

Knowledge awareness and attitude of medical students and teachers towards oral hygiene – A questionnaire study

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Abstract

Background: The aim of the study is to evaluate the knowledge, attitude and behavior regarding oral health among medical students and teaching staff. **Materials and Method:** A cross sectional questionnaire survey was conducted among 180 medical professionals in Nanded. The sample consisted of 60 interns, 40 Postgraduate trainees and 80 teaching faculty. They were asked to answer a questionnaire that contained 22 questions regarding awareness, knowledge and behaviour towards oral health. **Results and Conclusion:** Majority of medical students were practising good oral hygiene methods. Many of them were not aware of proper brushing method. Almost more than 50 % of the study sample is not aware about the specialities of the dentistry and when to visit which specialist. Grate confusion was noted among the interns and PGs about the Orthodontics and Maxillofacial surgery regarding referral of the case.

Key Words: Medical students, questionnaire, oral health.

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INTRODUCTION

The mouth is an integral part of the body. Oral hygiene determines oral health as well as general Status. In general, poor oral hygiene can be source of many diseases. There are oral manifestations of many systemic diseases that must be managed in both healthy and medically compromised peoples. By maintaining good oral hygiene practices we can prevent occurrence of dental caries, periodontal diseases etc, unfortunately oral hygiene^{1,2,3} practices are less emphasised in society. In the Indian scenario many rural population report to the medical professionals for their dental and oral problems due to lack of awareness or unavailability of the dental services in near vicinity. Medical practitioners should also possess basic dental knowledge to uncover signs and

symptoms of dental diseases from patients, to provide appropriate treatment or advice to these patients and to act as public health educators⁴. Naidu RS, Juman S, Rafeek RN, *et al* JOHCD Dentistry is an integral part of the syllabus of the medical training. By virtue of their professional role, medical personal play a vital role in health promotion and preventive information dissemination in community level. It is therefore important that their own oral knowledge is good and their oral health behaviour conforms to expectation of the population. Many medical practioners are also not aware about the specialities of the dentistry which results in the improper referral practices. The purpose of this study is to investigate and compare oral health knowledge and behaviour among medical students and staff. NUJHS Vol. 5, No.2, June 2015, ISSN 2249-7110 The most common oral diseases, dental caries and periodontal disease are considered to be behavioral diseases because adoption of healthy oral habits is crucial in controlling them (5) Al-Hussaini R, Al-Kandari M, Hamadi T. All members of the health profession have the potential to promote oral health by supporting accurate oral health messages, showing exemplary oralhealth related behaviors, encouraging appropriate dental visits and participating in explicit oral health promoting activities within their scope of duties (6 Tuti NMD, Shahida MS, Zamirah ZA). Dental knowledge of qualified medical practitioners is

different when compared to the general public. Even though they are qualified in the medical faculty their knowledge about dental diseases, relationship of oral health with systemic diseases and life threatening dental diseases are scarce (7 Jagadish Chandra, Chandu GN, Prashant GM, *et al.*). Failure to diagnose oral conditions often results in significant additional health care cost to the patient or funding agency. The present study seeks to assess the dental knowledge, attitudes and awareness of medical professionals at different levels of their educational and professional curriculum at GMCH Nanded.

MATERIALS AND METHODS

A questionnaire based descriptive cross-sectional study. A cross sectional questionnaire survey was carried out to assess the knowledge, attitude and awareness of medical practitioners of Nanded Marathwada region. A simple random sampling was done. Convenient sample size of 180 was decided. It consisted of 60 interns, 40 Postgraduate trainees and 80 teaching faculty. Data was collected using a questionnaire which was circulated among the sample. Ethical clearance was obtained from institutional ethical committee. The study protocol was approved by Institutional Review Board. The required permission was obtained from the concerned authorities. A specially designed questionnaire consisting of 22 close ended questions divided into three sections was used to assess the knowledge, attitude and awareness about oral health and related systemic conditions. The questionnaires were distributed by the investigator. The participants were approached personally and the purpose of the study was explained. It was also mentioned that responses would remain confidential. Special instructions were given not to disclose the personal identity and only things to mention on the response sheet were the subgroup and gender. The filled questionnaire were collected after answering and analyzed.

The study protocol was approved by Institutional Review Board. The required permission was obtained from the concerned authorities.

Statistical Analysis

Data obtained was analyzed using the SPSS (Statistical package for social sciences) version 15. Pearson's chi-square test was used to find the statistical significance among the participants for their responses based on dental knowledge, attitude and awareness on systemic conditions related to oral health.

RESULTS

(Table 1) represents the study population. Based on their qualification 60 (33.33%) were interns (UG), 40 (22.22%) were Post graduates trainees (PG) and 80

(44.44 %) were teaching faculty. 96.11 % of the sample is aware that frequency of sugar containing food is the major factor responsible for dental decay. 28.88 % of sample are of view that vertical brushing methods is proper and 18.88 % of sample says that both circular and vertical brushing are proper brushing techniques. 38.33 % of the sample known that pea sized amount is sufficient and adequate for brushing. Almost half of the sample (47.77%) uses full length of the tooth paste for brushing. 100% the staff and PG were aware that of pregnancy increase the risk of oral and gingival problems, but 5% of the interns believed that pregnancy does not have impact on oral health.

Table 1: Distribution of the study subjects according to sex and Qualification

Qualification	Sex		Total
	Male	Female	
Interns	39	21	60
PGS	22	18	40
Faculty	48	32	80

Attitude towards oral hygiene

77.22 % of the total sample replied that they brush their teeth once daily. 25% of the PGS and 38.33 % of the staff replied that they brush their teeth more than once daily. Almost all the study sample uses tooth brush and paste for cleaning their teeth except two of the staff who uses finger and tooth powder for cleaning their teeth. 27.22% of the sample reported that they visit their dentist twice in a year and 37.22% reported that they do so once in a year. 26.11 % of the total sample, 49% of the interns and 13.75 % of the staff reported that they visit dentist when they experience dental pain or discomfort. 9.44% of the total sample had never visited the dentist. This percentage is highest (21.66 %) among the interns and it is 10% and 0% among the Pgs and staff respectively. 31 of the total study population (17.22%) had never used any tobacco containing product. 13.33 % of the total sample have it occasionally. 11.66% of the interns and 15 % of the PGS reported to have it occasionally. Only 5% among the staff reported that they have tobacco containing products frequently. 18.33 % (33) of the total sample reported that they replace their tooth brush once in 6 months. 68.33 % of sample changes their toothbrush once in 3 months. 16.66 % among interns, 15 % among PGS and 10% among staff replace the toothbrush when bristles becomes distorted. 89.44% (161) of sample are aware that Ludwig's angina is a space infection of dental origin, but 9 interns reported it as a cardiac disease and 10 interns as skin disease. 152(84.44%) of the sample have the knowledge that untreated dental and perioral infections may cause life threatening condition of cavernous sinus thrombosis. 26.66% of the interns reported it as lymphoma.

Table 1: Responses of study subjects based on general awareness about oral health

Questions on general awareness about oral health		Distribution of study sample			
		Total 180(100%)	Interns 60(100%)	PG 40(100%)	Faculty 80(100%)
1. Which factor is responsible for dental caries?	a. Brushing once daily	5(2.77%)	2(3.33%)	3(7.5%)	0
	b. Smoking	0(0%)	0	0(0)	0
	c. Frequency of sugar containing foods	173 (96.11)	56(93.33%)	37(92.5%)	80(100%)
	d. Tobacco chewing	2(1.11%)	2(3.33%)	0(0)	0
2. What is the proper brushing method?	a) Horizontal	32(17.77%)	13(21.66%)	8(20%)	11(13.75)
	b) Circular	62(34.44%)	18(30%)	14(35)	30(37.5)
	c) Vertical	52(28.9%)	22(36.66)	8(20)	22(27.5)
	d) Combination of above	34(18.9%)	7(11.66)	10(25)	17(21.3)
3. How much amount of toothpaste should be used for tooth brushing?	a. Full length of brush head	86(47.77%)	33(55)	18(45)	35(43.75)
	b. Half length of tooth brush head	25(13.89%)	8(13.33)	5(12.5)	12(15)
	c. Pea sized tooth paste	69(38.33%)	19(31.66)	17(42.5)	33(41.25)
	d. Quantity doesn't matter	0(0%)	0(0)	0(0)	0(0)
4. Does pregnancy increase the risk of dental problems?	a. Yes	177(98.33)	57(95)	40(100)	80(100)
	b. No	3(1.66%)	3(5)	0(0)	0(0)
5. At what age would you advise regular dental check-up for pediatric group?	a. When first tooth erupts	92(51.11)	29(48.33)	26(65)	37(46.25)
	b. At age of 6 yrs	84(46.66)	27(45)	14(35)	43(53.75)
	c. No need if no discomfort or pain	4(2.22)	4(6.66)	0(0)	0(0)
6. What adverse effect does scaling have on teeth?	a. Thinning of teeth	12(6.66)	12(20)	0	0
	b. Increase in interdental space	0(0)	0	0	0
	c. Increase in mobility of teeth	0(0)	0	0	0
	d. All of above	31(17.22%)	20(33.33)	7(17.5)	4(5)
	e. None of above	137(76.11%)	28(46.66)	33(82.5)	76(95)
7. Does dental attendance improve quality of life?	a. Yes	180(100%)	60	40	80
	b. No	0(0%)	0	0	0

Table 2: Responses of study subjects based on Attitude towards oral hygiene

Questions on general awareness about oral health		Distribution of study sample			
		Total 180(100%)	Interns 60(100%)	PG 40(100%)	Faculty 80(100%)
8. How often do you clean your teeth?	a. Once in a day	42 (23.33%)	24(40%)	10(25%)	8(10%)
	b. More than once in a day	138(76.67%)	36(60)	30(75)	72(90)
	c. Twice in a week	0(0%)	0	0	0
9. Which material do you use for cleaning your teeth?	a. Finger and Tooth powder	2(1.11%)	0	0	2(2.5)
	b. Brush and Tooth powder	0(0%)	0	0	0
	c. Tooth brush and paste	178(98.89%)	60(100)	40(100)	78(97.5)
10. How often do you visit your dentist?	d. Any other aid	0(0%)	0	0	0
	a. Once in a year	67(37.22%)	11(18.33)	13(32.5)	43(53.75)
	b. Twice in a year	49(27.22%)	8(13.33)	15(37.5)	26(32.5)
	c. visits when experience dental pain	47(26.11%)	28(46.66)	8(20)	11(13.75)
11. Do you use any tobacco containing products? If yes write the frequency of use	d. Never visited till	17(9.44%)	13(21.66)	4(10)	0(0)
	a. No	121(67.22%)	45(75)	29(72.5)	47(58.75)
	b. Never	31(17.22%)	8(13.33)	5(12.5)	18(22.5)
	c. Occasionally	24(13.33%)	7(11.66)	6(15)	11(13.75)
	d. Frequently	4(2.22%)	0(0)	0(0)	4(5)
12. How often do you change your toothbrush	a. Once in 6 months	33(18.33%)	15(25)	11(27.5)	7(8.75)
	b. Once in a year	0(0%)	0	0	0
	c. When bristles become distorted	24(13.33%)	10(16.66)	6(15)	8(10)
	d. Once in 3 months	123(68.33%)	35(58.33)	23(57.5)	65(81.3)

Table 3: Responses of study subjects based on Awareness of systemic conditions affecting Dental and Oral health

Questions on general awareness about oral health		Distribution of study sample			
		Total 180(100%)	Interns 60(100%)	PG 40(100%)	Faculty 80(100%)
14. Ludwig’s angina is	a. Cardiac disease	9(5%)	9(15)	0(0)	0(0)
	b. Skin disease	10(5.55%)	10(16.67)	0(0)	0(0)
	c. Dental space infection	161(89.44%)	41(68.33)	40(100)	80(100)
15. Untreated dental and perioral infections may cause life threatening disorder	a. Cavernous sinus thrombosis	152(84.44%)	44(73.33)	35(87.5)	73(91.25)
	b. Brain tumor	0(0%)	0(0%)	0(0%)	0(0%)
	c. Lymphoma	28(15.56%)	16(26.66)	5(12.5)	7(8.75)
	d. None of the above	0(0%)	0(0%)	0(0%)	0(0%)
16. Mineral which is responsible for discoloration of teeth, bone and renal disorder is	a. Iron	4(2.22%)	4(6.66)	0	0
	b. Selenium	5(2.77%)	5(8.33)	0	0
	c. Fluoride	171(95%)	51(85)	40(100)	80(100)
17. Which skin disorder has oral manifestations as well	a. Scabies	0(0%)	0	0	0
	b. Urticaria	4(2.22%)	4(6.66)	0	0
	c. Lichen planus	167(92.78%)	47(78.33)	40(100)	80(100)
	d. Vitiligo	9(5%)	9(15)	0	0
18. Systemic disease causing multiple abscess in oral cavity	a. Hypertention	0(0%)	0	0	0
	b. Psoriasis	7(3.89%)	7(11.67)	0	0
	c. Diabetes	173(96.11%)	53(88.33)	40(100)	80(100)
19. Saliva can be used in the diagnosis of oral as well as certain systemic diseases	a. Agree	180(100%)	60(100)	40(100)	80(100)
	b. Disagree	0(0%)	0	0	0
	c. Neither agree nor disagree	0(0%)	0	0	0
20. All precancerous lesions of the oral cavity invariably leads to oral cancer even if the predisposing factors are removed.	a. Agree	42(23.33%)	32(53.33)	6(15)	4(5)
	b. Disagree	132(73.33%)	22(36.67)	34(85)	76(95)
	c. Neither agree nor disagree	6(3.33%)	6(10)	0(0)	0(0)

100% % of the faculty and PGS reported fluoride as a mineral responsible for discoloration of teeth, bone and renal disorder but 8.33% of the interns marked it as selenium. 78.33% of the interns and 100% of the Faculty and PGS reported that lichen planus, a skin disorder also has oral manifestations. All the sample agree that saliva

can be used in the diagnosis of oral as well as certain systemic diseases 73.33% (132) of the sample disagree with the statement that all precancerous lesions of the oral cavity invariably leads to oral cancer even if the predisposing factors are removed. Of these 132, 22 were interns, 34 were PGS and 76 were faculty

Table 4: Responses of study subjects based on Awareness of specialties of Dentistry

SR No	Disorder		Specialties									
			A Ortho	B Iaso	c Prosth	d Perio	e Odo	f ODMR	g OMFS	H CD	I Endo	j Pedo
1	Cariious painful tooth	Interns	0	0	0	0	11.67	5	18.33	0	65	0
		PGS	0	0	0	0	17.5	0	12.5	0	70	0
		Staff	0	0	0	0	0	2.5	13.75	0	83.75	0
2	Fracture of JAW	Interns	70	0	0	0	0	6.66	23.33	0	0	0
		PGS	17.5	0	0	0	0	0	82.5	0	0	0
		Staff	5	0	0	0	0	0	95	0	0	0
3	Cariious teeth in a child	Interns	0	13.33	0	0	0	5	3.33	0	8.33	70
		PGS	0	0	0	0	0	5	0	0	0	95
		Staff	0	0	0	0	0	0	0	0	0	100
4	Bleeding gums	Interns	0	0	0	70	0	20	5	0	5	0
		PGS	0	0	0	80	0	20	0	0	0	0
		Staff	0	0	0	91.25	0	8.75	0	0	0	0
5	School Dental health	Interns	0	0	0	0	0	0	0	13.33	0	86.66
		PGS	0	0	0	0	0	0	0	42.5	0	57.5
		Staff	0	0	0	0	0	0	0	77.5	0	22.5
6	Multiple	Interns	0	0	85	0	10	0	0	0	5	0

7	Missing teeth	PGS	0	0	92.5	0	0	0	0	0	7.5	0
		Staff	0	0	97.5	0	0	0	0	0	2.5	0
7	Irregular and crooked teeth	Interns	38.33	0	20	0	0	0	28.33	0	0	13.33
		PGS	82.5	0	12.5	0	0	0	5	0	0	0
8	Diagnosis of oral cancer	Staff	97.5	0	0	0	0	0	1.25	0	0	1.25
		Interns	0	0	0	0	0	61.66	38.33	0	0	0
8		PGS	0	0	0	0	0	85	15	0	0	0
		Staff	0	0	0	0	0	96.25	3.75	0	0	0

Table 5: Responses of study subjects based on Personal interest in Dentistry: (For Interns Only)

Questions on general awareness about oral health	Distribution of study sample	
	Interns	
	60(100%)	
21. As a medical graduate, do you think you should know more about oral cavity and oral diseases?	a. Yes	54(90)
	b. No	0(0)
	c. No comments	6(10)
22. According to you, is there any need for a clinical posting in dental departments?	a. Yes	51(85)
	b. No	5(8.33)
	c. No Comments	4(6.67)

DISCUSSION

In India there is scarcity of the dental graduates in the rural population. The world health organization recommended dentist to population ratio of 1:7500. But despite of increase in the number of dental graduates passing every year from 20000 in 1990 to 30570 in year 2010.⁸ Vundavalli S. This ratio recommended by WHO was never achieved. In 2004 there was one dentist for every 10000 persons in urban areas, while in the rural areas there was one dentist for every 250,000 population.⁹ Tandon S. This imbalance is 25 times though the 69% of the Indian population resides in rural areas. Similarly 54% of the dental colleges are concentrated in only five large states as Maharashtra, Telangana, Karnataka, Tamilnadu and Uttarpradesh.¹⁰ Allareddy V. Due to significant geographic imbalance in the distribution of dental colleges, a great variation in the dentist to population ratio in the rural and the urban areas is seen. Reports suggest that there are about more than one million unqualified dental health-care providers, or 'quacks', in India.¹¹ Sandesh N. To Avoid quacks and to promote dental and oral health General medical practitioners serving 70% of the rural India plays a vital role. So their knowledge and practices of oral hygiene plays a role model act for the society. As William Osler said mouth is the mirror of general health¹² Sumi Y. Poor oral conditions may adversely affect general health and certain medical conditions may have a negative impact on oral health. This cross sectional study was conducted to assess the dental knowledge, attitude and awareness at different levels of seniority of Medical graduates and post graduates. Dental knowledge of medical Practitioners Results of the study showed that the medical professionals had good knowledge about dentistry. In the

present study with regards to dental knowledge in this study 173 (96.11) of the doctors said that Frequency of sugar containing foods is responsible for dental caries. In a study conducted by S Srinidhi *et al*¹³ 271(90.3%) medical practitioners believed that Sugar contained foods consumed per day is responsible for tooth decay. Similarly study conducted by Eve line KL Wong and Elischwartz¹⁴ 98(81%) house officers mbelieved that poor oral hygiene caused periodontal disease. A great confusion was noted among the participants with regards to the proper brushing method and the amount of toothpaste used for brushing the teeth. 32(17.77%) of the sample believe in horizontal method whereas 52(28.9%) believe in vertical method. 62(34.44%) recommend circular method and 34(18.9%) believe in combination of the methods. Muttineni, *et al* in a study on nursing students reported quite similar values to the present study with Horizontal 17.7 % Circular 66.7 % Vertical 10.2% and Both circular and vertical 5.4 %

In Similar study conducted by Permi SR *et al*¹⁶ on paramedical professionals reported 4% of the respondents practised horizontal brushing technique 19% used circular method, 7.3% used vertical and majority of them practised combination of all. NUJHS Vol. 5, No.2, June 2015. Thus there is a variable views about the brushing strokes among the different health care professionals. Only 38.33% of the sample use pea sized amount of the toothpaste for brushing and 47.77% of sample uses amount equal to full length of brush head. This variability may be attributed to the wrong message from the video advertisements on television. Except 3 interns almost all the sample is aware that pregnancy increases the risk of dental problems. Almost half (51.11%) of the total sample and 48.33% of interns responded that first visit to

dentist should be when first tooth erupts. 4 interns (5%) believe that there is No need to visit unless there is discomfort or pain.

AAPD recommends that, the child should see the dentist within 6 months of eruption of the first primary tooth and no later than 12 months of age¹⁷ Traditionally, the developmental age for initial dental visit was thought to be 3 years, the rationale for this being, children are better manageable at this age and treatment will be more effective and efficient. However, early interventions are needed to educate parents on oral hygiene, prevention of dental injuries and ECC.¹⁷ 137 (76.11%) of the total participants are aware that there are no harms of scaling, but 43 (23.88%) report that there are harms from the scaling procedure. Only 4 faculty (5%) members marked that scaling has ill effects on teeth. This Belief may be attributed to wrong message from society or previous experiences. All the participants agree that dental attendance improve quality of life. Attitudes of medical practitioners towards oral hygiene. In the present study 23.33% of the sample brush their teeth once daily, 75% PG and 90% faculty does it more than once daily. In a study conducted by Permi *et al*¹⁶, among para medical students found 32% of the respondents brush their teeth once daily and 64.7% brush twice a day, 3.3% brush more than twice. 67.3 of the nursing student advised to brush teeth twice daily in a study conducted by Muttineni *et al*¹⁵. (98.89 % of the sample uses toothbrush and toothpaste to clean their teeth. Only 2.5% of the faculty use finger and toothpowder to clean their teeth. This may be attributed to the their periodontal status and brush would cause bleeding while brushing. In the study of Permi *et al*¹⁶ on physiotherapy, Nursing and medical lab technicians 82.7% used toothpaste and brush for cleaning teeth. 76.2 of the nursing student recommended toothbrush and paste as ideal material for brushing teeth in the study conducted by Muttineni *et al*¹⁵. None of the respondents used charcoal or neem. 37.22 % of the sample visit the dentist once in a year. 26.11 % of the sample would like to visit dentist when experience dental pain. 37.5% of the PGS and 32.5% of the Faculty visits dentists twice in a year. In the study conducted by S Srinidhi *et al*¹³ on dental awareness and attitudes among medical practitioners in Chennai, 76.3% of the medical practitioners have answered that they would suggest their patients to visit the dentist once in six months. In a study conducted by Jagadish Chandra *et al*¹⁸ on medical practitioners of Davangere city it is seen that regular visit of once in six months was suggested by 86.3% which is slightly high when compared with the attitudes of medical practitioners in Chennai. This major difference is among our study and the study conducted by S Srinidhi *et al* and Jagadish Chandra *et al* may be attributed to the question

frame as both these study seek advice/ suggestion to patients and our study actual visits of the participants to the dentist in the past. In the study of Muttineni *et al*¹⁵ 49% of the nursing students answered that a person should visit dentist once in six months. This was also reflected in the findings of Oyetola EO *et al*²¹ which showed only 78 (38%) participants had ever visited the dentist for dental checkup/treatment. Also Doshi *et al*²² studied medical students and reported that 79.4% of the participants had visited a dentist for check up at one point or the other in their life. Oyetola EO *et al*²¹ 67.22% of the sample answered that they do not have any tobacco habit, only 2.22% of the sample use tobacco containing products frequently that too were among the faculty. In a study conducted by Kamble VS *et al*¹⁹ on 1st year medical students only 1.2% of the students reported the use of tobacco. 68.33 % of the sample answered that they change their tooth brush once in 3 months and 13.33 % answered that they change their brush when its bristles gets distorted. In a study conducted by Muttineni *et al*¹⁵ on nursing students 53.7 % of the sample answered that brush should be changed once in 3 months and 8.2 % of the sample answered that it should be changed when it gets spoiled. Saha *et al*²⁰ in their study on nurses reported that majority of nurses changed their toothbrush after 3 months. When asked about the specialities of dentistry 70% of the interns marked orthodontics as a speciality dealing with fractures of jaw. Whereas 82.5% of the PGS and 95% of the faculty advised referral of the fracture mandible to Oral and maxillofacial surgeon. 38.33% of the interns replied that orthodontics is the speciality concerned with irregular and crooked teeth whereas 82.5% PGS and 97.5% of the staff replied for same. 61.66 % of the interns marked oral and maxillofacial surgery as speciality of Diagnosis of oral cancer. 85% of the PGS and 96.25% of the faculty marked it as a work of Oral medicine Diagnosis and radiology. These findings suggest that knowledge about specialities of dentistry is poor among undergraduates trainees and it varies between 80-97% among the faculty and postgraduate doctors. Great confusion was noted about the referral of the dental patient to the proper dental speciality specially for the Orthodontics and Oral and Maxillofacial surgery. In the study conducted by Srinidhi *et al*¹³ involving MEDICAL PRACTITIONERS IN CHENNAI Among the study subjects 279 (93 %) have answered correctly that Prosthodontics was a specialty in dentistry. Based on their qualification 95.7% of UG and 93.8% PG doctors and 80.6% PG diploma holders, have answered the right option as Prosthodontics for specialty in dentistry. In a study conducted by Oyetola EO *et al*²¹ involving medical doctors, medical students and nurses Majority (71.4%) of the respondents agreed that Oral and maxillofacial

surgery is a dental specialty that treat facial fractures, Less than half of the participants (48.5 %) were aware that orthodontics treats abnormally arranged teeth. About one-third (32.5%) of the respondents did not know the specialty of dentistry that treats a hole on the tooth and only 14.6% was able to attribute a hole in the tooth to restorative dentistry. Only 11% of the participants associated the management of unusual facial pain to Oral Medicine while the majority of the respondents did not know which of the specialties of dentistry could best manage unusual facial pain. Oyetola EO *et al*²¹

Awareness on systemic conditions related to oral health

In the present study 161(89.44%) of the sample answered that Ludwig's angina is a kind of dental space infection But only 41(68.33%) of the interns could answer this correctly compared to 100% of the PGs and faculty. This awareness was less among the PGs (87-91%) In the study conducted by Srinidhi *et al*¹³ among medical practitioners in Chennai. Compared to present study Oyetola EO *et al*²¹ in their study on medical doctors, medical students and nurses about dentistry in Nigeria., Only 21% respondents knew Ludwig's angina to be a fascial space infection, majority of who were medical doctors. Others either believed it to be a cardiac disease 39.8% or did not know what it was 35.4%. The Knowledge about periodontal disease exacerbating systemic health; 64.5% of the participant believed periodontitis could exacerbate infective endocarditis. Majority of the respondents believed that oral health could affect the nutrition of patients. In the present study with regard to Untreated dental and perioral infections 152(84.44%) of the doctors had answered correctly that it may cause cavernous thrombosis, a life threatening situation due to untreated dental infection. These findings were similar to the study conducted by Jagadish Chandra *et al*¹⁸ and Srinidhi *et al*¹³ where 85 % and 85.7% of subjects respectively, were aware that some dental diseases are life threatening. In the present study the sample is well aware about the endemic cause of the discoloration of teeth as many cases usually report to the hospital for this reason and is also common in the surrounding areas of the hospital. With regards to the oral manifestation of the systemic diseases PGs and faculty are well aware compared to the interns. This could be because of the fact of detailed study of the systemic diseases during the Post graduate entrance preparation after the internship completion and also because of the clinical experience of the faculty and PGs. 42(23.33%) of the sample agree that All precancerous lesions of the oral cavity invariably leads to oral cancer even if the predisposing factors are removed. Majority among them were interns (36.67%) This fact shows that awareness of the oral diseases and oral manifestations of

the systemic diseases is less among the interns. This could be because of the facts that most students neglect their dental posting during their MBBS curriculum and if they do not undergo through preparatory phase of post-graduation their oral health and hygiene knowledge remains limited. They could not give a better advice to their patients in the future if they come across to these kind of cases. Most of the interns showed their interest to learn more about the dentistry and expressed the need of dental postings in their syllabus. The dental knowledge, attitude and awareness regarding life threatening situation were satisfactory among the medical practitioners of Chennai. This could be because the MBBS curriculum in India includes a dental posting in which they have an exposure to dental health aspects which improves their awareness, knowledge and attitude towards dentistry. Campaigns conducted by many dental product manufacturers being focused in the metros like Chennai which further tends to enhance their knowledge. A number of continuing medical education programmes which are being conducted in Chennai for the general medical practitioners is a great source to update their knowledge on various aspects of health. Although physicians can provide emergency care, generally they do not provide definitive treatment. Physicians' offices may not be the most appropriate site for the treatment of dental emergencies. Physicians generally have received minimal training in the management of dental problem. The General Medical Services Committee of the British Medical Association published guidelines on the management of dental problems. Further research is required to evaluate the adequacy of general physicians, management of dental emergencies. Such studies will help to determine the need for changes in undergraduate and graduate medical education, as well as identify the necessity for continuing education courses to address this topic.

CONCLUSION

Awareness of the undergraduate medical students was low as compared to the senior faculty which can be improved by incorporating basic information about oral health in their academic curriculum, conducting various inter-disciplinary workshops, CDE programs. and conferences, increasing the clinical exposure of the students to oral findings as most of the systemic diseases manifests in the oral cavity, special study modules or electives in oral health and disease should be created by involving the dental faculty, emphasizing the importance of oral health. Among the various health professionals considered in the present study, Teaching faculty answered more number of questions correctly, followed by postgraduate trainees and interns. The more likely

reason for this could be that clinical examination of the oral cavity was exposure of the senior persons to the dental knowledge during their postgraduate training and also the clinical and family experiences, continuous medical education courses and personal involvement with dental patients. Hence, their knowledge regarding oral health could be more as compared with other health professionals. A comparison made among different health professionals did not yield any statistical significance. *Dent Res J (Isfahan)*. 2012 Jul-Aug; 9(4): 386–392. Oral health knowledge, attitude and practices among health professionals in King Fahad Medical City, Riyadh Mohammad Abdul Baseer,¹ Mohammed Suliman Alenazy,¹ Mohammad AlAsqah,¹ Mansoor AlGabbani,¹ and Aleemullah Mehkari.¹

REFERENCE

1. MorenikeFolayan, AyomideSowole, Aderonke Kola Jebutu. Risk factors for caries in children from south-western Nigeria. *Journal of clinical paediatric dentistry* 2007; 32:171-175
2. Goyal, Gaubak,Chawla H S, Kapur A. Epidemiology of dental caries in Chandigarh school children and trends over the last 25 years .*J Indian socpedoprev Dent*.2007;25:115-118.
3. Dhar V, Jain A, Van Dyke T E, Kholi A. Prevalence of dental caries and treatment needs in the school going children of rural areas in Udaipur district. *Indian SocPedoprev Dent* 2007; 25:119-121.
4. Naidu RS, Juman S, Rafeek RN, et al. Oral and dental conditions presenting to medical practitioners in Trinidad and Tobago. *International Dental Journal* n2008;5:194-98
5. Al-Hussaini R, Al-Kandari M, Hamadi T. Dental knowledge, attitudes and behaviour among students at the Kuwait university health sciences centre. *Medical Principles and Practice* 2003;12:260-65.
6. Tuti NMD, Shahida MS, Zamirah ZA. Dental knowledge and self-reported oral care practices among medical, pharmacy and nursing students. *Journal SainsKesehatan Malaysia* 2009;7(1):13-23.
7. Jagadish Chandra, Chandu GN, Prashant GM, et al. Dental awareness and attitudes of medical practitioners of avangere city. *Journal of Indian Association of Public Health Dentistry* 2006;8:38-43.
8. Vundavalli S. Dental manpower planning in India: Current scenario and futureprojections for the year 2020. *Int Dent J* 2014;64:62-7.
9. Tandon S. Challenges to the oral health workforce in India. *J Dent Educ* 2004;68:28-33. Allareddy V. Concentration of Undergraduate Dental College Admissions in Areas with High Health and Human Development in India.*Journal of Dental Education* March 2015.
10. Sandesh N, Mohapatra AK. Street dentistry: Time to tackle quackery. *Indian J Dent Res* 2009;20:1-2.
11. Sumi Y, Nakamura Y, Nagosa, et al. Attitudes to oral care among caregivers in Japanese nursing homes. *Gerodontology* 2001;18(1):1-6.
12. Srinidhi S, Ingle NA, Chaly PE, Reddy C .Dental Awareness and Attitudes among Medical Practitioners in Chennai. *J Oral Health Comm Dent* 2011;5(2)73-78
13. Eve line KL Wong, Eli Schwartz. Knowledge and attitudes towards dental care among newly graduated medical doctors. Available at: [http:// www.google.com](http://www.google.com). Accessed March14th 2017.
14. Muttineni N, Bolla SC, Shaik N, Shaik RB, Reddy SS, Gantha NS. Oral health awareness among the final year undergraduate nursing students in Khammam district, Telangana. *Journal of Health Research and Reviews* 2014 ;1(3): 70-3.
15. PermiSR ,Bhandary R, Thomas B. Randomised cross sectional study of oral health Related knowledge and behaviour among Paramedical students. *Nitte University Journal of Health Science* 2015; 5(2) :19-21.
16. The American Academy of Pediatric Dentistry. Policy on Early Childhood Caries (ECC): Classification, Consequences, and Preventive Strategies. *Pediatr Dent* 2013;33:47-9.
17. Jagadish Chandra, Chandu GN, Prashant GM, et al. Dental awareness and attitudes of medical practitioners of Davangere city. *Journal of Indian Association of Public Health Dentistry* 2006;8:38-43.
18. Kamble VS, Biradar SM, Takpere A , Reddy S. Evaluation of oral hygiene awareness and practices among medical students.*Int J Community Med Public Health*. 2016 Jan;3(1):83-85.
19. Saha, et al. Oral hygiene practice and status among health care workersin private nursing homes of Davangere. *J Ind Dent Assoc* 2000;71:201.
20. Oyetola EO, Oyewole T, Adedigba M, Aregbesola ST,Umezudike K, Adewale A. Knowledge and awareness of medical doctors, medical students and nurses about dentistry in Nigeria. *The Pan African Medical Journal* 2016;23:172.
21. Doshi D, Baldava P. A comparative evaluation of self-reported oral hygiene practices among medical and engeening university students with access to health promotive dental care. *Journal of Contemporaray Dental Practice*. 2007; 8(1): 068-75.
22. Demographics & Current Scenario with Respect to Dentists, Dental Institutions& Dental Practices in India.. *Indian Journal of Dental Sciences*. June 2011 Issue:2, Vol.:3 N. K Ahuja ² RenuParmar

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