

KNOWLEDGE, AWARENESS AND PERCEPTION REGARDING IMPORTANCE OF PRIMARY TEETH AMONG PARENTS VISITING DENTAL OPD, BPKIHS, DHARAN, NEPAL

Dali M^{1*}, Shrestha S², Koirala B³

Affiliation

1. Associate Professor, Department of Pedodontics and Preventive Dentistry, BPKIHS, Dharan, Nepal.
2. Assistant Professor, Department of Pedodontics and Preventive Dentistry BPKIHS, Dharan, Nepal.
3. Head, Professor, Department of Pedodontics and Preventive Dentistry, BPKIHS, Dharan, Nepal.

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* Corresponding Author

Dr. Mamta Dali

Associate Professor

Department of Pedodontics and Preventive Dentistry

Email: mamtadali@hotmail.com

ORCID ID: <https://orcid.org/0000-0001-6758-1469>

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ABSTRACT

Introduction

Oral health knowledge and awareness among parents is an integral component of preventing dental caries among children.

Objective

The purpose of this paper is to assess the parent's knowledge, awareness and perception regarding the care of primary teeth attending the Dental OPD, BPKIHS, Dharan, Nepal

Methodology

A questionnaire based survey was conducted among 200 parents in randomly selected manner.

Results

The data was analyzed using SPSS software version 12.0. Only 54% of the parents were aware of the importance of primary teeth in children and 82% understood that untreated caries in primary dentition can have effects on general health of children. Approx 82% parents were aware of pediatric dentist and majority felt that they are the right person to contact when dental problems occur in children. Surprisingly only 57% of parents were aware of the preventive role of fluorinated tooth in dental caries. A majority of parents assume that filling is the appropriate treatment option for caries in children rather than extraction and 40.5% felt that premature primary teeth extraction will result in malalignment of permanent teeth. A very negative response was obtained regarding routine dental visit to pediatric dentist. Majority (61%) visited only when dental problems occurred whereas 12-16% answered they visit in every 6 months or once in a year.

Conclusions

We concluded that knowledge, awareness and perception of parents regarding importance of primary teeth were inadequate. There is an immediate need to cultivate and reinforce positive attitudes among parents and substantially raise their dental awareness through child dental health oriented programs.

KEYWORDS

Awareness, Dental caries, Prevention, Parental knowledge.

INTRODUCTION

Oral health is an integral component of preschool health and well-being, teeth being the valuable asset to the human beings. Among the two sets of teeth, the first set of teeth i.e., primary teeth or milk teeth is very important to children for proper functioning like mastication, phonetics, aesthetics, and even for space maintenance for permanent teeth.

Parental perceptions regarding early childhood oral health is very important to understand in order to develop the effective preventive measures since parent's health beliefs, behaviours, and practices usually have a direct influence on their children's dental health.¹ But still in developing countries like Nepal the parental awareness regarding primary teeth is very less. Thus, there is increased prevalence of early childhood caries seen in children.

The children usually lacks the awareness of the importance of the teeth, the knowledge of dental health care, and the ability to maintain the good oral health care.² Therefore, it is the parent's responsibility to take care of their children's oral health with the regular dental visit.

Several studies have correlated parent's oral health status or attitudes towards dentistry with their children's oral status. Establishing good oral health in the early years is important to have a good oral health of lifetime. Tooth brushing activity fell far short of professional expectations in parents and toddlers when observed using home-based videotaped sessions, although parents thought the sessions were effective in achieving clean teeth.

A study had reported that parent's positive dental attitude resulted in children with fewer carious teeth, better oral hygiene, and had received more dental care.³ Parent's oral health knowledge and good dental care practices are also important in preventing premature loss of primary teeth and can effectively reduce the risk of future decay in permanent teeth.⁴

Due to significant relationship between caries incidence in primary and permanent dentition, it is important to incorporate all possible preventive measures in the early stage of a child's life in order to decrease the caries incidence in the permanent teeth. Early dental visit is one of the possible preventive measures which is widely recommended. After full understanding of the disease process and the possibility that dental diseases affect the primary teeth before 3 years of age, the American Academy of Pediatric Dentistry (AAPD) and the American Dental Association (ADA) recommend that the children should have their first dental visit at approximately the time of eruption of the first tooth or at the latest age of 12 months.⁵

Parents are decision makers for their children. Sarnat et al⁶ reported that at the age of 5-6 years the more positive the mother's attitude towards dental health the better is the child's oral hygiene. Since parents are the role models for their children, the habits adopted during childhood when the child is totally dependent on the mother are powerful means of establishment of novel behaviour in children such as that of tooth brushing which will remain as a lifelong habit.⁷

Children from low socioeconomic status and disadvantaged families have been found to have poor oral health with high caries prevalence. Therefore, it is important to examine the attitudes and also the knowledge of parents, as these may affect their behaviour towards child oral health.

OBJECTIVE

To evaluate the parent's knowledge, awareness and perception regarding the care of primary teeth, attending the Dental OPD, College of Dentistry, BPKIHS, Dharan, Nepal.

METHODOLOGY

This is a cross sectional study which was conducted at Department of Pedodontics & Preventive Dentistry, CODS, BPKIHS, Dharan, Nepal.

Approval for the study was obtained from the institutional review committee, BPKIHS, Dharan. The sample population consisted of 200 parents who brought their children for routine oral examination and dental treatment. Written informed consent was obtained from all the parents who willingly participated in this study. All sensitive information obtained from the dental records was kept confidential. After obtaining consent from the parents, they were asked to complete the close ended questionnaire²(modified questionnaire of Al-Shalan et al), which consisted of 17 questions dealing with their knowledge, awareness and perception about the importance of primary teeth, oral hygiene care and dental visits and were requested to return the questionnaire immediately upon completion. The questionnaire was written both in english and Nepali language for ease of understanding. All the collected data was entered into Statistical Package for Social Sciences (SPSS, Version 12.0). Responses obtained were tabulated and expressed as frequency distribution and computed in percentages.

RESULTS

54% of the parents were aware about the knowledge of importance of primary teeth in children and the main source of information being dental camp. 58% of the participants felt that milk teeth are not so important because they will exfoliate soon whereas 27% of them exactly don't know the answer (Table 1). The fact that the problems in primary teeth will have some effect on permanent dentition was agreed by majority of the parents i.e. 54% (Table 1).

82% were aware of the effects that untreated caries in primary and permanent teeth can have on the general health and well-being of children. However, 10% of the parents did not agree on this fact and 8% of them were unaware of the fact (Table 1). When enquired about the knowledge on frequency of tooth brushing in primary dentition, 162 (81%) parents answered "yes" and out of them 156 parents knew that frequency of tooth brushing is twice daily (Table 1).

82% of the parents thought that dental caries is a transmissible disease which can transmit from primary to permanent teeth which is quite disappointing (Table 1). Surprisingly only few parents (57%) were aware of the preventive role of fluoride tooth-paste against dental caries although this fact is generally understood to be common knowledge given public exposure to media advertisements. Majority of the parents (78%) felt that Pediatric Dentist is the first person to contact when dental pain occurs in children

whereas 20% felt that it is the general dentist. 163(82%) parents were already aware about the Pediatric Dentist (Child Specialist Dentist). (Table 1)

Questionnaires	Responses	Percentage (N=200)	(%)
Importance of primary teeth	Yes	108	54
	No	92	46
Primary teeth are not important	Yes	117	58
	No	30	15
	Don't know	53	27
Primary teeth problems affects permanent teeth	Yes	108	54
	No	40	20
	Don't know	52	26
Effect of decayed teeth on general health	Yes	164	82
	No	19	10
	Don't know	17	8
Knowledge on frequency of brushing primary teeth	Yes	162	81
	No	37	19
Frequency of brushing	1/day	7	4
	2/day	156	96
Is caries a transmissible disease	Yes	164	82
	No	36	18
Awareness regarding importance of flouride in toothpaste	Yes	114	57
	No	86	43
Aware of Pediatric Dentist	Yes	163	82
	No	37	18
Place to contact for dental pain	Pediatric dentist	155	78
	General dentist	40	20
	Pediatrician	5	2

On being questioned about main causative factor for dental caries in primary teeth, 56% answered chocolates, 37% felt improper tooth brushing habit and remaining 1% responded prolonged bottle feeding and prolonged breast feeding 2%

Main reason for dental caries in primary teeth

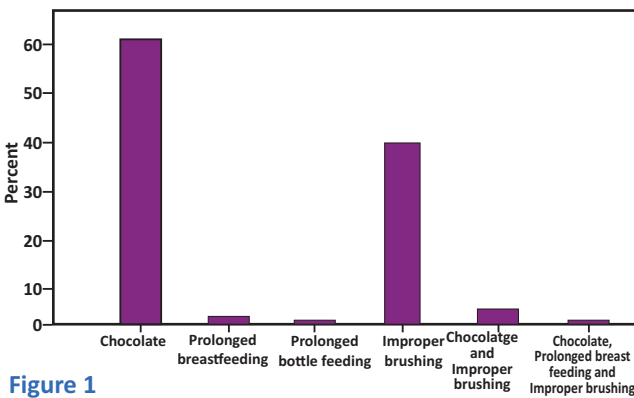


Figure 1

Majority of participants (70%) knew that filling is an appropriate treatment options for dental caries in primary dentition and only minor number of respondents agreed extraction (18%), both (1%) as a treatment of choice, which ultimately reflects some degree of awareness among them regarding treatment options for caries in primary dentition (Figure 2).

Regarding the consequences of premature primary teeth extraction, it was malalignment of permanent teeth (41%), delayed eruption (33%) and both (2%) (Figure 3).

Appropriate treatment options for dental caries in primary teeth

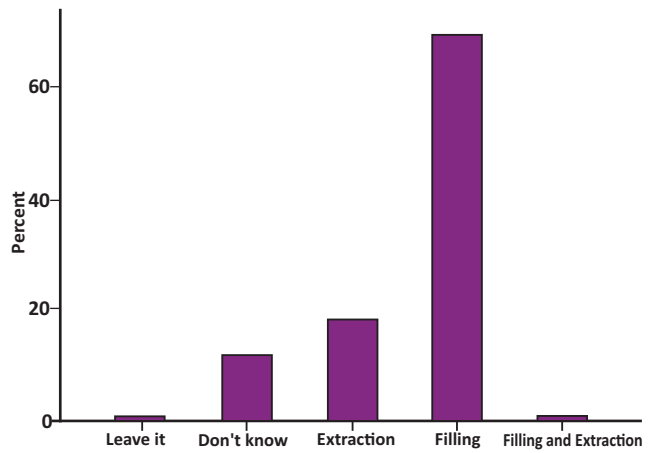


Figure 2

Consequences if we extract primary teeth prematurely

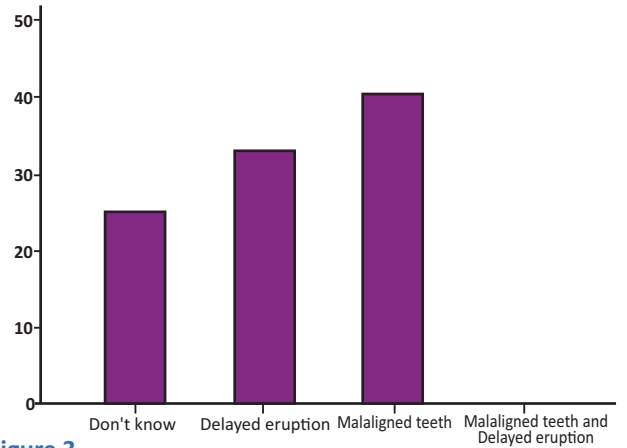


Figure 3

When enquired about the appropriate method for caries prevention in primary and permanent teeth in children, 69 (35%) respondents felt it is regular dental check up, 29% answered proper tooth brushing, 13% answered using fluoridated tooth-paste, 12% answered limits sweets consumption and 2% felt its combination of regular dental check-up, proper tooth-brushing and use of fluoridated toothpaste (Figure 4).

Appropriate method of caries prevention for primary and permanent teeth in children

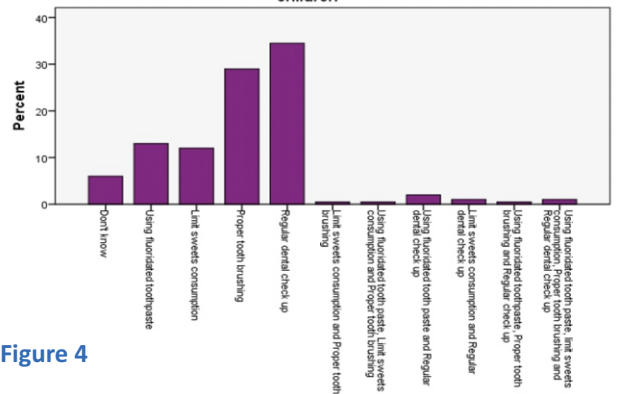


Figure 4

A very negative response was obtained when enquired about the routinely visit to Pediatric dentist for dental check up. Majority parents (61%) visited only when dental problem occurred, 12% answered they visit in every year, 16% visited once in six months and 11% visited once in three months (Figure.5).



Do you visit your Pediatric Dentist for regular dental check up of your child

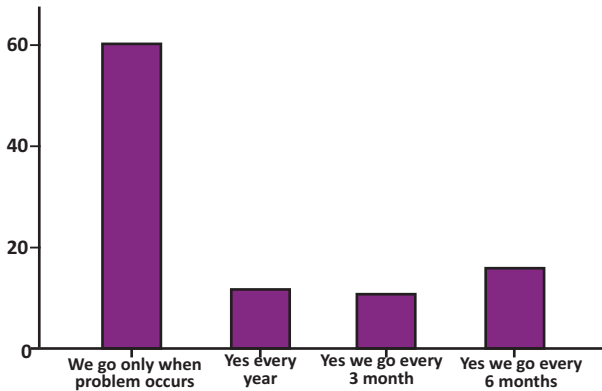


Figure 5

DISCUSSION

Oral disease, predominantly dental caries in young children can be prevented to a great extent if parents are educated and motivated. Oral health literacy is one of the important factor that affect oral health. ECC is the most common chronic disease seen in young children and may develop as soon as primary teeth erupt.⁸

Maternal attitude is significantly correlated to the oral health of their children and it is found that parental knowledge about pediatric oral health was lacking in many studies.^{9,10,11}

According to the responses in this study majority of parents believed that primary teeth are important and that the primary tooth decay can have impact on children general health and permanent teeth. Major source of information being dental camp which is quite encouraging. Few parents (46%) had very less knowledge about primary teeth and its importance, which might be due to beliefs or cultural based opinions.

In a previously reported study on oral health behavior of school children and parents, the level of knowledge and attitude of parents towards child dental care was assessed and found to be negative.^{12,13}

Our results indicate that parents who believed that primary teeth are important were more likely to have children with better oral health (i.e., less decay) in future than those who thought otherwise.

A majority of our respondents (58%) felt that milk teeth are not so important because they are temporary teeth and will fall out soon and replaced by new second set of permanent teeth. Some authors have reported that some cultures place little value on primary teeth and that caries and early loss of the primary dentition is an accepted occurrence.^{14,15}

Cleaning a child's mouth should begin before teeth erupt and tooth brushing at least once daily is recommended when the first tooth erupts till 2 years and subsequently twice daily. In the present study the result is quite interesting that a great number of parents knew about the frequency of brushing times for primary and permanent teeth is twice daily. However monitoring the brushing technique is very important in small children as they usually clean teeth too short, and focus mostly on the front teeth. Additionally, in case of small children, there is a likelihood of ingesting too much of fluoride toothpaste, which may lead to the development of fluorosis. In order to develop proper habits, a child should just brush teeth him or herself first, and then a parent should check the results and correct it, if necessary.

Our survey revealed that 163(82%) parents were already aware about the fact that it is the pediatric dentist (Child Specialist Dentist) who takes care of the dental problems in children and majority of them (78%) felt that pediatric dentist is the right person to contact when dental pain occurs in children. This awareness among them was be attributed to the media like television, radio and internet facilities as well as regular dental camps. In older days parents used to interact with the pediatricians for dental problems because of unawareness and unavailability of pediatric dentists but now it is highly recommended that the possible integration of a pediatric dentist with the pediatrician is very essential.

It is a common perception among general population that dental caries is a transmissible disease which can transmit from primary teeth to permanent teeth and nearly 164 (82%) respondent in our study agreed with this fact which is quite discouraging.

Generally, the use of fluoridated toothpastes was known by mothers as useful in preventing tooth decay.^{16,17,18} Studies have shown that many parents are not clear as to whether fluoride should be used in young children and how much should be used. In our study parents did show some degree of knowledge about the role of fluoride in prevention of dental caries which again reflects the growing awareness among nepalese society about benefits of maintaining good oral hygiene particularly among children.

In this study, 56% of parents assume that the types of food that can cause tooth decay is chocolates and only few (3%) assume that it's the combination of both consumption of chocolate along with improper brushing habits. It is apparent from this result that parents knew that sugars in the diet can cause dental caries, but were not aware of hidden sugars and their effects.

In one of the study, parents had good knowledge of diet related risk factors, however half of the children were given bottle feed at bedtime.¹⁶ However, poor knowledge was noted in Wu-Han, China¹⁹ where only 42% of mothers knew that dental caries is caused by sugar while only 39% of mothers in Romania²⁰ knew that dental caries is caused by sugar.

Surprisingly, the treatment need for primary teeth was considered imperative by a large percentage of parents. Most of them felt that though primary teeth shed by themselves and are replaced by permanent teeth, they need be restored and minority of the participants felt extraction as treatment of choice otherwise as a consequence, malalignment (41%) and delayed eruption (33%) of permanent teeth will occur. This result is consistent to some extent with a study done in united kingdom where 47% expressed a preference for having a decayed primary tooth filled, while 28% preferred having the tooth extracted and 15% wanted the tooth left alone.²¹

Regular dental check up and proper oral hygiene measures were responded as the most appropriate method for caries prevention in both primary and permanent dentition by very few of the parents who still needs more awareness and motivation.

Caregivers and parents have the intention of visiting dentist only when dental pain occurs which is quite discouraging

and in our study also only 61% of the parents answered that they visit pediatric dentist only when problem occurs in their child teeth.

In one study it was found that despite noticing the decayed teeth parents did not show interest to take treatment for their children until it worsened leading to pain, and then seek treatment with no other way for that pain²². In another study, only 37% of the mothers had taken their children to a dentist before. The visits were for symptoms of pain and tooth decay.²³

The factors associated with decreased knowledge and poor attitudes among parents of children include low socioeconomic status living in deprived areas, ethnicity or immigrant status, lack of further education, high caries status in the children and difficult past dental experience among others.²⁴

While this research gives a glimpse into the attitudes of primary caregivers, there is an extreme need for complementary qualitative research exploring the themes underlying early childhood oral health. Qualitative research may uncover issues relating to parenting behaviors and views that could place a child at increased susceptibility for

caries and may be more practical than quantitative questioning.

CONCLUSION

The results of this study reflect that the knowledge of parents towards child dental care was slightly favorable but dental awareness and perception was not so positive. There is an immediate need to cultivate and reinforce positive attitudes among parents and substantially raise their dental awareness through child dental health oriented programs. Considering the limitations of traditional oral health promotion, the use of culturally appropriate or new methods of delivering and reinforcing anticipatory guidance may be a more promising method to change the attitudes and behaviors about the primary dentition among parents.

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