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## Oral hygiene knowledge, attitude, practice and self-perception of personal dental appearance among majmaah university female student, KSA

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### Abstract

**Background:** Oral and general health status depends on a dynamic interplay of several factors, including the individual's personal knowledge, attributes, behaviors, and perceptions. Oral health knowledge is considered to be an important prerequisite for health related behavior and as age increases, knowledge must also increase.

**Aim:** To assess the oral health knowledge, attitude, practices and self-perception of personal dental appearance among university female students.

**Methodology:** A descriptive cross sectional study among university students enrolled in female Zulfi colleges of Majmaaha University, KSA in the academic year 2016-2017. Using self-structured questionnaire to evaluate oral health knowledge, attitude, practices and self-perception of personal dental appearance

**Results:** One fifth 20.9% know that regular dentist visit is necessary, one half 53.2% reported that tooth care is as important as care of any part of the body, 29.9% of them reported that dentist visit must be every 6 months, 36% of student was using brush and dental floss for tooth cleaning, only 42.4% was using brush twice/day, Half of the student either did not visit dentist or their last visit was since more than one year, finally only 20.9% of student reported regular visit to dentist. 19.8% reported being not afraid of dental instrument and procedure, and 69.1% reported either taking or sometimes taking sedative instead of going to dentist, 51.1% are satisfied with their tooth shape, 34.2% satisfied with tooth colour, 59.7% like their smile.

**Conclusion:** College female student knowledge, attitudes, and practices about oral hygiene was deficient in many aspects.

**Recommendations:** Oral health knowledge and education must be included in the early school life to build up good knowledge and practice by age.

**Keywords:** Oral hygiene, knowledge, attitude, practice, and female student

### Introduction

Oral and general health status depends on a dynamic interplay of several factors, including the individual's personal knowledge, attributes, behaviors, and perceptions <sup>[1]</sup>. Oral health knowledge is considered to be an important prerequisite for health related behavior and as age increases, knowledge also increases <sup>[2]</sup>.

Health behavior is defined as "the activities undertaken by people in order to protect, promote or maintain health and to prevent disease <sup>[3]</sup>.

Many systemic diseases are related to oral conditions and thus general health requires good oral health. <sup>[4, 5]</sup>

Dental factors play an important role in the physical perception of an individual <sup>[6]</sup>. The Face is one of the most important part of the body to show physical beauty <sup>[7]</sup>. The dental appearance of an individual is an important feature in determining the attractiveness of a face <sup>[8]</sup> and plays a key role in human social interactions <sup>[6, 8, 9]</sup>. Dental appearance also plays an important role for boosting self-confidence <sup>[10]</sup>.

During undergraduate years of study it seems logical that knowledge, attitude and practices regarding oral health can be developed and modified. Thus the aim of this study was to assess the oral health knowledge, attitude, practices and self-perception of personal dental appearance among university students enrolled in female Zulfi colleges of Majmaaha University, KSA.

### Subjects and methods

**Study design:** A descriptive cross sectional study

### Sample size

Is calculated using epi-info 7 where for population of 800 with expected frequency 50% and confidence level 95% the sample size was 260. 300 questionnaire was distributed of which 278 was completed with a response rate 92.6%. The sampling technique in the study was purposive convenience sampling technique. The inclusion criteria was being female in Zulfi College Majmaaha University in any academic year.

### Study Instrument

A structured, pre-tested, self-administered questionnaire survey was conducted among undergraduate students at Majmaah University female student KSA at all study levels. The sample was drawn from preparatory year college, dental college and education college female sections in Zulfi as example of female undergraduate of Majmaah University during the academic year 2016-2017 from February 1st to 30<sup>th</sup> April. The questionnaire was in Arabic language and included 24 questions about demographic data and the students' oral health knowledge, practice and their self-

perception of dental appearance. Questionnaires were distributed randomly to total 300 female participants who agree to participate in the study of which 278 was completed with a response rate 92.6%.

### Statistical Analysis

All data was tabulated with frequencies and percentages of answers. Using the statistical software program (Statistical Package for the social sciences) SPSS version 16.0. Descriptive statistics was performed for the questionnaire items.

### Ethical approval

Was obtained from the Research Ethics Committee of College of Dentistry in Majmaaha University before conduction of the study. Permission was also obtained from the administration of the University.

### Result and discussion

**Table 1:** Knowledge and awareness among students about oral health.

Knowledge and awareness questions	Frequency	Percentage
1. Eating too much sweets lead to		
Affect the tooth health	158	56.8
Affect the gum health	1	0.4
Cause bad mouth odour	4	1.4
All of the above	101	36.3
Not affect oral health	8	2.9
I don't know	6	2.2
2. Do fizzy drinks affect the dental health?		
Yes	261	93.9
No	1	0.4
Don't know	16	5.7
3. Are regular visits to dentist necessary?		
Yes	58	20.9
No	138	49.6
Don't know	82	29.5
4. Can Sewak replace tooth brushing ?		
Yes	116	41.7
No	134	48.2
I don't know	28	10.1
5. When you must replace your toothbrush?		
After cold and flu	3	1.1
When it is destroyed	87	31.1
After 3 months of use	188	67.6
6. Do the dental diseases impact the general body health?		
Yes	219	78.8
No	10	3.6
Don't know	49	17.6
7. Care about teeth is important as any part of body?		
Yes	148	53.2
No	23	8.3
Don't know	107	38.5
8. What is the adequate amount of toothpast ?		
All length of toothbrush	91	32.7
Half length of toothbrush	91	32.7
As the size of basilla seed	86	30.9
As the size of rice seed	10	3.6
9. How often you must visit the dentist?		
Every 6 months	83	29.9
Every year.	32	1.5
During dental pain	150	54.0
Never visited	13	4.7

**Table 2:** Distribution of Practice among students regarding oral hygiene.

Practice questions	Frequency	Percentage
1. What do you use for cleaning your teeth?		
Brush + toothpaste alone	172	61.9
dental floss alone	3	1.1
Both toothbrush and dental floss	100	36.0
Finger.	3	1.1
2. How often do you brush your teeth?		
Less than once per day.	22	7.9
Once per day.	102	36.7
Twice per day.	118	42.4
More than twice per day.	36	12.9
3. For how long do you brush your teeth?		
Less than one minute.	63	22.7
One minute.	96	34.5
Two minutes.	81	29.1
I don't know.	38	13.7
4. When do you brush your teeth?		
Morning.	47	16.9
Noon (after lunch).	33	11.8
Before going to bed.	44	15.8
Morning and evening	154	55.4
5. How often do you use dental floss /day?		
I don't use it	175	62.9
Once per day.	76	27.3
Twice per day.	16	5.8
More than twice per day.	11	4.0
6. When was your last visit to the dentist?		
1-12months	135	48.6
More than 12 months	108	38.8
I did not visit him	35	12.6
7. Do you use toothbrush in the morning?		
Yes	188	67.6
No	35	12.6
Sometimes	55	19.8
8. Do you regularly visit a dentist?		
Yes	58	20.9
No	138	49.6
rarely	82	29.5

**Table 3:** Distribution of Attitudes toward professional dental care and self-perception of personal dental appearance

Attitude and self-perception questions	Frequency	Percentage
1- Are you afraid from the dental instrument and procedures?		
Yes	116	41.7
No	55	19.8
Sometimes	107	38.5
2- If you have toothache you prefer taking sedative upon going to a dentist.		
Yes	65	23.4
No	86	30.9
Sometimes	127	45.7
3- I am satisfied with my tooth shape		
Yes	142	51.1
No	136	48.9
4- I am satisfied with my tooth size		
Yes	201	72.3
No	77	27.7
5- I am satisfied with my tooth colour		
Yes	95	34.2
No	183	65.8
6- I am satisfied with my smile		
Yes	166	59.7
No	112	40.3
7- I have some problems in mouth closure		
Yes	36	12.9
No	242	87.1

In this study, 278 female students was included with age range 16-25 mean  $\pm$  SD= 21.04  $\pm$  2.43

Most of the student know that sweet and fizzy drinks affect oral health (94.9% & 93.9% respectively), while only one fifth 20.9% know that regular dentist visit is necessary (table 1). This finding is much more than the finding of Priya, *et al.* (2017) among school children which were (81.80%) for sweets and (77.70%) for fizzy drinks. <sup>[11]</sup> This difference may be due to age as our study group is older.

Two thirds 67.6% know that they should replace toothbrush every 3 months. Only one half 53.2% reported that tooth care is as important as care of any part of the body (table 1). This finding is much lower than Priya, *et al.* (2017) finding among school, where 80.2% of the subjects reported that Care about teeth is important as any part of the body. <sup>[11]</sup>

Only one third reported the adequate amount of tooth-past also 29.9% of them reported that dentist visit must be every 6 months (table 1). This finding is too much lower than Halawany H.S. *et al* (2015) finding in dental students from four Asian countries where they reported 59.4% in KSA, 58.4% in India, 60.4% in Yemen and 80.3 in UAE. <sup>[12]</sup> this may be related to the type of student study as dental student must have more dental knowledge than others.

Only 41.7% know that Sewak can replace tooth brushing. This is low finding as

The World Health Organization (WHO) has recommended and encouraged the use of miswak as an effective tool for oral hygiene. <sup>[13]</sup> Also recently, various authors have concluded that these chewing sticks or their extracts have therapeutic effect on gingival diseases. <sup>[14, 15]</sup>

Only 36% of student was using brush and dental floss for tooth cleaning, also only 42.4% was using brush twice/day with 29% brush for 2 minutes and 55.4% brush morning and evening. 62.9% did not use dental floss at all (table 2). This is near the finding in India as 50.4% reported brushing their teeth twice a day, which is the international recommendation of brushing, and (83.9%) not using dental floss. <sup>[11]</sup> but it is lower than the finding a study done by Halawany H.S. in four Asian countries (Saudi Arabia, United Arab Emirates, Yemen, and India) as 71.8% of female students brushed their teeth twice a day <sup>[12]</sup>. Another study in Turkey reported that 74% brushed their teeth twice a day <sup>[16]</sup>. This may be due to lack of oral hygiene education in schools of KSA.

Half of the student either did not visit dentist or their last visit was since more than one year, finally only 20.9% of student reported regular visit to dentist (table 2). Near finding reported in India school children (2013) as only 19.10% of the subjects would visit their dentist regularly once in every 6-12 months. Approximately 41.20% of them had their last dental visit 6 months back. <sup>[11]</sup> In another study conducted in Sweden, 26% visited twice or more per year among 50-year-olds <sup>[17]</sup>.

Only 19.8% reported being not afraid of dental instrument and procedure, and 69.1% reported either taking or sometimes taking sedative instead of going to dentist (table 3). Only 51.1% are satisfied with their tooth shape, 34.2% satisfied with tooth colour, 59.7% like their smile also 12.9% reported having mouth closure problems (table 3). This is lower than Sharani finding (2014) among Abha University students where 68% of student were satisfied with shape, 73.2% satisfied with tooth size, 50.8% satisfied with tooth colour, 72.3% satisfied with their smile. <sup>[18]</sup> this difference may be referred to type of student study which

may affect their hygiene as they study medicine, dentistry and pharmacy.

Similar finding was reported in another study conducted in Saudi Arabia, as 50% was satisfied with the appearance of their teeth <sup>[19]</sup>. Other studies showed that 57.3% of the population was satisfied in Turkey, 65.5% in Jordan, 65% in Palestine, 47.2% in Malaysia and 76% in the United Kingdom <sup>[20, 21, 22]</sup>.

### Conclusion & Recommendations

Through this cross-sectional study conducted on 278 female students we concluded that many knowledge is deficient as importance of regular dentist visit, tooth care is as important as care of any part of the body, frequency of tooth-brushing, use of dental floss. So, oral health knowledge and education must be included in the early school life to build up good knowledge and practice by age. Also it is of great importance that a clinician must not only properly manage the case but also must give health education to the patient and community.

### The limitations

Found in this study are that it include only female students so we cannot generalize our finding. Also it is subjective, no objective tool was used to assess the oral hygiene behavior.

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### Reference

1. Levin L, Shenkman A. The relationship between dental caries status and oral health attitudes and behavior in young Israeli adults. *J Dent Educ.* 2004; 68(11):1185-1191.
2. Messer LB, Calache H. Oral health attitudes and behaviours of final-year dental students. *Eur J Dent Educ.* 2012; 16(3):144-155.
3. Sharda AJ, Shetty S. A comparative study of oral health knowledge, attitude and behavior of first and final year dental students of Udaipur city, Rajasthan. *J Oral Health Community Dent.* 2008; 2(3):46-54. [PubMed]
4. Baseer MA, Alenazy MS, Alasqah M, Algabbani M, Mehkari A. Oral health knowledge, attitude and practices among health professionals in King Fahad Medical City, Riyadh. *Dent Res J (Isfahan).* 2012; 9(4):386-92. [PMC free article] [PubMed]
5. Mumtaz R, Khan AA. A comparative evaluation of oral health knowledge, attitudes and practices of dental and pharmacy students of Riphah international university. *Pak Oral Dent J.* 2009; 29(1):131-6.
6. Lopez Y, Le Rouzic J, Bertaud V, Pérard M, Le Clerc J, Vulcain J. Influence of teeth on the smile and physical attractiveness. *Open Journal of Stomatology.* 2013; 3:52-7.
7. Subait AA, Ali A, Hammad ZA, Alrumaih A, Al-Malki M, Al-faqih A *et al.* Dental Aesthetics and Attitudes among University Students in Saudi Arabia-A Cross-Sectional Study. *Journal of Dentistry and Oral Disorders.* 2016; 2(4):1022.
8. Qualtrough A, Burke F. A look at dental aesthetics. *Quintessence International.* 1994; 25(1): 7-14.
9. Kershaw S, Newton JT, Williams DM. The influence of tooth colour on the perceptions of personal

- characteristics among female dental patients: comparisons of unmodified, decayed and 'whitened' teeth. *British Dental Journal*. 2008; 204(5):256-7.
10. Manipal S, Anand Mohan CS, Kumar DL, Cholan PK, Ahmed A, and Adusumilli P. The importance of dental aesthetics among dental students assessment of knowledge. *Journal of International Society of Preventive Community Dentistry*. 2014; 4(1):48-51.
  11. Priya M, Devdas K *et al*. Oral health attitudes, knowledge and practice among school children in Chennai, India. *Journal of Education and Ethics in Dentistry*. 2013; 3(1):26-33
  12. Halawany HS *et al*. The perceived concepts of oral health attitudes and behaviors of dental students from four Asian countries. *The Saudi Journal for Dental Research*. 2015; 6:79-85.
  13. World Health Organisation. Prevention Methods and Programmes for Oral Health. Report of a WHO Expert
  14. Committee Technical Report Series 713. Geneva: WHO; 1984.
  15. Wu CD, Darout IA, Skaug N. Chewing sticks: Timeless natural toothbrushes for oral cleansing. *J Periodontal Res*. 2001; 36:275-84.
  16. Al-Obaida MI, Al-Essa MA, Asiri AA, Al-Rahla AA. Effectiveness of a 20% Miswak extract against a mixture of *Candida albicans* and *Enterococcus faecalis*. *Saudi Med J*. 2010; 31:640-3.
  17. Peker I, Alkurt MT. Oral health attitudes and behavior among a group of Turkish dental students. *Eur J Dent*. 2009; 3:24-31.
  18. Davidson PL, Rams TE, Andfrsen RM Sociobehavioral determinants of oral hygiene practices among USA ethnic and age groups. *Advances in dental research*. 1997; 11:245-253.
  19. Sharani I. Self- perception of personal dental appearance among students of
  20. King Khaled University Abha, Saudi Arabia *European Journal of General Dentistry*. 2014; 3(3):181-184.
  21. Karasneh J, Al-Omiri MK, Al-Hamad KQ, Al Quran FA Relationship between patients' oral health-related quality of life, satisfaction with dentition, and personality profiles. *J Contemp Dent Pract*. 2009; 10: E049-56.
  22. Tin-Oo MM, Saddki N, Hassan N. Factors influencing patient satisfaction with dental appearance and treatments they desire to improve aesthetics. *BMC oral health*. 2011; 11:1.
  23. Younis A, Al-Omiri MK, Hantash RO, Alrabab'Ah M, Dar Odeh N *et al*. Relationship between dental impacts on daily living, satisfaction with the dentition and personality profiles among a Palestinian population. *Odonto-stomatologie tropicale= Tropical dental journal*. 2012; 35:21-30.
  24. Akarslan ZZ, Sadik B, Erten H, Karabulut E Dental esthetic satisfaction, received and desired dental treatments for improvement of esthetics. *Indian Journal of Dental Research*. 2009; 20:195.