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Knowledge and attitude of paediatricians of Moradabad towards primary preventive oral health care

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ABSTRACT

Background: Paediatricians are in an ultimate position to guide families about the prevention of oral diseases in children. The objective of the study was to determine knowledge and attitude regarding the prevention of oral diseases among paediatricians in and around Moradabad.

Methods: 110 paediatricians registered under Indian academy of paediatrics in and around Moradabad were selected of which 93 who were willing to participate and give informed consent were considered for the study. Paediatricians were given a questionnaire consisting of practice characteristics, knowledge on risk factors, and attitude towards the prevention of oral diseases.

Results: All of the paediatricians believe that they have a role in maintaining oral health. But as far as knowledge was concerned about ideal age for child's first dental visit only 48% knows the ideal age, while 32% paediatricians know the role of fluoride and 43% know that its prescription should be based on adequacy of child's diet. There was a significant difference between the knowledge of paediatricians who are <10 years experience and >10 years experience with the less experienced paediatricians scoring better over the senior counterparts.

Conclusion: Paediatricians should understand their role in promoting preventive oral health care through early referral to paediatric dentists.

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1. Introduction

The first and the most frequent health care provider to deal with a child is a paediatrician that's why they are in an ideal position to provide information about general health as well as oral health to parents and can make referrals to the other health care providers like dentist as well. The area in and around Moradabad is very thickly populated with many

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practicing paediatricians; who can play a vital role in improving the oral health of generation next, for that their knowledge towards primary preventive oral health care should be thorough. So, there is a necessity to assess their knowledge and attitude about primary preventive oral health care.

2. Material and methods

2.1. Participants

This was a cross sectional survey of a study sample from the paediatricians registered under Indian academy of paediatrics[1] in and around Moradabad.

Based on pilot study response of 81% knowledge the sample size was calculated with following information:

Expected Proportion, 0.81; Relative Precision, 10%; desired confidence level, 95%. The final sample size was calculated to be 90.

Assuming response rate to be less than 100%, a total of 110 paediatricians were selected and a contact was made to them of which 93 who were willing to participate and who give their informed consent were taken for the study and their confidentiality of response was assured. Rest 17 paediatricians either could not be contacted by telephone because their numbers were not available or because they were not willing to participate.

2.2. Survey instrument

Extensive pre-administration piloting was conducted including interviews with paediatricians to ensure that the questionnaire was comprehensible and valid. Cronbach's alpha was used to asses for internal reliability of the questionnaire. Items were included in the questionnaire only if there was a near universal consensus on their meaning.

The instrument comprised practice characteristics including number of years in practice, and a series of 12 questions pertaining to knowledge of paediatricians about risk factors for dental diseases and their attitude towards preventive measures for oral diseases.

A face to face interview was planned for the respondents which took 8–10 min individually in filling the questionnaire.

The data was entered in the master excel sheet and was analysed using SPSS version 20. For comparing the responses non-parametric chi square test was used.

3. Results and discussion

Paediatricians are most likely to see infants and young children during the formative years of oral health care. The result of this study (Table 1) reveal that all of the ninety three paediatricians believe that they had a role in maintaining oral health of children but regarding reference of child in case of dental problem only 25% of the paediatricians refer their patient to the dentist and of these only 29% send their patient to paediatric dentist rest 71% refer them to the general dentist.

In the present study 48% paediatrician believe the ideal age for the child first dental visit is when the child's first tooth erupts which is in accordance to the American academy of paediatric dentistry (AAPD) guidelines which says it is with the eruption of the first tooth and no later than 12 months of age.[2]

68% of the paediatricians always do the nutritional counselling as a routine. The American academy of paediatrics (AAP) recommends that infants should not be put to sleep with a bottle milk, fruit juice and breast milk after the eruption of the first primary tooth. Infants should be encouraged to drink from a cup by the first birthday[3] and also Erickson et al in the study on investigation of role of breast or bottle milk in caries development have stated that milk intake with bottle at night during sleep can result in pooling of milk in the mouth which in turn can pave way for the development of caries in children.[4] In present study most of the paediatricians had a good knowledge regarding weaning and ideal last diet before bed time.

In the present study most of the paediatricians didn't knew the role of fluoride and its relation to dental health. Only 32% knew that it is both beneficial as well as detrimental. And also only 43% have the knowledge that prescription of fluoride should be based on the adequacy in child's diet, this is according to the AAPD guidelines for fluoride supplementation.[5]

Thumb sucking if not treated early can cause skeletal class II malocclusion, anterior open bite and excessive overjet that may become difficult to treat.[6] In the present study most of the paediatrician knew the adverse effect of thumb sucking.

In the present study when the paediatricians were asked: 'do they feel their knowledge in paediatric dental health in Postgraduate curriculum was adequate' about 76% believe that it was inadequate so there was a need to made the slight changes in the Postgraduate curriculum of paediatricians so that they can do more benefits to their child patient.

In the present study when the comparison of knowledge between less experienced and more experienced paediatricians was evaluated, the less experienced paediatricians shows significantly more knowledge about reference of child patient, ideal age for child first dental visit, providing nutritional counselling as a routine and recommendation from weaning the bottle. There is an evidence for it at least in medicine, that expertise and effectiveness in some areas began to deteriorate the moment physicians leave medical school,[7] this phenomenon is called "the slippery slope of clinical competence".[7]

Other reason for less knowledge may be the less participation of more experienced ones in continuing education programme because they think that they are too old to learn, this is called dispositional barrier.[8]

4. Conclusion

Many of the dental diseases of the childhood can be prevented by proper education of the parents. To achieve this objective, a greater interaction between paediatricians and pedodontists is must. For that further clarification and expansion in the IAP (Indian academy of paediatrics) guidelines regarding oral health care may be necessary for paediatricians to be more

Table 1 – Response of the paediatricians to questions as a whole and according to experience.

S. no.	Questions	Response	Total %	Experience				p-value
				>10 yrs	%	<10 yrs	%	
01	Does the paediatrician have a role in maintaining oral health	Yes	100	57	100%	36	100%	–
		No	0	0	0%	0	0%	
02	Do you refer your child patient to a dentist for regular check-up as a routine?	Yes	24.73	10	17.54	13	36.11	0.0001
		No	75.27	47	82.46	23	63.89	
03	If yes, then who would you refer to?	Paediatric dentist	29.03	3	25	4	36.36	0.15
		General dentist	70.96	9	75	7	63.63	
04	What is the ideal age for the child first dental visit	First tooth appears	48.38	25	43.86	20	55.56	0.005
		1 year	16.12	11	19.30	4	11.11	
		3 year	8.60	4	7.02	4	11.11	
		No idea	26.88	17	29.82	8	22.22	
05	Do you provide nutritional counselling as a routine	Always	67.74	36	63.16	27	75	0.006
		Sometimes	32.25	21	36.84	9	25	
		Rarely	0	0	0	0	0	
06	When do you recommend weaning from bottle	<12 months	79.56	43	75.44	31	86.11	0.0003
		12–18 months	13.97	9	15.79	4	11.11	
		19–24 months	6.45	5	8.77	1	2.78	
		25–36 months	0	0	0	0	0	
07	What is the ideal diet you think the child can consume last before bed time	Fruit juice	0	0	0%	0	0%	0.325
		Breast milk	24.73	15	26.31	8	22.22	
		Bottle milk	0	0	0	0	0	
		Water	75.27	42	73.69	28	77.78	
08	Role of fluorides and its relation to dental health	Beneficial	35.48	20	35.09	13	36.11	0.83
		Detrimental	0	0	0	0	0	
		Both	32.26	18	31.58	12	33.33	
		No idea	32.26	19	33.33	11	30.56	
09	Your prescription for fluorides is based on	Age	27.97	18	31.58	8	22.22	0.0625
		Amount of fluoride in water	29.03	15	26.31	12	33.33	
		Adequacy of child's diet	43.01	24	42.11	16	44.45	
10	Do milk teeth have an effect on future alignment of permanent teeth	Yes	80.65	47	82.46	28	77.78	0.260
		No	19.35	10	17.54	8	22.22	
11	Do thumb sucking habits have an adverse effect on future alignment of permanent teeth	Yes	86.02	50	87.72	30	83.33	0.238
		No	13.98	7	12.28	6	16.67	
12	Do you feel your knowledge in paediatric dental health in pg curriculum was adequate	Adequate	23.66	10	17.54	12	33.33	0.001
		Inadequate	76.34	47	82.46	24	67.77	

aware of oral health care needs. More senior paediatricians should also be encouraged to take part in the continuing education programme more frequently.

Conflicts of interest

All authors have none to declare.

REFERENCES

1. Indian Academy of Pediatrics. Find a member [Internet] available at: www.iapindia.org/members.php. Accessed 12.03.13.
2. American Academy of Paediatric Dentistry. Guideline on periodicity of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment for infants, children, and adolescents. 2014;35:114–122.
3. American Academy of Paediatrics. Baby bottle tooth decay – how to prevent it [Internet] available at: www.aap.org/family/toothdec.html. Accessed 08.07.13.
4. Erickson P, Mazhari E. Investigation of the role of human breast milk in caries development. *Paediatr Dent*. 1999;21:86–90.
5. American Academy of Paediatrics. Fluoride supplementation for children: interim policy recommendations. *Paediatrics*. 1995;95:777–778.
6. Singh SP, Utreja A, Chawla HS. Distribution of malocclusion types among thumb suckers seeking orthodontic treatment. *J Indian Soc Pedod Prev Dent*. 2008;26(suppl. 3):S114–S117.
7. Sackett D, Haynes R, Guyatt G, Tugwell P. *Clinical Epidemiology: A Basic Science for Clinical Medicine*. 2nd ed. Boston: Little, Brown and company; 1991.
8. Blacklock KL. Lifelong learning for the older adult. *J Ext*. 1985;3:23 [Internet] available at: www.joe.org/joe/1985fall/a3.php. Accessed 16.09.13.

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