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Research Article

**THE CONDITION AND PRACTICES REGARDING ORAL  
HYGIENE IN CHILDREN OF RURAL AREAS OF PAKISTAN**<sup>1</sup>Maria kanwal, <sup>2</sup>Sana Zaib, <sup>3</sup>Ansa abid<sup>1</sup>Nishtar Medical University, Multan <sup>2</sup>Dental section, Faisalabad medical university, Faisalabad<sup>3</sup>Khawaja safdar medical college, Sialkot.**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

To explain and examine the dental hygiene condition and practices among the school going kids of rural areas in Pakistan, was the objective of the research. Though, effectual health education can bring encouraging result to make them aware for healthy practice. A community based cross sectional illustrative study. Sample sizes total of 280 subjects. Subjects were enlisted from age range (5–15years) by authoritative sampling. A total of 280 cases were interrogated and inspected. Data were gathered from school going kids in different rural regions of Pakistan. All children were interrogated (face-to-face) using a flexible opinion poll. Clinical inspection was done to analyze the oral hygiene position. Using SPSS program version 16.0. , numerical examination was performed. Among all contributors 45.44% (122) were female and 54.44% (148) were male. Observation showed the poor dental health condition of the survey community and their scarcity of understanding and perception beneficial to better oral and dental health. Observation also showed their dependence on unofficial service providers for treatment of oral and dental health illnesses due to less availability of qualified and professional dentists. Dental cleanliness practice is an ignored task in the daily routine of the survey community as showed through real life monitoring in the study area. The survey community barely used any tooth brush and/or tooth paste/ powder. Rather, they used many hard materials like charcoal powder, branches of trees declared to have curing properties, etc. for cleaning teeth which is harmful and sequentially, spread many mouth and dental health issues.

**Keywords:** Oral health, Oral hygiene, Oral Hygiene Index, School, Pakistan**Corresponding author:****Maria kanwal,**

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## INTRODUCTION:

With almost every single individual encounter poor dental health at least once in their lifespan, mouth diseases have been a never ending community health problem internationally.[1,2]. Universal, bad dental cleanliness happening is due to increase in plaque and calculus accumulation with growing age have been described among children and teenagers. As compared to larger community among progressing countries, only a small community of Pakistan school going kids has better dental hygiene. Dental health is multi-branched and comprise the ability to smile, speak, taste, smell, touch, swallow, chew and transport a range of sentiments through facial appearance with conviction and without ache, irritation and illness of the craniofacial complex. [3, 4]. The overall health, welfare, schooling and growth of kids and their families is influenced by dental health.[5], and decline the standard of life [2,3]. Long term dental infections can create a risk for diabetes mellitus, heart diseases like stroke, respiratory disorders, less birth weight, premature births [1,4].

For prevention of gum disorders, distinctive and professional plaque removal and professional calculus removal have been broadly accepted [6]. Remarkable decrease in **plaque**, gingivitis, and gingival bleeding have been shown by stannous fluoride dentifrices [7]. Plaque removal is used as a grade to assess dental cleanliness that can also be used successfully to stop dental caries and periodontal disorders.[2,8]. These besides daily approved dental self-care [9,10] may be assessed by socio-cultural component, insufficient or inappropriate use of products containing fluoride, bad oral health and cleanliness knowledge, and lacking framework that notably hinder screening of dental diseases, especially in rural regions [1]

Plaque largely is made up of several species of bacteria in the mouth [11]. Dental plaque originations include an ordered pattern of colonization by many different species of bacteria [12]. The aggregation of plaque is considered a multiplex process in general [13,14]. The exchange in the particular constitution and amount of plaque alter its power to cause gingivitis and oral problems. Toothbrush and toothpaste are most commonly used to remove dental plaque [15,16]. Even though use of a toothbrush importantly improves the level of sufficiency of mouth cleanliness, there are many other contributing components [17-18], such as **dental** flossing and mouth rinsing etc. [19].

Kids who have dental caries in their milk tooth are more likely to have dental caries in adult tooth [20,21]. Proper guidance and awareness is necessary

for growing kids for a healthy growth, maintenance and cleanliness of their teeth [22,23]. Adult tooth arise during the school age years. Good mouth hygiene and regular surveillance to dental caries are necessary parts of health management during this period. Correct teeth brushing methods and the role of fermentable carbohydrates that play in formation of dental caries should be explained to children [24-28]. To recognize oral cleanliness practice patterns among school children was the aim of this study. World Health Organization (WHO) recommends dental health promotion through schools for betterment of understanding, awareness, and behavior related to **oral health** and for elimination and control of dental diseases among school children [29,30].

## METHODS:

The observation was based on random sampling and illustrative in design. The data gathered from the study members were associated to the school going children, dental hygiene recognition and practices. The observation were entirely on the presence of plaque [31,32], calculus, gingival bleeding, and tooth-cleaning devices, all of which were put in record individually to consider the state of each condition. Additionally, while the observation was community-based that included both males and females. Yet, based on the objectives of the study the study approach was pondered to be beneficial as they gave knowledge on the dental cleanliness status of all school going children 5-15 years of age in rural regions. The completed opinion poll was assembled and inspected for the absoluteness and clarity of the data to reject missing or conflicting data and then assembled together. Information was edited properly before survey [39,40]. Firstly, an excel spreadsheet was prepared as master document. SPSS 16.0. Was used to do data analysis. Percentage, absolute numbers for categorical variables in IBM SPSS 16.0. Were applied to do the final analysis of the data. Excel program was also used for some purpose. [41].

## RESULTS:

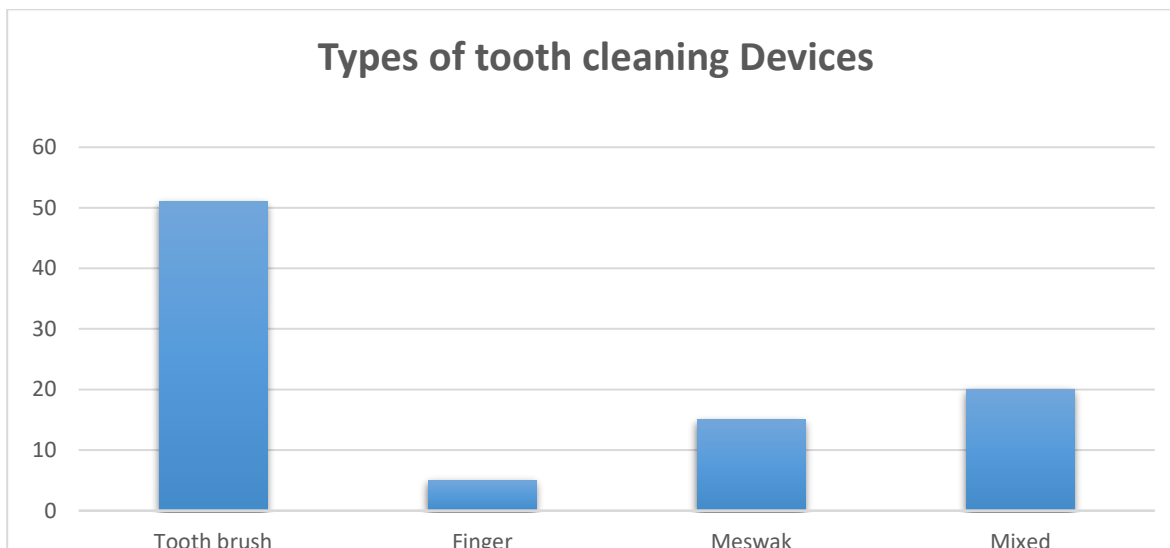
The components evaluated in all the study were used to explain the dental hygiene: recognition and practices among the studied community [42]. Though, direct contrast of the study findings in one study to those in another has not been strived as the methods used were not exactly the same. Data collection place was done sample wise.

Distribution of respondents at Kot Addu, 29.14% (n=78) at Layyah, Fazilpur 21.96% (n=60) at Rajan Pur, 24.70% (n=66) and at Rahim Yar Khan 24.18% (n=65).

### Tooth-cleaning Devices and Tooth brushing Method:

In the tooth cleaning devices, tooth brushes (plastic or wooden) were more commonly used 51.00% (n=138). In rural areas, the traditional and old method of tooth cleaning i.e. chewing stick (miswak) was used

15.86% (n=4). Vertical brushing strokes (2.00%) were reported to a very less extent instead the main method of tooth brushing was horizontal strokes (98.00%). In the rural community, the use of dental floss was very less (15.00%) as compared to use of dental toothpicks (80.00%) (Figure 3.)



**Figure 3.** Types of tooth cleaning devices used by the respondents.

### Frequency of Tooth Cleaning:

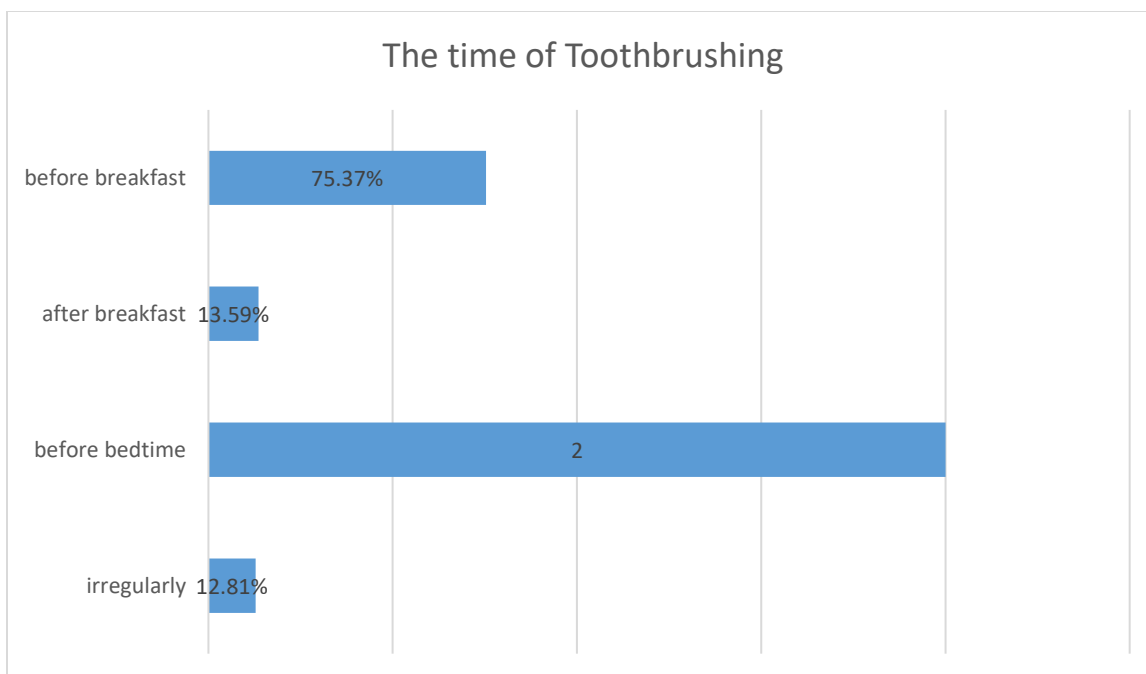
80% of the studied population did brush once a day (n=196). Those who brushed twice a day in the study is 22.71% (n=62) [44]. Those who brushed thrice per day in the study is 4.18% (n=12) (Table 1).

Materials used for Brushing	Frequency	Percentage
Tooth paste	145	54.33%
Tooth powder	72	26.40%
Coal/ash	10	3.44%
mixed	42	15.81%
total	269	100.0

**Table 1.** Distribution of the respondents by frequency of tooth brushing.

### Time of Tooth Cleaning:

The duration of tooth brushing (Figure 4) was written down in the study. In this study, it was observed that most of the people brushed their teeth before having breakfast 75.37% (n=200) and after meal time or before bed time 2.00% (n=5). About 13.59% (n=36) people brush their teeth after breakfast and about 12.81% (n=38) participants brush their teeth irregularly [46].



**Figure 4.** Time of tooth cleaning among the respondents (%).

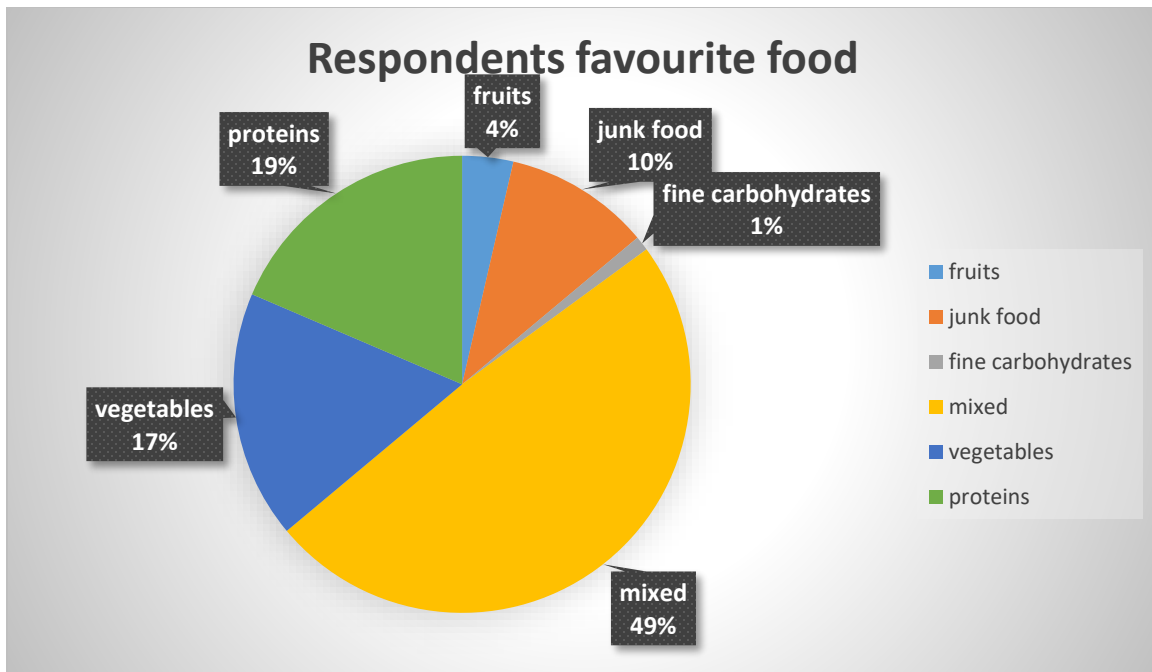
#### **Tooth-cleaning Dentifrices:**

Use of dentifrices included toothpaste or mouthwash in about 54.33% (n=145) of the study community and tooth powder about 26.40% (n=72) of the study population. However, in the study to 3.44% (n=10) population used only coal/ash but 15.81% (n=42) of the study community used mixed type of dentifrices for example [47], in the morning use coal or ash someday and use tooth paste or tooth powder someday (**Table 2**).

Materials used for Brushing	Frequency	Percentage
Tooth paste	145	54.33%
Tooth powder	72	26.40%
Coal/ash	10	3.44%
Mixed	42	15.81%
total	269	100.0

**Table 2.** Distribution of the respondents by the use of dentifrices.

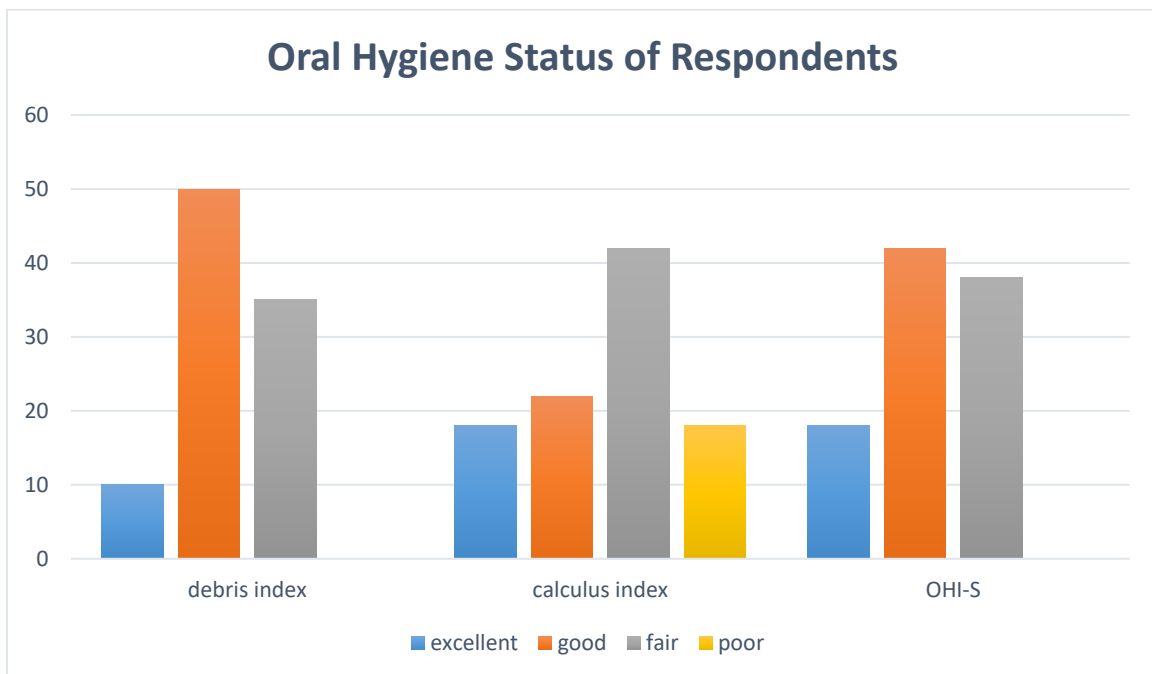
**Respondents Favorite Food:** Most of the attendants like mixed type of food about 47.5%, about 18% respondent like protein, 17% respondent like vegetable, 10% respondent like junk food, 3.5% respondent like fruit, 3% respondent like fine carbohydrate and 1% respondent like raw carbohydrate (**Figure 5**).



**Figure 5.** Respondent’s favorite food.

**Oral Hygiene Status of Study Participants:**

The average score of Debris Index was greater in comparison to Calculus Index (**Figure 6**). Majority of the respondents 46.18% (n=125) had fair dental cleanliness status. No respondent had excellent dental hygiene status. About 15.66% (n=42) respondents had good oral hygiene and 37.14% (n=105) had poor oral hygiene. In females mean scores of debris index and oral hygiene index simplified was higher as compared to males. Mean scores of Calculus Index was higher in males as compared to females [49].



**Figure 6.** Oral hygiene status of respondents.

**DISCUSSION AND CONCLUSION:**

For maintenance of a better dental cleanliness, age is the most important factor as with increasing age children become more aware towards importance of tooth care and oral hygiene.

Gender has no influence on oral hygiene practices. Children use different techniques to clean their teeth for example, use of tooth paste, mouthwashes, tooth powders or charcoal sometimes. Media, advertisements, teachers and parents can play an important role in making children aware about important factors to maintain oral hygiene.

Oral cleanliness awareness and eating patterns were inversely linked with the school grade. The importance of psyche of health status, specifically in initial schooling years, may require to be improved further as those with more positive thoughts were observed to have more good dental hygiene practices, and lower debris and calculus aggregation.

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