

الوعي بصحة الأنسجة حول السنية والسلوك الصحي الفموي ضمن طلاب الجامعة الدولية الخاصة للعلوم والتكنولوجيا

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الملخص

الأهداف: تقييم انعكاس المعلومات المطلوبة للعناية الفموية، وتحديد الفروق في السلوك والنهج الصحي الفموي ضمن عينة طلاب (ذكور، إناث) من الجامعة الخاصة للعلوم والتكنولوجيا (IUST). مواد البحث وطرائقه: شملت العينة 250 طالباً (125 ذكراً، 125 أنثى) تراوح أعمارهم بين (19-24) سنة من السنوات الدراسية جميعها، جمعت معلومات عن المعلومات والسلوك الصحي الفموي من خلال استخدام استمارة تملأ ذاتياً من قبل الطلاب.

النتائج: اختار 33.6% فقط من الطلبة زيارة طبيب الأسنان لمعالجة النزف اللثوي، في حين أن 43.5% منهم زاروا طبيب الأسنان خلال 12 شهراً الماضية. حققت الإناث أعلى معدل لاستخدام فرشاة الأسنان مقارنة بالذكور ($p=0.001$); 18.4% من الذكور يستخدمون فرشاة الأسنان أقل من مرة يومياً مقارنة مع 3.2% من الإناث ($p=0.05$). معظم الطلبة 80% يستخدمون المضامض الفموية ($p=0.001$) لكن دون فارق إحصائي تبعاً للجنس، في حين كان انتشار التدخين أعلى لدى الذكور.

الخلاصة: يرتبط تحسن الصحة الفموية بخبرة المعلومات الطبية السنية، ومنه يمكن عدّ المعلومات الخاصة بالصحة الفموية مؤشراً خطورةً للالتهاب اللثوي.

كلمات مفتاحية: الصحة حول السنية، السلوك الصحي الفموي، سورية

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Periodontal Health Awareness and Oral Health Behaviour Among International University for Science and Technology Students

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Abstract

Aim: It is to assess the reflection of knowledge acquired in dental care and to determine the oral health attitudes and behaviour differences among male/ female students at the International University for Science and Technology (IUST).

Materials & methods:

A total of 250 students (125 male and 125 female; 19-24 years old) have been enrolled from all academic years. Information about oral health knowledge and oral health behaviour was gathered via an interview using a structured written questionnaire.

Results:

Only 33.6% of the students chose to visit a dental clinic to treat gingival bleeding, while only 43.5% visited a dental clinic during the last 12 months. The rate of using tooth brush was higher in females than males ($p=0.001$), 18.4% of the males used tooth brush less than once per day, compared to 3.2% female ($p=0.05$). The majority of students (80%) used mouthwash daily ($p=0.001$); no significant differences have been detected according to gender. On the other hand, smoking was much more frequent among males.

Conclusion:

The improvement of oral hygiene status was related to dental knowledge, and experience; oral hygiene knowledge can be considered as a risk indicator for gingival disease.

Keywords: periodontal health, oral health behavior, Syria.

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Introduction:

Demographic and socioeconomic factors have shown a positive correlation with periodontal health⁽¹⁻²⁾. Level of education as one of these factors was recognized to have an influence on the periodontal health status and oral hygiene behaviour.

Numerous studies have shown that individuals with high level of education have a better periodontal health in comparison to those with lower education levels⁽³⁻⁴⁾. It is accepted that acquiring periodontal knowledge almost creates an attitude that is ultimately translated into a positive health behaviour⁽⁵⁻⁶⁾.

On the other hand, practicing a self-performed plaque control measures on a regular daily basis was found to be the key factor in acquiring and promoting good periodontal health despite other factors including the level of education⁽⁷⁾. Earlier global and local studies attributed the improved oral health status primarily to the correct oral health behaviour⁽⁸⁻⁹⁾. These findings may suggest that increased level of education did not necessarily mean increasing in periodontal health awareness.

An important point needs to be considered in this aspect, which are the great differences between information and education. Individuals who are informed about health are aware of the consequences of bad oral hygiene practice, nevertheless they may still follow bad actions. In contrast, educated individuals are not only well informed, but also use this information in their daily life ideally.

In Syria as well as in other countries, the subject of oral and periodontal health status and its relation to different socioeconomic groups has been extensively studied⁽¹⁰⁻¹¹⁾, nevertheless, it seems that periodontal health awareness and behaviour among dental students has not been covered.

The purpose of this survey is to assess the knowledge acquired in dental care, and to examine the oral health attitudes and behaviour differences among male\ female students at international university for science and technology (IUST).

Material and methods:

This research was based on data collected by self-assessment questionnaire designed to estimate

periodontal health awareness and behaviour of (IUST) university student's. The questionnaire included three categories; (a) **background:** age, gender, and marital status. (b) **Periodontal knowledge & believes:** [gingivitis treatment methods (visit dentist, using tooth brush, plaque remove, using dental floss, do not know)], and (c) **oral health behaviour:** [tooth brushing frequency (less than once a day, once a day, more than once a day), use of mouthwash (yes, no), regularity of dental visits (yes every 6 month, yes every year, only when I have pain), Cigarette smoking (yes, no), and bleeding gum (do you have bleeding gum: yes, no)].

A total of 250 students from all academic years (125 males, 125 females) aged between (19-24) gathered from students that visited the faculty of dentistry clinics as patients, all of them agreed to participate in this study. The research was carried out during the academic year 2011- 2012. The collected data were analysed using the statistical software SPSS for windows version 15.0. Chi square test was used to examine the association between two categorical variables. Analysis of variance (ANOVA) and Pearson correlation were used for evaluation of statistical significance. A p-value of 0.05 was considered for the level of statistical significance.

Results:

Regarding to periodontal knowledge & believes domain of questionnaire:

Gingivitis treatment methods:

One third (30%) of the students did not know of any measure that could prevent gums from bleeding, and 30.4% thought that going to the dentist for a check-up would be the best option for treatment. More females (41.6 %) than males (18.4%) thought that tooth brushing could prevent gums from bleeding (p 0.01). The percentage of students who thought that gingival bleeding could be prevented by removing plaque or by using dental floss was 7.2% and 2.4%, respectively. From all males 40.8% of them chose (I do not know) option for gingivitis treatment compared with 19.2% of females in IUST students, (table1).

Table 1: Gingival treatment options among IUST students.

Gingivitis treatment methods	Male	Female	Total	p-value
Visit dentist	42 (33.6%)	34 (27.2%)	76 (30.4%)	NS
Using tooth brush	23 (18.4%)	52 (41.6%)	75 (30%)	0.01*
Plaque removes	7 (4.8%)	11 (5.6%)	18 (7.2%)	NS
Using dental floss	2 (1.6%)	4 (3.2%)	6 (2.4%)	NS
Do not know	51 (40.8%)	24 (19.2%)	75 (30%)	0.01*

Pearson test, NS= not significant , * significant

Regarding to oral health behaviour domain:

- Tooth brushing frequency:

It was found that 67.6% of the students brushed their teeth at least once a day. Twice-a-day tooth brushing was more common among females than among males (33.6 vs. 9.6%, p 0.001). On the other hand much more males used tooth brush less than once a day than females (18.4% vs. 3.2% p 0.05), (table 2).

Table2: The distribution of IUST sample regarding to using a tooth brush.

Tooth brushing frequency	Male	Female	Total	p-value
Once a day	90 (72%)	79 (63.2%)	169 (67.6%)	NS
More than once	12 (9.6%)	42 (33.6%)	54 (21.6%)	0.001
Less than once	23 (18.4%)	4 (3.2%)	27 (10.8%)	0.05

Pearson test, NS= not significant , * significant

- Mouthwash:

It was found that the majority (80%) of all the students in this study used mouthwash daily (p 0.000), (table3).

Table 3: prevalence of used mouthwash among students.

Gender	Mouthwash	
	Yes	No
Female	93(74.4%)	32(25.6%)
Male	107(85.6%)	18(14.4%)
Total	200(80%)	50 (20%)
p-value	$\chi^2 = 7,264$ p=0.000	

-Regularity of dental visits:

Of all the students in the study, 109 (43.3%) visited a dentist only when there was a real need, while 55 (22.0%) of the students visited a dentist at least once in 6 months and higher proportion 86 (34.4%) regarding to at least once a year, (Fig1).

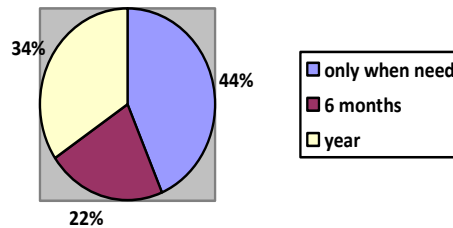


Fig1: Regularity of dental visits among IUST students.

-Cigarette smoking:

Almost half of the sample (48.4%) was smoking subjects, and smoking habits ranged from 10.4-86.4% among females and males, respectively, (table 4).

Table 4: The prevalence of smoking among IUST sample.

Gender	Cigarette smoking	
	Yes	No
Female	13(10.4%)	112 (89.6%)
Male	108(86.4%)	17(13.6%)
Total	121 (48.4%)	129 (51.6%)
p-value	$\chi^2 = 13,998$ p=0.000	

-Bleeding gums:

Bleeding gums were experienced by 96 (38.4%) of the males and 58 (23.2%) of the females, (table 5).

Table 5: The prevalence of bleeding gums among IUST students.

Gender	Bleeding gums	
	Yes	No
Female	58(23.2%)	67 (53.6%)
Male	96(38,4%)	29 (23.2%)
Total	154 (61.6%)	96 (38.4%)
p-value	$\chi^2 = 3,920$ p=0.141	

Discussion:

This is the first study to determine the knowledge of health and the practice of oral health habits among students at international university for science and technology IUST. Most of the students visited a dentist only when they felt a real need and not for regular examinations. That may be because our subjects were satisfied with their own dental health and the appearance of their teeth. This result is similar to the direction of dental visiting patterns among dental college students in Jordan, Greece, and Turkey (12-13-14). More than half (56.4%) of our students had visited a dentist during the last 12 months, which is a higher proportion than that found in the survey of the total Kuwaiti population (39%) (15). In a study among university students in Italy, almost 60% had visited a dentist during the previous 12 months for a checkup (16), which is compatible with our result. Although dental checkups every 6 months are commonly recommended among the public in many countries, there is no scientific evidence to justify this high frequency of dental visits, which can sometimes lead to unnecessary dental treatment (17). In Nordic countries, annual checkups have been advocated, but there is a recommendation to increase the interval (18). In Kuwait, about half visited a dentist only when they had problems with their teeth or gums, and 15% were called for a further appointment by the dentist (9). The fact that young people in Syria are not used to visit a dentist on a regular basis in their childhood and during the adolescent years (10-11) might be another explanation for the low attendance at dental offices reported in this study.

There is a clear need to establish a regular dental check-up program in Syria for children, adolescents and young adults, to establish a positive attitude toward dental visit which provide accurate information about oral diseases and their prevention.

In this study, 21.6% of the students brushed their teeth more than once a day compared with 92.1% in Italy (16). In Norway, Austria, Germany, Denmark, and Sweden, 73-83% of children as young as 11 years old brushed more often than once a day (19). Females at the IUST followed the recommended tooth brushing frequency more often than males, which is consistent with results from studies conducted in other countries (19-20). The proportion of individuals who brushed at least once a day in this study was (67.6%). A slightly higher proportion of twice-a-day brushers have been

reported among 12-year-old Kuwaitis (47% among boys and 62% among girls) (21) and Saudi Arabian schoolchildren (22). In Lebanon, the proportion of twice-a-day brushers among college students was also higher (65%) (23), but lower (25%) among 15-18-year-olds in Turkey (24). Much more health education needs to be done already at schools for establishing appropriate tooth brushing and flossing practice in Syria. Dental health education in Syria is supposed to be organized by school oral health programs, but currently they cannot cover all the schools. This study was conducted also for demonstrating the possible need for improvement in oral health knowledge and the problems in oral health behaviour of these young Syrian students especially.

One interesting finding was that a higher percentage (80%) reported using mouthwash daily, but with no differences according to gender, a study at King Saud University, College of Dentistry showed that Compared to males, females used mouthwash almost twice as often. And 26% of the male students experienced bleeding gums (25) while ours showed (38.4%) males. Another study on secondary school reported that prevalence of bleeding gums was almost twice as high among males as compared to females (26).

In the present study population cigarette smoking habits ranged from 10.4 - 48.4% among females and males, respectively, which is compatible with previous Syrian studies that showed a higher prevalence of cigarette smoking among males compared to females (27-28). In study among secondary school male students in Riyadh City, 23% of the students were smokers (26). A study of prevalence of smoking at Saudi Arabia showed that 13% smokers found among male students and the chances of smoking decreases as age increases (29), so there should be organized efforts and support for students to quit smoking as soon as possible.

Conclusions:

Most of the students at the IUST University did not have correct knowledge about the causes and the prevention of periodontal diseases, as the majority of them visited a dentist only when there was a real need, and check-up appointments were uncommon. Most of them brushed their teeth according to accepted recommendations. These findings should be improved by comprehensive programs aiming to promote students' dental hygiene practices and preventive oral health knowledge and should start from earlier stages.

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