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A Study on Oral Hygiene among School Children in a Rural Area of Moradabad, Uttar Pradesh

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Abstract: ***Introduction: Oral hygiene is defined as a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, tooth decay, tooth loss and other diseases and disorders that affect the oral cavity. The objective of the study was to find the knowledge, attitude and practice about oral hygiene among school children. Material and Methods: The study group comprised of 160 students who were in the age group of 12 to 15 years. Study was conducted in a school which comes under the service area of rural health centre. Data was collected and represented by means and frequency. Results: Study showed 53.1% of students were brushing twice daily and remaining 46.9% brushed once daily. Majority of the study subjects (92.5%) were using tooth paste for brushing Conclusion: Finding of current study showed that the knowledge attitude practice about oral hygiene among school children were not satisfactory and had to improve significantly. Community based health promotion for oral hygiene is a must for improving oral health among school children.***

Keywords: KAP, Oral health, School students

1. Introduction

Oral hygiene is defined as a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, tooth decay, tooth loss and other diseases and disorders that affect the oral cavity.[1] Good oral hygiene among rural children is still dream come true in a developing country like India. In India, majority of the population (70 -72%) live in the rural areas of which more than 40% are children, of these children tend to be more vulnerable to oral health problems due to socio-economic and demographic factors such as reduced awareness, poor transport facilities and lack of access to quality dental care.[2-4] Oral health promotions through schools is recommended by WHO for improving knowledge, attitude, behaviour related to oral health and for prevention and control of oral health problems among school children. Lack of oral hygiene can lead to various dental problems. School Children learning good habits will help them to follow healthy habits throughout their life time. School Children can act as a catalyst in bringing about desirable changes in the family. It is the primary concern of oral health educators to impart a positive oral health knowledge and behavior in the society. The above said knowledge is obtained from health education and gets translated into behavior change. Behavior is the outcome when that action is sustained. However, only a weak relation exists between knowledge and behavior.[5,6] Lot of studies shows a positive correlation between oral health and good knowledge.[7] By virtue of their professional role, students have an important role in primary prevention and health education among family members and their respective community. It is therefore important that their own oral health knowledge is good and their oral health behavior conforms to expectation of the population.[7,8] Present study aimed to know the knowledge, attitude and practice about oral hygiene among school children.

2. Material and Methods

After obtaining ethical clearance from Institutional Human Ethical committee SMIMS, this cross sectional study was carried out in a school which comes under the service area of Rural health training centre Moradabad. The study was conducted during the period April-June 2015. All students of 8^{th}, 9^{th},10^{th} participated in the study. A pretested questionnaire was applied among the students and questions regarding demographic profile, knowledge about brushing techniques, frequency and material used for cleaning teeth was asked. Attitude towards oral hygiene and practice of brushing techniques and visit to dentist were enquired. Sample size was calculated for prevalence of 38.5%[9] and for a 95% confidence interval and 5% absolute precision of the estimate. Total sample size of the study was 160. Children aged 11-13 yrs of both sex, children residents of Moradabad area were included in the study and those who are absent on the days of data collection were excluded.

3. Statistical Analysis

Analysis was done using SPSS version 20 (IBM SPSS Statistics). The prevalence of knowledge attitude and practice of oral health was described in terms of percentage. Chi square test was applied to find out the associations. In all calculations P values under 0.05 were considered significant.

4. Results

Out of the 160 children participated in the current study 74 (46.3%) were males and 86 (53.8%) were females. Majority of the participants (95%) felt that the appropriate way to clean the teeth is by using the tooth brush. 92.5% of the study group used tooth paste as the cleaning material for cleaning the teeth followed by salt (4%) and ash (3.8%). 79 students (49.4%) believed that regular brushing of teeth will prevent tooth decay. 63 (39.4%) aid that avoiding sweets and chocolates can prevent tooth decay. 11

(6.9%) believed that regular visit to the dentist would prevent tooth decay. Only 10 subjects (6.3%) visited a dentist routinely. 53 (33.1%) went to a dentist when they had a problem. But the majority 97(60.6%) had never visited a dentist.

Table 1: Showing association between routine dental check up and brushing method

Dentist purpose	Brushing method		Total	P value
	LTD Recommended Method	Others		
Routine check up		4	10	<0.01
Others	28		150	
$\chi 2$ =94.967; df = 1				

Table 2: Showing association between changing tooth brush and dental check up

Dentist purpose	Tooth brush change		Total	P value
	Between 3-6 months	Others		
Routine Check up	7	3	10	P <0.002
Others	49	101	150	
Total	56	104	160	

85 (53.1%) were not using fluoride containing toothpaste. Of the 160 subjects 147 (91.9%) brushed their teeth in the morning and at night. Only 116 (72.5%) rinsed their mouth always after having food or drink. Even though 91.9% of the subject brushed their teeth in the morning and evening only 34(21.3%) did it in the LTD recommended method. A significant difference was found between the brushing method followed by children who routinely visited dentist and those who do not visited a dentist routinely (Table-1). A significant difference was found regarding the change of tooth brush in 3-6 months between those who visited the dentist regularly and those who did not do so routinely (Table-2).

5. Discussion

Harikiran et al[10] showed that 58.9% brushed their teeth once a day while 38.5% brushed twice daily. In our study about 53.1% of students brushed twice daily and remaining 46.9% brushed once daily. In our study about 92.5% were using tooth paste for brushing. Harikiran et al[10] showed that 50.9% are using tooth paste for brushing. In our study about 91.9% students used toothbrush in that only 35.6% changed their toothbrush in 3-6 months as recommended. Punitha et al[9] showed that 62.96% used brush out of that 7.84% change between 3-6 months. In our study 91.9% of students were using tooth brush for cleaning teeth. Punitha et al[9] showed that only 62.96% children were using brush. In our study 72.5% rinsed their mouth always after having food or drink. Punitha et al[9] showed that 29.62% rinse their mouth always after having food or drink. In our study about 49.4% had idea that regular brushing of teeth will prevent tooth decay. Punitha et al[9] showed that about 14.81% children were aware that by regular brushing of teeth, decay can be prevented. 39.4% had idea that avoiding sweets and chocolates can prevent tooth decay in our study. In Punitha et al[9] study, 45.67% were aware that the avoiding sweets prevent tooth decay. Only 1.23% believed that regular visit to dentist prevents tooth decay in our study. Harikiran et al[10] showed that 6.9% believed that regular visit to dentist prevent tooth decay. In contrast to the cuurent study in the studies by Petersen et al[11] [66%] and Wierzbicka et al[12] (61%), a high percentage of the study participants claimed annual dental visit.

6. Conclusion

Results of current study shows that the knowledge attitude practice about oral hygiene among school children was not satisfactory and has to improve significantly. Systematic community-oriented oral health promotion programs are needed to improve oral health KAP of the school students.

7. Limitations

- In the present study, data could not be collected from absentees.
- Many of the respondents gave us a ‘neutral’ reply to some of the questions.

Abbreviations and Acronyms

KAP = Knowledge, attitude and practice

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