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## **Original Research Article**

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# Assessment of oral hygiene practices among medical students

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#### **ABSTRACT**

**Background:** Oral health is an important aspect of general health and wellbeing. As per available researches the high prevalence of oral diseases is a major public health problem. Oral hygiene is further compromised by unhealthy habits like tobacco use and lack of dental specialist care. Undergraduate medical and nursing students should be aware of oral health and dental hygiene as they are the future healthcare provider on whom the health of nation will depend.

**Methods:** The present cross-sectional study was conducted at Raipur Institute of Medical Sciences, Raipur, Chhattisgarh, India during study period July 2019 to September 2019. Purposive sampling method was used to select M.B.B.S. and B.Sc. nursing students as study subjects. Only those students present in the college on the days of the data collection and those willing to participate were included in the study. Data (background information, awareness and practice regarding oral hygiene) was collected using a predesigned pretested questionnaire.

**Results:** 52.7% of the study subjects were female and 47.3% were male. 7.9% students were confident of their healthy teeth and expressed as good and very good condition. All the students were brushing teeth daily and few students even brushed twice a day (30.7%). Frequency of changing toothbrush, method of tooth brushing, use of interdental aid, use of tobacco, use of alcohol and causes of bad breath were significantly associated with gender variable.

**Conclusions:** Awareness with respect to oral health (using fluoridated toothpaste) among students was adequate. However, awareness of usage of toothbrushes and non-practicing tobacco and alcohol habit show the oral health knowledge in these students. The correct knowledge about maintaining good oral health needs to be given to the individuals in an effective manner at earliest so that it becomes a part of their life style.

Keywords: Awareness, Oral hygiene, Dental health, Medical students, Nursing students

#### **INTRODUCTION**

Oral health is an important aspect of general health and wellbeing. Oral cavity is a well-known nidus of infection, so oral hygiene if adopted properly can help get rid of majority of oral diseases. Dental carries and periodontal problems are due to poor oral hygiene practices. 3-5

Since historical times, the focus of oral healthcare has been on the prevention of the diseases caused by dental carries. Many studies have proved that better knowledge and attitude towards oral healthcare linked to good oral care habits and healthier oral cavity. 6-9 Also, it is important to remember that control on such diseases by self-care depends on awareness, motivation, knowledge of oral hygiene practices and manual dexterity and not only on the oral hygiene aids. For prevention of oral diseases, community must be made aware, educated, motivated and proper oral hygiene instructions must be given.

As per available researches the high prevalence of oral diseases is a major public health problem. <sup>10</sup> Many studies

have shown that lack of knowledge among rural community and negligent behaviour among urban community are main factors responsible for burden of dental diseases in both communities. 11,12 Oral hygiene is further compromised by unhealthy habits like tobacco use and lack of dental specialist care. 13 Improved oral health is still a dream come true in developing countries like India. 14 So World Health Organization (WHO) has set the goals for the year 2020 as Recommended Oral Self Care (ROSC) which includes tooth brushing more than once a day, lesser consumption of sugar containing snacks once daily or rarely and regular use of fluoride containing toothpaste. 2

Undergraduate medical and nursing students should be aware of oral health and dental hygiene as they are the future healthcare provider on whom the health of nation will depend. Hence with an aim to evaluate oral hygiene awareness and dental health problems among medical and nursing undergraduate students, this study was planned.

#### **METHODS**

The present cross-sectional study was conducted at Raipur Institute of Medical Sciences, Raipur (C.G.), India" during study period July 2019 to September 2019. Purposive sampling method was used to select M.B.B.S. and B.Sc. nursing students as study subjects. Ethical consideration was met through institutional ethical committee. Only those students present in the college on the days of the data collection and those willing to participate were included in the study. The students who were not present on the day and those unwilling to participate were excluded from the study. The nature and purpose of the study was explained to the students before the survey. Confidentiality regarding the responses was maintained. After taking their informed consent 313 students were included in the study. Data (background information, awareness and practice regarding oral hygiene) was collected using a predesigned pretested questionnaire.

Data was recorded in MS Excel and checked for its completeness and correctness, then it was analysed by using suitable statistical software and p value <0.05 was considered as statistically significant.

#### **RESULTS**

52.7% of the study subjects were female and 47.3% were male. 85.94% were M.B.B.S. students and rest were B.Sc. nursing students (Table 1).

Table 1: Demographic characteristics of the study subjects.

Characteristics	N	%	
Sex			
Female	165	52.7	
Male	148	47.3	
Study subjects			
M.B.B.S. students	269	85.94	
B.Sc. nursing students	44	14.05	
Total	313	100	

87.9% students were confident of their healthy teeth and expressed as good and very good condition. All the students were brushing teeth daily and few students even brushed twice a day (30.7%). 99% students used toothbrush and 98.7% used paste for brushing the teeth. 51.4% students use toothbrush having medium type of bristles and 62.9% of them change toothbrush within three months. 75.7% of the students practice combined style of tooth brushing. More number of students (87.2%) clean their tongue daily. 98.7% use toothpaste for brushing. 51.4% students were using fluoride toothpaste where as 29.7% were unaware about presence or absence of fluoride in their paste. It was good to observe from the study that almost all students restrained from tobacco use (97.7%) and alcohol consumption (91.4%). 33.2% students experience bad breathing problem because of eating garlic and onion. It was observed from our study that 68.4% of students had pain/discomfort in past 12 months and 11.2% consulted dentist. About 43.1% students visited dentist in last 2 years and most common reason was treatment for other dental problem (15.7%) (Table 2).

Frequency of changing toothbrush, method of tooth brushing, use of inter-dental aid, use of tobacco, use of alcohol and causes of bad breath were significantly associated with gender variable (Table 3).

Table 2: Practice of students regarding oral hygiene.

Attributes	N	%			
How do you perceive your state of oral hygiene?					
Excellent	67	21.4			
Good	208	66.5			
Average	37	11.8			
Poor	1	0.3			
Frequency of brushing in a day					
After every meal	1	0.3			
Once	216	69			
Twice	96	30.7			

Continued.

Attributes	N	%
Cleaning of teeth using		, <b>,</b> ,
Chewing stick/ miswack	1	0.3
Finger	2	0.6
Toothbrush	310	99
Type of toothbrush use	310	
Don't know	7	2.2
Hard	5	1.6
Medium	161	51.4
Soft	140	44.7
Frequency of changing toothbrush	110	11.7
In a year	28	8.9
Once in 3 months	197	62.9
Once in 6 months	64	20.4
When useless	24	7.7
Method of tooth brushing	21	···
Circular	25	8
Combined	237	75.7
Horizontal	39	12.5
Vertical	12	3.8
Use of inter-dental cleaning aid		2.0
Floss	41	13.1
Interdental brush	68	21.7
None	160	51.1
Wooden pick	44	14.1
Cleaning of tongue		11.1
Everyday Everyday	273	87.2
Never	6	1.9
Occasionally	26	8.3
When mouth smells	8	2.6
Use of toothpaste for brushing	0	2.0
No	4	1.3
Yes	309	98.7
Does your toothpaste contain fluoride	307	70.7
Do not know	93	29.7
No	59	18.8
Yes	161	51.4
Do you use tobacco		23.1
No	304	97.1
Yes	9	2.9
Do you consume alcohol		<del></del>
No	286	91.4
Yes	27	8.6
Cause of bad breathe	_,	
Do not know	44	14.1
Food such as garlic and onion	104	33.2
Hormonal fluctuations	4	1.3
Lack of proper brushing and flossing	50	16
Not applicable	111	35.5
When was your last visit to dentist		7.5
0-6 months	52	16.6
6-12months	40	12.8
1-2 years	43	13.7
more than 2 years	61	19.5
Never visited	117	37.4
	211	Continued

Continued.

Attributes	N	%			
What was the reason for your last visit to dentist					
Consultation	43	13.7			
Don't remember	34	10.9			
Not applicable	114	36.4			
Pain	35	11.2			
Routine checkup	38	12.1			
Treatment	49	15.7			
Did you have toothache in last 12 months	·				
Don't remember	45	14.4			
No	214	68.4			
Yes	54	17.3			
What is your oral hygiene information source					
Community health camp	7	2.2			
Dental clinic	36	11.5			
Family	107	34.2			
Internet	77	24.6			
Television	56	17.9			
None	30	9.6			

Table 3: Association of gender with other attributes.

Adduitherdag		Gender		Total (0/)	Chi-square, df,
Attributes		Female (%)	Male (%)	Total (%)	p value
State of oral hygiene	Average	21 (12.70)	16 (10.80)	37 (11.80)	
	Good	114 (69.10)	94 (63.50)	208 (66.50)	2 417 2 0 222
	Poor	0 (0.00)	1 (0.70)	1 (0.30)	3.417, 3, 0.332
	Excellent	30 (18.20)	37 (25.00)	67 (21.40)	
-	After every meal	1 (0.60)	0 (0.00)	1 (0.30)	
Frequency of brushing in a day	Once	105 (63.60)	111 (75.00)	216 (69.00)	5.301, 2, 0.071
brusning in a day	Twice	59 (35.80)	37 (25.00)	96 (30.70)	
How do you clean	Chewing stick/ miswack	1 (0.60)	0 (0.00)	1 (0.30)	0.005.2.0.626
your teeth	Finger	1 (0.60)	1 (0.70)	2 (0.60)	0.905, 2, 0.636
	Toothbrush	163 (98.80)	147 (99.30)	310 (99.00)	
XX/1 4.4 C	Don't know	2 (1.20)	5 (3.40)	7 (2.20)	
What type of	Hard	3 (1.80)	2 (1.40)	5 (1.60)	1.901, 3, 0.593
toothbrush do you	Medium	84 (50.90)	77 (52.00)	161 (51.40)	1.901, 3, 0.393
use	Soft	76 (46.10)	64 (43.20)	140 (44.70)	
	In a year	24 (14.50)	4 (2.70)	28 (8.90)	
Frequency of	Once in 3 months	90 (54.50)	107 (72.30)	197 (62.90)	20.619, 3,
changing toothbrush	Once in 6 months	41 (24.80)	23 (15.50)	64 (20.40)	< 0.001
	When useless	10 (6.10)	14 (9.50)	24 (7.70)	Significant
	Circular	17 (10.30)	8 (5.40)	25 (8.00)	_
Method of tooth-	Combined	131 (79.40)	106 (71.60)	237 (75.70)	10.652, 3, 0.014
brushing	Horizontal	13 (7.90)	26 (17.60)	39 (12.50)	Significant
	Vertical	4 (2.40)	8 (5.40)	12 (3.80)	
Use of inter-dental cleaning aid	Floss	25 (15.20)	16 (10.80)	41 (13.10)	_
	Inter-dental brush	31 (18.80)	37 (25.00)	68 (21.70)	9.106, 3, 0.028 Significant
	None	93 (56.40)	67 (45.30)	160 (51.10)	
	Wooden pick	16 (9.70)	28 (18.90)	44 (14.10)	
When do you clean your tongue	Everyday	145 (87.90)	128 (86.50)	273 (87.20)	
	Never	3 (1.80)	3 (2.00)	6 (1.90)	
	Occasionally	11 (6.70)	15 (10.10)	26 (8.30)	2.759, 3, 0.430
	When mouth smells	6 (3.60)	2 (1.40)	8 (2.60)	

Continued.

A 44m*har4 o a		Gender		Total (%)	Chi-square, df,
Attributes		Female (%)	Male (%)		p value
Do you use toothpaste	No	1 (0.60)	3 (2.00)	4 (1.30)	1 240 1 0 264
for brushing	Yes	164 (99.40)	145 (98.00)	309 (98.70)	1.249, 1, 0.264
Does your toothpaste contain fluoride	Do not know	47 (28.50)	46 (31.10)	93 (29.70)	
	No	31 (18.80)	28 (18.90)	59 (18.80)	0.291, 2, 0.865
	Yes	87 (52.70)	74 (50.00)	161 (51.40)	
D (1)	No	165 (100.00)	139 (93.90)	304 (97.10)	10.331, 1, 0.001
Do you use tobacco	Yes	0 (0.00)	9 (6.10)	9 (2.90)	Significant
Do you consume	No	164 (99.40)	122 (82.40)	286 (91.40)	28.477, 1,
alcohol	Yes	1 (0.60)	26 (17.60)	27 (8.60)	<0.001 Significant
	Do not know	18 (10.90)	26 (17.60)	44 (14.10)	
	Food such as garlic and onion	59 (35.80)	45 (30.40)	104 (33.20)	
Cause of bad breathe	Hormonal fluctuations	0 (0.00)	4 (2.70)	4 (1.30)	10.035, 4, 0.035  — Significant
	Lack of proper brushing and flossing	32 (19.40)	18 (12.20)	50 (16.00)	
	Not applicable	56 (33.90)	55 (37.20)	111 (35.50)	
	0-6 months	33 (20.00)	19 (12.80)	52 (16.60)	_
When was your last visit to dentist	1-2 yrs	24 (14.50)	19 (12.80)	43 (13.70)	
	6-12months	22 (13.30)	18 (12.20)	40 (12.80)	7.099, 4, 0.131
visit to defitist	Never visited	51 (30.90)	66 (44.60)	117 (37.40)	
	more than 2 yrs	35 (21.20)	26 (17.60)	61 (19.50)	
	Consultation	31 (18.80)	12 (8.10)	43 (13.70)	_
What was the reason	Don't remember	15 (9.10)	19 (12.80)	34 (10.90)	_
for your last visit to	Not applicable	52 (31.50)	62 (41.90)	114 (36.40)	10.038, 5, 0.074
dentist	Pain	19 (11.50)	16 (10.80)	35 (11.20)	10.036, 3, 0.074
uchtist	Routine check-up	21 (12.70)	17 (11.50)	38 (12.10)	<u>_</u>
	Treatment	27 (16.40)	22 (14.90)	49 (15.70)	
Did you have	Don't remember	25 (15.20)	20 (13.50)	45 (14.40)	_
toothache in last 12	No	110 (66.70)	104 (70.30)	214 (68.40)	0.469, 2, 0.791
months	Yes	30 (18.20)	24 (16.20)	54 (17.30)	
How often did you	No problem	112 (67.90)	104 (70.30)	216 (69.00)	_
have any dental	Sometimes	47 (28.50)	39 (26.40)	86 (27.50)	0.209, 2, 0.901
problem in past 12 months	Very often	6 (3.60)	5 (3.40)	11 93.50)	2.207, 2, 0.701
What is your oral hygiene information source	Community health camp	4 (2.40)	3 (2.00)	7 (2.20)	
	Dental clinic	19 (11.50)	17 (11.50)	36 (11.50)	14.045, 5, 0.15
	Family	66 (40.00)	41 (27.70)	107 (34.20)	Significant
	Internet	39 (23.60)	38 (25.70)	77 (24.60)	Significant
	None	7 (4.20)	23 (15.50)	30 (9.60)	
	Television	30 (18.20)	26 (17.60)	56 (17.90)	

#### **DISCUSSION**

Dental health is an important issue as bright and healthy teeth are the mirror of healthy body. Various studies have been conducted to assess the knowledge, attitude, and practices on oral hygiene in students with a background of health sciences. Oral health is usually ignored not only by common people but also by medical professionals so

basically this study was conducted keeping in mind this fact that today's students are tomorrow's doctor.<sup>2,15</sup>

A higher percentage (67%) of students cleaned teeth two times a day in studies done by Kakkad et al and Peltzer and Pengpid in comparison to our study (30.7%). Few studies also reported similar observation to ours. This may be attributed to the lack of oral health knowledge or negligence due to busy study schedule. 16-20

In our study, 51.4% students were using medium toothbrush while two other studies conducted in different parts of the world it was observed that 58% of medical students in Manipal and 66% of medical officers in Nigeria were using medium toothbrush.<sup>21,22</sup>

In this study, 62.9% of students change their toothbrush in every 3 months similar finding was observed by Amith et al.<sup>23</sup> The attitude of regularly changing toothbrush was much lower (10%) in law students of Chennai.<sup>24</sup> This infers that these students are unaware of the fact that prolonged usage of toothbrushes not only decreases effectiveness in cleaning of plaque but also causes trauma to gingival tissue. They should be educated about the importance of changing of toothbrush at regular intervals.

Dental flosses are useful aids designed specifically to clean the inter-dental areas.<sup>25</sup> Approximately 13.1% of students in our study flossed whereas in a study in Riyad city less than 50% health professionals used mouth wash and dental floss as cleaning aid.<sup>26</sup> Nevertheless, many studies showed that use of dental floss was not very popular.<sup>20,24,27</sup> Almost 40% of students in Bhubaneswar city were in view that lack of proper brushing and flossing is the reason for tooth decay and bad breath.

About half of the students in this study used fluoridated toothpaste, which was nearly similar to the study done by Doshi et al where 48.5% of engineering students and 58.7% of medical students used fluoridated toothpastes.<sup>21</sup> Also in one of the comparative studies it was 58.7% and 55.1% in a study in Chennai.<sup>21,22</sup> 58% graduates from North India used the fluoridated toothpaste whereas it was 64% in a study on undergraduate female medical students in Pune.<sup>28</sup>

Smoking is a life style disease and many young people are addicted to smoking. In our study fortunately 97.1% students did not use tobacco. Similar results were observed by Lavanya et al where 93.6% of the dental students and staff, were found to be non-smokers. According to a study conducted by Gopinath et al 18.1% of dental professionals had used tobacco at some point or the other. 2

In contrast study conducted by Arthie et al showed 24% of dental patients were smokers. Many studies have revealed that smoking has a negative effect on periodontal health.<sup>29,30</sup>

Dentists play a major role in maintaining overall dental health. Nearly 16.6% of the population had at least visited their dentist once in <6 months which was nearly consistent with the result of studies by Doshi et al and Al-Hussaini et al.<sup>21,31</sup> Almost 37.4% of individuals had never been to a dentist, which was in consonance with the study done by Gopikrishna et al among engineering students of Bengaluru.<sup>27</sup> A still lower percentage of students (29.4%)

had visited a dentist within 1 year, though 73.9% were in opinion that one should visit a dentist once in 6 months.<sup>20</sup>

Oral health is always a last priority unless it troubles the patient in the form of pain, caries or gum problems etc. People visit dentist only when there is a severe problem. In our study toothache was the most common reason for visit to dentist (26.9% including treatment). A study conducted in Norway among adults by Sarah et al showed that only 28% visited a dentist when in pain or lost a filling and 51% visited a dentist regularly.<sup>32</sup>Another study in Southern Poland among adults by Wojciech et al observed only 8% visited a dentist for regular check-up and 53% visited a dentist only in case of a tooth ache. <sup>33</sup>

This study was limited by the survey design being self-reported behaviors which may have led to over reporting of oral hygiene practices. The psychological and socioeconomic factors were not taken into consideration. Moreover, small sample size of 313 students may limit the generalize ability of data.

#### **CONCLUSION**

Awareness with respect to oral health (using fluoridated toothpaste) among students was adequate. However, awareness of usage of toothbrushes and non-practicing tobacco and alcohol habit show the oral health knowledge in these students. The correct knowledge about maintaining good oral health needs to be given to the individuals in an effective manner at earliest so that it becomes a part of their life style. Medical and nursing students are definitely the future role models for the society; however, every student should get the correct information about maintaining their oral health. Further studies are required on a sufficient larger scale so that the ways to increase the promotive and preventive oral health practices can be identified (e.g., behavior change communication) to prevent the occurrence of oral health problems.

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Institutional Ethics Committee

## REFERENCES

- 1. Reddy L, Saimadhavi N, Sudhakara Reddy R, Ramesh T, Padma Reddy, Saikiran C. Oral hygiene practices and habits among dental students and staff in a dental college India. Cumhuriyet Dent J. 2014;17(1):7-13.
- Gopinath V. Oral hygiene practices and habits among dental professionals in Chennai. Indian J Dent Res. 2010;21(2):195-200.
- 3. Folayan M, Sowole A, Jebutu AK. Risk Factors for caries in children from south-western nigeria. Int J Clin Pediatr Dent. 2007;32:171-5.

- Goyal A, Gauba K, Chawla HS, Kaur M, Kapur A. Epidemiology of dental caries in chandigarh school children and trends over the last 25 years. J Indian Soc Pedo Prev Dent. 2007;25:115-8.
- 5. Dhar V, Jain A, Van Dyke TE, Kohli A. Prevalence of dental caries and treatment needs in the schoolgoing children of rural areas in udaipur district. J Indian Soc Pedo Prev Dent. 2007;25:119-21.
- Zhu L, Petersen PE, Wang H-Y. Oral health knowledge, attitudes and behavior of children and adolescents in China. Int Dent J. 2003;53:289-98.
- Chander Shekar BR, Reddy C, Manjunath BC, Suma S. Dental health awareness, attitude, oral health-related habits and behaviours in relation to socio-economic factors among the municipal Employees of Mysore city. Ann Trop Med Public Health. 2011;4:99-106.
- 8. Dagli RJ, Tadakamadla S, Dhanni C, Duraiswamy P, Kulkarni S. Self-reported dental health attitude and behavior of dental students in India. J Oral Sci. 2008;50:267-72.
- 9. Bhat PK, Kumar A, Aruna CN. Preventive oral health knowledge, practice and behavior of patients attending dental institution in Banglore, India. J Int Oral Health. 2010;2:1-6.
- Kapoor D, Gill S, Singh A, Kaur I, Kapoor P. Oral hygiene awareness and practice amongst patients visiting the Department of periodontology at a Dental College and Hospital in North India. Indian J Dent. 2014;5:64-8.
- 11. Patil AV, Somasundaram KV, Goyal RC. Current health scenario in rural India. Aust J Rural Health. 2002;10:129-35.
- 12. Gundala R, Chava VK. Effect of lifestyle, education and socioeconomic status on periodontal health. Contemp Clin Dent. 2010;1:23-6.
- McKelvey VA, Thomson WM. A qualitative study of oral health knowledge and attitudes among staff caring for older people in Dunedin long-term care facilities. New Zealand Dent J. 2003;99(4):98-103.
- 14. Punitha VC, Sivaprakasam P. Oral hygiene status, knowledge, attitude and practices of oral health among rural children of kanchipuram district. Indian J Multidiscip Dentist. 2011;1(2):115-8.
- Kumar KK, Ramachandra S, Babu AR, Reddy BVR. A study on oral hygiene practices and habits among dental professionals in Andhra Pradesh. J Orofac Sci. 2011;3(2):4-9.
- Kakkad DN, Murali R, Krishna M, Yadav S, Yalamalli M, Kumar AV. Assessment of oral hygiene knowledge, attitude and practices among engineering students in North Bangalore: a crosssectional survey. Int J Sci Stud. 2015;3(1):84-9.
- Peltzer K, Pengpid S. Oral health behaviour and social and health factors in university students from 26 low, middle- and high-income countries. Int J Environ Res Public Health. 2014;11(12):12247-60.
- Prasad AK, Shankar S. Oral health KAP of first year engineering students of KSR College of technology,

- Thiruchengode, the future rulers. J Indian Assoc Public Health Dent. 2010;8(16):143-7.
- 19. Gasgoos SS, Jazrawi KH, Al-Ajrab MG. Dental health knowledge, attitude and behavior among first year university students, Mosul. Al-Rafidain Dent J. 2007;7(2):138-52.
- 20. Kumar SM, Singarampillay V, Natrajan S. Oral health awareness among two non professional college students in Chennai, India a pilot study. Int J Sci Res Publ. 2012;2(5):1-5.
- 21. Doshi D, Baldava P, Anup N, Sequriea PS. A comparitive evaluation of self-reported oral hygiene practices among medical and engineering university students with access to health promotive dental care. J Contemp Dent Pract. 2007;8(1):68-75.
- 22. Azodo CC, Unamatopka B. Gender difference in oral health perception and practices among Medical House Officers. Russian Open Med J. 2012;1:2.
- 23. Vasanthkumar HA, D'cruz MA, Samad S, Shamima, Dhinda HS, Mansib HS et al. Oral hygiene practices among paramedical staff of a private dental institution in India. RSBO. 2013;10(3):205-10.
- 24. Kumar MP. Knowledge, attitude and practices towards oral health among law students. J Pharm Sci. 2016;8(7):650-3.
- 25. Torkzaban P, Arabi SR, Sabounchi SS, Roshanaei G. The efficacy of brushing and flossing sequence on control of plaque and gingival inflammation. Oral Health Prev Dent. 2015;13(3):267-73.
- Baseer MA, Alenazy MS, Asqah MA, Gabbani MA, 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.
- Gopikrishna V, Bhaskar NN, Kulkarni SB, Jacob J, Sourabha KG. Knowledge, attitude, and practices of oral hygiene among college students in Bengaluru city. J Indian Assoc Public Health Dent. 2016;14(1):75-9.
- 28. Srivastava K, Rathod HK, Sharma P, Bhawalkar JS. Practice and problems regarding oral hygiene: study among female medical undergraduate students of tertiary care hospital, Pune, India. Int J Res Med Sci. 2016;4:2214-7.
- 29. Thangavelu A, Elavarasu S, Saravanan J. Oral health practices and awareness among patients at the department of periodontics at J.K.K.N Dental college and hospital, Komarapalayam. IJCDS. 2014:5(1):13-6.
- 30. Puscasu CG, Totolici I. Study regarding the connection between the oral hygiene status, plaque control methods and the periodontal involvement in a group of adults. OHDMBSC. 2007;6(3):12-8.
- 31. Al-Hussaini R, Al-Kandari M, Hamadi T, Al-Mutawa A, Honkala S, Memon A. Dental health knowledge, attitudes and behaviour among students at the Kuwait University Health Sciences Centre. Med Princ Pract. 2003;12(4):260-5.

- 32. Adekoya SM, Brustad M. Oral health of adults in northern Norway A pilot study. Norsk Epidemiologi. 2012;22(1):31-8.
- 33. Skorupka W, Zurek K, Kokot T, Nowakowska-Zajdel E, Fatyga E, Niedworok E. Assesment of oral hygiene in adults. Cent Eur J Public Health. 2012;20(3):233-6.

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