

"AN ANALYSIS OF KNOWLEDGE REGARDING, ORAL HEALTH OF CHILDREN THROUGH PRE AND POST EDUCATION QUESTIONNAIRE SURVEY AMONG THE CARE GIVERS

ABSTRACT

Aim. The study was carried out to assess (or scrutinize) the knowledge regarding child's oral health among the caregivers and to uplift their awareness regarding the same, through education sessions.

Material and methods : A questionnaire based survey was conducted among 100 caregivers. A pre-education questionnaire survey was conducted to evaluate initial knowledge, followed by education session, thereafter a post education questionnaire survey was conducted to assess the knowledge and awareness acquired through the session.

Results : The difference in percentage of caregivers answering the questionnaire correctly before and after the education session was significant implying considerable gain in knowledge and awareness about children's oral health.

Discussion: In our study, care-givers showed some degree of knowledge about child's oral health before the education session, but increase in awareness as implied in post-education sessions points to the importance of educating the mothers in preventing the childhood caries and maintaining good oral health.

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INTRODUCTION

It is widely acknowledged that the attitudes and behaviour of parents, and in particular, mothers, affects their children's health. The adoption of good oral health habits in childhood often takes place with parents, especially with mothers. Childhood caries is more prevalent in low-income populations due to their lack of knowledge about the caries

and its consequences. Such parents often wait until caries in primary teeth become symptomatic and then subsequent visit to dentist. Management of such conditions are invasive and parents tend to avoid subsequent treatment until their children's need again become extreme. The etiology of the condition is a combination of frequent consumption of fermentable carbohydrates as drinks, with on-demand breast- or bottle-feeding, oral colonization by cariogenic

Table 1-PRE-EDUCATION SESSION QUESTIONNAIRE

S.No	QUESTIONS	TRUE	FALSE	DON'T KNOW
1	Pregnant women should not wait until, after giving birth to see dentist	69	31	00
2	Caregivers should wipe infant's gums with soft clothes	80	20	00
3	Brushing should be started as soon as first tooth erupts	20	80	00
4	Hard Brush should be used for cleaning teeth	22	78	00
5	Children need help brushing teeth even after age 2	92	08	00
6	Dental Caries are caused by Bacteria	84	16	00
7	Adults should help children brushing teeth until age 8	64	32	00
8	Mouth Rinsing should be done after eating sweet things	94	06	00
9	Brushing should be done once a day	78	22	00
10	Brushing should be done after heavy meals	83	17	00
11	Babies should not be put to bed with bottles	76	24	00
12	Putting Children to bed with milk/formula/juice harm their teeth	69	31	00
13	Deciduous Teeth to be prevented from decay	81	19	00
14	Children with high tooth decay risk can use fluoride toothpaste	22	17	61
15	Community water Fluoridation reduce tooth decay	15	16	69

bacteria, poor oral hygiene, and poor parenting.¹

Prevention of nursing caries can be achieved mainly by education of parents and by identification of "high-risk" children. The common approach in caries prevention is educating the parents, however, traditional health education may be insufficient to change parents' behaviour in relation to their high-risk children, as parents do not go to health professionals in a state of readiness to change patterns of behaviour that are well-established.¹

Studies indicating an increase in severity of dental caries also suggest that mothers neither stress upon teaching their children, healthy lifestyles from birth. They are also said to undervalue the importance of continuing consistency in action in child rearing. Maternal attitudes are likely to modify behaviours and thus, play an important part in the uptake of favourable dental health practices. Mothers low education level, her age, rural domicile of the mother and infrequent tooth cleaning, the presence of plaque on the child's teeth, and frequent sugar consumption by the children have been associated with poor oral health of the children.²

Hence, the present study is undertaken to know the education level of the caregivers and to evaluate the effectiveness of educating caregivers and their role in identification and prevention of dental diseases in children.

MATERIALS AND METHOD

This research was a survey study designed to explore mothers /guardians/caregivers knowledge about dental or oral health and various methods to promote their wards health and to evaluate the efficacy of education given to them ..

This study was conducted in the department of Pedodontics and Preventive dentistry at SGRD Dental college , Amritsar . Data was collected from 100 mothers /female guardians . Two structured formats consisting of 15 (same) questions, titled , pre-education and post education formats were prepared for face to face interview. All the interviews were conducted by one female interviewer who had been carefully trained to avoid leading questions and to use the exact wording of the questions . The data collection was

Table 2 -POST EDUCATION-SESSION QUESTIONNAIRE

S.No	QUESTIONS	TRUE	FALSE	DON'T KNOW
1	Pregnant women should not wait until after giving birth to see dentist	97	03	00
2	Caregivers should wipe infant's gums with soft clothes	100	00	00
3	Brushing should be started as soon as first tooth erupts	98	02	00
4	Hard Brush should be used for cleaning teeth	04	96	00
5	Children need help brushing teeth even after age 2	100	00	00
6	Dental Caries are caused by Bacteria	99	01	00
7	Adults should help children brushing teeth until age 8	100	00	00
8	Mouth Rinsing should be done after eating sweet things	100	00	00
9	Brushing should be done once a day	54	46	00
10	Brushing should be done after heavy meals	97	03	00
11	Babies should not be put to bed with bottles	92	08	00
12	Putting Children to bed with milk/formula/juice harm their teeth	98	02	00
13	Deciduous Teeth to be prevented from decay	100	00	00
14	Children with high tooth decay risk can use fluoride toothpaste	99	01	00
15	Community water Fluoridation reduces tooth decay	99	01	00

conducted in the waiting area while the children received dental treatment .No names or other identifying information was collected .

For each respondent first pre-education questionnaire was filled , and then a small education lecture was given after which , second that is post education questionnaire consisting of same questions was given to evaluate the difference between pre-education and post- education questionnaire.

RESULTS

A total of 200 questionnaires were distributed for 100 subjects, one each before the education session and one after the session.

The results of the study as implied from pre education session questionnaire (Table 1) are discussed first. 69% of the caregivers responded positively with the statement that pregnant women should not wait until, after giving birth to see a dentist whereas the other 31% responded negatively.

80% of the caretakers thought that infant's gums should be wiped with soft clothes and other 20% disagreed. Only 20% of the subjects agreed that brushing should be started as soon as first tooth erupts, rest 80% do not share the same opinion. Also, 22% of the care-givers favoured the use of hard brush to clean teeth, but rest 78% were aware, to, not use hard brush for cleaning teeth, so responded negatively. 92% of the care-givers share the opinion of helping children, brushing even after age 2 and rest 8% deny the same .84% of the care-givers believed that dental caries are caused by bacteria but 16% were unaware of this. 64% of the caretakers were of the opinion that adults should help children in brushing their teeth until age 8 whereas 36% do not share the same opinion. It was observed that 94% of the subjects were already aware that mouth rinsing is important after eating sweet things. 78% of the subjects thought that it is sufficient to clean their teeth only once a day whereas 22% thought it to be insufficient. Majority of the subjects (83%) assumed that brushing after every meal is important but the rest 17% considered it unnecessary. 76 out of 100 care-

takers did not favour the use of bottle while sleeping but the rest 24% favoured the same. 69% agreed with harmful effects of putting children to bed with milk/formula/juice while 31% disagreed. 81% of the care-givers were affirmative, when asked whether healthy milk teeth are important and 19% disagreed. 22% of care-takers agreed to the benefits of fluoridated tooth pastes in preventing tooth decay, 17% disagreed whereas 61% knew nothing about fluoride tooth pastes. 15% of the care-takers believed that community water fluoridation helps in reducing tooth decay, 16% disagreed whereas 69% were not aware of community water fluoridation.

Results, as alluded from the post-education session questionnaire (Table 2) are as follows. Surprisingly, 100% of the care-takers answered in favour of:

1. Care-givers should wipe infant's gums with soft clothes
2. Children need help while brushing teeth even after age 2
3. Adults should help children brushing teeth until age 8
4. Mouth rinsing should be done after eating sweet things
5. Deciduous teeth need to be prevented from decay. 99% of the care-takers agreed with following statements:

1. Dental caries are caused by bacteria
2. Fluoridated tooth pastes are beneficial in children with high risk of tooth decay

3. Community water fluoridation reduces tooth decay

98% of the subjects, conceded with the fact that brushing should be started as soon as the first tooth erupts and also admitted that putting children to bed with milk/formula/juice can harm their teeth. 97% of the respondents answered in favour that pregnant women should not wait until after giving birth to see the dentist and with the fact that brushing should be done after every meal. 96% became aware that hard brush should not be used for cleaning teeth and 92% apprehended that babies should not be put to bed with bottles. 46% of the subjects conceded that brushing only once a day is not sufficient but 54% still denied the fact.

Discussion

Oral diseases particularly early childhood caries can be prevented to a great extent, if parents are adequately informed and motivated. Lack of awareness is one of the important factors affecting oral health. Poor health knowledge is associated with poorer opinions of health, decreased utilisation of services and poorer understanding of verbal and written instructions of self care^{3,4}. Maternal attitude towards oral health is significantly correlated to the oral health of their children^{5,6}

This study has focused on assessing the knowledge of care-givers based on sequential questionnaire regarding oral health of children followed by thorough discussion and delivery of knowledge on aspects which were lacking in care-providers after which a post-education session questionnaire was held, to know the differences in the level of awareness.

Oral health measures are to be taken right from the time when a mother is pregnant. As depicted in various studies, there is a strong co-relation of a pregnant mother's oral health and the unborn child. When first asked, only 69% of the care-takers believe that during pregnancy, there should be no delay in visiting a dentist if one encounters a dental problem whereas rest 31% were in the favor of delaying. This implies lack of knowledge regarding importance of mother's oral health on unborn child's oral health. However after elaborated discussion, 97% care-takers replied in affirmative of the same statement. Following this knowledge regarding cleaning infant's gums was assessed, 80% of the subjects were aware that gums are to be wiped with wet soft cloth which was lower than Akpabioetal⁷ and lower than reported by Tagooetal⁸. Brushing should be started as soon as first tooth erupts but only 20% of care-givers were aware of this fact before they were told for the first time about this during our education session. 22% of the respondents didn't know that hard brushes should be avoided for cleaning the teeth. The effects of using hard brush and using brush in wrong way were discussed with the care-givers after which number favoring use of hard brush reduced to 4. It was not less than a surprise that 92% of the respondents were in favor of helping children in cleaning teeth even after age 2. This indicates the awareness and knowledge of respondents that even after 2 years of age children are not able to properly maintain their oral hygiene and need assistance. 84% of the subjects believed that causative agent for caries was bacteria whereas rest has no clue that caries itself is a disease caused by bacteria. Following education session 99% population got to know about the causative agent.

Following this, knowledge about the causative aspects of caries was assessed. The finding that 94% of the respondents correctly knew that rinsing should be done after eating sweet things was encouraging. There is a positive relationship between the mother's own tooth brushing frequency and the child's brushing frequency. 78% of the respondents answered in favour that brushing should be done only once a day, rest 22% considered brushing twice as the right answer. The recommended frequency of brushing is twice daily and subjects were made aware of the same. In our study 83% of the subjects agreed to the fact of cleaning teeth after every meal. Knowing that putting children to bed with milk/ juice /

formula is a big predisposing factor for early childhood caries, the fact that only 69 % of care givers were aware about it which was found to be less than as reported by Akpabio⁷, which was alarming and required elaborated discussion with mothers. Parents did show good degree of knowledge about role of deciduous teeth with regards to effect on permanent teeth with 81% favouring prevention of deciduous teeth from decay, (which was found to be lower than as reported by Togoo⁸) and not only permanent teeth before education session and response was 100% after education session.

In the end, an important preventive aspect was analyzed, the importance of fluoride tooth paste and community water fluoridation in preventing tooth decay but 69% of subjects had no clue of any of these. (which was found to be less than as reported by Akpabio et al⁷) whereas 22% of subjects favoured use of fluoridated tooth paste in preventing decay (which was found to be less than as reported by Togoo et al⁸) Following this, a session regarding role of fluoride, amount to be used and how to be used was held with each subject, following which 99% of the subjects responded correctly post session questionnaire.

This study was an attempt to understand the knowledge about the oral health of children among caregivers and to know the aspects which require awareness nationwide. The study implied a positive correlation of education session and increased awareness about oral health of children among care givers as majority of the statements were answered correctly with a percentage of >90 following the education session. As proved in the previous studies as well on the same topic, the oral health behavior and knowledge of care givers effects the children's oral health and are positively related, regular and frequent oral health sessions must be held to ensure active role of care givers in maintaining good oral health of younger generation.

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