------------------|----------|--------|-------------|---------|--------------|
| | Agriculture | Pharmacy | Law | Engineering | Medical | |
| Sets of dentition (K1) | 233.40 | 265.68 | 271.74 | 212.06 | 269.62 | 23.33* |
| Number of milk teeth (K2) | 255.65 | 241.96 | 222.59 | 248.58 | 283.72 | 14.24* |
| Number of permanent teeth (K3) | 246.18 | 239.18 | 251.12 | 257.68 | 258.34 | 3.95 |
| Purpose of tooth brushing (K4) | 192.10 | 246.48 | 235.96 | 237.67 | 340.29 | 76.04* |
| Bleeding from gums during tooth brushing (K5) | 173.57 | 238.91 | 243.45 | 266.31 | 330.28 | 76.05* |
| Formation of yellowish deposit on teeth (K6) | 186.93 | 245.83 | 248.39 | 245.50 | 325.86 | 55.81* |
| Protruded or irregularly placed teeth (K7) | 201.77 | 263.94 | 262.88 | 246.91 | 277.01 | 21.55* |
| Tooth decay (K8) | 264.28 | 275.67 | 267.20 | 232.44 | 212.91 | 25.50* |
| Infection of teeth (K9) | 191.43 | 215.25 | 235.32 | 286.19 | 324.32 | 63.86* |
| Reasons for oral cancer (K10) | 216.19 | 251.13 | 235.04 | 199.65 | 349.63 | 77.24* |
| Total scores of all | 216.15 | 248.40 | 247.37 | 243.30 | 297.20 | 43.76* |

*Significant at 1% level of significance ($p < 0.01$)

Table3: Mean scores and their differences on attitude towards oral health among different professional college students.

| Attitude related questions | Different professional colleges | | | | | K-W Test (H) |
|---|---------------------------------|----------|--------|-------------|---------|--------------|
| | Agriculture | Pharmacy | Law | Engineering | Medical | |
| Regular dental check-up (A1) | 256.50 | 236.42 | 251.78 | 258.74 | 249.06 | 5.62 |
| Importance of rinsing habit (A2) | 260.00 | 242.50 | 252.50 | 255.00 | 242.50 | 4.64 |
| Dental treatment taken (A3) | 227.00 | 252.00 | 252.00 | 234.50 | 287.00 | 13.70* |
| Replacement of missing teeth by artificial teeth (A4) | 294.00 | 249.00 | 234.00 | 264.00 | 211.50 | 30.26* |
| Visit to dentist (A5) | 247.22 | 211.07 | 242.88 | 236.76 | 314.57 | 41.66* |
| Total scores of all | 256.94 | 238.20 | 246.63 | 249.80 | 260.93 | 19.18* |

*Significant at 1% level of significance ($p < 0.01$)

Table.4: Mean scores and their differences on behaviors towards oral health among different professional college students.

| Behaviors related questions | Different professional colleges | | | | | K-W Test (H) |
|---|---------------------------------|----------|--------|-------------|---------|--------------|
| | Agriculture | Pharmacy | Law | Engineering | Medical | |
| Frequency of tooth brushing (B1) | 257.31 | 249.31 | 247.69 | 239.48 | 258.72 | 1.73 |
| Opinion about negligence of toothbrush (B2) | 284.65 | 235.46 | 257.45 | 286.70 | 188.25 | 38.51* |
| Deleterious habits (B3) | 251.32 | 282.56 | 263.83 | 250.49 | 204.31 | 33.71* |
| Frequency of visits for check-up (B4) | 273.71 | 291.13 | 295.43 | 254.85 | 132.39 | 115.66* |
| Frequency of sweet consumption (B5) | 259.20 | 304.50 | 284.39 | 241.44 | 162.99 | 72.08* |
| Total scores of all | 265.24 | 272.59 | 269.76 | 254.59 | 189.33 | 52.34* |

* Significant at 1% level of significance ($p < 0.01$)

Questions relating to knowledge were; sets of dentition (K1), number of milk teeth (K2), number of permanent teeth (K3), purpose of tooth brushing (K4), bleeding from gums during brushing (K5), formation of yellowish deposit on teeth (K6), protruded or irregularity placed teeth (K7), tooth decay (K8), infection of teeth (K9) and reasons for oral cancer (K10). Questions relating to attitude were; regular dental check-up (A1), importance of rinsing habit (A2), dental treatment taken (A3), replacement of missing teeth by artificial teeth (A4), and visit to dentist (A5). Questions relating to behavior were; frequency of tooth brushing (B1), opinion about negligence of toothbrush (B2), deleterious habits (B3), frequency of visits for check-up (B4) and frequency of sweet consumption (B5). The collected data was subjected to statistical analysis using SPSSP and Kruskal-Wallis test.

Results and Discussion

A sample of 500 students of five different professional colleges was included in this study. The mean age of the five different professional college students was 22.6 years. The result concerning the knowledge related to the oral health of the sampled students is depicted in **Table.1**. It indicated that, medical students have higher mean scores of oral health knowledge and attitudes followed by other professional students like pharmacy, law, engineering and agriculture. But the behavior scores are lower in medical profession compared to other professions. The oral health knowledge scores of students were compared between different professions in all knowledge questions (**Table-2**). In the entire study, medical students ($H=43.76$, <0.01 , S) have significant higher knowledge scores compared to pharmacy, law, engineering and agriculture students. The question wise comparison of oral health knowledge among five different professional students showed statistically significant difference in all questions except in the

question relating to the total number of permanent teeth in adults at 5% level of significance ($H=3.9500$, >0.05 , NS).

Medical students have significant higher attitude scores ($H=19.18$, <0.01 , S) compared to agriculture, engineering, law and pharmacy students in the study. The question wise comparison of attitudes score in different professionals, the scores do not differ significantly in question relating to the regular dental check-up ($H=5.6200$, $p < 0.05$) and rinsing habit of mouth after every meal ($H=4.6400$, $p > 0.05$) at 5% level of significance. But, the attitudes scores show statistically significant difference among the five professional students with respect to rest of the questions (**Table-3**).

Pharmacy students have significant higher behavior scores ($H=52.34$, <0.01 , S) compared to law, agriculture, engineering and medical students in the study. But, the question wise comparison of behaviors score among the five different professional students shows statistically significant difference in four questions at 1% level of significance except for the question relating to frequency of brushing ($H=1.7312$, $p > 0.05$). It means all the five college students have similar behaviors towards the frequency of tooth brushing (**Table.4**).

CONCLUSION

Thus the findings of the study reveal that oral health knowledge was better in five different professional college students (Hubli-Dharwad, Karnataka) than the behavioral and attitude scores. It also shows that more percentage of variation in attitude scores among five different professional college students compared to behavioral and knowledge scores. Therefore, the study suggest and recommend that, proper oral health education is required

to improve the attitude and behaviors of five different professional college students of Hubli-Dharwad, Karnataka.

Prevention of oral disease is considered to be the most effective, acceptable and efficient method implicated to pave the way to oral health. Ideally adults should be educated to prevent the initiation and progression of the spectrum of dental disease they are likely to encounter throughout life. However dental health education has been largely aimed at young and adults because it is felt that they deserve priority 1, 9 and Adolescence is one of the key development periods of life¹

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