

How to Cite:

Singh, T. K., Arshad, E., Sharma, A., Kumar, M., Choudhary, E., & Sharma, S. (2022). Knowledge, attitude, and awareness of parents regarding their children's oral health in Bathinda, Punjab. *International Journal of Health Sciences*, 6(S5), 11352–11359.
<https://doi.org/10.53730/ijhs.v6nS5.11934>

Knowledge, attitude, and awareness of parents regarding their children's oral health in Bathinda, Punjab

Dr Tarun Kumar Singh

Assistant Professor, Department of Dentistry, All India Institute of Medical Sciences, Bathinda, Punjab, PhD Student- Sharda University, Greater Noida
Email: drtarunkumarsingh@gmail.com
ORCHID id- 0000-0002-1008-7846)

Dr Arshad E

Senior Resident, Department of Dentistry, All India Institute of Medical Sciences, Bathinda, Punjab
Email: arshadtkl@gmail.com
ORCHID id- 0000-0002-8925-3746)

Dr Ankit Sharma

Associate Professor, Department of Prosthodontics, ESIC Dental College & Hospital, Gulbarga (Karnataka)
Email: ankitcmc@gmail.com
ORCHID id- 0000-0002-8710-2442)

Dr. Manish Kumar

Assistant Professor, Department of Dentistry, Government Medical College & Hospital, Ratlam. (M.P)
Corresponding author email: drmanishagarwalmds@gmail.com
ORCHID id- 0000-0003-4953-6167)

Dr Ekta Choudhary

Professor & Head, Department of Conservative Dentistry & Endodontics, Sharda School of Dental Sciences, Greater Noida
Email: ekta.choudhary@sharda.ac.in
ORCHID id- 0000-0002-9246-3701)

Dr Sarang Sharma

Professor, Department of Conservative Dentistry & Endodontics, ESIC Dental College & Hospital, Gulbarga (Karnataka)
Email: sarang74in@gmail.com
ORCHID id- 0000-0002-8329-9647)

Abstract--Objective: The objective of this study was to determine the knowledge, attitude, and practical behavior of parents regarding their children's oral health in Bathinda, Punjab. Methodology: A cross sectional study was conducted among 500 parents who reported in outpatient department of All India Institute of Medical Sciences, Bathinda, Punjab. Data were collected through a self-administered questionnaire. The statistical analysis was performed using the Statistical Package for Social Sciences software (21.0 version; Inc., Chicago IL, USA) for descriptive and multivariate analysis, and the level of statistical significance used in this study was chosen at $P < 0.005$. Results: The results showed that parents have satisfactory knowledge regarding the oral hygiene maintenance of their children. Lack of knowledge regarding fluoridated tooth paste were found. Moreover, many people don't have any idea about ideal time for first dental visit. Otherwise, parents knew well about different type of brushes, importance of brushing, and food substances that may cause tooth decay etc. Conclusion: The present study indicates satisfactory results regarding knowledge of parents regarding their child's oral health in Bathinda. Even though the knowledge and awareness is good, the caries status in children are found to be high in this region. More methods should be emphasized among parents for practicing good oral health methods in children.

Keywords---Oral health, Knowledge, Attitude, Prevention.

Introduction

Parents play an important role in the development of good practices and healthy behavior in a child. The physical and mental well-being of a growing child will be mostly dependent on how he/she is brought up by parents. In particular, behaviors related to health are influenced by knowledge and awareness of parents and oral health is not an exception. According to World Health Organization, "Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity". [1] There are many risk factors for oral diseases which include lack of oral hygiene, unhealthy diet, systemic problems.[2] Oral health is not only about maintaining a healthy teeth. It is also about maintaining or monitoring growth, function, speech and esthetics of an individual.[3] Parents, especially mothers have key role in shaping good oral health practices in children health. Parents with better knowledge and education will be having more control on their children's oral health than uneducated or poorly educated parents. Children during their early development stages will be mostly under the supervision of parents. It is from the parents they will learn different types of habits and practices. So during these initial years, parental knowledge about various healthy practices will be playing a pivotal role in healthy development of child. This includes oral hygiene habits, eating and drinking habits, and other habits which may adversely affect the growth and development of child. The social risk factors which include low parental education, low socio-economic status also

can add to severity of dental problems. Oral health is an integral part of general health. Especially in children, proper oral hygiene maintenance won't be possible without proper supervision of parents. Poor oral hygiene can also act as indicator of neglected child.[4] Different types of caries pattern are seen in children which may be due to improper management of parents. One of the best examples is nursing bottle caries and early childhood caries. Even though there were many advancements in the oral health of children in last few decades, dental caries still remains a serious health problem especially in developing countries. The different causes may include lack of awareness, poor treatment facilities, and poor knowledge of preventive measures. Chronic pain from decayed teeth can cause impact on a child's well-being as well as their family. It will create headache for both child and parent if not managed properly. Even though dental caries is the most treated oral disease in dental practice, preventing dental caries is a huge challenge for the public. In order to improve the oral health of children, increased parental knowledge and proper utilization of preventive methods should be employed. This survey was planned to access the knowledge and awareness of parents regarding their children's oral health. The present study was conducted in the Department of Dentistry, AIIMS Bathinda.

Methodology

The survey was conducted from 12th October 2020 to 30th November 2020 among parents of children below 12 years of age visiting general OPD of AIIMS, Bathinda. Many parents from rural and urban areas of Bathinda and other nearby districts visit this hospital with their children for checkup and treatment. Random sample technique was used for sample selection. Five hundred parents were included in this study. A pre structured questionnaire consisting of 20 questions were developed using existing questions from validated survey tools [5]. Parents were well explained about the survey and participation in the survey was voluntarily. Questionnaires were prepared in both Hindi and Punjabi languages and data collection was through interview (face to face) method. Data were analyzed using the Statistical Package for Social Sciences 21.0 version (IBM corporation, Java, Chicago, USA) for descriptive and multivariate analysis, and the level of statistical significance used in this study was chosen at $P < 0.005$.

Results

In our study, 45.2% of the participants were male parents and 54.8% were female parents as shown in (Figure 1). Parents were asked about how many times their child brushes per day. 90.2% parents replied that their children brushes once daily. Only 8.3% brushes twice daily and 0.8% replied that their children brushes more than three times (figure 2). Regarding the use of fluoridated tooth paste, 28.3% replied that their children use fluoridated tooth paste and 26.4% use non fluoridated tooth paste. 45.3% parents don't know which type of tooth paste they are using. Parents were also asked about the role of fluoridated tooth paste in children. 52.4% don't know the role of fluoridated tooth paste, 23.4% replied that it will prevent tooth decay and 13.3% think it will prevent gum problems. 10.9% replied that fluoridated tooth paste will only give mouth freshness.

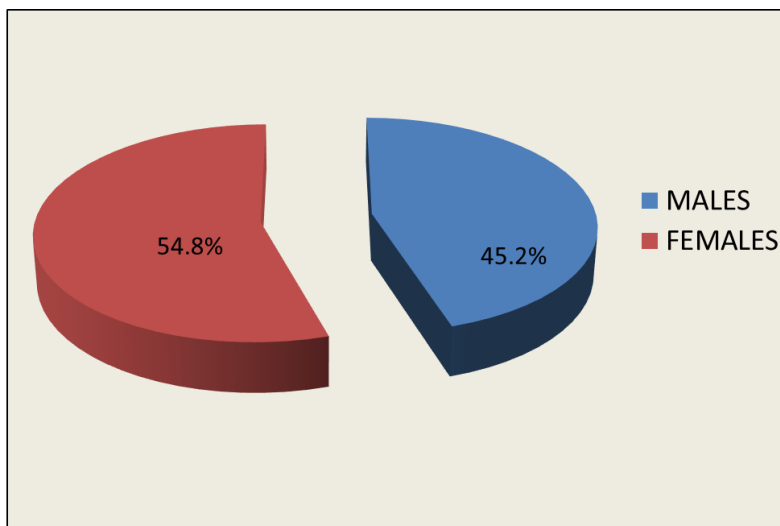


Figure 1: Gender distribution Male/female

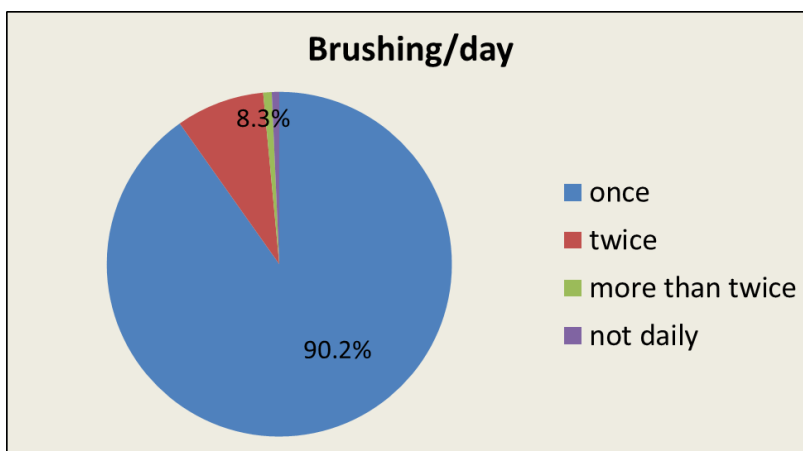


Figure 2: No of times brushing/day

A question was asked regarding initiation of tooth brushing with fluoridated tooth paste. 43.7% believe that brushing should be started after all primary teeth erupt, and 22.3% replied that brushing should be started when the first teeth erupt. 26.2% replied that brushing should be started only when a child can hold the brush properly. Regarding the amount and level of fluoridated toothpaste that should be used, majority of the parents were unaware. 72.4% don't know how much fluoridated paste should be taken in a 3 year old child. Regarding the duration of tooth brushing, 56.2% replied that children should brush for less than 2 minutes whereas 30.2% replied that it should be done for less than 1 minute only. 90.3% replied that very soft bristle tooth brush should be used in children whereas 9.3% replied that soft bristle tooth brush can be used. 60.9% of the parents don't know when to change a tooth brush whereas 28.3% replied that it should be change in 4 months. It was interesting to note that 42.1% don't know whether children under 5 years should be supervised during brushing. 39.3% agreed that children should be supervised whereas 18.6% parents

disagreed with this statement (figure 3). 59.2% agreed with the statement that prevention of teeth decay in children, whereas 29.3% don't know about this. 62% of the parents believe that intake of more sweet containing food items will cause decaying of tooth whereas 22.4% believes that tooth decay happens due to improper tooth brushing. 10.3% believe that continuous bottle-feeding habit for more than 2 years can lead to tooth decay in children.

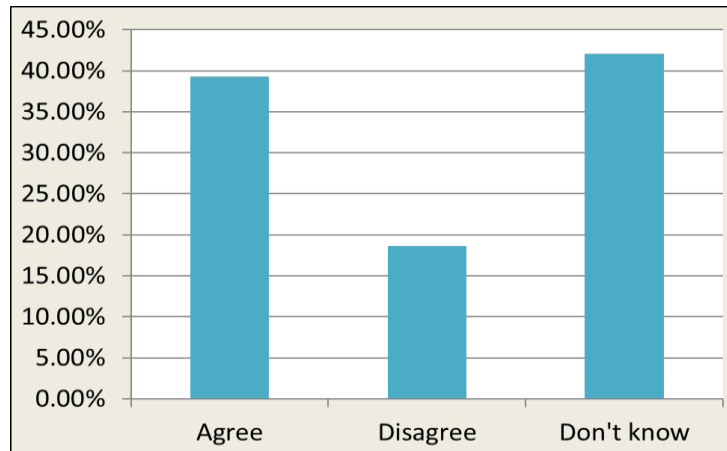


Figure 3. Supervision of brushing below 5 years

When question was asked about whether oral health will affect general health, 42.3% parents believed that it could affect general health, whereas 36.8% don't know about this. 20.9% replied that oral health won't affect general health. Most of the parents are confused regarding first dental visit. 22.3% believe that it should be after eruption of first teeth whereas 24.8% believe that first visit should be at the time when child experiences a dental problem. 49.9% believed that first checkup should be done after eruption of first teeth.

Regarding treatment of deciduous teeth, 40.3% replied that treatment should be done if any decay happens in milk teeth, whereas 36.8% replied that dental treatment is not required in milk teeth. 22.9% don't know whether deciduous teeth require any treatment (figure 4). In order to prevent tooth decay, 65.6% believe that frequent intake of sweets should be restricted whereas 22.3% believe that proper tooth brushing is the key to prevent decay of primary and permanent tooth. Regarding oral habits, 47.9% agree with the statement that thumb sucking can cause irregular teeth followed by nail biting. 52.6% agreed that intervention in any form should be done for the prevention of continuous oral habits. Regarding correction of irregularly placed teeth, 70.2% agreed that tooth position can be corrected whereas 18.8% don't know about this.

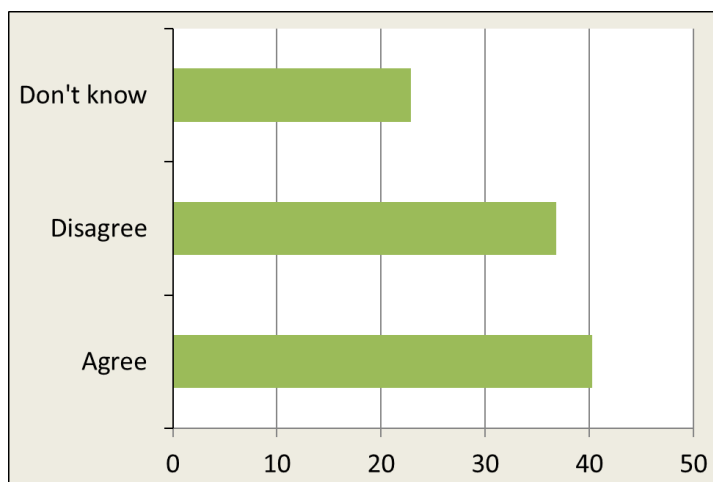


Figure 4: milk teeth require dental treatment

Discussion

The present study was conducted in parents visiting the general OPD of AIIMS Bathinda. The aim of the study was to assess the knowledge and awareness of parents regarding the oral hygiene of their children. This is first study conducted in Bathinda to assess the knowledge of parents regarding the oral health of their children. Parental knowledge regarding oral health is considered one of the important determinants of children's oral health.[6] 500 parents were interviewed in this study, out of which 54.8% were mothers. In this study, there was no statistical significance between males and females in any point. But knowledge of mothers regarding oral hygiene and treatment related questions were more favorable than males. In countries like India, most of the care giving and nursing of children are mostly done by mother. So it is very important that mothers should have a good knowledge about such things. Otherwise, it will affect not only the oral health, but also the overall health of the child.

For preventing oral diseases, brushing is the most appropriate technique and brushing twice daily is most recommended. In our study, brushing twice daily was done by only 8.3%. 90.2% believe that only single time brushing is required. This is in accordance with a study conducted by Chhabra et al in which percentage of children brushing twice daily was 11.8%. [7] So more emphasis should be given to change this perception of brushing once daily and brushing at least twice daily should be recommended.

American Academy of Pediatric Dentistry have recommended that first dental visit should be ideally before first birthday or within 6 months of eruption of primary teeth. [8] In our study 22.3% knew that first dental visit should be after eruption of primary teeth. This was higher than reported by Hussein et al [8] and Chhabra et al [7]. Proper guidance should be given regarding this as 43.7% believe that first dental visit may be done after eruption of all primary teeth. AAPD recommends that every child should be consulted to a Pediatric health professional to receive oral health risk assessment by 6 months of age.

Regarding dental check up, 40.3% believes that milk teeth should need dental treatment but 36.8% believes that treatment is not required. 22.9% don't know whether treatment is required or not. This indicates that still many of the parents believe that deciduous teeth are not so important as permanent teeth as the former will eventually shed off. This is a matter which requires serious awareness that deciduous teeth are as important as permanent teeth for overall growth and development of child.[9] Regarding the prevention of tooth decay, 65.8% believe that restricting the frequency of intake of sweets can prevent tooth decay which is similar to a study conducted in Nepal by Khanal et al [10]. The recommended sugar intake for pre-school and young children should not be more than 30 g/person/day.[11]

From the study, it was known that many people don't know the difference between fluoridated and non-fluoridated tooth paste. 45.3% participants are unaware that which type of paste they are using. Only 23.4% % participants knew that fluoridated tooth paste can prevent tooth decay. So parents must be educated about fluoridated tooth paste and role of fluoridated tooth paste in caries prevention. Moreover 72.4% participants don't know the amount of fluoridated paste to be given. This is an important matter of concern, that parents should be well aware of fluoridated toothpastes and fluoridated tooth paste should be recommended in young children. and hidden sugars. Use of sugar-coated confectionaries, aerated drinks etc should be discouraged. Most of the parents don't know the harmful effects of bottle feeding during night. Children should not be bottle fed while going to bed. After every meal, child should be asked to clean mouth properly. Parent should be instructed to supervise their children regarding tooth brushing until the age of 5 years. Changing of tooth brushes and frequent visit to dentist at least by 6 months should be instructed so that proper care of oral health during developmental stages can be maintained.

Conclusion

We can conclude that the present study indicates satisfactory results regarding knowledge of parents regarding their child's oral health in Bathinda. Even though the knowledge and awareness is good, the caries status in children are found to be high in this region. More methods should be emphasized for practicing good oral health methods in children. A large scale qualitative and quantity study is required for proper understanding of oral health problems and management of the same.

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