



RESEARCH ARTICLE

DENTAL CARIES AWARENESS AMONG THE PARENTS OF SCHOOL GOING CHILDREN IN BAREILLY CITY: A CROSS-SECTIONAL SURVEY

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ABSTRACT

Dental caries is one of the most common infectious diseases of childhood all over the world and considered as oral health burden. The purpose of the study was to assess the awareness of parents about dental caries among the school going children in Bareilly city. An investigation was carried out among 200 parents in 15 different medium schools in Bareilly city. Results showed that parents' initiation is low when dental health care of children is concerned. 54% parents ($p=0.001$) knows that sweetened food causes dental caries, 43.2% ($p=0.001$) parents give information that their child are taking sweetened food regularly, 28.45% parents reported that their child did not brush a single time in a day, 62.6% ($p=0.000$) knows that soft drinks may cause dental caries, 42.55% ($p=0.002$) parents give information that their child are taking fast foods or snacks regularly, 49.50 % ($p=0.004$) reported that have never visited a dentist. This study concluded that dental health care team can make awareness program more effective and can also make parents more aware about dental caries prevention.

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INTRODUCTION

Dental Caries is the most prevalent dental affliction during childhood. Despite incredible scientific advances and the fact that caries is preventable, the disease continues to be a major public health problem. In developing countries changing life-styles and dietary patterns are markedly increasing the caries incidence. (Rao et al., 1999; Mahesh Kumar et al., 2010) Dental health education begins from footsteps of awareness. Proper take-care of growing children is mandatory for healthy growth, upkeep and hygiene of their teeth. (Rao et al., 1999; Golbarani and Pack, 1994; Mayer et al., 2003; Al-Otaibi and Angmar-Månsson, 2004) Lack of awareness such as milk teeth of children will exfoliate and there is a less need to seek expert dental advice may lead to various dental problems such as malocclusions, dental caries and periodontal problems. (Paunio et al., 1993; Petersen and Steengaard, 1988; Holbrook et al., 1993; Al-Malik et al., 2003; Järvinen, 1981; Bhavneet Kaur, 2007) Dental caries is a highly prevalent chronic disease and its consequences cause a lot of pain and suffer which cause absentees from school.

Lots of people round the globe have lost their teeth due to caries. Sugar is most common dietary etiological factor of dental caries. (Yabao et al., 2005) The presentation of caries is highly variable; initially, it may appear as a small chalky area which may eventually develop into a large cavitation. Sometimes caries may be directly visible; however other methods of detection such as radiographs are used for less visible areas of teeth and to judge the extent of destruction. The prevalence is much higher in school going children. Food habit, poor oral hygiene maintenance, lack of care of deciduous tooth might be the cause of dental caries. Most of the people don't know about the importance of milked tooth. The educated people also not aware about the information, as they thought that milked teeth have no significant role, Education level is not a matter here important thing is awareness.

MATERIALS AND METHODS

Descriptive cross-sectional community based study to identify and explore the knowledge and awareness about dental caries among the parents of school going children of Bareilly city. The survey was conducted among the parents of school going children in 15 different schools of different areas in Bareilly city. The socio-economic status and literacy level of the parents were important criteria for selecting the sample population. The

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schools included were private institutions run in one of the posh localities of the city. The parent's data received from the school revealed that the parents to be well educated and economically stable. Sample size was 200 which were selected by purposive sampling method. This study tries to collect some baseline information about the awareness of Dental Caries that the parents of school going children had. A pre-tested questionnaire (Prakash *et al.*, 2004; Alif *et al.*, 2009) consisting questions about socio demographic characteristics of parents, awareness about food habit of their children, maintenance of oral hygiene of their child and knowledge about dental caries among the parents of children. The questionnaire was administrated by the investigators and refined before distribution to the respondent. All information and data were collected by the investigators by interview technique. The study participants were given clear explanations about the objective of the study and written informed consent was taken. Ethical clearance was taken from the Ethical Committee of "Institute of Dental Sciences, Bareilly". All the data were analyzed by using SPSS 16.0 software. The Chi-square test and multiple logistic regressions were applied to examine the association.

RESULTS

Total numbers of eligible people enrolled in the study were 200. Among the respondents parental age ranged between 25-50 years. Child age ranged between 6-12 years. Educational status of parents is one of the important markers for evaluating awareness about dental caries. Among of 200 parents, 38% (76) have found in bachelor, 27% (54) have found master's and 35% (70) have found in HSC level. It was found that 54% parents ($p=0.001$) knows that sweetened food causes dental caries, only 56% ($p=0.000$) parents heard this information that fresh fruits good for their child teeth. 43.2% parents give information that their child are taking sweetened food regularly but which was also statistically significant ($p=0.000$). Large number 42.85% ($p=0.415$) of child brushes their teeth daily once in a day while only 20.45% child brushes their teeth twice in a day. 44% parents ($p=0.000$) brushes their child teeth's before going to bed while 28.45% parents reported that their child did not brush a single time in a day. Among the parents 78% ($p=0.000$) knows that chocolate, chewing gum may cause dental caries but remaining 22% did not knows about this information. 62.6% ($p=0.000$) knows that soft drinks may cause dental caries while remaining 37.4% did not heard this information. 42.55% ($p=0.002$) parents give information that their child are taking fast foods or snacks vigorously a day while 25.55% reported that their child are taking snacks twice in a day. A majority of the parents 57% ($p=0.002$) reported to assist children while brushing, whereas remaining 43% reported brushing their child's without any supervision. Near about half 49.5 % ($p=0.004$) reported that have never visited a dentist in a year. 28% went only to see a dentist when necessary. Most common reason why they did not see a dentist for check-up is to be due to their perceived idea that dental problems are not important as other emergency situation.

DISCUSSION

Begum J (1997) in her study showed that dental caries with the highest prevalence observed in 5-7 years age group (94.3%). The prevalence rate was higher in children with lower socioeconomic status (96.2%) and higher sugar intake, and lower among vegetarians. It is suggested that the increasing

prevalence of dental caries in Bareilly City highlights the need for dental health education programs targeting the specific segments of the population (Rogers, Anthony, 2008). Most studies enumerated dental pain by asking parents whether their child had ever experienced toothache, with reported prevalence ranging from 5 to 33% among countries. Lifetime prevalence was greater among older children and among children from lower socio-economic groups. Dental pain is highly prevalent among children, even in contemporary populations with historically low levels of caries experience. Dental pain is consistently associated with population levels of caries experience, the association being most apparent in lower socioeconomic groups with reduced access to care (Kidd *et al.*, 1990) Worldwide, most children and an estimated ninety percent of adults have experienced caries, with the disease most prevalent in Asian and Latin American countries and least prevalent in African countries (Elliott, Jane, 2007) In the United States, dental caries is the most common chronic childhood disease, being at least five times more common than asthma (Epidemiology of Dental Disease, 2007). It is the primary pathological cause of tooth loss in children (Frequently Asked Questions, 2006). Between 29% and 59% of adults over the age of fifty experience caries (A Guide to Oral Health to Prospective Mothers and their Infants, 2006). Dental caries is an important Dental public Health problem. Its high morbidity potential has brought this disease into the focus of dental health professionals (Haque, 1996).

Table 1. Results from bivariate analysis between awareness of dental caries in relation to educational status of parents with selected variables according to risk (n=200)

| Risk variables | Percent | P-value |
|---|---------|---------|
| Sweet food causes dental caries | | |
| Yes | 54% | 0.00 |
| No | 46% | |
| Eat sweetened food daily | | |
| Yes | 43.2% | 0.00 |
| No | 56.8% | |
| Fresh fruits good for teeth | | |
| Yes | 56% | 0.00 |
| No | 44% | |
| Chocolate, chewing gum causes dental caries | | |
| Yes | 78% | 0.00 |
| No | 22% | |
| Soft drinks causes dental caries | | |
| Yes | 62.6% | 0.00 |
| No | 37.4% | |
| Eating snacks | | |
| Vigorously | 42.5% | |
| Twice a day | 25.5% | 0.002 |
| Occasionally | 17.6% | |
| Rarely or never | 14.4% | |
| Time of tooth brushing | | |
| Before breakfast | 20.5% | |
| After breakfast | 6% | 0.00 |
| Before going to bed | 44% | |
| Never | 29.5% | |
| How many times brush in a day | | |
| Never | 27.35% | |
| Once in a day | 42.85% | 0.415 |
| Twice in a day | 20.45% | |
| More than twice in a day | 9.35% | |
| Assist child for brushing | | |
| Yes | 57% | 0.002 |
| No | 43% | |
| Number of visits to the dentist | | |
| Once a year | 12% | |
| Twice a year | 10.5% | 0.004 |
| Only when necessary | 28% | |
| Never | 49.5% | |

The study population consisted of 2022 school children of both the sexes. Bhuiyan (1988) in his study showed that 70% of the

children over the age group 12 years affected by decay (Bhuiyan, 1988). Begum (1997) in her study described that dental caries is now diminished in developed regions of the world but increasing in developing countries, like Bangladesh. That's because of changing in life style and a concurring increasing in sugar consumption (Sheiham, 1984). Bhavneet Kaur (2007) in his study showed that about 72% of the parents were using adult toothpaste for brushing their child's teeth, whereas only 7% were using kids' toothpaste after being recommended by some family dentist. About 77% of the parents complained about irregular brushing habits of their wards. A majority of the parents (51%) reported to assist children while brushing, whereas 16% reported brushing their child's teeth themselves and the remaining reported their child brushing without any supervision. In the present study it was found that, 46.4% child brushes their teeth daily once in a day while 41% child brushes their teeth twice in a day. 42.6% parents brushes their child teeth's before going to bed while 30.24% parents irregularly brushes their child's teeth. Among the parents 78.09 % knows that chocolate, chewing gum may cause dental caries but remaining 21.91% did not know about this information. A majority of the parents 57% reported to assist children while brushing, whereas 13% reported brushing their child's teeth themselves and the remaining reported their child brushing without any supervision. Near about half 44.04 % reported that have never visited a dentist in a year. 20% went only to see a dentist when necessary.

Conclusion

There is a low level of dental awareness and initiation for dental visits in parents of school going children in the country. This study sheds light on a new dimension of significant role of pedodontic triangle in organizing dental camps in preschool going children. Active participation rather than passive participation of schools in spreading dental awareness among preschool children and their parents was found to be statistically significant. The present study also emphasizes the need to initiate more dental awareness programs for parents and their children at the preschool setups to assess as well as to spread the oral health awareness in the society. Parents should be made aware of the brushing methods, and usage of pit and fissure sealants and importance of preventive measures for the children. The rationale of school dental health programme is to improve and motivate the parents and children regarding their dental health and treatment needs.

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