A SURVEY ON ORAL HYGIENE PRACTICES OF CHILDREN ATTENDING THE PUNJAB DENTAL HOSPITAL, LAHORE AND ASSESSMENT OF ORAL HEALTH AWARENESS AMONG THEIR PARENTS

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ABSTRACT
Parental knowledge and attitude toward oral health and hygiene influence their children’s oral health and hygiene habits. Oral health of the children can be improved by educating and motivating their parents.

Objective: To assess parents knowledge and awareness about oral health and hygiene and to investigate oral hygiene practices of their children.

Materials and Methods: A questionnaire based survey was conducted among randomly selected parents of 300 children attending the outdoor Paedodontic department of Punjab dental hospital, Lahore from different cities of Punjab province. Total 300 distributed questionnaires, each having two parts were filled and returned by parents on next appointment visit of their children. The data was analyzed using SPSS software version 21.0. Ethical clearance for the study was obtained from institutional/hospital Ethical Committee.

Results: 74.35% parents acknowledged the importance of oral hygiene. 35.3% parents considered good oral health important for general health. Most of the parents (64.7%) didn’t know that primary teeth affect permanent teeth and 70% of parents didn’t think that primary carious teeth require treatment. Majority of the parents (78.3% and 55.7% respectively) didn’t know that pacifiers/bottles (feeders) affect the infants/child’s oral health and should be replaced by feeding cups when the child is able to hold it. 82.7% parents knew that sweet sticky food causes caries however 61.3% didn’t consider frequent intake of artificially flavoured juices, beverages detrimental for oral health. Most of the parents (75%) considered tooth brushing important but 57.7% didn’t know that bedtime brushing is extremely beneficial for oral health. 62.3% parents did not know that fluoride toothpastes provide protection against dental caries and 51% of the parents didn’t consider routine dental checkups necessary. According to the data, 39.7% parents initiated teeth brushing of their children at the age of 19-24 months, followed by 25-30 months (25%). Majority of the children were supervised/helped in cleaning teeth (92%). Most of the children were found to brush their teeth only once a day (73%). Most frequently used tooth cleaning aid was tooth brush & tooth paste (66%) followed by maswak (18%). Most of the children spent thirty seconds on brushing (62.3%) followed by one minute (17.7%). Most of the children brush their teeth in horizontal direction (57%) followed by haphazard (34%) direction. 65.7% of the parents didn’t remember when they last changed their child’s tooth brush. Majority of the parents (45.3%) took their child for dental visit more than one year ago and main reason for visit was pain (71%). Most of the children took sweet sticky food several times a day (65%).

Conclusion: Parents awareness about oral health and hygiene is the need of hour to improve oral health of children in our country. The results of this study lay emphasis on conduction of various educational and motivational programmes among the parents about significance of oral health and hygiene at grassroots level.

INTRODUCTION
Oral health awareness is necessary for proper oral hygiene maintenance and good oral health. Unhealthy eating habits together with inadequate oral hygiene routine of a child can result in lifetime poor oral health[11]. Knowledge and perception of parents about oral hygiene and healthy eating habits have an impact on the child’s oral health[2]. Parental attitude toward the significance of oral hygiene, plays a chief role in the development of their child’s oral hygiene habits[13,4]. Tooth brushing habits and oral hygiene practices learnt during early years of life, get deeply rooted in the child’s mind and expected to continue in their later life[5].

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Preservation of healthy primary teeth in oral cavity is important because they affect the development of the permanent teeth\(^{[6,7]}\). Primary teeth prevents overcrowding by guiding the permanent teeth to erupt in the right position and facilitates adequate jaw growth. Since the lifespan of primary teeth is short and they are destined to fall eventually and replaced by permanent teeth, most of the parents do not take their child’s oral health or hygiene seriously\(^{[1]}\). Regular teeth brushing and flossing along with regular dental checkups help to maintain good dental health\(^{[8]}\).

Awareness of parents about the oral health is mirrored in oral hygiene practice of their child. The present study aimed to assess parent's knowledge and awareness about oral health and hygiene and to investigate oral hygiene practices of their children.

**MATERIALS AND METHODS**

A pre-tested, questionnaire based survey was conducted among randomly selected parents of 300 children (3-12 years of age) who reported at the outdoor Paedodontic department of Punjab dental hospital, Lahore from different cities of Punjab. Questionnaires written in both urdu and english language were distributed, that were filled and returned by the parents on next appointment visit of their children. Each questionnaire had two parts, part A had questions regarding Oral health and hygiene knowledge and awareness of parents. The part B had questions regarding oral hygiene practice of their child. The data was analyzed using SPSS software version 21.0. Ethical clearance for the study was obtained from institutional/hospital Ethical Committee.

**RESULTS**

The collected data shows that 74.35% of parents acknowledged the importance of oral hygiene. 35.3% parents considered good oral health important for general health. Most of the parents (64.7%) didn’t know that primary teeth had effect on the permanent teeth. While 70% of parents didn’t think that primary carious teeth require treatment. Majority of the parents (78.3%) didn’t know that pacifiers/bottles(feeders) affect the infants /child’s oral health and should be replaced by feeding cups when the child is able to hold it. 82.7% of the parents knew that sweet sticky food causes caries however 61.3% didn’t consider frequent intake of artificially flavored juices and beverage are detrimental for oral health. Most of the parents (75%) knew that importance of teeth brushing but only 52.3% had knowledge that bedtime brushing is extremely beneficial for oral health. 62.3% parents lack the knowledge that fluoride toothpaste provide protection against dental caries and 51% didnot consider routine dental checkups necessary.

39.7% of the parents initiated teeth brushing of their children during 19-24 months of age followed by 25-30 months(25%). Mothers mostly helped in cleaning their children’s teeth (85%).

<table>
<thead>
<tr>
<th>Age of the child when tooth brushing was started</th>
<th>Person helping the child in cleaning teeth</th>
</tr>
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<tbody>
<tr>
<td>3.30% 5.70% 16.70% 25% 7%</td>
<td>mother 3%  father 3%  grand parents 0%</td>
</tr>
<tr>
<td>6 months 7-12 months 13-18 months 19-24 months 25-30 months 31-36 months</td>
<td>siblings 2%  child him/herself 7%  others 85%</td>
</tr>
</tbody>
</table>

Most of the children were found to brush their teeth only once in a day ie.73%. Most frequently used tooth cleaning aid was tooth brush +tooth paste (66%) followed by Maswak(18%).
Most of the children spent thirty seconds on brushing (62.3%) followed by one minute (17.7%). Most of the children brush teeth in horizontal direction (57%) followed by haphazard (34%) direction.

Most of the parents (65.7%) didn’t remember when they last changed their child’s tooth brush.

Majority of the parents (45.3%) took their child for dental visit more than one year ago and main reason for visit was pain (71%).
Most of the children took sweet sticky food several times a day ie.65%.

DISCUSSION

Parent’s interest and supporting attitude towards their child’s oral hygiene maintenance can improve the overall oral health of children in our country. Numerous studies around the globe have shown that a child’s oral hygiene habits are mirror replica of his or her parents [9].

According to the results of the present study majority of the parents ie.74.35% acknowledged the importance of oral hygiene. Oral hygiene maintenance is important for children as oral health has a direct impact on general health[1]. However, only 35.3% parents considered good oral health important for general health. Similar findings were reported in other local studies[10,11]. Healthy primary teeth of a child serves as a foundation for well aligned permanent dentition. Most of the parents 64.7% were unaware of the importance of healthy primary dentition. Results of studies conducted by lone et al .(2016) and Abbas etal.(2017) favoured our findings[11,12]. Whereas conflicting results were reported in a study were 67.5% parents knew that primary dentition affects adult dentition[10]. The reason probably could be that the parents involved in that study were educated and well aware of benefits of good oral health. Treatment of carious primary dentition is necessary for conserving them in the oral cavity till the eruption of permanent dentition. We were surprised to know that 70% of the parents considered treatment of carious primary teeth unnecessary. It was reported in another study that 45.1% parents thought extraction a better treatment option for painful primary teeth than conservative procedures[13]. Feeding bottles are an eminent causative factor for rampant caries. According to the collected data majority of the parents 78.3% didn’t know that pacifiers/bottles (feeders) affect infants /children oral health and 55.7% did not know that feeding bottle should be replaced by feeding cup as soon as child is able to hold it. However, 82.7% parents knew that sweet sticky food causes caries but 61.3% didn’t consider frequent intake of artically flavoured juices,beverage etc detrimental for oral health. Various local studies supported our findings [9,10,11,12,14]. It was appreciated to know that most of the parents (75%) considered tooth brushing important but 57.7% didn’t know that bedtime brushing is extremely beneficial for oral health. Similar findings were reported in an another study [9]. While 62.3% parents did not know that fluoride toothpaste
provide protection against dental caries. Abbas et al. (2017) reported supporting findings but Sami et al. (2016) ; Leghari et al. (2018) reported conflicting results in their studies by stating that most of the parents knew the significance of fluoride toothpaste. The reason for conflicting findings in those studies could be the oral health and hygiene awareness of parents included in survey. Parents must preferably take their children for dental checkup once at birth and then afterwards regularly an interval of 6 months. Routine dental checkups were not necessary according to 51% of the parents in our study. Sami et al. (2016) reported similar findings but two other local studies reported that most of the parents considered routine dental checkups important. The reason for conflicting results could be knowledge about oral health and good financial status of parents included in those studies. Majority of the parents (39.7%) started brushing their child’s teeth during 19-24 months of age followed by 25-30 months (25%). Mothers mostly helped in cleaning their children’s teeth (85%) and then the grandparents (7%). Supporting findings were seen in other studies.

Most of the children were found to brush their teeth only once in a day ie.73%. Most frequently used tooth cleaning aid was tooth brush + tooth paste (66%) followed by Maswak (18%). Similar results were reported by various local studies. It was found that most of the children spent only thirty seconds on brushing (62.3%) followed by one minute (17.7%). However, few other studies reported that most of the children spent two minutes on brushing. Most of the children were found to brush their teeth in horizontal direction (57%) followed by haphazard (34%) direction. Surprisingly, most of the parents (65.7%) didn’t remember when they last changed their child’s tooth brush. Chand and Hadyait (2015) reported similar findings.

Regular visits to the dentist can prevent different impending issues related to oral cavity thus helping to move toward a sound oral health. Unfortunately, pain, instead of combination of prevention and regular dental checkup has become the main reason of visit to the dentist. Majority of the parents (45.3%) took their child for dental visit more than one year ago and chief reason for last visit was pain (71%). Various local studies favoured our results. Sami et al. (2016) supported our findings that most of the children took sweet sticky food several times a day i.e.65%.

A variety of international studies have laid emphasis on significance of preventive measures to lessen the load of oral diseases. Parents should be motivated to manage painless regular dental visits for their children. Lack or diminished oral health knowledge among the parents will directly affect diet and hygiene practices of their children. Low socioeconomic status of parents, high expense of dental treatment together with lack of awareness may be responsible for poor oral health status of children in our country.

CONCLUSION

This study has exposed the lack of oral health and hygiene awareness among the parents, which also reflects in the poor oral hygiene practice of the children. Lack of awareness is main culprit for poor oral health. Oral health of the children can be significantly improved by educating the parents about the oral hygiene. Since the practices developed in childhood are continued in life. Therefore health education and motivation of the parents is the key of good oral hygiene of the community.

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