



ASSESSMENT OF DENTAL AWARENESS, KNOWLEDGE AND ATTITUDE AMONG THE NURSING STUDENTS IN KANPUR CITY, INDIA

Dental Science

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ABSTRACT

Oral health is an integral part of general health and oral health status of a person is usually determined by the presence or absence of dental caries and periodontal disease as well as the level of oral hygiene found in the community. Nursing is an important discipline and is considered as an essential community provider of health information and attitude formation. The aim of this study is to assess nursing students' knowledge attitude and awareness regarding oral health. Material & Method: A cross-sectional survey conducted among the 250 nursing students from the nursing college in Kanpur city. The data was gathered using a self-administered questionnaire, analyzed using descriptive statistics. Results: The results of the study showed that the nursing students had good knowledge about oral diseases but they showed interest to know more about oral cavity. Conclusion: This study enlightens that nursing students have good knowledge about oral health; thereby they can help in improving oral and general health of patients.

KEYWORDS

Oral Health,knowledge,nursing,students,dentistry

Introduction

Health is a universal human need for all cultural groups. General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body and the gateway to good health. Oral hygiene has been considered as a risk indicator, and risk predictor for various oral problems.^{1,2,3,4} Nursing is an important paramedical branch and, it is considered as an essential supplementary course of medicine. Nursing staff plays a major role in providing health services along with the doctors.^{5,6,7} At present, nursing staff role in dentistry is not recognizable, as they have are less aware of oral diseases and training and knowledge regarding the instruments and various methods in this field of dentistry.^{2,8} Hence the aim of this study is to assess the dental knowledge, attitudes and awareness of nursing students in Kanpur City.

Material & Methods

A cross sectional questionnaire survey was carried out in May-June 2018 time duration to assess the knowledge, attitude and dental awareness among nursing students of Kanpur City. A simple random sample was drawn of size 250 nursing students of all 3year (1st/2nd/3rd) from certified nursing college of Kanpur were included. A specially designed questionnaire consisting of three sections was used, these consisted of firstly questions based on the dental knowledge of nursing students which included eleven questions, secondly section based on the attitude of the nursing students towards dental health, which included six questions and the last section was based on nursing students interest to know more about oral cavity and oral diseases, included two questions. Institutional ethical clearance was taken and all data was collected from the nursing colleges itself. Each student were given 30minutes time to answer the questionnaire and to maximize the response, a letter was enclosed along with the questionnaire which emphasized the importance and confidentiality of the survey.

All demographic data and the quantitative data obtained via the questionnaires were analyzed by SPSS for Windows V15. Frequencies and cross-tabulations were performed. 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 nursing students for their responses based on dental knowledge, attitude, awareness and interest to know more about oral cavity and oral diseases.

Results

Table-1 represents the study population. Based on their year of education 25 (10%) were 1st year students, 150 (60%) were 2nd year students and 75 (30%) were 3rd year nursing students among that 126 were male and 124 were female nursing students.

Table-1 Distribution of study subjects according to the gender and year of education

Qualification	Gender		Total
	Male	Female	
1 st Year Nursing Student	60%(15)	40%(10)	25
2 nd Year Nursing Student	53.3%(80)	46.6%(70)	150
3 rd Year Nursing Student	41.3%(31)	58.6%(44)	75
Total	50.4%(126)	49.6%(124)	250

Responses of the Study Subjects Based on their Dental Knowledge (Table-2 a, b)

Among the study subjects about 246 (98.4%) have said that brushing teeth daily prevents tooth decay and periodontal diseases. Based on their academic year 74 (98.6%) of the 3rd year and 148 (98.6%) of the 2nd year have answered correctly that the proper brushing habits prevents tooth decay and periodontal problems. The differences noted were found to be very highly statistically significant (P<0.001). 227 students said that the most important factor for dental caries is the use of sugar contained food, and the difference noted to be very highly statistically significant (P<0.001). Among the study subjects 200 have answered correctly that the plaque/calculus are factor responsible for gingival and periodontal diseases and 234 students have answered correctly that orthodontics is the branch of dentistry, and these differences were found to be statistically significant.(P<0.05). 164(65.6%) nursing students said that scaling has no adverse effect on teeth, which was found to be statistically significant (P<0.05).

Table -2 b was containing 6 questions related to dental health knowledge. Among study subjects 221 (88.4%) have answered correctly regarding tooth number in oral cavity, and response noted was highly significant (P<0.01).212 have answered that pain is the main feature to identify tooth decay initially and difference noted were found to be statistically significant (P<0.05).192 nursing student have answered correctly about ideal material of brushing, and difference was significant (P<0.01).125 nursing students of all 3 years have answered correctly about proper brushing method.225(90%) study subjects were aware of changing brush time period which was statistically significant (P<0.01).230 nursing students advice their patients to clean tongue on regular basis, which was statistically significant(P<0.01).

Table -2a Responses of the study subjects based on their dental knowledge

Questions on dental knowledge		Distribution of the study subjects according to their responses			
		Total	1 st year	2 nd year	3 rd year
		250	25	150	75
Brushing teeth daily prevents	a. Oral cancer	0.8%(02)	4%(01)	0.66%(01)	0
	b. Oral ulcer	0.85(02)	0	0.66%(01)	1.3%(01)

	c. Tooth decay & periodontal disease	98.4%(246)	96%(24)	98.6%(148)	98.6%(74)
	d. Proclination of teeth	0	0	0	0
Factors causing dental caries	a. Brushing once daily	2.8%(07)	4%(01)	3.3%(05)	2.8%(07)
	b. Using tooth powder	4.4%(11)	0	6.6%(10)	4.4%(11)
	c. Consumption of sugar contained food	90.8%(227)	88%(22)	90%(135)	93.3%(70)
	d. Smoking	2%(05)	8%(02)	0	4%(03)
Factors responsible for gum diseases	a. Dental caries	18.8%(47)	68%(17)	13.3%(20)	13.3%(10)
	b. Plaque & calculus	80%(200)	32%(08)	85.3%(128)	42.6%(64)
	c. Broken fillings	0.8%(02)	0	0.6%(01)	1.3%(01)
	d. Inflammation of tongue	0.4%(01)	0	0.6%(01)	0
Specialty in dentistry	a. Lasodontics	0.8%(02)	0	0.6%(01)	1.3%(01)
	b. Orthodontics	93.6%(234)	80%(20)	95.3%(143)	94.6%(71)
	c. Hypodontics	2%(05)	8%(02)	2%(03)	0
	d. Ododontics	3.6%(09)	44%(11)	2%(03)	4%(03)
Does cleaning of teeth create any adverse effects	a. Thinning of tooth	5.6%(14)	8%(02)	6.6%(10)	2.6%(02)
	b. Increase spacing in between teeth	4%(10)	8%(02)	2.6%(04)	5.3%(04)
	c. Increase mobility of teeth	5.6%(14)	8%(02)	4%(06)	8%(06)
	d. Increases tooth sensitivity	19.2%(48)	32%(08)	20%(30)	13.3%(10)

Table -2b Responses of the study subjects based on their dental knowledge

Questions on dental health knowledge	Distribution of the study subjects according to their responses				
	Total	1 st year	2 nd year	3 rd year	
How many teeth are there in the oral cavity	a. 32	88.4%(221)	96%(24)	84.6%(127)	93.3%(70)
	b. 16	6%(15)	0	9.3%(14)	1.3%(01)
	c. 20	4.8%(12)	4%(01)	5.3%(08)	4%(03)
	d. 12	0.8%(02)	0	0.6%(01)	1.3%(01)
How do you identify tooth decay initially	a. Black spot	7.6%(19)	0	6%(09)	13.3%(10)
	b. Bleeding	6.4%(16)	4%(01)	6.6%(10)	6.6%(05)
	c. Pain	84.8%(212)	96%(24)	86.6%(130)	77.5%(58)
	d. Sensitivity to cold water	1.2%(03)	0	0.66%(01)	2.6%(02)

What are the ideal material for brushing	a. Tooth powder/Brush	4%(10)	4%(01)	5.3%(08)	1.3%(01)
	b. Tooth paste/Brush	76.8%(192)	48%(12)	80%(120)	80%(60)
	c. Tooth powder/Finger	0	0	0	0
	d. Neem stick	19.2%(48)	48%(12)	14.6%(22)	18.6%(14)
What is the proper brushing method	a. Horizontal	24%(60)	32%(08)	22.6%(34)	24%(18)
	b. Vertical	14%(35)	20%(05)	13.3%(20)	13.2%(10)
	c. Circular	4%(10)	0	3.3%(03)	6.6%(05)
	d. Both b&c	50%(125)	40%(10)	55.3%(83)	42.0%(32)
	e. Do not know	8%(20)	8%(20)	5.3%(08)	13.3%(10)
How often a person should change tooth brush	a. 3 months	8%(20)	8%(02)	4%(06)	65%(12)
	b. 6 months	90%(225)	84%(21)	96%(144)	80%(60)
	c. When it is spoilt	2%(05)	8%(02)	0	4%(03)
Do you advice a patient to clean his/her tongue	Yes	9.2%(230)	80%(20)	96.6%(145)	86.6%(65)
	No	8%(20)	20%(05)	3.3%(05)	13.3%(10)

Responses of Study Subjects Based on their Attitudes towards Dental Health (Table-3)

Among the all year nursing students 233(93.2%) have answered that a person should brush teeth twice daily, and the response difference was statistically significant (P<0.05). Out of 250 nursing students, 225 have answered that that they do not smoke tobacco in any form. 204 nursing students answered that a person should visit a dentist once in every 6months and it came statistically significant (P<0.05). 210 nursing students among 250 total study subject mentioned that they refer patient to dentist for dental problems.243 students replied yes to dental treatment which helps in improving life and 248 students answered yes to need of dental treatment in pregnant woman and these differences were reported as statistically significant (<0.05).

Table-3 Responses of nursing student's attitude towards dentistry

Questions on attitude to dental health	Distribution of the study subjects according to their responses				
	Total	1 st year	2 nd year	3 rd year	
How many time should a person brush his teeth every day	Once daily (tooth paste/gel)	68%(17)	6.6%(05)	6.6%(10)	8%(02)
	Twice daily(tooth paste/gel)	93.2%(233)	93.3%(70)	93.3%(140)	92%(23)
Do you smoke or consumes tobacco in smokeless form	Yes	10%(25)	20%(05)	10%(15)	6.6%(05)
	No	90%(225)	80%(20)	90%(135)	93.3%(70)
How often should a person visit a dentist	a. Once in 6months	81.6%(204)	88%(22)	76.6%(115)	89.3%(67)
	b. Once in 2months	4.4%(11)	0	5.3%(08)	4%(03)
	c. Only in pain	10.4%(26)	4%(01)	14.6%(22)	4%(03)

	d. Once in 2-5years	3.6%(09)	8%(08)	3.3%(05)	2.6%(02)
Patient with dental problems	a. Refer patient to dentist	84%(210)	88%(22)	76.6%(115)	90.6%(68)
	b. Prescribe antibiotics & analgesics	16%(40)	12%(03)	30%(45)	9.3%(07)
	c. Ignore	0	0	0	0
Does dental treatment improve quality of life	Yes	97.2%(243)	92%(23)	97.3%(146)	98.6%(74)
	No	2.8%(07)	8%(02)	2.6%(04)	1.3%(01)
Do pregnant woman need dental checkup	Yes	99.2%(248)	100%(25)	98.6%(148)	100%(25)
	No	0.8%(02)	0	1.3%(02)	0

Responses of Study Subjects to increase the interests in knowledge of oral cavity (Table-4)

Among all 250 nursing students from all 3years,210(84%) showed interest to know more about oral cavity and oral diseases and 225 students replied yes to attend dental camps to improve knowledge and response in differences were statistically significant(P<0.05).

Table-4 Response of nursing students towards increasing interest about oral cavity

Questions on increasing the interest of knowledge	Distribution of the study subjects according to their responses				
		Total	1 st year	2 nd year	3 rd year
As a nursing student,do you think you should know more about oral diseases	Yes	84%(210)	88%(22)	76.6%(115)	90.6%(68)
	No	16%(40)	12%(03)	30%(45)	9.3%(07)
	comments	0	0	0	0
Have you ever taken part in dental camp conducted in your college	Yes	10%(25)	20%(05)	10%(15)	6.6%(05)
	No	90%(225)	80%(20)	90%(135)	93.3%(70)

Discussion

Oral disease can be considered as a public health problem due to its high prevalence and significant social impact. Due to the educational level and the professional role of the nurses, it is expected that they are to be more knowledgeable in the community about oral health and its diseases.^{3,7,8} This cross sectional study was conducted to assess the dental knowledge, attitude and awareness of nursing students of Kanpur City. In the present study majority of nursing students were aware of brushing habits, brushing techniques, role of tooth paste and importance of the dentist in daily life which is similar to studies performed by Naheedha et al and Laxman et al^{2,3} as compare to study done by Lenna et al.^{1,5} Still 210 nursing student showed interest for more knowledge about oral diseases and 225 nursing student were interested in attending dental camps to improve dental knowledge.^{4,5,6}

Conclusion

The results of this study clearly demonstrate that nursing students had a good. Knowledge, attitude and awareness about dentistry. However having knowledge does not guarantee that it will be effectively used. Some of the strategies which can help the nursing students for upliftment of their knowledge, attitude and awareness towards oral aspects of various systemic and life threatening diseases are as follows; incorporation of basic knowledge about dentistry in medical syllabus,

Basic management of dental emergencies in medical practice, various interdisciplinary symposia/lectures/conferences/continuing medical/dental education programs with special emphasis on oral and general health, special study modules or electives in oral health and its correlation with various systemic diseases by involving the dental faculty in teaching should be created.

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