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## RESEARCH ARTICLE

### PEDIATRICIAN KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING ECC-A QUESTIONNAIRE STUDY

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#### ABSTRACT

**Background:** The aim of this study was to assess the knowledge, attitude, and practice regarding early childhood caries (ECC) among pediatricians in Amritsar city. **Material & Method:** A systematic random study was conducted among 120 pediatricians in Amritsar city by using a self administered questionnaire. **Results:** Pediatricians lacked ECC-related knowledge. Most of them were unaware of the first dental visit. All pediatricians agreed that both medical and dental professionals together are responsible for infant oral healthcare and they should work together to appropriately educate and train themselves to be able to provide risk assessment and to provide preventive oral health services.

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#### INTRODUCTION

According to American Academy of Pediatric Dentistry, Early childhood caries is the presence of one or more decayed (noncavitated or cavitated lesions), missing (due to caries), or filled tooth surfaces in any primary tooth in a child 71 months of age or younger. Early childhood caries is the most prevalent infectious disease and major threat to oral health in infants and children as reported by centre of disease control and prevention and the National Institute of Health. Early childhood caries and the more severe form of ECC (S-ECC) are particularly vicious forms of caries, beginning soon after tooth eruption; developing on smooth surfaces, progressing rapidly, and having a deleterious impression on the dentition (Nowak, 2004). It is not only prevailing as a cause of damage of tooth, but is also responsible for several morbid conditions of the oral cavity. It can be prevented if the Paediatrician recognizes and encourages good preventive habits and refers appropriately (Schafer, 2000).

It is least prevalent in developed countries, but more in less developed countries. The developed countries report less cases of ECC because of improved oral hygiene practices & several preventive programmes unlike developing countries which are focused on only curative care. Paediatricians are the first person whom the children visit. So, they are the first person to address dental diseases in the children. In 1986, American Academy of Pediatric Dentistry adopted guidelines on infant oral health as a way to promote oral health and prevent oral disease in very young children. According to AAPD, successful prevention of caries & preventive interactions must begin within the first year of life. Pediatricians are well positioned to begin this process with an early assessment of oral health and provision of anticipatory guidance, ensuring that patients establish a dental home in addition to their medical home (Johnsen, 1991). Indian society of Pediatric and Preventive Dentistry is also trying to achieve this goal. The promotion of Oral Health and Preventive dental care are fundamental concepts in Pediatric dentistry. The screening of children below 1 year is an excellent way for detection of risk factors (Fontana, 2011). The

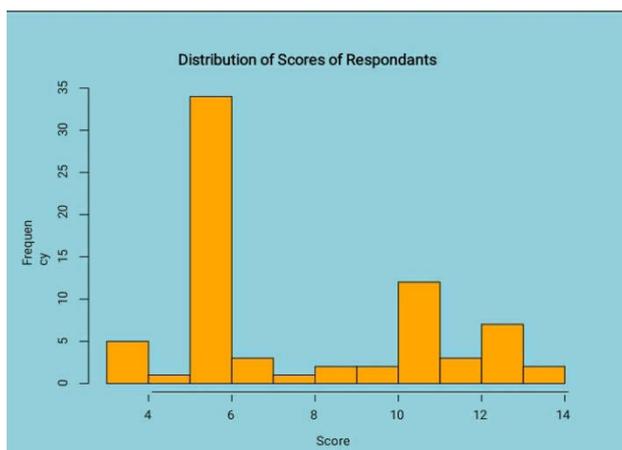
goal is to establish and reinforce dental health. Pediatrician who examine the child from birth are in the best position to identify early dental problems. They are the best who can educate parents about the early oral preventive health care. There should be co-ordination between medical and dental service providers so that they can provide appropriate services at the appropriate ages (Quinonez, 2014). The Pediatricians and family physicians have the responsibility to take the primary care for the child from birth to adolescence (Yahya, 2004). The most important factor which affects the preventive dentistry is the knowledge, attitude and practice of paediatricians (Mayer, 2003; Brickhouse, 2008) There are very few studies on knowledge, attitude & practices approach of pediatricians towards ECC in India Thus, the present survey is designed to gather the data and evaluate the level of paediatrician knowledge, attitude and practice regarding ECC residing in Amritsar city.

## MATERIALS AND METHODS

Present survey was undertaken among the Paediatricians of Amritsar city. A simple random sample of 120 Paediatricians was selected out of which only 72 actively participated in the study. A questionnaire was prepared and it was handed over personally to all Paediatricians who agreed to participate in the survey. After getting the consent of the selected Paediatricians, they were handed the questionnaire. The questionnaire had 15 questions to assess the personal details, knowledge about ECC, attitude towards its prevention & practice approach regarding ECC. Personal detail included question based on name & age details. The knowledge portion included questions about number of primary teeth and age of first tooth eruption. The attitude of Paediatricians was assessed by their knowledge about first dental visit, dental examination in first year of life and advising the parent for dental check up of children. The awareness about ECC was assessed by asking question about recommendation of oral hygiene practices for infants & nutrition counselling to prevent ECC, enquiry about bottle to bed & importance of tooth brushing and when to begin tooth brushing. The survey was collected next day & score were given to each question in the knowledge, attitude and practice section. The maximum score was given to the correct answer and minimum was given to incorrect answer. The questionnaire was collected after one day and the results obtained were subjected to statistical analysis.

## RESULTS

Among the 120 Paediatricians of Amritsar, 72 of them completed the questionnaire, giving response rate of 60 percent. The results of the study are tabulated as follows.



- 5% respondents scores 4
- 34% scores 6,
- 4 % scores 8,
- 10% scores 10,
- 8% scores 12,
- 3% scores 14.

- Co-relation coefficient b/w age and score = 0.4073
- Degree of freedom D.F = 70
- P value = .0004
- P value is .0004 value is highly significant.
- Our result shows Paediatrician knowledge, attitude and practice regarding ECC is less.
- As the age of Paediatrician increases knowledge, attitude and practice regarding ECC is increased.

**Table 1.** Table showing No. of respondent with percentage and standard deviation

Questions	Sample size (n)	No. of right responses(n1)	% age (p)	SD of (p)
Q.A	72	64	88.89	0.14
Q.B	72	23	31.94	0.30
Q.C	72	61	84.72	0.18
Q.D	72	32	44.44	0.34
Q.E	72	23	31.94	0.30
Q.F	72	22	30.56	0.29
Q.G	72	15	20.83	0.23
Q.H	72	25	34.72	0.31
Q.I	72	57	79.17	0.23
Q.J	72	25	34.72	0.31
Q.K	72	13	18.06	0.21
Q.L	72	66	91.67	0.11
Q.M	72	41	56.94	0.34
Q.N	72	50	69.44	0.29
Q.O	72	65	90.28	0.12

**Table 2.** Distribution of respondents with respect to their scores

No of Respondents	Scores
1	3
4	4
1	5
34	6
3	7
1	8
2	9
2	10
12	11
3	12
7	13
2	14

## DISCUSSION

The survey is conducted on 120 pediatricians, 72 of which is responded for the study. It is allied that to improve the approach towards ECC, the pediatricians and pediatric dentists must collaborate to achieve the goal of overall reduction of ECC. Research study shows that pediatricians are not aware about ECC. Hence, they should be educated to increase their knowledge, attitude and approach towards ECC. More than 79 percent of the Pediatricians know about ECC, but only 18 percent examine ECC and discuss it with the parents. More than 75 percent of them know about number of primary teeth and only 31 percent knows the age of first tooth eruption. This indicate the basic knowledge of Pediatrician about Pediatric dentistry is very less. More than 47 percent of pediatricians felt that bottle feeding at night leads to ECC but 34.7 percent of

them advice bottle feeding to infants. A unique response of 84.7 percent shows that they knew what is the correct age of 1st dental visit which is first year of life. According to AAPD (American Academy of Pediatric Dentistry) guidelines & AAP (American Academy of Pediatric) first dental visit should be within 6 month of eruption of first tooth per year but only 44.44 percent of them knew the importance of dental examination in first year of life. There is evidence that bottle to bed can cause ECC, hence more than 69 percent provided counseling on the importance of nutrition to prevent ECC & is an important aspect of infant oral health care. Recently, the knowledge of the pediatricians towards ECC is very less. Looking at the scores, maximum score 14 is given only by 3% of total pediatricians and most of the pediatricians i.e. 34% pediatricians scored 6 which shows that knowledge and attitude of pediatricians towards ECC is very less. However, it is also seen from the study that knowledge, attitude and practice regarding ECC is increased in pediatricians practicing from many years. It shows that the pediatrician become more familiar to ECC with practice. Thus, pediatricians need to be educated about ECC so that they can diagnose it properly and refer them to pediatric dentist for the required treatment.

### Conclusion

From this study it was concluded that majority of Paediatricians are not advising parents about ECC. There is need to educate everyone regarding oral health. There should be coordination between Paediatricians and paediatric dentist so that they can provide complete oral health.

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