SHORT COMMUNICATION

Knowledge, Attitude and Practice about Oral Health among General Population of Peshawar

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ABSTRACT

To determine the level of knowledge and practices about oral health between educated and uneducated population in sampled area. Dental caries and periodontal diseases are the major dental public health issues nowadays. Oral health knowledge and practice and attitude towards oral health may affect their prevalence or slow down the rate which they progress.

A cross sectional study was conducted involving 100 participants at Khyber College of Dentistry, Peshawar, Khyber Pakhtunkhwa (KPK) in 2012. Patients were interviewed through structured questionnaires. The result shows no significant difference in terms of knowledge level between genders but a significant difference was noticed in terms of their education level. The sampled population had a positive attitude towards oral health but the practice towards oral health was not satisfactory, may be due fear of expensive dental treatment on account of their low income level.

Key words: Oral health, Knowledge, Oral hygiene practice, Periodontal disease, Dental caries

Oral health is an important component of general health. Oral health can be introduced as "a standard of health of the oral and related tissues which enables an individual to eat, speak and socialize without active disease, comfort or embarrassment and which contributes to general well beings".[1]

The surgeon general's 2000 report on oral health in USA noted that the development of systemic disease is strongly associated with an excess of bacteria and inflammation in the oral cavity. Chronic oral infections have been associated to diabetes, heart disease, respiratory pneumonia, and the general degradation of the immune system. Most of the oral diseases are commonly directly related to standard of living of people. [3]

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Oral disease can be considered a public health problem due to its high occurrence and major social impact system. Tooth decay (dental caries) is a very common oral disease. By acting on the basic causes, cariogenic diet and poor oral hygiene, tooth decay can be prevented. Due to change of epidemiologic profile of dental caries in the last 50 years, results in awareness about oral health, also increased use of fluoridated toothpastes and drinking water, which has been directly associated to decrease in caries and tooth extractions.[4] According to Peterson, about 90% of the school children and adults experienced caries with disease being more prevalent in Asian and Latin American countries.[6]

In many developing countries, the condition of dental caries was very low in the last years but now there is increase in the prevalence of dental caries. All this is because of more sugar consumption and inadequate use of fluorides intake.[8] In developing countries importance to oral health is offered only at center hospitals and services offered are very little, that is given only restorative services. So the oral health services have very less importance. In African, Latin American and Asian countries there is even shortage of dentists and oral health personnel. In Africa, the ratio of dentists to population is very low that is about 1:150,000. In comparison to that the ratio of dentist in developed countries is 1:2000.[7]

Oral diseases have also become burden over people in Pakistan. In Pakistan also less importance is given to oral health. The most common oral diseases are periodontal diseases and dental caries.[5] Because of low importance given to oral health and lack of oral health personnel i.e. shortage of oral health services to the population 90% of the oral diseases are left untreated. One unwanted consequences is improper treatment facility in public dental hospitals. The preventive services (examinations and scaling etc) are only 3% in the public dental hospitals.[8] All this is due to inadequate knowledge about oral health, less awareness about oral health of the people and less importance given to the oral health, also low public health measures.

A cross sectional study was conducted at Khyber College of Dentistry, Peshawar, KPK, Pakistan. The study group comprised of 100 patients (Male: 43; Female: 57 age group 12 40 years) visiting to OPD of Khyber College of Dentistry. In male participants there were 21 (49%) educated and 22 (51%) uneducated while in female 16 (28%) were educated and 41 (72%) were uneducated. Data on oral health KAP were collected by means of a self-administered mixed questionnaire through convenient sampling technique.

Participants with education level primary or above primary were considered as educated while participants having education level below primary were considered as uneducated. Formal ethical approval was obtained from the Principal of Khyber College of Dentistry. Verbal informed consent was obtained from the participants after explaining the purpose of the study. After completion of questionnaire, each participant was briefed on the importance of oral hygiene, and oral hygiene practices were taught to each of the participant. The obtained results were analyzed statistically using SPSS version 16. T-test was applied and Probability value less than 0.05 was considered significant.

Socio-demographic background of the sampled population

According to our study, there were 43% males and 57% females. About 38% respondents were educated 62% uneducated. According to socio-economic status, the participants included were 8% poor, 79% middle class and 13% rich (Table 1).

Knowledge towards oral health in the sampled population

According to our results, more than 50% of the respondents did not know about dental plaque and use of fluorides for strengthening of teeth. Similarly, the knowledge about sugar use which promotes tooth decay was the highest (90%) among the respondents. Whereas knowledge of bleeding gums was 47%.

Table 1. Socio-demographic background of the sampled population

Variables	N	%age
Gender		
Male	43	43
Female	57	57
Education level		
Educated	38	38
Uneducated	62	62
Socioeconomic status		
Poor	8	8
Middle	79	79
Rich	13	13

Knowledge of regular tooth brushing, importance of cleaning teeth after every meal, consuming too much food and general relation of body health with oral health was good among participants, which was 57%, 58%, 70% and 67%, respectively (Table 2).

Knowledge relationship and socio-demographic background (gender, education and socioeconomic status) in the sampled population.

Table 2. Knowledge towards oral health in the sampled population

Questions	Yes (%age)	No (%age)
Q.1: Is it necessary to brush teeth After every meal?	58	42
Q.2: Consuming too much Food causes caries.	70	30
Q.3: Bleeding gums means Inflamed gums.	47	53
Q.4: Regular tooth brushing prevent all tooth problems.	57	43
Q.5: Sugar promotes tooth decay.	90	10
Q.6: Dental plaque leads to caries.	30	70
Q.7: Using fluorides strengthen the teeth.	36	64
Q.8: General body health has relationship to oral health on dental diseases.	67	33

The results obtained show that there were least deviations from the mean value. P-values and t-values show the significance of the relationship. Data show that the gender and socio-economic status had a significant relationship with the oral health whereas education level had a non-significant relationship (Table3).

Attitude and practice towards oral health according to gender in the sampled population

According to the results, individual's practice and attitude varies from each other.

Table 3: Knowledge relationship and socio-demographic background (gender, education and socioeconomic status) in the sampled population

	Mean	SD	Df	t-value	P-value
Gender Male Female	1.43 1.65	.502 .481	98	3.054	0.003
Education level Educated Uneducated	1.79 2.07	.606 .678	99	1.07	0.333
Socioeconomic status Poor Middle Rich	2.00 1.35 1.96	.000 .481 .000	85	3.773	.000

Significant p value = 0.05, Significant p < 0.05, CI = 95%

ATTITUDE

The individual attitude shows that amongst total respondents, 52% (23% males, 29% females) visit to dentist only if they have pain while 4% (1% males and 3% females) never visited the dentists. These results show statistically non-significant difference of the frequency of dental visit by gender (p>0.05). About 65% (29% males and 36% females) of the respondents shows importance toward oral health. These results also show statistically non-significant difference of the importance of oral health practices and attitude (p>0.05).

PRACTICE

The table shows that 45% - 50% of the respondents brush their teeth twice or thrice a day and the others brush only once a day. About 65% (31% males and 34% females) of the respondents used to clean their teeth with tooth brush, 25% with miswak and 10% with finger. These results indicate statistical significance of cleaning teeth (p<0.05).

Also for time and duration spent on brushing teeth, the results are statistically significant (p<0.05) showing about 50% of the respondent who used to brush their teeth twice a day and 30% spent two minutes on brushing while 33% more than two minutes. The results further show that female participants used to brush their teeth more than twice a day as compare to male participants.

About 57% (24% males and 33% females) of the participants were taking sweets 2-4 times per day and also 50% (22% males and 28% females) of the participants were taking soft drinks 3-4 times per week.

Table 4: Attitude and practice towards oral health according to gender in the sampled population

Questions	Male (%)	Female (%)	Total (%)	P-value
Attitude 1. Is it important to look after teeth? Yes No	 28 15	 36 20	 65 35	0.621
2. How often you visit a dentist in a year? Once Twice When I have pain Never	 8 11 22 2	 11 14 29 3	 19 25 52 4	0.401
3. Dental visits even after relieving your pain? Yes No	 28 15	 36 20	 65 35	0.621
Practice 1. How many times do you clean your teeth? Once a day Twice a day Thrice a day Not daily	 2 21 19 1	 2 29 26 0	 3 50 45.5 1.8	0.003
2. How do you clean your teeth? Tooth brush Miswak Finger	 31 9 3	 34 16 7	 65 25 10	0.042
3. Time spent for brushing? Less than 1 minute 1 minute 2 minutes More than 2 minutes	 4 14 13 12	 6 29 31 35	 10 33 30 27	0.001
4. Frequency of eating sweets per day? Less than 1 time 2-4 times More than 4 times	 11 24 8	 13 33 11	 24 57 19	0.000
5. Frequency of taking soft drink? 1 time a week 2-3 times a week More than 3 times a week	 14 22 7	 19 28 10	 33 50 17	0.023
6. Do you smoke? Yes No	 30 13	 0 57	 30 70	0.000

Significant p value = 0.05, Significant p < 0.05

Table 5: Relationship of attitude and practice and socio-demographic background (gender, education level and socio-economic status) of the sampled population

	Mean	SD	Df	P-value	t-value
Gender Male Female	2.40 2.42	0.506 0.457	98	0.033	-2.15
Education level Educated Uneducated	2.34 1.71	0481 0.637	98	0.000	3.073
Socioeconomic Status Poor Middle Rich	2.12 1.87 1.62	0835 0.648 0.506	85	0.311	1.019

Significant p value = 0.05, Significant p < 0.05, CI = 95%

These results were found statistically significant (p<0.05). The results further show that female participants had higher consumption of sweets and soft drinks as compare to male participants.

About 30% (only male) of the participants were smokers. This result was statistically significant (p<0.05). As per data given in Table 4, the p-value shows significant relationship between the practices and the oral health (p-value was below to 0.05 at CI=95%).

Relationship of attitude and practice and socio-demographic background (gender, education level and socio-economic status) of the sampled population The relationship between the attitude and practices of the individuals towards the oral health show that 2.40 males and 2.42 females had positive attitude towards the oral health. Standard deviation (SD) indicates that there were least variations from the mean value and the relationship was quite significant statistically. Socio-economic status showed that on average 2.12 people (poor), 1.87 from middle class and 1.62 from rich families had positive response towards the oral health. There were also least variations from the mean value as indicated by the value of standard deviation. The p-values and t-values showed that there was non-significant relationship between these variables.

The oral health not only adds to the appearance and personality of individual but also to the overall health. Healthy mind lies in healthy body.[2] According to the physician "a good general health starts from a good oral health, and a healthy mouth leads to a healthy body".

A study explored out that the cavities and gum diseases may also contribute to some serious condition like diabetes, heart disease, respiratory pneumonia and to the degradation of the immune system.[1,2] The dental diseases dental caries and periodontal disease are infectious processes and are considered the common type of dental diseases.

Our study assessed knowledge, attitude and practice of oral health of the people of Peshawar.

The results show that in knowledge, 4 questions about oral health awareness were given correctly answered. That is about importance of brushing teeth, consumption of too much food causes caries, regularly brushing teeth prevents oral problems and general body relation with oral health; the assuming age were 58%, 70%, 57%, 90% and 67% respectively. However, the knowledge about oral health was still not good. These findings agreed with a study done in Jordan among teenagers by Al-Omiri.[9]

Awareness about gum bleeding as a sign of gingivitis and periodontitis was 47%, which is almost same as that of Al-Omiri and co-workers study done.[9] There was lack of knowledge in the oral disease like gum bleeding and use of fluorides which shows that there is lack of oral health awareness and also the dental personnel were not interesting in educating the patients while giving them treatment.

There was no significant difference in the knowledge between genders that is p=0.003 (p<0.05).this may be due to equally awareness of both gender about oral health. However, Joshi and co-workers reported that males had better knowledge about oral health than females.[10]

The result also shows that there is significant relationship between knowledge and gender and socio-economic status that is p=0.003 and 0.000 which is below 0.05. This indicates that there is significant relation present between knowledge and socio-demographic background. In WHO report, it is shown that majority of people that is about 52.2% of the people visited the dentist when they had pain or dental problems,[11] which is also about same result in this study that about 52% of the people visited the dentist only when they have pain or dental problems. All this may be due to lack of awareness of the people about oral health.

Most of the people stated that regular dental visit is necessary. The result shows only 35% of them had practice it. This shows that awareness of oral health does not influence good dental practice. Barker and Horton showed that delay in seeking dental cure could be recognized to often factors like lack of resources and accessibility of dental services.[12] The result also shows that 50% of the people brush their teeth at least twice a day, which is more figure reported by WHO 44.4%.[11]

Females were found to clean their teeth more and spend longer time during brushing their teeth as compared to males, supported by other studies.[12] Tooth brush and toothpaste were the most commonly used oral hygiene aid as also reported in other studies done.[12]

Most of the people brush their teeth twice a day morning and bed time. Females had more sugar intake as compare males from consumption of sweet food and soft drinks. This was also supported by OogarahPratap that females take more sugar while boy take more fats and salts content fast food.[13] It is importance in the oral health education to educate people about healthy diet, which is not only healthy for their general body but also for the oral health.

Majority of the participants have low level of awareness regarding oral health maintenance. There is need of awareness on the importance of oral health as the utilization of dental services is only for pain of relief. It is highly important to educate people about oral diseases, their risk factors and ways of preventing it. It is recommended to teach oral health knowledge and practices at community level. Oral health teaching manuals, regarding twice a day tooth brushing, using fluoride tooth paste, brushing techniques, importance of regular dental visits for check up and oral health risk factors, should be designed and distributed at national level. Mobile dental teams should be formed to provide basic oral health services in Sub-Tehsil communities with referral to district and regional centers.

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