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Periodontal health status and treatment needs among college students in Al-Basrah governorate, Iraq: a cross-sectional study

A thesis

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Abstract

Background:

Periodontal diseases are one of the most common oral conditions of human population, it's the second most common oral diseases world-wide after dental caries .To date, epidemiological studies to determine periodontal health status in AL-Basrah governorate generally and students of AL-Basrah colleges specifically are generally lacking. Therefore, epidemiological study to assess periodontal health status and treatment needs being urgently needed. Using of community periodontal index for treatment needs provides a picture of public health requirements in periodontal field, which is essential for oral health policy-making and specific interventions.

Aims of the study:

Aims: Determine the periodontal health status and treatment needs among undergraduate students of AL-Basrah colleges in AL-Basrah governorate, Iraq.

Subjects and Methods:**Study population and sample size**

A cross-sectional study was conducted after obtaining ethical clearance from the ethical committee of the college of Dentistry/University of Baghdad to assess the periodontal health status and treatment needs among undergraduate students of AL-Basrah colleges for the academic year 2018-2019. The age ranged between 18-24 years of both genders. The final sample size, which obtained through pilot study on 150 students, by using Cochran's equation, consisted of 1012 students of both genders which were chosen randomly through two-steps systematic random sampling.

Recording and diagnosis criteria

The community periodontal index for treatment needs was the used criteria in the present study. The examination of the students in this study was conducted according to world health organization guidelines. In which mouth was divided into six sextants for each student. Appropriate highest code for each sextant was determined. The index teeth examined were 17, 16, 11, 26, 27, 36, 37, 31, 46 and 47 for students aged 20 years and above, while students aged 19 years and below, the index teeth examined were 16, 11, 26, 36, 31 and 46. An index tooth was probed, using the World Health Organization Community Periodontal Index for Treatment Needs-Epidemiological probe to detect 6, 5 and 4 mm pocket depth, calculus and plaque retentive factors, bleeding response in that specific order. Informed consent was taken from each student prior to specially prepared close-ended questionnaire taking, into which different data were recorded including socio-demographic, academic, social, medical, dental health –related practices, pattern of visits to dentist, personal habits and clinical periodontal examination.

Results: Overall prevalence rate of periodontal diseases among undergraduate students in Al-Basrah colleges was 77.8%. Code 2 (calculus and plaque retentive factors) recorded as the most prevalent code (36.5%) and only 22.23 % of students had healthy periodontium. Most prevalent needed treatment was treatment needs 2. Community periodontal index for treatment needs varied significantly among gender in which female students had healthier periodontium compared to males. Other taken variables that showed significant differences among different groups were smoking, socioeconomic status, teeth cleaning and frequency of teeth cleaning, while highly significant differences were existed among marital status, method of teeth brushing and frequency of visits to dentist. Significant differences were existed among the nature (scientific and humanity) and affiliation (private and governmental) of colleges. Both age and gender were significantly associated with treatment needs .Binary

logistic regression revealed that age, less frequent visits to dentist and less frequent teeth cleaning among all students were significantly associated with community periodontal index for treatment needs \geq code1 (codes of diseased periodontium [1,2,3 and 4]).

Conclusion: High prevalence rate of periodontal diseases and treatment needs among undergraduate students in Al-Basrah colleges. There is need for initiating adequate awareness regarding oral hygiene; specifically preventive measures could help in reducing the prevalence of periodontal diseases, which recommended a sufficient manpower cover in Al-Basrah governorate. Also an adequate periodontal care system is highly needed at colleges' level.