# **ORIGINAL ARTICLE**

# AWARENESS OF THE ORAL HEALTH OF PEDIATRIC PATIENTS AMONG THE PEDIATRICIANS IN AHMEDABAD CITY-AN EPIDEMIOLOGICAL RESEARCH

Maithilee Jani<sup>1</sup>, Anshul Shah<sup>1</sup>, Ajay Pala<sup>2</sup>

B.D.S, <sup>1</sup>Ahmedabad Dental College & Hospital, <sup>2</sup>Mauras Dental College & Hospital

## **ABSTRACT:**

Aim and Objective: The aim of the study is to analyze the knowledge, attitude and approach of pediatric practitioners regarding the awareness of oral health of the pediatric patients in Ahmedabad. Materials and Methods: A cross-sectional study was conducted amongst240 pediatric practitioners in Ahmedabad and the detailed input was accumulated by the means of a questionnaire. The questionnaire presented consisted of 20 relevant questions. Results: The cross-sectional study demonstrated that the knowledge among the younger age group of pediatricians regarding the oral health of the pediatric patient was below the par as compared to the older age group. However, lack of proper approach and attitude was highly prominent among the older age group of pediatricians as compared to younger age groups. Conclusion: The study was an attempt to understand the knowledge, attitude and approach of pediatric practitioners regarding the awareness of oral health of the pediatric patients in Ahmedabad. The different age groups presented with different areas of discrepancies which opens a whole new scenario of possible improvement. The need for Continuing Education should be highly encouraged among the current pediatricians along with the improvement in the syllabus of pediatric studies. Key words: Dental fluorosis; epidemiology; prevalence; risk factors.

Key words: Oral Health, Pediatric Patients, Pediatricians

Corresponding author: Dr. Anshul Shah, B.D.S, Ahmedabad Dental College & Hospita E mail: anshul\_90909@yahoo.com

This article may be cited as: Jani M, Shah A, Pala A. Awareness of the Oral Health of Pediatric Patients among the Pediatricians in Ahmedabad City- An Epidemiological Research. J Adv Med Dent Scie Res 2016;4(1):10-14.

# NTRODUCTION:

There is a huge difference between a pediatric patient and an adult patient in two significant ways.<sup>[1]</sup> Primarily, the child does not self-govern on improving the oral and systemic health care. Secondly the difference in the perception of the child and adult in reaction to the oral pathology. Children clearly are at increased risk of infection. The CDC has reported that carious appearance in the oral cavity is the most prevalent infectious disease in children.[2] A more detailed report suggests that around 40 percent of pediatric children have oral caries by the period of

kindergarten.<sup>[3]</sup> The age group of 0-12 years is a vulnerable target for the bacterial, viral and fungal infections. To avoid any such infections to develop and for appropriate vaccination, the pediatricians are first doctors to be consulted. A pediatrician is a child's physician who manages the physical, mental as well as social well-being. Parents are usually concerned with any minor lesion that appear in the oral cavity of children. Hence the pediatricians must be capable to distinguish the normal clinical appearance from the pathology. The pediatrician should be able to diagnose not only the tissue lesions but also the tooth structure anomalies. Early

diagnosis of the lesions in the oral cavity of a child will help prevent any further damage and better treatment results.

The focus of the pediatric practitioner should be to consider the oral habits of the child along with the systemic health. Malocclusion and dental caries are prominent in a child with a poor oral hygiene status. Fluoride containing toothpaste should be judiciously used in a pediatric patient to. Appropriate use of optimum fluoride toothpaste has known to prevent the dental caries.<sup>[4]</sup> A pediatrician with optimum knowledge of the toothpaste and fluoride can effectively advise the patient. The pediatric office should be equipped with the basic dental instruments to be able to evaluate the clinical condition of the patient. If possible, the dental clinic should also be equipped to satisfy the primary dental care need of the patient or otherwise should direct the patient to a dentist. The pediatricians must also be actively involved in Oral Health Promotion Programme. Oral health promotion to prevent caries can target the whole population or individuals. Oral health promotion programs based on judicious use of fluoride are the most effective in reducing caries incidence.<sup>[5]</sup> The major aim of the epidemiological study was to improve the basic knowledge, attitude and approach of pediatric practitioners regarding the awareness of oral health of the pediatric patients in Ahmedabad and urge them to get involved with continuing education programs.

## **MATERIALS:**

1. Pediatric practitioners in Ahmedabad

2. Data Questionnaire collection

The design of the questionnaire was based on the relevance of dental understandings among the pediatric practitioners.

# **METHOD:**

A cross-sectional study was meticulously conducted among 200 pediatric practitioners in Ahmedabad. The method of data and information accumulation was a personal collection of answers of the questionnaire from the pediatricians. The base of the chosen set of 20 questions was to analyze the knowledge, attitude and practice based on the age group of the pediatrician. Any pediatrician below the age of 40 years was considered under the group of young and any pediatrician over the age of 40 years was considered under the age group of old pediatrician. Significance of the knowledge of primary dental evaluation of the patient, attitude towards the oral health dentition status of the patient and practicing the same in day to day practice as a part of the routine history and clinical evaluation were the key points.

#### **QUESTIONNAIRE:**

# Q.1. At what age does the tooth first erupt in the oral cavity??

A. 2-6 months; B. 6-10 months; C. 12-24 months Q.2. Which medications can lead to staining of teeth? A. Ciprofloxacin; B. Tetracycline; C. Ibuprofen Q.3. Which gas is used in conscious sedation? B. Nitrous Oxide; C. Sevoflurane A. Ozone; O.4. Which dental disease in mother can cause preterm low birth weight? A. Dental Caries; B. Periodontal Disease C. Oral Cancer **O.5.Which is the best brushing technique for the kids?** A. Bass Method; B. Fones Method; C. Charte's Method Q.6. Do you know that sugar syrup can cause dental caries? A. Yes; B. No Q.7.What amount of fluoride do you recommend in toothpaste given to the pediatric patient? A. 500ppm; B. 1000ppm; C. 1200ppm Q.8. Are you aware that certain medical conditions M can affect the dental health as well?? A. Yes: B. No: C. Don't Know **O.9.** Do you think that dental disease can affect the overall growth of the child? A. Yes: B. No; C. Don't Know Q.10. According to you which is the most common cause of dental caries? A. More Use of Sugar; B. Oral Hygiene Negligence C. Systemic Disorders Q.11. Do You Think Regular Dental Check-Ups Are **Important?** A. Yes: B. No Q.12. If there is a CDE program regarding the oral health of the pediatric patient will you attend it? B. No A. Yes; Q.13.In your opinion how serious is dental disease? A. Very Serious; B. Somewhat Serious; C. Not Very Serious Q.14. How expensive do you think is the dental treatment? B. Moderately Expensive A. Very Expensive; C. Relatively Cheap Q.15. Do you advise your patient to rinse mouth after night milk? A. Yes: B. No Q.16. Do You Think Improper Oral Health can be harmful to them? A. Yes; B. No Q.17. Do you regularly check the oral health of your patient?

A. Yes;	B. No		A. Yes;	B. No	
Q.18. When was the last time you referred your		Q.20. Which dental problems do you commonly find			
patient to a dentist?	?		in your pediatric patie	nt??	
A. Recent Past; B	Long time ago;	C. Never	A. Dental Caries; B. Malocclusion; C. Gingival Problems		
Q.19. Do you provide any form of primary dental care		The Age Group has been divided into 2 groups:			
at your clinic?			A) Below 40 Years;	B) Above 40 Years	

#### **RESULTS:**

Table 1: Data & Analysis - 120 Young Practitioners For Individual Question

QUESTION	APPROPRIATE	INAPPROPRIATE	APPROPRIATE	INAPPROPRIATE
NUMBER	ANSWER	ANSWER	ANSWER (%)	ANSWER (%)
1	82	38	68.3	31.7
2	120	00	100	0
3	104	16	86.32	13.68
4	37	83	30.71	69.29
5	21	99	17.43	82.57
6	120	00	100	0
7	59	61	48.97	51.03
8	91	29	75.53	24.47
9	77	43	63.91	36.09
10	83	37	68.89	31.11

Q.1 TO Q.10 shows the Knowledge of the Young Age Group Pediatricians

Average						
	Appropriate $(\%) = 66.16$					
Inappropriate $(\%) = 33.84$						
11	111	09 R	92.13	7.87		
12	120	00	100	0		
13	98	22	81.34	18.66		
14	101	19	83.83	16.17		
15	103	17	85.49	14.51		
16	118	02	97.94	2.06		

Q.11 TO Q.16 Shows The Attitude Of The Young Age Group Pediatricians

Average					
	Appropriate $(\%) = 90.41$				
Inappropriate $(\%) = 09.59$					
17	84	36	69.72	30.28	
18	97	23	80.51	19.49	
19	95	25	78.85	21.15	
20	65	55	53.95	46.05	
Q.17 TO Q.20 Shows The Approach Of The Young Age Group Pediatricians					

Average Appropriate (%) = 71.04Inappropriate (%) = 28.96

QUESTION	APPROPRIATE	INAPPROPRIATE	APPROPRIATE	INAPPROPRIATE
NUMBER	ANSWER	ANSWER	ANSWER (%)	ANSWER (%)
1	101	19	83.83	16.17
2	98	22	81.34	18.66
3	82	38	68.06	31.94
4	76	44	63.08	36.92
5	69	51	57.27	42.73
6	120	00	100	0
7	83	37	68.89	31.11
8	117	03	97.11	02.89
9	93	27	77.19	22.81
10	103	17	85.49	14.51
	O.1 TO O.10 SI	nows The Knowledge Of	The Old Age Group Pedi	iatricians
		Averag	e	
		Appropriate (%	) = 78.50	
		Inappropriate (%	(b) = 21.50	
11	90	30	74.70	25.30
12	88	32	73.04	26.96
13	79	41	65.57	34.43
14	91	29	75.53	24.47
15	81	39	67.23	32.77
16	101	19	83.83	16.17
O 11 TO O 16 Shows The Attitude Of The Old Age Group Pediatricians				
Q.11 10 Q.16 Shows The Attitude Of The Old Age Group Pediatricians				
		Averag	e = 72.61	
Appropriate $(\%) = 75.01$				
17	15		(0) = 20.39	62.65
1/	43	73	37.33	66.80
10	71	40	59.02	41.07
19	/1	49	38.93	41.07
20 55 07 45.99 50.01				
Q.17 TO Q.20 Shows The Approach Of The Old Age Group Pediatricians				
	Average			
Appropriate $(\%) = 43.54$				
Inappropriate $(\%) = 56.46$				

 Table 2: Data & Analysis - 120 Old practitioners for Individual Question

**Table 3** – Comparision for Knowledge, Attitude And Approach Among The Young And Old Age Group

 Pediatric Practitioners In Ahmedabad City

ТҮРЕ	YOUNG AGE GROUP APPROPRIATE (%)	OLD AGE GROUP APPROPRIATE (%)
KNOWLEDGE	66.16	78.50
ATTITUDE	90.41	73.61
APPROACH	71.04	43.54

DISCUSSION: The results have very cleared suggested that the knowledge of the younger group age of pediatricians is 66.16% as compared to the 78.50% of the older age group. However the attitude of the younger group age of pediatricians is 90.41% as compared to the 73.61% of the older age group and the approach of the younger group age of pediatricians is 71.04% as compared to the 43.54% of the older age group. There is an absolute chance of time bias and semi-conscious pattern of answer from the participants. However, utmost care was taken to prevent any form of unnecessary discussion with the participants to prevent any form of biased answers. Since the results clearly suggest that the knowledge regarding the oral health status of a pediatric patient is way less in young pediatricians as compared to older group, it is highly recommended to improve the post-graduation residency curriculum to help cope with the appropriate knowledge about the dental status. Continuous Education programs must be conducted on monthly basis for any update and sharing of J 3) Pierce KM, Rosier RG, Vann WF Jr. Accuracy of information regarding the topic. Since the attitude and approach of the older age group of pediatricians was way below par, it is recommended to implement standard protocols in pediatric care which would involve compulsory collection of the current clinical condition as well dental history of the patient. Regulations to install primary pediatric dental care instrumentation for effective primary treatment should also be made mandatory. The entire aim of the discussion was to prevent any form of oral pathologies in pediatric child which may not be

symptomatic but could be identified by the doctor at an early stage to prevent any further damage to the child in future.

**CONCLUSION:** The present study is an attempt to encourage the general pediatricians to consider the oral health status of the pediatric patient to be as critical as the general health status of the patient. The scope for improvement is huge and proper measure and attitude along with some necessary regulations can help bring about a change in the oral hygiene and health status of the child.

### **REFERENCES:**

- 1) Filstrup SL, Briskie D, da Fonseca M, Lawrence L, Wandera A, Inglehart MR. Early childhood caries and quality of life: Child and parent perspectives. Pediatric Dental. 2003;25:431-40
- 2) US Department of Health & Human Services. Oral health: A report of the Surgeon General. National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000.
- pediatric primary care providers screening and referral for early childhood caries. Pediatrics 2002; 109(5):E82-2.
- 4) Marihno VCC et al. Topical fluoride (toothpastes, mouth rinses, gels or varnishes) for preventing dental caries in children and adolescents. Cochrane Database of Systematic Reviews 2003, Issue 4; CD002782. DOI: 10.1002/14651858.CD002782
- 5) Kay E, Locker D. A systematic review of the effectiveness of health promotion. Community Dent Health1998; 15:132-44.

Source of support: Nil

Conflict of interest: None declared