

## Oral Hygiene, Knowledge, Attitude and Practice among Nursing Students at Public Tertiary Care Hospital, Lahore

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### Original Research Article

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**Abstract:** Oral health enables an individual to speak, eat and socialize without active disease. Oral hygiene is the process of keeping oral free from pathological condition that affects gum disease, mouth ulcers and sores and cavities. Oral health affects the overall health of individuals, so it is very important to maintain oral hygiene. Knowledge, attitude and practice regarding oral-health are considered to be important requirements for improving oral health. To determine oral hygiene experience among students and describe their level of oral health knowledge, attitude and practice of oral hygiene. A cross-sectional analytical study design was used to examine the knowledge, attitude and practice of students regarding oral hygiene. A cross-sectional is that study that collects information from a population at specific time of period. Data was collected from 150 nursing students through convenient sampling techniques. Those who meet the inclusion criteria will be included in the study and those who don't meet the criteria was not be the part of the study. Data was analyzed through SPSS version 21. Results suggest that there was satisfactory knowledge that is more than 80% of the study participants had knowledge about different knowledge based statements. The attitude and practices were some moderately around 50 to 60% of participants fall in this category. Overall knowledge was good but attitude and practices were low comparatively.

**Keywords:** Oral Hygiene, Knowledge, attitude, Practices.

### INTRODUCTION

Oral health is an important part of general health because oral cavity is the mirror of general health and there is ample evidence to suggest that oral health affects general quality of life [1]. Oral health enables an individual to speak, eat and socialize without active disease. Oral hygiene is the process of keeping oral free from pathological condition that affect gum disease, mouth ulcers and sores and cavities [2]. Oral health affects the overall health of individuals, so it is very important to maintain oral hygiene. Knowledge, attitude and practice regarding oral-health is considered to be an important requirements for improving oral health [3].

According to World health organisation to improve oral health of the population, the promotion of self-care is one of the goals for the year 2020. For the promotion of best oral health it is recommended that tooth brushing more than once a day, limited consumption of sugar containing snacks once daily and use of fluoride containing tooth paste [4]. There is also a strong relationship between knowledge regarding

oral hygiene and better oral health and those who have knowledge and feel of sense of personal control over their oral health are more likely to adopt self-care practices [5].

All over the world dental caries is the most predominant dental problem, least prevalence in African countries but 90 % adults and school going children suffering from dental caries in Asian and Latin American countries [6]. Pakistan is among countries where oral health considered bad and most of the school child has dental problems, and it has been assessed that dental caries is the most common childhood disease 5 time more than respiratory and 7 times than fever. So knowledge, attitude and practice regarding oral hygiene oral health as a key step for the policy makers to focus to improve oral health in Pakistan [7].

Knowledge, attitude and oral health practices are the important factors in preserving healthy oral state. The factors mentioned eventually will present as oral disease, mostly dental caries and periodontitis.

Cumulative and progressive oral disease becoming complex over time which hinder the ability to eat, once looking and the way we communication which affects the productivity, economy and compromises ability to work at home or any other workplace [8]. Knowledge about food that is cariogenic is very important to prevent dental carries and most of the populations have no knowledge that high intake of sugar is a main source of dental carries, but most people do not know that it is due to the frequency and timing that affects the growth of carries rather than the amount of sugar intake and as a result most people from low socio-economic status experience high prevalence of dental caries [9].

This chapter will review the existing literature regarding knowledge, attitude and practice regarding oral hygiene. Knowledge of oral health determines good oral care practice and similarly for those who have more positive attitude towards oral health is predicted by improved knowledge in taking care of their teeth. Many studies mention that proper education about oral health can help to promote health oral practice. The change can be occurring in attitude and practice by providing adequate information, motivation and practice of the measures to the subjects. To achieve such a goal of health education, the evaluation of knowledge, attitude and practice is necessary [9].

To adopt good oral health, proper oral hygiene is essential which in turn affects the attitude of the people toward it. The important factor is the socio-economic status which has an impact on the attitude because it affects the affordability of some dentifrices, cleaning of the teeth as well as some services like professional cleaning of teeth by a dentist. Most of the students are not employed and they depend on their parents attitude for the provision of all these [5].

Another study carried by Al Tamini about the attitude toward oral hygiene which show that oral hygiene habits such as brushing of tooth were found irregular and the role of parents in oral hygiene habits was limited. The major factors were found the irregular visits to a dentist and toothache. Study also shows that some children had a positive attitude toward their dentist but they were feared about dental treatment. Attitude of the people play a key role in maintaining oral hygiene and it can be improve through education and regular visits to a dentist. Therefore, comprehensive programs on oral health is still lacking in developing countries which the alarming sign for oral disease [6].

Practices of good oral hygiene are those measures taken which keep the mouth and teeth clean in order to prevent bad breath, dental disease leading to good oral health. Oral health and the related tissue in

the mouth and structures that contributes physical, mental and social well-being and to the pleasure of life possibilities that make in individuals able to eat speak and socialize unconstrained by pain and discomfort [4]. Oral hygiene practice particularly dependant on three factors, the individual's level of information regarding practices, their good attitude toward practice and commitment to the practice. These factors are necessary because lack of any of three causes failure of the entire practice. Most of the school going children have skills and know different oral hygiene practices describe above and their attitude toward oral hygiene practice is crucial in confirming the success of the practice [10].

Promotion of oral health in schools is recommended by WHO for improving knowledge, behavior and attitude related to oral health and for the control and prevention of oral problems. In appropriate oral health can lead to many problems [8]. Learning of good habits in the school will help the children to follow healthy habits throughout their life. School children play a very important role in bringing desirable changes in the family. The primary goal of the oral health educator is to convey positive oral health knowledge and behavior in the community. The best information about oral hygiene is obtained from health educator and decoded to behavior changes. The outcome of the action sustained is the behavior [7].

## **AIMS OF THE STUDY**

The current study will be significant because Pakistan is among countries where oral health considered bad and most of the school child has dental problems, and it has been assessed that dental caries is the most common childhood disease [7]. The finding of the study will be useful to know about oral health importance and also to understand the preventives measure of dental caries. After completion of the study findings will be provided to the organization to arrange the workshops on importance of oral hygiene for the purpose to enhance the knowledge and attitude of the individual which will be fruitful.

## **METHODS**

### **SETTING**

This Study was carried out at Mayo Hospital, Lahore.

### **RESEARCH DESIGN**

A descriptive cross sectional study design was used to examine the knowledge attitude and practice of students regarding oral hygiene. A cross-sectional is that study that collects information from a population at specific time of period [11].

## POPULATION

Specific population for this study was the Nursing students of Mayo Hospital, Lahore

## SAMPLING

Data was collected from 150 nursing students through convenient sampling techniques. Those who meet the inclusion criteria will be included in the study and those who don't meet the criteria was not be the part of the study.

## RESEARCH INSTRUMENT

A well-constructed close ended questionnaire was distributed among students of Mayo hospital, Lahore. In this project tool was questionnaire for collecting information. Questionnaire was adopted from article title "Oral Hygiene: Knowledge, Attitude and Practice among School Children, Lahore which has been published in 2017.

## DATA GATHERING PROCEDURE

Data will be collected from the students of Mayo hospital, Lahore. The data will be collected with the help of other colleagues within a specified timeframe. Data collection will be done via an adopted comprehensive, pre-tested and structured questionnaire which sought such information as age, marital status, educational status, occupation.

## METHODS USED TO ANALYZE DATA

Statistical analysis was carried out using SPSS for Windows version 21. The data was summarized by descriptive statistics using the

frequency, percentage and tables for categorical variables. The relationship between variables scores and socio-demographic variables was tested by using linear regression. The significance level for all statistical analysis was set at 0.05.

## STUDY TIMELINE

The data was collected from February, 2018 to April, 2018.

## ETHICAL CONSIDERATION

Ethical principle was performed during research study. Permission was taken from the Ethical committee. I was take permission from the stockholder of the hospital. Give complete information to the participant related to research. It makes sure that no harm was given to the participant. Study was beneficial. All participants was have open opportunity to participate in research. No one will be forced to participate in research. Informed consent were signed from the participants. Before signing consent participants was informed about purpose, methodology, risk and benefits of investigation.

Enough information of research was provided to participants with the help of full consent form and this will be achieved via a letter attach to the questionnaire. Confidentiality was considered by informing participants.

## RESULTS

### PROFILE OF THE RESPONDENTS

**Table-1: Demographic frequency**

Variables	n	Percent
<b>Gender</b>		
Male	0	0
Female	150	100.0
<b>Marital; status</b>		
Single	95	63.3
Married	55	36.7
<b>Age of the participant</b>		
18-25 years	45	30.0
26-35 years	75	50.0
36-50 years	30	20.0
<b>Education of the participants</b>		
General nursing	106	70.7
BSN/PRN	44	29.3

## RESULTS

The above table describe different demographic information which show gender in which male were 0% and female were 100% .the second parts discuss the marital status of the participants in which single participants were 63.3% and married participants were

36.3 ,the third part are age of the participants which are 18-25 Years were 30%, 26-35 years.

Participants were 50% and 36-50 years participants were 20% the last part of the demographic information were education of the participants which are general nursing participants were 70.7% and BSN, Post RN participants were 29.3 %.

**Table-2:**

Statement	Yes		No		Don't know	
	n	%	N	%	n	%
Consuming too much sweet food causes tooth decay/dental caries.	136	90.7	14	9.3	0	0
Gum bleeding means inflamed gum.	123	82.0	24	16.0	3	2.0
Regular brushing of teeth can protect oneself from gum bleeding.	133	88.7	16	10.7	1	.7
Dental plaque means soft debris on teeth.	108	72.0	24	16.0	18	12.0
Dental plaque can lead to dental caries.	81	54.0	53	35.3	16	10.7
Cariou or decayed teeth can affect teeth appearance.	107	71.3	29	19.3	14	9.3
Sweets affect the teeth adversely.	113	75.3	25	16.7	25	16.7
Fizzy drinks affect the teeth adversely.	119	79.3	21	14.0	10	6.7
Using fluoride strengthens the teeth.	123	82.0	17	11.3	149	99.3
General body health has a relationship to oral health and dental diseases.	126	84.0	16	10.7	8	5.3

The above table number 2 show different variables of the study in which the participants give response and give their response accordingly. In first section which is knowledge of the nursing students towards oral hygiene and identified the response of the participants through questionnaire which result are such 'Gum bleeding means inflamed gum.' The respondent response to this variable were 82.0% participants were score to yes, 16% participants score to No and 2% participants score don't know. In another variable which are 'Regular brushing of teeth can protect oneself from gum bleeding.' The participant's response to yes were 88.7% 10.7% response to no and .7% participants response to don't know. In another variable which are Cariou or decayed teeth can affect

teeth appearance. The participant's response to yes were 71.3%, 19.3% response to no and 9.3% participant's response to don't know. In another variable which are Cariou or decayed teeth can affect teeth appearance. In another variable which are 'Sweets affect the teeth adversely'. The participant's response to yes were 75.3%, 16.7% response to no and 16.7% participant's response to don't know. In another variable which are Cariou or decayed teeth can affect teeth appearance. 'Fizzy drinks affect the teeth adversely.' The respondent response to this variable were 79.3% participants were score to yes, 14.0% participants score to No and 6.7% participants score don't know.

**Table-3:**

Statement	S.D		D.A		Uncertain		A		S.A	
	n	%	n	%	n	%	n	%	n	%
Do you think, oral health is important for overall body health?	36	24.0	8	5.3	10	6.7	33	22.0	63	42.0
I believe that tooth loss is a normal part of growing old.	20	13.3	13	8.7	25	16.7	85	56.7	7	4.7
I believe artificial teeth are less trouble than taking care of my natural teeth.	43	28.7	36	24.0	36	24.0	26	17.3	9	6.0
If my gums bleed when I brush this usually means that I am brushing too hard and I should stop brushing my teeth.	2	1.3	47	31.3	47	31.3	43	28.7	11	7.3
I believe I know how to brush my teeth correctly.	4	2.7	20	13.3	33	22.0	50	33.3	43	28.7
Caring for your mouth is as important as caring for other parts of the body.	9	6.0	16	10.7	22	14.7	40	26.7	63	42.0

The second part of the table discuss another parts which is attitude of the nursing student towards oral hygiene, in this part the response of the participants are about 'Do you think, oral health is important for overall body health?' 24.0% participants were strongly disagree, 5.3% participants were disagree, 6.7% participants were response to uncertain 22.0% were agree and 42.0% participants were strongly were agree. In another variable which is 'I believe that tooth loss is a normal part of growing old.' 13.3% participants were strongly disagree, 8.7% participants were disagree, 16.7% participants were

response to uncertain 56.7% were agree and 4.7% participants were strongly were agree. Another statements 'I believe artificial teeth are less trouble than taking care of my natural teeth.' Score were 28.7% participant's response to strongly disagree, 24.0% participants were disagree, 24.0% participants were response to uncertain 17.3% were agree and 6.0% participants were strongly were agree. 'If my gums bleed when I brush this usually means that I am brushing too hard and I should stop brushing my teeth.' Response to this variable of the participants were 1.3% participant's response to strongly disagree,

31.3% participants were disagree, 31.3% participants were response to uncertain 28.7% were agree and 7.3% participants were strongly were agree

## DISCUSSION

A descriptive cross sectional study perform in mayo hospital nursing students for the purpose of to assess knowledge, attitude and practice of the nursing students towards oral hygiene among 150 students The participant's response to yes were 88.7% 10.7% response to no and .7% participants response to don't know. In another variable which are Carious or decayed teeth can affect teeth appearance. The participant's response to yes were 71.3%, 19.3% response to no and 9.3% participant's response to don't know. In another variable which are Carious or decayed teeth can affect teeth appearance. In another variable which are 'Sweets affect the teeth adversely'. The participant's response to yes were 75.3%, 16.7% response to no and 16.7% participant's response to don't know. In another variable which are Carious or decayed teeth can affect teeth appearance. 'Fizzy drinks affect the teeth adversely.' The respondent response to this variable were 79.3% participants were score to yes , 14.0% participants score to No and 6.7% participants score don't know. A study conducted in (2012) which stat that most of the people which do not care of their mouth because of economic status which effect their health. A study show that 50% participants do not know about mouth care, 30% people properly perform mouth care daily and 205 participants perform care once a day. The major factors were found the irregular visits to a dentist and toothache. Study also shows that some children had a positive attitude toward their dentist but they were feared about dental treatment. Therefore, comprehensive programs on oral health is still lacking in developing countries which the alarming sign for oral disease [6].

'If my gums bleed when I brush this usually means that I am brushing too hard and I should stop brushing my teeth. 'Response to this variable of the participants were 1.3% participant's response to strongly disagree, 31.3% participants were disagree, 31.3% participants were response to uncertain 28.7% were agree and 7.3% participants were strongly were agree.

A study conducted in Lahore tertiary hospital the result of the study show that 67% perform daily brush and care of the mouth daily basis. 23% ignore mouth care and have no practice and 10 percent people don't know their good practice Khan AA [12]. another question is 'Do you rinse your mouth with water after each meal? ' 12.0% participants score to never 20.7% score to some time, 24.7% score to once a day and 24.7% score to twice a day and next variable is Do you use toothbrush and fluoride toothpaste for tooth

brushing? 7.3% participants score to never 24.0% score to some time, 41.3% score to once a day and 27.3% score to twice a day. The result of this study show that there is more knowledge of the participants about oral care, good practice and positive attitude.

## LIMITATIONS

Limitations of the study were following

- Lees sample size 150 due to which we cannot generalize this study on whole population.
- One of limitations of is study was lack of time
- Convenient sampling technique was used which often suffer from biasness

## CONCLUSION

The purpose of this study was to assess knowledge, attitude and practice among nursing students at mayo hospital, Lahore among 150 students .Over result show that the patients perception about quality of nursing care are good and patients have positive response about quality of nursing care in all four hospitals.in which most students have positive attitude towards oral care, good practice and have more knowledge. Very less participants were ignore good practice of the oral care negative attitude. But overall result are positive

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