



THE KNOWLEDGE AND APPROACH OF PAEDIATRICIANS IN ORAL HEALTH OF CHILDREN OF KANPUR CITY

Garima Singh., Ankit Mehrotra and Kriti Garg

117/L/453-A, Kakadev, Adjacent Jaipuria Little One Pre-School, Kanpur-208025, Uttar Pradesh

ARTICLE INFO

Article History:

Received 06th September, 2018

Received in revised form 14th October, 2018

Accepted 23rd November, 2018

Published online 28th December, 2018

Key words:

Paediatricians, Kanpur city, Knowledge, Approach, Pedodontists.

ABSTRACT

Background: The survey was done in 40 Pediatricians of Kanpur city, members of Indian Medical Council to know their knowledge and involvement in maintenance of oral health in children.

Aims: The study was carried out amongst 40 Pediatricians of Kanpur city to find the knowledge, approach regarding oral health of children and to determine their willingness to incorporate oral health education in children and parents.

Design: A simple questionnaire form was made to be filled by the pediatricians and the results have been tabulated based on their response.

Results: The survey included 40 Pediatricians of Kanpur, having a good clinical practice and a good amount of children visiting them for treatment. The results were calculated using the Chi Square Statistical Analysis, which gave a value of $P < 0.05$, which was a Highly Significant Value.

Only 7.5 % of the pediatricians had the required knowledge and approach for Pediatric dentistry and showed a positive approach towards in the maintenance and guidance for a good oral health for children.

Conclusion: The knowledge and involvement of the pediatrician in maintenance and guidance for a good oral health for children was found to be weak in majority of Pediatricians and that only a few had a positive approach towards Pediatric dentistry and referrals to a Pedodontists. Hence there is an urgent requirement of collaboration between the Pedodontists and Pediatricians, in order to build up mutual understanding and interests amongst each other, so as to impart the best that can be done for the children of our society in regards of dental as well as general health.

Copyright©2018 Garima Singh., Ankit Mehrotra and Kriti Garg. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Although the American Academy of Pediatric Dentistry as well as the Indian Society of Pedodontics, calls for every child to have a dental visit by the time the first primary tooth erupts, the reality is very different. Pediatricians have that opportunity to affect the oral health of children because of their early and frequent contact during the visit of children to them with problems other than any dental disease^[1].

As they are the primary care givers there is an expected involvement of them into the dental problems faced by the children as well. Children <5 years of age see a pediatrician more often than he/she visits a dentist.

The pediatrician is the first to provide information starting from the newborn period and sees the child and parents on a regular basis from the first years of life. The frequency of visits provide an ample of time for an experienced provider to perform basic dental check up and screening of the dental problems. It is yet not clear that up to what degree the pediatricians are knowledgeable enough about the oral health of children and that up to what extent are they willing to participate in the assessment and prevention of oral health problems in children^[2].

As pedodontists we assume that pediatricians have adequate knowledge about oral health of the children and that they will refer the child before it becomes irreversible.

Instead they themselves treat the presenting complaint and sometimes a few give wrong notions regarding the importance of the primary dentition to the parents / guardians. The present survey was conducted to evaluate the knowledge, attitude and the involvement of the Pediatricians of the Kanpur city towards the oral health of infants and children.

METHODOLOGY

A self-administered questionnaire with 20 questions was made and was the pediatricians were asked to complete the questionnaire form. Completed questionnaires with the answers were returned by the participants, and the results were tabulated according to them [Figure 1, 2, and 3].

*Corresponding author: **Garima Singh**

117/L/453-A, Kakadev, Adjacent Jaipuria Little One Pre-School, Kanpur-208025, Uttar Pradesh

SURVEY QUESTIONNAIRE

NAME: _____

AGE / SEX: _____ SPECIALITY/DEGREE: MD / MCH / DCH

INSTITUTION: _____

YEARS OF PRACTICE: _____

MARITAL STATUS: Married / Unmarried / Divorced

Occupation/Place (s): _____

No. of hours of working in a day: _____ Visit patients coming per week: _____

Number of patients seen per week on the basis of Age and Sex:

AGE	MALE	FEMALE
0-6 MONTHS		
6 MONTHS-1 YEAR		
2 YEAR-5 YEAR		
6 YEAR-10 YEAR		
11 YEAR-15 YEAR		

Figure 1 A self-administered questionnaire as methodology (part 1)

Number of infant / child patients referred to a dentist per week on the basis of Age and Sex:

AGE	No. of Referrals
0-6 MONTHS	
6 MONTHS-1 YEAR	
2 YEAR-5 YEAR	
6 YEAR-10 YEAR	
11 YEAR-15 YEAR	

How often out of every 10 infants / children do you access dental problems during physical examination?

On an approximation how often out of every 10 infants / children do you provide consultation regarding maintenance of oral health care?

How many out of every 10 parents / guardians have ever asked you anything regarding dental health of their child?

Kindly help me know a few of the questions parents / guardians ask you in relation to dental health of their child:

What do you think is "role of deciduous (Milk) dentition"?

Figure 2 A self-administered questionnaire as methodology (part 2)

Answer in a "YES" or "NO":

1. Does prolonged breast feeding / nursing bottle feeding leads to dental problems?	YES / NO
2. Are dental diseases hereditary?	YES / NO
3. Can cavity causing bacteria get transmitted from a mother to her child?	YES / NO
4. Can deciduous teeth undergo pulp therapies?	YES / NO
5. Does tooth extraction affects the eyesight of a child?	YES / NO
6. Can prolonged habit of thumb / finger sucking affect the dental status of a child?	YES / NO
7. Do early loss of deciduous teeth has any effect on child's dentition?	YES / NO
8. Should Natal/Neonatal teeth be extracted?	YES / NO
9. Are there 20 milk teeth present in deciduous dentition?	YES / NO
10. Can dental teeth decay be cured via medication?	YES / NO
11. Is diet of an infant / child is directly proportional to tooth decay?	YES / NO

Signature of the Doctor _____

Surveyed by: _____

Figure 3 A self-administered questionnaire as methodology (part 3)

RESULTS

As pedodontists we assume that pediatricians have adequate knowledge about oral health of the children and that they will refer the child before it becomes irreversible. But, they do not bother to check any oral dental problem and instead they themselves treat the presenting complaint and sometimes a few give wrong notions regarding the importance of the primary dentition to the parents / guardians.

The results of the present survey was calculated using the Chi Square Statistical Analysis, which gave a highly significant value of P, i.e. $P < 0.05$ Highly Significant In the survey, the knowledge and involvement of the pediatrician, in the maintenance and guidance for a good oral health for children was found to be weak in about 33, moderate in about 4 and good in about 3 pediatricians of Kanpur city.[Figure 4].

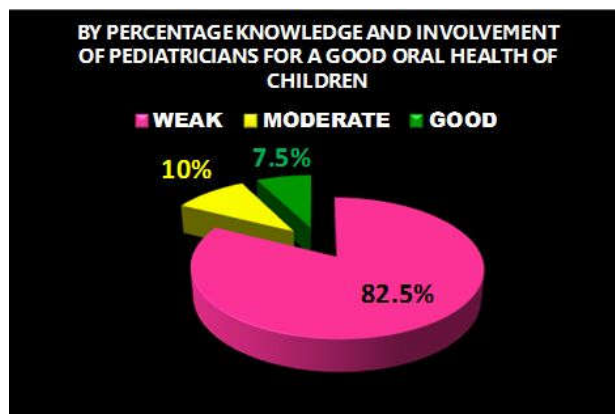


Figure 4 By percentage knowledge and involvement of the paediatricians regarding oral health for children

The survey states that only 7.5 % of the pediatricians had a positive approach towards caries prevention in children. Approximately 3 out of every 13 pediatricians took interest into checking the oral dental status of children & referred them to a pedodontist / dental surgeon [Table 1 and 2]. A 3 out of every 13 pediatrician showed willingness regarding adopting preventive measures of caries prevention.

As a result of the questionnaire undertaken to tabulate an average knowledge of the pediatricians regarding dentistry in children, it was found that out of all 11 questions that were answered by all 40 pediatricians gave us 182 correct response and 218 wrong response from a total of 440 questions answered, which showed a Chi-square = 181.45 $P < 0.05$ Highly Significant value.

Depending on the above data, it was concluded that 64.5% of the pediatricians that were a part of this survey had a very poor knowledge regarding the oral health maintenance of children and importance of deciduous teeth but the rest of the 35.5% pediatricians had a better knowledge in comparison to the majority of them [Table 1 and 2].

Table 1 Responses of the paediatricians in the questionnaire

Questions	Number of YES's	Number of NO's
1. Does prolonged breast feeding / nursing bottle feeding leads to dental problems?	0	32
2. Are dental diseases hereditary ?	5	35
3. Can cavity causing bacteria get transmitted from a mother to her child ?	4	36
4. Can deciduous teeth undergo pulp therapies?	2	39
5. Does tooth extraction affects the eyesight of a child ?	0	40
6. Can prolonged habit of thumb / finger sucking affect the dental status of a child ?	13	27
7. Do early loss of deciduous teeth has any effect on child's dentition ?	5	35
8. Should Natal/Neonatal teeth be extracted ?	21	19
9. Are there 20 milk teeth present in deciduous dentition ?	40	0
10. Can dental teeth decay be cured via medications ?	33	07
11. Is diet of an infant / child is directly proportional to tooth decay ?	11	29

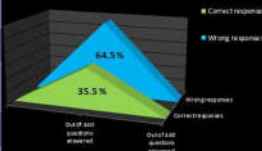


Table 2 A total sum of patients in OPD and number of referrals to the Pedodontist

AGE	Total number of Patients seen per week	Total number of patients referred to a pedodontist / dentist per week	FEMALE Referrals		MALE Referrals		AGE	AVERAGE CHILDREN REFERRED PER WEEK
			[No]	[%]	[No]	[%]		
0-6 MONTHS	65	00	00	00	00	00	0-6 MONTHS	0%
6 MONTHS - 1 YEAR	70	00	00	00	00	00	6 MONTHS - 1 YEAR	0%
1 YEAR - 5 YEAR	85	20	09	10.5%	11	12.9%	1 YEAR - 5 YEAR	19.95%
5 YEAR - 10 YEAR	130	35	23	17.6%	12	9.2%	6 YEAR - 10 YEAR	16.5%
10 YEAR - 15 YEAR	180	45	28	15.5%	17	9.4%	11 YEAR - 15 YEAR	9.8%

DISCUSSION

Pediatricians are most likely to see infants and young children during the formative years of oral health care. The result of this survey revealed that most pediatricians have no good knowledge and approach regarding oral dental health of children. This survey is comparable to other studies also. Based on the results of this survey, I believe in a necessity to expand pediatrician’s involvement in oral health maintenance of children. Hence being a Pedodontist it is our responsibility get collaborated with the pediatricians and explain them the importance of deciduous dentition, preventive measures and the importance of maintaining oral health in children, to make the children of Kanpur caries free and free from any other oral dental problem as well.

Toddlers from low-income families have been shown to be at a higher caries risk than higher income children. They are also more likely to utilize pediatric or primary care services than dental services; a recent study found that among children aged 1 to 4 years, 85 % had atleast 1 office visit to a primary care providers but only 20 % visited a dental care provider^[3].

In 2003, the Maternal and Child Health Bureau funded development of an online pediatric oral health training resource for nondental providers.⁹ Foundation-funded initiatives included a Connecticut project focusing on family medicine and pediatric residency programs,¹⁰ a project in New Hampshire, ¹¹ and a Connecticut curriculum for nondental professionals, among others.¹² In 2004, responding to a need for better coordination and collaboration among regional initiatives, family medicine educators with experience gained from projects in Connecticut, Kentucky, Texas, and Washington formed the STFM Group on Oral Health, with the

twin goals of advocacy for oral health education during residency training and national dissemination of educational materials^[4].

According to Jorge Hernan Ramirez, et al, physicians need to get more involved in oral health promotion. Moreover, oral health education should be included in the curriculum of future medical students^[5].

Also the FOPE II project from the AAP stated, “There is no organizational structure charged with the responsibility to define the core competencies required of pediatricians at all educational levels. There is no coordinated process to ensure that curricula are designed and adopted to achieve these competencies, faculty are trained to teach these competence, and program accreditation and certification is closely linked to acquisition of these competencies.”³⁵ These comments accurately reflect the core problems within the level and quality of oral health education for Paediatrician^[6].

Hence the Pediatricians need to get more involved in oral health promotion. Moreover, oral health education should also be included in the curriculum of future medical students.

Future Prospects of the Study

There have been a very few studies done similar to the above study done by me. The reason for me to do this survey was to know the future of our goal of creating a caries free community of children around us, being a pedodontist. As a pediatrician can play a very important role in doing the same it was necessary to access their knowledge, approach, involvement and willingness in maintenance of oral dental health of a large population of the children visiting them on daily basis.

As the results of my survey surprised me thoroughly and hence according to me the future prospects of the study is to-

1. To meet and explain the pediatricians the importance if the primary teeth in children.
2. To make them believe their importance in the same and achieving the goal of caries free community of the children.
3. To collaborate with the pediatricians and getting them more involved in oral health maintenance and promotion.
4. To some extent increasing the percentage of oral health education and a bit of dentistry in the curriculum of future medical students.

Bullet Points

Why this Paper is Important to Paediatric Dentists

1. To evaluate the knowledge and attitude of the pediatricians regarding the oral health of children.
2. To find out the importance of educating the practicing pediatricians regarding general dental health care needs of children.
3. To make proper and healthy collaboration between the pediatricians and the pedodontists to strengthen the goal of healthy teeth in children.

References

1. Retna Kumari N, Sheela .S, Sarada .P.N, Knowledge and attitude on infant oral health among graduating

- medical students in Kerela. *J Indian Soc Pedod Prev Dent*-December 2006.
2. Charlotte W. Lewis, David C. Grossman, Peter K. Domoto, Richard A. Deyo, The Role of the Pediatrician in the oral health of children: A National Survey. *Pediatrics*, vol. 106, No. 6, December 2000.
 3. Kari Jones and Scott L. Tomar, Estimated impact of coming policy recommendations for age of first dental visit. *Pediatrics* Vol. 115, No. 4, April 2005, Pg. 906-914.
 4. Alan B. Douglass, Joanna M. Douglass and David M. Kroll, Educating paediatricians and family physicians in children's oral health. *Academic Pediatrics*, Vol. 9, No. 6, November-December 2009, Pg. 452-456.
 5. Jorge Hernan Ramirez, Roger Arce, Adolfo Contreras. Why must physicians know about oral diseases. *Teaching and learning in medicine*. Vol. 22, Issue 2, 2010, Pg. 148-155.
 6. David M. Krol, Educating paediatricians on children's oral health: past, present and future. *PEDIATRICS*, Vol. 113, No. 5, May 2004.

How to cite this article:

Garima Singh., Ankit Mehrotra and Kriti Garg (2018) 'The Knowledge and Approach of Paediatricians In oral Health of Children of Kanpur City', *International Journal of Current Advanced Research*, 07(12), pp. 16505-16508. DOI: <http://dx.doi.org/10.24327/ijcar.2018.16508.3054>
