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Research Article

**ORAL HEALTH STATUS OF SCHOOL GOING CHILDREN IN
TERRITORY OF SWAT**Islam-Ud-Din¹, Imran Ali¹, Sadaf Gul², Hydiat Shah², Inayat-Ur-Rehman²,
Zubair Hussain³¹ School of Engineering and Materials Science, Queen Mary University of London² Khyber Medical University, Institute of Paramedical Sciences, Peshawar, Pakistan³ Xiangya School of Medicine, Central South University, Changsha, P.R.China**Abstract:**

OBJECTIVE: The aim of this study was to assess the oral health status of school going children, (prevalence of caries, visible plaque and calculus).

METHODOLOGY: This was a descriptive cross-sectional study and is been conducted in TIPU Shaheed School and college at kabal swat Khyber Pakhtunkhwa. Sample size was 234. Sampling method was adopted as convenient sampling. Oral examination was done with help of examination instruments in a natural day light.

RESULTS: The results of this study showed, there was caries in 124 students which is 53%. Out of these 124 students 86 (37%) had a total of 1-4 teeth decay, 30 (13 %) students were notified with a total number of 5-8 teeth decay and 8 (3%) showed 12 teeth decay. Calculus was present in 105 (45%) in students either on few or multiple surfaces of the teeth .15 (6%) students had complained of bleeding gums (with brushing). Visible plaque was accumulated on the tooth surfaces among 105 (45%) of the students.

CONCLUSION: From the results of the present study it is has been concluded that there is present certain common and alarming dental problems, prevailing among the student of this private school in swat. The persistence of which can have unfavorable effects on the integrity of the oral health. So, this is important to include some awareness practices on school basis regard to oral hygiene to overcome the problem.

Key words: caries, calculus, plaque

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INTRODUCTION

For quality of life and general health, oral health play vital role (1). Oral health can be define as when there is no mouth and facial pain, throat and oral cancer , infection of oral cavity, disease of periodontium, tooth caries , tooth loss, and abnormalities ,that limit an individual capacity in biting , smiling , chewing, psychological wellbeing and speaking (2).

The very common diseases from these are caries, and periodontitis (inflammation of the periodontium) are influenced by oral hygiene and socioeconomic status (3). Caries is the demineralization of hard tissue of teeth, occurs by acid action which is formed by fermentation of simple sugars with the help of bacteria (4). For caries formation four things are required. a tooth hard tissue, bacteria which convert sugar to acid, carbohydrate which on fermentation produce acid and time to cause the disease (5). These four criteria are not always enough, and sheltered environment is required which can promote development of a cariogenic biofilm (6). The caries disease process does not have inevitable outcome and the susceptibility of different individuals are different depending on their shape of teeth, habits of oral hygiene, and saliva buffering capacity (7). On any tooth surface dental carries can occurs which is exposed in oral cavity.

Periodontal disease is also one of the major oral health problems (8). Which is the inflammation of the gums and alveolar bone (bone surrounding and support the teeth) (9). In early stage it is called gingivitis, in which gingiva (gums) is involved, manifested by gums swelling, redness and bleed easily (10). In its more serious and chronic form when infection reach into the alveolar bone, causes its resorption and consequently tooth loss (11).

There are present lots of bacteria in our mouth which form bacterial plaque on the surface of the tooth.(12) When this plaque stay for longer on tooth surface it will get mineralize by deposition of mineral ions from saliva and blood capillaries (near to gums).(13) This is the stage which is then called calculus (tartar). The bacteria in plaque and calculus will produce toxin (14).

RESULT:

Table no 1.1 caries present

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	110	47.0	47.0	47.0

Which continuously irritate the gums and could initiate inflammation. (15) Initially the inflammation is confined to gums and slowly leads to the alveolar bone which is then the chronic stage (15).

As a general saying prevention is better than cure. For the prevention of these common oral health problems it is important to put in habit the oral hygiene practice (16).

METHODOLOGY:

A descriptive Cross-sectional study was conducted in TIPU Shaheed School and college at kabal swat Khyber Pakhtunkhwa to determine the oral health status of the children. This study adopted a convenience sampling method whereby elective students who had oral examination were included in the study, provided a verbal informed consent was obtained from student above 18 years and consent from the school director was obtained for students age under 18 years. A total of 224 students were examined, the sample size was calculated by using WHO calculator for sample size calculation.

The first approval to carry out the study was obtained from the Research and Ethics Committee of IPMS-KMU and second was obtained from TIPU shaheed school and college kabal swat. Majority of the students from class 8th to 12th were included in the study. All the students were examined under natural day light by me and the instruments used in the study were disposable oral examination instruments (mouth mirror and probe).

Data were noted on a sheet for each student under their serial number.

Percentages and frequencies have been used to determine that in how many students there is caries present, visible plaque, calculus present and how many have complained of bleeding gums. Data were presented in the form of graphs in pie charts and in the form of tables.

Statistical Package for Social Sciences (SPSS) version 22 was used for the analysis of the data

Table no: 1.2 calculus present

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	129	55.1	55.1	55.1
	Yes	105	44.9	44.9	100.0
	Total	234	100.0	100.0	
	Yes	124	53.0	53.0	100.0
	Total	234	100.0	100.0	

In the table no 1.1 it is shown that out of the total 234 students, 124 students were with carries teeth. Which makes 53% of the total students observed.

The table no 1.2 presents the percentage of the Calculus present. A total of 105 (45%) of students were observed with calculus present either on few or multiple surfaces of the teeth.

Table no 1.4 complain of bleeding gums

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	219	93.6	93.6	93.6
	Yes	15	6.4	6.4	100.0
	Total	234	100.0	100.0	

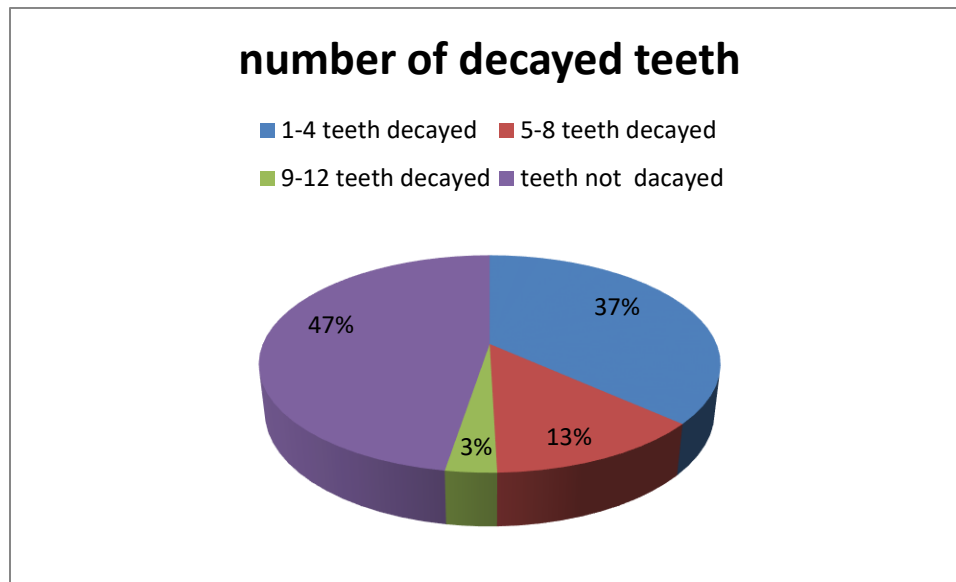
In the table no 1.3 the data tell us about the percentage of students had a problem of bleeding gums with brushing. A total of 15 (6%) students experienced bleeding gums.

visible plaque present	Frequency	Percent
NO	82	45.0
Yes	152	55.0
Total	234	100.0

Table no 1.4 visible plaque

From the table No. 1. 4 it is obvious that visible plaque were accumulated on the tooth surfaces of 152 (55%) of the students. While the 45% students did not have any visible plaque on their teeth.

Figure 1.1 number of teeth decayed



In the figure 1.1 it is shown that there was caries in 124 students which is 53%. Of the total number of students observed. Out of these 124 students 26 (37%) had a total of 1-4 teeth decay. 30 (13 %) students were with a total number of 5-8 teeth decay and 8 (3%) had 12 teeth decayed. While 47% of the total students were with no visible sign of tooth decay.

DISCUSSION:

In this study the oral health status specifically (caries and gingivitis) was assessed. Oral health assessment included the presence of dental decay, gingivitis and oral hygiene. This study found that dental caries was found in about 53% of the children and this finding is lesser than mean caries results. 61% found in a study conducted by kalsoom faitima rizwi and raima bashir in a public school at Karachi. (13). where the socio-economic status and parental education is lower than the socio-economic status and parental education of the present study. the 53% who had carries were further divided into 1 tooth decay or up to 8 or more teeth effected by caries. Periodontal status was also not good and major finding were calculus and complain of bleeding gum (gingivitis) the sum of calculus and bleeding gums that is 51% and is less than the result obtain in the kalsom Fatima and raima bashir conducted in a public school of Karachi (13).

These percentages are higher in the study results of jung ki kian lindesey A baker, hazeem seir wan conducted in the sever population of united states. This is due to the fact that developed country people have knowledge and good socio economic status (17).

oral hygiene status that include visible plaque. Shows that about 45% students had usually detectable plaque when this result was compare to other similar studies. This is less than study done in the schools of Karachi. in greater than when compared with study which was done in chines school(18).

This shows a clear link with socio economic status quality of life and education level of parents and awareness which were low at public sector school of Karachi compared with this study and on other side these variables were higher there at chines school.

CONCLUSION:

Results of our study related to oral health status concluded the there is still presence of certain common and yet alarming dental diseases prevailing among the student of this private school in swat. The persistence of which can have unfavorable effects on the integrity of the oral health.

There must be some awareness about the oral hygiene practices on school basis.

The oral health status is a clear links with socioeconomic status of an individual.

REFERENCES:

1. Kadam NS, Patil R, Gurav AN, Patil Y, Shete A, Tari RN, et al. Oral Hygiene Status , Periodontal Status , and Periodontal Treatment Needs among Institutionalized Intellectually Disabled Subjects in Kolhapur District , Maharashtra , India. 2014;2014.
2. Popoola BO, Dosumu EB, Ifesanya JU. Periodontal status and treatment need among adolescents in Ibadan , Southwestern Nigeria. 2015;14(2).
3. Bhattarai R, Khanal S, Rao GN, Shrestha S. Oral health related knowledge, attitude and practice among nursing students of Kathmandu – a pilot study. J Coll Med Sci Vol 12, Iss 4, Pp 160-168 VO - 12 [Internet]. 2017;657(4):160. Available from: <http://widgets.ebscohost.com/prod/customerspecific/ns000290/authentication/index.php?url=http%3A%2F%2Fsearch.ebscohost.com%2Flogin.aspx%3Fdirect%3Dtrue%26AuthType%3Dip%2Ccookie%2Cshib%2Cuid%26db%3Dedsdoj%26AN%3Dedsdoj.bdd0ed08714952ab35311b09c3df9e%26lang>
4. Rovaris NS, Galato D, Schuelter-trevisol F, Silva J, Linhar S, Nickel DA, et al. Oral health status and its impact on the quality of life of children and adolescents living with HIV-1. 2014;1–7.
5. Moses J, Rangeeth BN, Gurunathan D. Prevalence Of Dental Caries , Socio-Economic Status And Treatment Needs Among 5 To 15 Year Old School Going Children Of Chidambaram. 2011;5(1):146–51.
6. Bhagat T, Shrestha A, Yadav T. Comparison of oral hygiene status among 6-14 year old students of public and private schools of Rajbiraj, Saptari, Nepal. J Coll Med Sci [Internet]. 2015;10(1):17–21. Available from: <http://www.nepjol.info/index.php/JCMSN/article/view/12763>
7. Fact sheet N°318, April 2012. WHO | Oral health [Internet]. WHO. World Health Organization; 2016 [cited 2017 Nov 10]. Available from: <http://www.who.int/mediacentre/factsheets/fs318/en/>
8. Giuca MR, Cei G, Gigli F, Gandini P. Oral signs in the diagnosis of celiac disease: review of the literature. Minerva Stomatol [Internet]. 2010 [cited 2018 Jan 12];59(1–2):33–43. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20212408>
9. Silva-junior MF, Caroline A, Sousa C De. Oral health condition and reasons for tooth extraction among an adult population (20-64 years old). :2693–702.
10. Wray D, AJE C, D L, D S. Textbook of general and oral surgery. Edinburgh [etc.]: Churchill Livingstone; 2003. 322 p.
11. Mirza K, Khan A, Ali M, Chaudhry S. Oral health knowledge, attitude, and practices and sources of information for diabetic patients in Lahore, Pakistan. Diabetes Care [Internet]. 2007;30(12):3046–7. Available from: <http://care.diabetesjournals.org/content/30/12/3046.short>
12. Jaber MA. Dental caries experience , oral health status and treatment needs of dental patients with autism. 2011;19(3):212–7.
13. Dawani N, Nisar N, Khan N, Syed S, Tanweer N. Prevalence and factors related to dental caries among pre-school children of Saddar town, Karachi, Pakistan: a cross-sectional study. BMC Oral Health. 2012;
14. Article O. Oral health education in public schools of Rawalpindi city. 2015;7(2):66–9.
15. Damyanova DM, Panov VE, Angelova ST. Improvement of Oral Hygiene Status in Children Influenced By Motivation Programs. J IMAB - Annu Proceeding (Scientific Pap [Internet]. 2015;21(3):879–82. Available from: <http://www.journal-imab-bg.org/issues-2015/issue3/vol21issue3p879-882.html>
16. Ahmed W, Manzoor F, Khayyam U. Dental Caries Status Among Public and Private School Children in Hyderabad District — Sindh. Pakistan Oral Dent J. 2017;37(2).
17. Kim, Jung. Baker LA. Prevalence of oral health problems in U.S. adults, NHANES 1999–2004: exploring differences by age, education, and race/ethnicity. 2013;18(6):1199–216.
18. Khan AH. Prevalence and Association of Dry Socket in Oral Health and Dental Management.