

## **Oral Health Knowledge, Attitude and Practices of a Public School Children of Karachi, Pakistan**

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### **INTRODUCTION**

A positive decline in prevalence and severity of dental diseases has been observed over the past fifty years in children who are residents of industrialized countries.<sup>1</sup> This may be due to appropriate health education programs that are conducted with the aim to decrease destructive oral health habits, so that impact of negative chronic oral disease becomes diminished.<sup>2</sup> These dental health behavior programs conducted among children and young are scientifically planned<sup>3</sup> to ensure positive long term dental health and hygiene, hence developing positive influence on child's knowledge, attitude and practice towards sustaining good oral health.<sup>4</sup>

Most of the studies have reported improved oral hygiene practices during childhood as a result of major changes in oral hygiene behavior. These studies have mostly been conducted amongst industrialized or developed populations such as United Kingdom, Canada and USA where most of the children practise brushing twice daily on regular basis.<sup>5</sup> Another similar study conducted among schoolchildren in North Jordan, reported that although children were aware of importance of oral health but there was lack of dental health knowledge in parents that ultimately affected their child's dental visit, so emphasis on parental education in addition to child education also plays major role.<sup>6</sup>

However, it has been reviewed that this change in knowledge, attitude and behavior has not been observed among children belonging to developing countries. A study conducted on schoolchildren in Jeddah city reported that knowledge, attitude and practice related to periodontal health among school children needs improvement.<sup>7</sup> Another study related to health behaviors in Chinese schoolchildren raised the need of appropriate oral health education programs in order to improve knowledge, attitudes and practices of these children concerning their oral health.<sup>8</sup>

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The present study was conducted to evaluate oral health knowledge, attitude and practice related to oral health in public schoolchildren of Karachi city so as to highlight the need of oral health programs in the respective area.

### **METHODOLOGY**

A previously validated questionnaire that was used in the study conducted in Jordan,<sup>6</sup> was administered amongst a total of 459 school children studying from class one to class six (age 6-15 years) of a single public school setting in Karachi, Pakistan. The items used in each domain consisted of questions on oral health knowledge, attitude of schoolchildren towards dental services, and mouth and dentition cleaning practices. Prior to starting the research a verbal consent was taken from the school administration as well as individually from subjects. Questionnaire was in simple English language but as their study was being conducted among public schoolchildren, so it was filled by the group that was conducting this research, based on the answers provided by the schoolchildren. Later on the questionnaires were assembled and data were entered in Statistical Package of Social Services version 16 and descriptive analysis was done in which frequencies and percentages were found.

### **RESULT**

It was found that from a total of 459 schoolchildren 58% were males and 42% were females, where the mean age of males and females were (9.3±2.0) & (8.77±1.72) respectively.

Table 1 shows knowledge, practices and attitude based responses respectively of the subjects regarding their oral health. More than 60% of the total subjects were observed to have better knowledge regarding oral health. While oral hygiene practice seems to be satisfactory as almost 41% of subjects reported that they brushed twice daily. However, 73% reported that they brushed in morning only furthermore one of the affirmative finding was that subjects were in habit of using toothpaste for cleaning their teeth rather using other mouth cleaning aids. Moreover, over all attitudes of the subjects were not positive towards taking dental services as majority were found to be scared and only visited a dentist whenever they felt pain.

	Questions	Yes (%)
KNOWLEDGE	Does caries affect teeth appearance?	393 (83.6)
	Do fizzy drinks affect teeth adversely?	289 (62)
	Do sweets affect teeth adversely?	383 (83.44)
	Is there any relation between general body and oral health?	349 (76.03)
	Do you care about your teeth?	402 (87.38)
	Is brushing teeth preventing dental decay?	412 (89.7)
ATTITUDE.	First dental visit:	
	Scared	261 (56.86)
	Slightly scared	59 (12.85)
	Very slightly scared	46 (10.02)
	Never afraid	93 (20.26)
	Frequency of dental visit:	
	Every 6 to 12 month	45 (9.8)
	When have dental pain	241 (52.5)
	Occasionally	55 (11.98)
	Never visited a dentist	118 (25.7)
	Is regular visit necessary to dentist?	336 (77.33)
	Dental treatment on fast visit:	
	Consultation	334 (72.7)
	Take x rays	11 (2.39)
	Scaling	17 (3.7)
Fillings	31 (6.75)	
Crown and bridge	2 (0.43)	
Orthodontic	2 (0.43)	
Extractions	43 (9.36)	
Fluoride on teeth	7 (1.52)	
Treat my gums	12 (2.61)	
Does dentist solve your problem?	388 (84.97)	
Does dentist care patients?	402 (87.38)	
PRACTICE	Brushing frequency:	
	Not regularly	45 (9.8)
	Once per day	173 (37.7)
	Twice per day	189 (41.2)
	More than twice per day	52 (11.3)
	Aids for cleaning teeth:	
	Tooth brush plus paste	443 (96.5)
	Dental floss	5 (1.1)
	Mouth wash	1 (0.2)
	Miswak	10 (2.1)
	Tooth brushing timing:	
	Morning	335 (73)
	Noon after lunch	8 (1.7)
	Before going to bed	22 (4.8)
	Others	94 (20.5)
Duration of brushing:		
Less than 1 min	70 (15.3)	
1 min	99 (31.6)	
2 min	128 (27.9)	
More than 2 min	162 (35.3)	
Supervision for brushing:		
Parents watch me	105 (22.8)	
Parent do not watch me	105 (22.8)	
Only mothers watch me	114 (24.8)	
Never cared	135 (29.4)	

## DISCUSSION

This study represents an outline of the oral health knowledge, attitudes and practices of children ages 6-15 years belonging to public sector school. This study is helpful in exploring problems and needs of public sector schoolchildren as well as their perception about oral health. According to this study, knowledge of subjects seems to be positive about dental health. In addition, they knew that decay affects the appearance of teeth and also use of carbonated drinks and sweets affect teeth badly. Subjects' responses also showed their awareness, that regular tooth brushing is good for preventing tooth decay as well as oral health has direct influence on general health. Similar results were found in another study that was conducted by Ernesto Smyth et al among 12 year old school children in Spain.<sup>9</sup>

The attitude of study sample related to their first dental visit seems to be hesitant because majority of subjects responded that they were frightened from dental services. Moreover, attitude of study group towards frequency of visiting dentist was observed to be alarming because most of the subjects replied that their last visit to dentist was because of pain that was the main reason, which is proved by other studies<sup>7</sup> as well. Although most of the study subjects have the opinion that visiting dentist is necessary, but due to high treatment cost most of the subjects do not bear regular visiting or any sort of dental treatment.

Hence, it has been found that apprehension from dental services seemed to be high among the study group which might be attributed to the lack of proper oral health education programs for both children and their parents, which in addition to the above-mentioned reasons rendered dental treatment undesired. One of the main reasons in our set up may be that dentists are unable to treat children in a friendly way, secondly there might be lack of community-oriented dental practices as well scarcity of health education and promotion strategies in our country. Hence, by implementation of community oriented dental practices together with dental education we can change thoughts of population related to dental services.

Studies related to knowledge, attitude and practices conducted in India also reported need of community oriented dental education programs in order to increase the level of knowledge and to change attitudes and practices in relation to oral health among children.<sup>10</sup>

Similarly a recent study conducted in Lahore, Pakistan highlighting the same problem regarding oral health knowledge, attitude and behaviors reported that schoolchildren were found deficient in knowledge related to oral health preservation as well as its functions.<sup>11</sup>

Regarding oral health practices, it was observed that most of the schoolchildren have pragmatic approach towards brushing their teeth twice daily with the help of a toothbrush and tooth paste as a cleaning aid for teeth. This result is consistent with other studies conducted in Sweden, Denmark, Germany, Austria, and Norway, which reported that about 73-83% of school children used to brush their teeth twice a day.<sup>12</sup> While there is almost negligible use of other cleaning aids such as miswak, dental floss and mouthwash among these school children. Similar study conducted in Jeddah reported that although school children were using toothbrush and paste as a cleaning tool but they were also lacking practices related to dental floss and mouth washes.<sup>7</sup>

It was found that most of the study subjects were positively pursuing dental practices except for the response that children are not being supervised by their parents during tooth brushing, this shows that although children brush teeth regularly but whether way of brushing is correct or not this is not being observed. Similar study conducted in Jordan reported same findings that parent's of Jordanian children failed to support their child's tooth brushing practices suggesting lack of adequate knowledge and awareness about gum problems.<sup>13-14</sup>

## CONCLUSION

It is suggested that children should be encouraged for their good oral health practices by their school teachers or their caretakers. Also emphasis should be given on oral health education and promotion so that approach pertaining to availing of dental services becomes optimistic. Hence, there is a need for community-based oral health education as well as supervised oral health practices programs that should be designed and conducted to improve oral health knowledge and routine dental practices. It is suggested that such programs can be organized by the government in coordination with dental professionals and implemented through mass media. Furthermore, outreach health education teams can also play an important role in the delivery of oral health messages to those who are less well-educated and have fewer socio-economic advantages, especially in public schools as well as underprivileged areas

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