

# Study Regarding Knowledge Attitude and Practice of Dental Hygiene among Children Visiting Pediatric OPD Nishtar Hospital Multan

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## Abstract:

Oral health is fundamental to general health and well-being. Sources of oral health information for adults have been examined but documentation of children's sources is limited.

## Keywords:

Dental health, Education, Questionnaire, Survey.

## Objective

To assess Dental hygiene knowledge and practices of Children at Nishtar Hospital OPD, Multan, Pakistan.

## Materials and Methods

This cross-sectional study was comprised 120 children who were interviewed. Participants were specifically children of 10-14 years old attended at Nishtar Hospital OPD, Multan. Frequency analysis of demographics, knowledge, and attitude and practice behavior regarding dental hygiene was done using descriptive statistics. Data analysis was done using SPSS V20.

## Results

Survey revealed that only 32% subjects brushed twice daily. About 4% reported use of neem stick and 89% used brush + tooth paste. A total of 82% had knowledge that infrequent brushing, sweets and soft drinks led to dental caries, staining of teeth, dental plaque and bleeding from gums.

Only 21% visited dentist regularly after every 6-12 months.

## Conclusion

Study findings underscore the need for more hand washing and hygiene education in children. The overall level of Dental health knowledge among the surveyed children was low.

## 1. Introduction

Oral/dental hygiene is science and practice of recognition, treatment and prevention of oral diseases. Good oral hygiene is foundation of healthy mouth and prevention of 80% of all health problems, oral disease can be considered as a public health problem due to its high prevalence and significant social impact.(1)

Severe dental decay in children can result in pain, sleeping problems, trouble eating and behavior problems. It can also influence growth and development of children. Dental diseases and periodontal diseases have affected majority of Pakistani children with increased incidence of decayed missing or filled teeth. (2)

Studies have shown decline in diseases in some developed countries attributed to increasingly better dental hygiene, aware practices and preventive measures. In order to obtain similar results, promotive and preventive measures in Pakistan are required, where dental caries is single most chronic childhood disease 5 times more than Asthma and 7 times more than Hay fever.(3)

Measures for improvement of oral health requires understanding of individual's knowledge and perception of dental hygiene. To minimize negative impacts of chronic oral disease, there is need to reduce harmful oral health hazards which can be achieved through appropriate health education. (4)

Affected population need to receive information. Information means the subject has all the data necessary to understand what oral disease is and how it arises as well as to understand the protective measures that need to be adopted. This will lead to change in attitude which will in turn lead the subject to make changes in daily life.

Aim of study was to assess knowledge .attitude and practice of dental hygiene among the children (10-14years).

The area/premises were selected because it covers majority of visiting patients from rural area as well as from urban areas.

## 2. Objective of study

- Asses the dental hygiene among children of age 10-14.
- Find out frequency of dental health problems among children.
- To know knowledge of importance cleaning of teeth among children.
- To plan ways to aware community regarding dental hygiene.
- To prevent the dental problems by awareness of children.

## 3. Material and Methods

**Study design:** Descriptive cross sectional study design.

**Study population:** Children of Age 10-14

**Study Area:** Nishtar Hospital Multan  
**Duration:** 8-7-17 to 26-7-17

**Sampling Technique:** Convenience sampling technique

**Inclusion Criteria** Children of age 10-14 years

**Exclusion Criteria** Children less than age of 10 years

## 4. Data collection Procedure

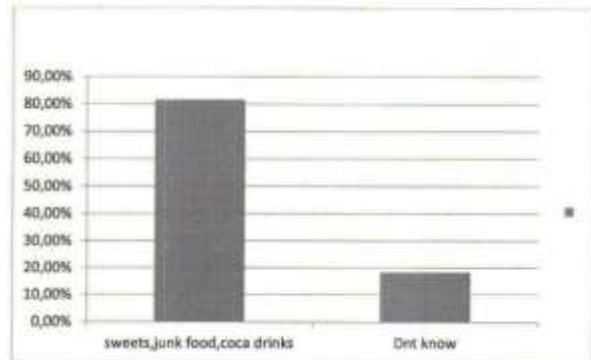
120 children from OPD of Nishtar Hospital Multan were selected by convenience sampling technique. Data was collected by questioning among children to assess the dental hygiene, total 11 question were asked about dental hygiene

## 5. Data Analysis

The data was entered and analyzed in a computer program SPSS v20 and reports were generated accordingly.

**Table. 1 Frequency Distribution Table about Knowledge of what types of food causes dental carrier Among Children N=120.**

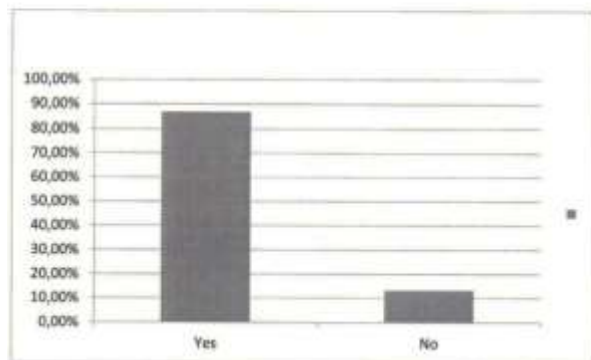
|                              | Frequency | percentage |
|------------------------------|-----------|------------|
| sweets,junk food,coca drinks | 98        | 81.67%     |
| Dnt know                     | 22        | 18.33%     |



**Fig. 1 Frequency Distribution Table about Knowledge of what types of food causes dental carrier Among Children N=120.**

**Table. 2 Frequency Distribution Table about Knowledge of necessity to clean teeth before going to bed Among Children N=120.**

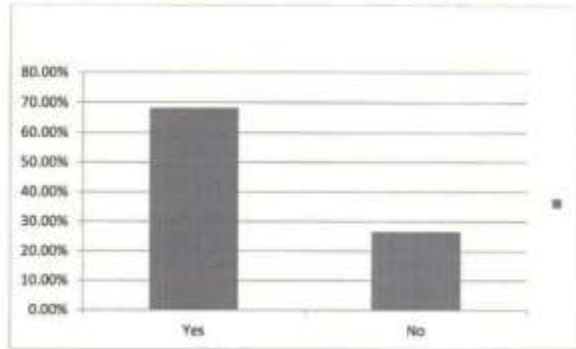
|     | Frequency | percentage |
|-----|-----------|------------|
| Yes | 104       | 86.67%     |
| No  | 16        | 13.33%     |



**Fig. 2 Frequency Distribution Table about Knowledge of necessity to clean teeth before going to bed Among Children N=120.**

**Table. 3 Frequency Distribution Table about Knowledge of mouth rinsing after eating is important for teeth and health Among Children N=120.**

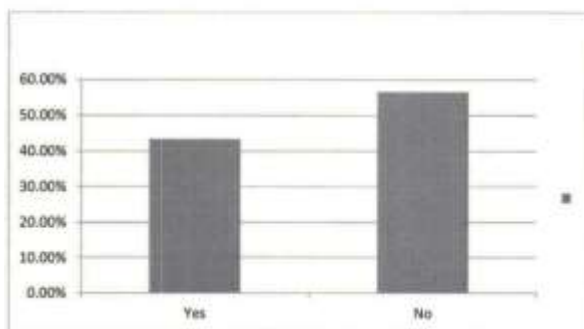
|     | Frequency | Percentage |
|-----|-----------|------------|
| Yes | 82        | 68.33%     |
| No  | 32        | 26.67%     |



**Fig. 3 Frequency Distribution Table about Knowledge of mouth rinsing after eating is important for teeth and health Among Children N=120.**

**Table. 4 Frequency Distribution Table about Knowledge of dental problems can Effect general health Among Children N =120.**

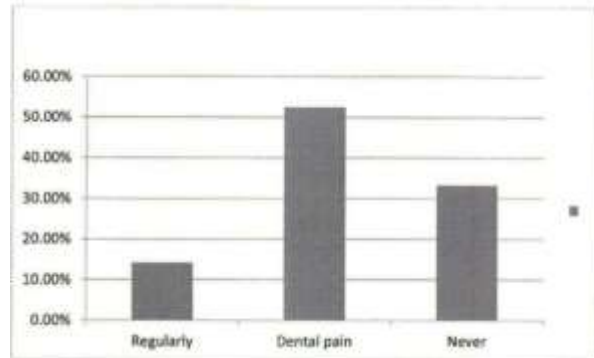
|     | Frequency | percentage |
|-----|-----------|------------|
| Yes | 52        | 43.33%     |
| No  | 68        | 56.67%     |



**Fig. 4 Frequency Distribution Table about Knowledge of dental problems can Effect general health Among Children N =120.**

**Table. 5 Frequency Distribution Table of Children visiting a dentist.**

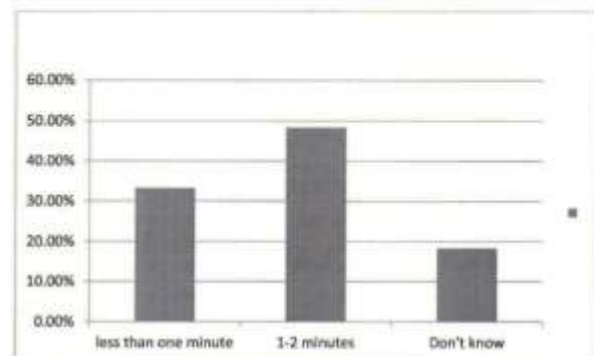
|             | Frequency | Percentage |
|-------------|-----------|------------|
| Regularly   | 17        | 14.17%     |
| Dental pain | 63        | 52.50%     |
| Never       | 40        | 33.33%     |



**Fig. 5 Frequency Distribution Table of Children visiting a dentist.**

**Table. 6 Frequency Distribution Table about Time Children spent for cleaning their teeth.**

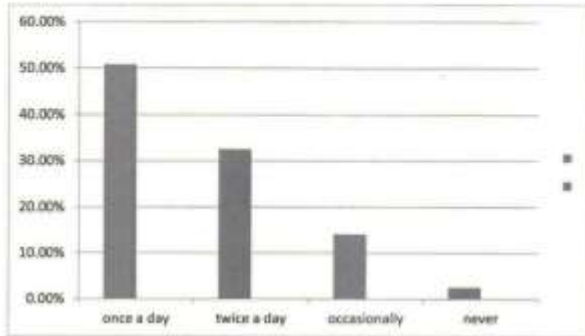
|                      | Frequency | Percentage |
|----------------------|-----------|------------|
| less than one minute | 40        | 33.33%     |
| 1-2 minutes          | 58        | 48.33%     |
| Don't know           | 22        | 18.33%     |



**Fig. 6 Frequency Distribution Table about Time Children spent for cleaning their teeth.**

**Table: 7** Frequency distribution table about times of brush your teeth among children N=120.

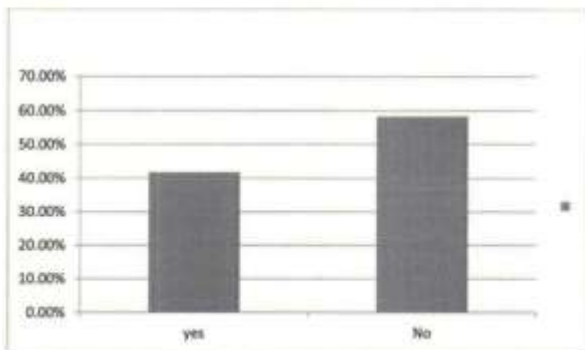
|              | Frequency | Percentage |
|--------------|-----------|------------|
| once a day   | 61        | 50.83%     |
| twice a day  | 39        | 32.50%     |
| occasionally | 17        | 14.17%     |
| never        | 3         | 2.50%      |



**Table: 7** Frequency distribution table about times of brush your teeth among children N=120.

**Table. 8** Frequency distribution Table about Brushing of teeth at nights among children N=120.

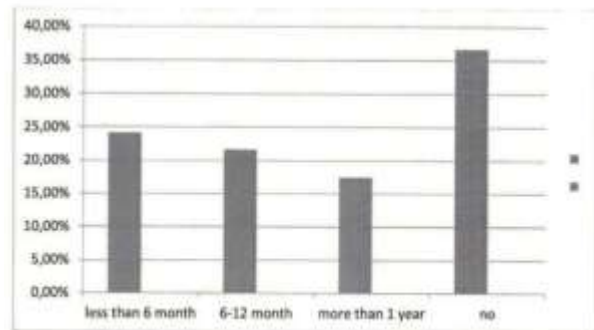
|     | frequency | percentage |
|-----|-----------|------------|
| yes | 50        | 41.67%     |
| No  | 70        | 58.33%     |



**Fig. 8** Frequency distribution Table about Brushing of teeth at nights among children N=120.

**Table. 9** Frequency Distribution Table about Remembrance of history of last dental visit among children Among Children N=120.

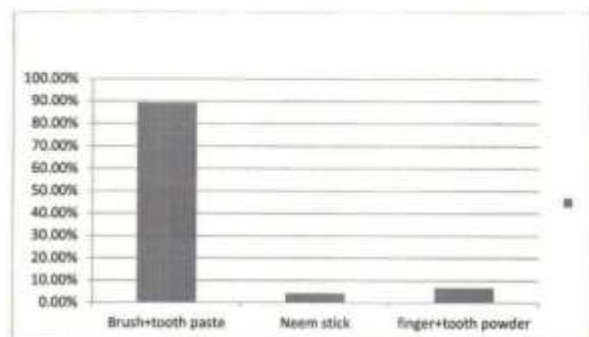
|                   | Frequency | Percentage |
|-------------------|-----------|------------|
| less than 6 month | 29        | 24.17%     |
| 6-12 month        | 26        | 21.67%     |
| more than 1 year  | 21        | 17.50%     |
| no                | 44        | 36.67%     |



**Fig. 9** Frequency Distribution Table about Remembrance of history of last dental visit among children Among Children N=120.

**Table. 10** Frequency Distribution Table about Types of brushing matter used for cleaning of teeth among children N=120.

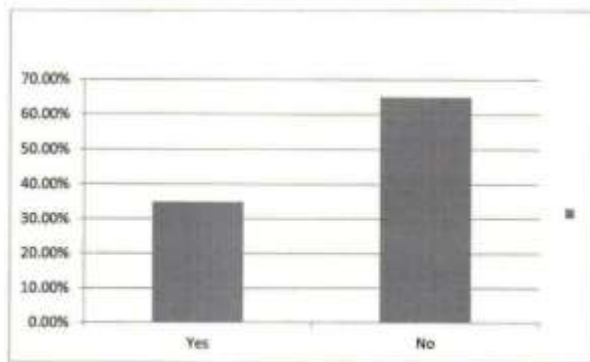
|                     | Frequency | Percentage |
|---------------------|-----------|------------|
| Brush+tooth paste   | 107       | 89.17%     |
| Neem stick          | 5         | 4.17%      |
| finger+tooth powder | 8         | 6.67%      |



**Fig. 10 Frequency Distribution Table about Types of brushing matter used for cleaning of teeth among children N=120.**

**Table. 11 Frequency Distribution Table about Cleaning Of teeth after eating Among Children N=120.**

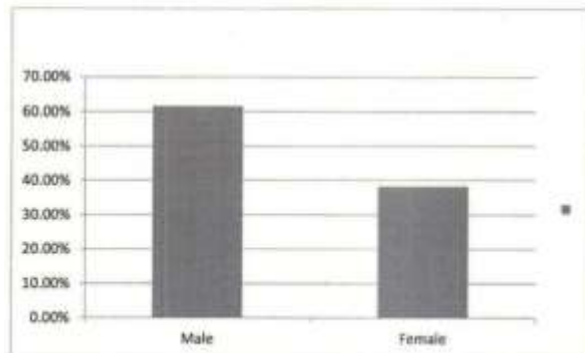
|     | Frequency | Percentage |
|-----|-----------|------------|
| Yes | 42        | 35.00%     |
| No  | 78        | 65.00%     |



**Fig. 11 Frequency Distribution Table about Cleaning Of teeth after eating Among Children N=120.**

**Table. 12 Frequency of Gender distribution among children N=120.**

|        | Frequency | Percentage |
|--------|-----------|------------|
| Male   | 74        | 61.67%     |
| Female | 46        | 38.33%     |



**Fig. 12 Frequency of Gender distribution among children N=120.**

## 6. Discussion

Present investigation aimed to provide a comprehensive overview of the dental hygiene behavior, knowledge and attitudes among children of 10-14 years old in Nishtar Hospital OPD, which can help the planning and evaluation of the dental hygiene promotion program in this region. This survey found that a high percentage of the children in this study brush their teeth at least once daily (50%) or twice daily (14%). There is consensus in literature that meticulous tooth brushing once per day is sufficient to maintain oral health and prevent caries and periodontal diseases. But most of people are not able to achieve optimum plaque removal. Therefore, tooth brushing twice daily is recommended by most dentists in order to improve plaque control. The use of other recommended oral hygiene methods such as dental floss and mouthwashes was found to be rare.

On the knowledge on how the teeth should be properly brushed, majority of the respondents used a non-directed brushing method with a combination of brushing strokes. Thus there is need to educate school children on the correct motion for teeth brushing to ensure that the teeth are thoroughly brushed which will reduce or eliminate the chance of oral diseases.

There was lack of awareness regarding periodontal diseases as compared to dental caries as, almost half of the respondents did not know the significance of bleeding from gums and were unaware of the term "dental plaque". Most of the respondents were aware of detrimental effects of sweets, smoking, paan/tobacco on dental health though there was not as much awareness regarding adverse effects of various oral habits. More enlightenment activities need to be done in this area as much of the damage could be prevented by intercepting these habits at young age.

Earlier it was believed that oral infections were localized to the oral cavity and had no association with other systemic systems except in the case of some associated syndromes and untreated odontogenic abscesses. It is important to lay emphasis on the association between oral health and general health of the rest of the body because this might be helpful in promoting oral health and self-care practice among students as well as the community.

Most of the study subject reported irregular dental attendance (24%), an astounding finding in this regard was that most participants were unaware of importance of regular dental attendance (36%). Some findings in this study might offer an explanation for the irregular dental attendance among the participants. Oral disease has a slow path which can be detected on time by the dentist hence, educating the students in this regard is vital. Frequency of visiting dentist is also determined by the parents of these children and dental attitudes displayed by parents might also offer an explanation of the lack of regular attendance. Thus, parents too should be made to understand why it is important to take the children for routine dental check-up.

These observations can be ascribed to the deficiency of appropriate dental hygiene education programs which might have made the dental treatment redundant.

Better oral hygiene knowledge and practices were found in students who visited dentists regularly which might be due to individual level oral health education and motivation received by them. Thus, key to an informed and motivated public lies in the hands of the profession, as well as the authorities.

Health promotion, with its core ideas of equity and equality, empowerment and advocacy, provides a novel though a complex approach to improve not only general health but oral health also. It shifts the responsibility for health from the formal health care system to individuals, communities and decision-makers at all levels of society. Dental health education should be incorporated into the existing school curriculum. The program for dental health education and various didactic activities should be structured in such a manner as to gain the student's interest and obtain a high priority of social acceptance. The objective should be to maintain that level of acceptance throughout the student's lifetime.

The education programs should thus be motivating, vibrant, and closely matched to the learning aptitude established by the child at each educational level. Community group effort can also reinforce interventions to endorse improved oral health. Efforts should be synchronized between school personnel, dental health care professionals, as well as parents to make certain long-term remuneration. In future more surveys on larger scale like that on state level or national surveys should be carried out and the

data obtained be used to formulate better dental health programs for our country.

## 7. Conclusion

This survey furnishes the background data to get insight into the status of awareness of children of 10-14 years old regarding dental hygiene. The clinical implication of this survey was to emphasize on the need for the oral health education of the children aiming at improving oral health knowledge and continuous implementation of oral health promotion programs.

As, school age is the right time when the behavior can still be molded, children at this age would be the appropriate target group to receive the first organized intervention leading towards correct knowledge along with a positive attitude which is essential to bring about a change in their oral health behavior.

However, the efficacy of such education will be limited if health programs are not able to directly affect the attitudes, and take into consideration various socio-economical and environmental factors of targeted population.

## 8. Limitations

A very limited research has been done regarding the knowledge, aptitude and practice among children at Nishtar hospital OPD Multan.

### The present study had few limitations:

Our sample size was very small consisting of only 120 children.

We used Non- probability convenient sampling to draw our sample; this method is inferior to method of probability sampling in representation of population and this limits the validity of study.

As children were with their parents they were not cooperating fully due to parent's pressure.

## 9. References

- [1]. AFZAL KHAN, M. A., & Khattak, A. A. Frequency of Hepatitis B Surface Antigen and Its Association with Possible Risk Factors in Hospitalized Pediatric Patients. *PAKISTAN PAEDIATRIC*, 1, 4-760.

- [2]. ChakShazad, I. UTILIZATION OF PUBLIC HEALTH SERVICES BY ELDERLY WOMEN IN PUNJAB, PAKISTAN.
- [3]. Gopikrishna V, Bhaskar NN, Kulkarni SB, Jacob J, Sourabha K G. Knowledge, attitude, and practices of oral hygiene among college students in Bengaluru city. *J Indian Assoc Public Health Dent* [serial online] 2016 [cited 2017 Jul 26]; 14:75-9.
- [4]. Hazir, T., Qazi, S. A., Bin Nisar, Y., Maqbool, S., Asghar, R., Iqbal, I., ... & Abbasi, S. (2006). Can WHO therapy failure criteria for non-severe pneumonia be improved in children aged 2–59 months?. *The International Journal of Tuberculosis and Lung Disease*, 10(8), 924-931.
- [5]. Hedman E, Ringberg K, Gabre P. Oral health education for schoolchildren: a qualitative study of dental care professionals' view of knowledge and learning. *International journal of dental hygiene*. 2009 Aug;7(3):204-11.
- [6]. Lang WP, Faja BW, Woolfolk MW, Glasrud PH, Frazier PJ. Elementary schoolteachers' knowledge and attitude about oral health. *J Dent Res* 1987;66 Spec Issue:299.
- [7]. Mahesh Kumar P, Joseph T, Varma RB, Jayanthi M. Oral health status of 5 years and 12 years school going children in Chennai city - An epidemiological study. *J Indian Soc Pedod Prev Dent* 2005;23:17-22.
- [8]. Naeem, M., Riaz, T., Anwar, S., Rubab, S., & Saba, T. (2017). Vaccination status of children according to age and gender visiting EPI center of 'Nawaz Sharif Social Security Hospital, Lahore. *PAKISTAN JOURNAL OF MEDICAL & HEALTH SCIENCES*, 11(2), 610-615.
- [9]. Oral hygiene knowledge and practices among school children in a rural area of southern Saudi Arabia. (PDF Download Available). Available from: <https://www.researchgate.net/publication/224859249> Oral hygiene knowledge and practices among school children in a rural area of southern Saudi Arabia.
- [10]. Shah, Z. H., Salim, M., & Khan, M. (2010). *Training Institutions for Community Midwives in Pakistan: an initial assessment*. Islamabad: Population Council.
- [11]. The World Oral Health Report 2003. Continuous improvement in the oral health in the 21st century - the approach of the WHO Global Oral Health Program.
- [12]. Walsh MM. Effect of school-based dental health education on knowledge, attitudes and behavior of adolescents in San Francisco. *Community Dent Oral Epidemiol*, 1985; 13(3): 143-7.
- [13]. WHO-Global school health initiative. World Health Organization [Internet], [cited 2013 December 13].
- [14]. Zaidi, S., & Nishtar, N. (2011). Access to essential medicines: in Pakistan identifying policy research and concerns.
- [15]. Determinants of exclusive breast feeding among mothers in Ghana: a cross-sectional study. *International breast feeding journal*.2013; 8(13).
- [16]. Utto BT, Ochejele S, Obulu MA. Breast feeding knowledge and attitude amongst health workers in a health care facility in South-South Nigeria: The used for middle level health manpower development. 9 : 1-5.
- [17]. Vijayalakshmi P. Knowledge, attitude and breast feeding practices of postnatal mothers: a cross-sectional survey. *International Journal of Health Science Qassim University*. 2015; 9 (04): 365-374.