



COMPARISON OF ORAL HEALTH ATTITUDE, KNOWLEDGE AND PRACTICE AMONG 8-14 YEARS OLD, SCHOOL GOING CHILDREN IN SHOPIAN, JAMMU & KASHMIR AND MEERUT, UTTAR PRADESH. A CROSS SECTIONAL STUDY.

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ABSTRACT

Aim: To Assess the Oral health Attitude, Knowledge and Practice among 8-14 years old, School Going children in Shopian, Jammu & Kashmir and Meerut, Uttar Pradesh, India.

Materials and Methods: The subjects for this study were randomly selected from five private and five government schools in the age group of 8-14 years. A total of 1000 children were selected both males and females through Cluster sampling, with age group of 8 to 14 years Government and Private school going children both male and female had been selected. Self structured questionnaire used by Al-Omiri MK, Al-Wahadni, Saeed KN. The questionnaire includes questions without names and is used to evaluate oral health status, knowledge, attitudes and practice among school going children.

Results: Overall the level of knowledge score was statistically significant with $P = 0.001$.

Conclusion: The overall level of oral health knowledge among the surveyed children was low.

KEYWORDS :

INTRODUCTION

Oral Health is an integral part of General Health and well-being and is a fundamental human right without distinction of race, religion and political belief, economic and social condition. Health can be determined by various factors like life style, Dietary habits, socio-economic conditions, occupational environment and the quality of life is reduced due to loss of teeth and intraoral diseases^[1,2]. The goal of WHO is that, Oral Health as one among the Healthy life. So WHO has selected the theme "Oral Health" for Healthy life (2013-14^[3]). In Chennai, survey about the oral health status of 5 years school going children reported that decayed missing filled teeth (DMFT) of boys was 3.53 ± 3.07 , girls was 3.49 ± 2.83 and in a 12 years the DMFT for boys was 3.80 ± 3.43 , girls was 4.11 ± 2.98 ^[4,5]. A study by Moallemi et al in 2008 showed that mother's oral health knowledge and attitudes are positively related to their children's sound dentition^[6]. The result of National survey in Brazil, conducted in 2003, showed a significant drop in caries prevalence in 12 year olds from 8.3 to 2.8. DMFT index (1991) in French children at the age of 12 was 2.59 in a similar survey^[8,7]. The oral health problems that are currently most prevalent dental caries, periodontal diseases, and dental traumas can be prevented by measures aimed at reducing exposure to risk factors^[9,10]. Schools serve as a valuable platform for promoting oral health among school going children. Hence the current study was planned to provide the baseline data regarding Oral Health status and the factor effecting it with the aim of knowing their awareness level regarding Oral Health.

MATERIALS AND METHODS

After obtaining the Ethical clearance from ethical committee of the institution, list of schools containing required age groups of children had been obtained as per division of district by Panchayat Halquas/Tehsil and the written consent for the survey will be taken from the school authorities. The Study work was carried out in 8-14 years old school going Children in Shopian District, Jammu and Kashmir and Meerut District, Uttar Pradesh. Self structured questionnaire used by Al-Omiri MK, Al-Wahadni, Saeed KN^[5]. The questionnaire includes questions without names and is used to evaluate oral health status, knowledge, attitudes and practice. All questionnaires were completed under the supervision of

survey staff and subjected for statistical analysis using SPSS statistical software 21.0 Chicago Inc.

Questionnaire

Q1. What do you use for cleaning your teeth?

1. Toothbrush + toothpaste.
2. Dental floss.
3. Mouthwash.
4. Toothpicks.
5. Finger

Q2. What type of tooth brushing methods do you employ?

1. Vertical
2. Horizontal
3. Combined

Q3. How often do you brush your teeth?

1. Once per day.
2. Twice per day.
3. More than twice per day.

Q4. For how long do you brush your teeth?

1. Less than one minute.
2. One minute.
3. Two minutes.
4. More than two minutes.

Q5. My parents...

1. Watch me while brushing my teeth.
2. Do not watch but advise me.
3. Never cared.
4. Only my mother watches me.

Q6. Do you experience gum bleeding while brushing your teeth?

1. Yes
2. Sometimes
3. Never

Q7. How often do you visit your dentist?

1. Regularly every 6-12 months.
2. Occasionally.
3. During dental pain.

4. Never visited a dentist.

RESULTS

A total of 1000 children in the age group 8-14 years were randomly selected, Of these 590 were males (59%) and 410 were females (41%). The schools were categorized as low and high socio-economic school groups based on the government and private schools, of which 500 children were studying in government schools and 500 children were studying in private schools respectively.

Q8. The reason for your last visit to the dentist was:

1. Dental pain.
2. Family & friend advice.
3. A dentist advised me.
4. Another reason (specify).....

		1.What do you use for cleaning your teeth? 2.What type of tooth brushing methods do you employ?				Chi Square Value	P value
	Toothbrush + toothpaste / Vertical method	Dental Floss / Horizontal method	Mouthwash / Combined method	Toothpick	Finger		
Shopian Gp	441 88.2%	10 2.0%	2 0.4%	45 9.0%	2 .4%	103.12	0.001 (Significant)
Meerut Gp	264 52.9%	95 19.0%	67 13.2%	37 7.4%	37 7.5%		

		3.How often do you brush your teeth?			Chi Square Value	P value
	Morning / Once per day	Afternoon / Twice per day	Other times / More than twice			
Shopian Gp	244 48.8%	179 35.8%	77 15.4%	32.33	0.001 (Significant)	
Meerut Gp	168 33.5%	194 38.9%	138 27.6%			

		4.For how long do you brush your teeth?				Chi Square Value	P value
	Less than one minute.	One minute.	Two minutes	More than two minutes			
Shopian Gp	230 46.0%	112 22.4%	111 22.2%	47 9.4%	16.893	0.001 (Significant)	
Meerut Gp	191 38.1%	160 32.1%	120 24.0%	29 5.8%			

		5.Parental Supervision during Brushing?				Chi Square Value	P value
	Watch me while brushing my teeth	. Do not watch but advise me	Never Care	Only My Mother watches me			
Shopian Gp	268 53.6%	158 31.6%	45 9.0%	29 5.8%	39.994	0.001 (Significant)	
Meerut Gp	190 37.9%	186 37.3%	103 20.6%	21 4.2%			

		6.Do you experience gum bleeding while brushing your teeth			Chi Square Value	P value
	Yes	Sometimes	Never			
Shopian Gp	05 1.0%	57 11.4%	438 87.6%	132.641	0.001 (Significant)	
Meerut Gp	192 38.3%	212 42.5%	96 19.2%			

		7.How often do you visit your dentist?				Chi Square Value	P value
	Regularly every 6-12 months	Occasionally.	During dental pain	Never visited a dentist.			
Shopian Gp	98 19.6%	318 63.6%	67 13.4%	17 3.4%	184.61	0.001 (Significant)	
Meerut Gp	138 27.7%	124 24.8%	138 23.0%	100 24.5%			

		8.The reason for your last visit to the dentist was:				Chi Square Value	P value
	Dental pain.	Family & friend advice	Dentist Advised me	Another reason			
Shopian Gp	325 65.0%	97 19.4%	44 8.8%	34 6.8%	115.41	0.001 (Significant)	
Meerut Gp	164 32.7%	134 26.9%	101 20.2%	101 20.2%			

DISCUSSION

The present study intended to provide information regarding the children aged 8-14 years old in Shopian district, J&K and Meerut district, UP. In the present study regarding the oral health of children, 88.2% in Shopian, J&K and 52.9% of the children in Meerut, Uttar Pradesh used to clean their teeth by using tooth brush and tooth paste followed by dental floss and mouthwash. Whereas similar results were reported by WHO (83%) and Puntha and Sivaprakasam (62.9%), in a rural population in Uttaranchal state and Kanchipuram district respectively^{(11),(12)}. This results is not in accordance with that of

the study by Mahesh Kumar et al in Chennai, where in his study sample some of the children resorted to the use of charcoal as a medium to brush their teeth than the tooth brush⁽¹³⁾. 0% in Shopian, J&K and 7.4% of the children in Meerut, Uttar Pradesh of the children used toothpick to clean their teeth and it was seen 5% used wooden sticks and toothpicks to clean their teeth as the study done in 2016 by Bashir R et al in Pakistan⁽¹⁴⁾. While 0.4% in Shopian, J&K and 7.5% of the participants in Meerut, Uttar Pradesh used fingers to clean their teeth. In case of method of brushing it was seen that 43.4% in Shopian, J&K and 30.3% of the children in Meerut,

Uttar Pradesh used Vertical method to brush their teeth and 35.4% in Shopian, J&K and 41.1% of the participants followed Horizontal method of tooth brushing. 21.2% in Shopian, J&K and 28.6% of the children's in Meerut, Uttar Pradesh followed combined method to clean their teeth while brushing. In this study 48.8% of the participants in Shopian, J&K and 38.9% in Meerut, Uttar Pradesh performed the recommended practice of brushing their teeth once a day. It was reported by Harikiran AG et al in 2008 and Al-Omiri et al that 38.5% brushed their teeth two or more times a day^[14,15]. In the present study 35.8% in Shopian, J&K and 38.9% of the children in Meerut, Uttar Pradesh performed the recommended practice of brushing their teeth twice a day. This is similar to that observed in some industrialized countries of East Europe^[16, 17, 18] but low when compared to Western industrialized countries. Prasad et al reported 66.9% children brush once and 30.7% brush twice daily in Tamil Nadu, India^[19]. About 46.0% of the subjects in Shopian district J&K and 38.1% in Meerut district U.P used to brush for less than one minute, while 22.4% children's in Shopian district J&K and 32.1% in Meerut district U.P used to brush one minute. In this study it was seen that 22.2% children's in Shopian district J&K and 24.0% in Meerut district U.P used to brush two minutes and 9.4% children's in Shopian district J&K and 5.8% in Meerut district U.P used to brush more than two minutes. In 2016 Bashir R et al done a study in which 34% of the participants used to brush 2 minutes and 11.7% brushed for even less than a minute which was similar to the present study^[20]. In the present study it was reported that 68.6% of the children in Shopian district J&K and 40.7% in Meerut district U.P used to brush their teeth in morning which was less (81.6%) as compared to the study done by Bashir R et al in 2016 Karachi, Pakistan. 14.0% children in Shopian district J&K and 27.5% in Meerut district U.P used to brush their teeth in afternoon. While 11.4% in Shopian district J&K and 22.0% in Meerut district U.P preferred to brush before going to bed and 6% children in Shopian district J&K and 9.8% in Meerut district U.P used to brush other times. The parental supervision during brushing was found 53.6% in Shopian, J&K and 37.9% in Meerut, Uttar Pradesh. In the present study about 19.4% in Shopian, J&K and 26.9% in Meerut, UP of the children visit a dentist due to family advice while 8.8% in Shopian, J&K and 20.2% in Meerut, UP of the children visit a dentist due to dentist advice. Barker and Horton done a study on pre-school children in California showed that parents played a major role in influencing their children's oral health and access to care^[21]. A similar study was done by Al-Darwish MS in 2016 reported that parents were the most popular 69.1% source of oral health knowledge information for children^[22]. The awareness of periodontal diseases seems to have increased in Shopian, J&K and it was seen 1% of children have gum bleeding during brushing their teeth and 38.3% of the children's in Meerut, Uttar Pradesh experiences gum bleeding while brushing their teeth. Our observation is similar to Linn in which children knew about periodontal diseases^[23]. Similar study was done by Sharma et al in 2013 in which he reported that the overall prevalence of gingivitis among children was 53.4%^[24]. In the present study 54.8% in Shopian district J&K and 39.9% in Meerut district U.P children's stop brushing their teeth during gum bleeding and 40.8% in Shopian district J&K and 41.9% in Meerut district U.P children's brush slowly during gum bleeding. 4.4% in Shopian district J&K and 18.2% in Meerut district U.P of the children visit a dentist after gum bleeding while brushing their teeth. Nicolas et al^[25] reported that frequent exposure to dental experiences might be a positive factor in helping to reduce patient's anxiety levels. The findings from the present study revealed that the children's visit a dentist due dental pain. According to a study done by Zhu et al 73.6% of the children in China knew that regular dental check-ups are necessary^[26]. This scenario observed in Malaysian, Jordanian studies and in study done by Mirza BA et al in Pakistan 2011 reported 57% of high socio-economic school children were only aware of brushing to prevent dental problems^{[27],[28]}. Bharathi MP et al in 2012 reported in her study that the majority of the children had never visited a dentist due socioeconomic backgrounds, including family income, parental education and area of residence along with cost of

dental care, which might have influenced dental service utilization^[29]. According to children's opinion 27.8% in Shopian, J&K and 36.3% of the participants in Meerut, Uttar Pradesh the major factor that cause dental problem were sweets and the observation was less as done by Al-Omiri et al (87.4%). 55.0% of the children's in Shopian, J&K and 23.5% in Meerut, Uttar Pradesh of the children's don't know the effects of sweets on teeth. Abhinav Singh who conducted a study to assess the oral health knowledge, attitude and practice among National Cadet Corps in South India in which 49% of Codets reported consumption of sweets very often and 14.4% reported its consumption all the time^[30].

CONCLUSION

The current study shows that the knowledge, attitude and practice among school going children about oral health was not satisfactory in both the districts due to lack of poor oral hygiene practices, lack of parental guidance, socio-demographics with the lack of knowledge and frequent exposure to cariogenic foods. Parents and schools play a key role in providing a knowledge about oral health. Oral health education programs could be included in school curriculum for the children to emphasize a positive attitude towards oral health.

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