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Evaluation of awareness of periodontal health among the computer engineering students

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ABSTRACT

Aim-To assess the oral health awareness and knowledge about periodontal diseases among the students of Engineering Colleges.

Material and methods- A study was conducted among 200 students to determine the sample size. The pilot study revealed major awareness rate among the students.

Results- Despite the academic backgrounds, many participants demonstrated a lack of knowledge regarding common oral health issues such as bleeding gums and bad breath, with only a minority recognizing the role of poor oral hygiene.

Conclusion- There is a pressing demand for inclusive educational initiatives aimed at fostering optimal oral health and providing fundamental instruction on proper oral hygiene practices from an early stage.

Keywords-Periodontal, brushing, gums

INTRODUCTION

Most people use the word “health” casually, in juxtaposition to disease, with no frame of reference. Frequently used terms associated with health include “health benefits”, “health promotion”, “health prevention”, “health care”, “health insurance”, and “oral health”, to name just a few. Clearly, the word health means different things to different people in different situations. Although the original Old English meaning of health has survived through the centuries, what constitutes health in the twenty-first century is far more perplexing than we can suppose. What we consider to be healthy has evolved as a result of definitions of health that have varied with the times because society's perception of disease and health have been influenced by our expanding scientific knowledge base as well as our cultural, social, and individual value judgments [1,2]. Despite the continually changing set of pretexts, the definition of health is important because it provides a common reference point to define recurring signs and symptoms that are within a significant standard definition of normal. Therefore, instead of trying to define a set of periodontal diseases whose etiology we cannot comfortably explain, perhaps, a better policy would be to characterize what periodontal health actually constitutes and what can affect it.

MATERIAL AND METHODS

The questionnaire design process drew insights from a pilot study and insights gleaned from items highlighted in previous research [3,4]. Furthermore, to enhance the depth of understanding, the author skilfully crafted specific questions concerning periodontal disease knowledge. The questionnaire structure comprised two distinct sections. A pilot study was conducted among 200 students to determine the sample size. The pilot study revealed major awareness rate among the students.

RESULTS

Out of 200 participants, 126 were male and 74 were female, with a mean age of 20 ± 1.5 years. Brushing twice daily was reported by 45% of medical, and 50% of engineering students. Changing toothbrushes every 3 months was practiced by 66% of medical, 46% of engineering students. Awareness of the correct brushing technique was 69% in medical and 36% in engineering students. Knowledge of dental floss was 59% in medical and 18% in engineering students. Correct use of mouthwash was known by 62% of medical and 25% of engineering. Regular dental visits every 3 months were reported by 12% of medical and 27% of engineering students.

Table 1 Percentage of students having knowledge about oral hygiene measures

Question about oral hygiene measures	Medical students	Engineering students	Significance (P)
Frequency of brushing twice daily	45%	50%	<0.5
Frequency of changing toothbrush in 3 months	66%	46%	<0.1
Correct brushing technique	69%	36%	<0.1
Knowledge about dental floss	59%	18%	<0.5
Current usage of mouthwash	62%	25%	<0.1
Frequency of visiting the dentist in 3 months	12%	27%	<0.1

The study evaluated awareness levels regarding various oral health issues among medical and engineering students. Findings revealed significant disparities in understanding, with only 19% of medical and 24% engineering students recognizing the common cause of bleeding gums, while 71% of medical and 52% of engineering students identified poor oral hygiene as the culprit for bad breath. Additionally, while 48% of medical and 44% of engineering

students acknowledged poor oral hygiene's role in loosening teeth, only a minority were aware of aggressive periodontitis. However, a majority in both groups understood the general health implications of bad oral hygiene. These results underscore the need for improved oral health education across academic disciplines.

Table 2 Percentage of students having awareness about periodontal diseases

Questions about awareness of periodontal disease	Medical students	Engineering students	Significance (P)
Students having knowledge about bleeding gums	19%	24%	<0.1
Students having knowledge about cause of bad breath	71%	52%	<0.1
Students having knowledge about common cause of loose teeth	48%	44%	<0.1

These findings highlight a significant deficit in oral hygiene awareness among both health professionals and engineering students, indicating a limited understanding of oral health practices. Despite their academic backgrounds, many participants demonstrated a lack of knowledge regarding common oral health issues such as bleeding gums and bad breath, with only a minority recognizing the role of poor oral hygiene. This suggests a pressing need for enhanced oral health education across diverse fields of study.

DISCUSSION

Periodontal health is essential for maintaining overall oral hygiene and preventing gum diseases that can lead to tooth loss and systemic health issues. Effective periodontal care involves proper brushing techniques, regular dental check-ups, and awareness of dental hygiene practices such as flossing and using mouthwash.[5,6]

Although, brushing was the commonly used method of cleaning, the percentage of subjects brushing their teeth twice daily regularly were less which is similar to 67% of the Chinese urban adolescents in a study by Jiang *et al.* in 2005.[7] 62% of the Kuwaiti adults in a study by Al-Shammari *et al.* in 2007.[8]

Brushing twice daily was reported by 45% of medical, and 50% of engineering students. Changing toothbrushes every 3 months was practiced by 66% of medical, 46% of engineering students. Awareness of the correct brushing technique was 69% in medical and 36% in engineering students. Knowledge of dental floss was 59% in medical and 18% in engineering students.

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Historically, diseases of the oral cavity have been viewed separately from those of the rest of the body. In recent years, however, efforts have been made to recognize oral health as an integral part of overall health.[9,10] Promotion of oral health has, therefore, been suggested as a way to promote systemic health, since there is a possible role of oral infections as a risk factor for systemic disease.[11] It is imperative for medical and dental practitioners to take note of these recent findings. The best time to pass this knowledge across in our view is during the training of these professionals.

The outcomes of our survey present a surprising revelation: despite their advanced education and status as future pillars of society, well-educated professionals appear to possess no greater understanding of oral health compared to the general population. Additionally, it's possible that some responses were intentionally skewed by the students. However, the overall level of awareness and knowledge concerning oral health and diseases among these professionals is notably lacking, indicating a concerning trend.

CONCLUSION

Consequently, there is a pressing demand for inclusive educational initiatives aimed at fostering optimal oral health and providing fundamental instruction on proper oral hygiene practices from an early stage.

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