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# Parental Awareness On Oral Hygiene Maintenance In Primary School Children Of Alkharj City-Cross Sectional Study

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ABSTRACT: Aim: To evaluate the awareness among parents of primary school children regarding the oral hygiene maintenance in Alkharj city.

Methodology: 400 primary school children in the age range of 6-9 years were selected in Alkharj city. A self designed close ended structured questionnaires regarding knowledge, attitude and practice was given to the children to get it filled from their parents. Data collected was analysed using SPSS software SPSS 25.0 (SPSS, Inc., Chicago, IL, USA).

Results: 43% took their children to a dentist for their child's regular dental check-up. 86% of parents also included green leafy vegetables regularly in their child's diet. Unfortunately, only 31% regularly guided their primary school children for their tooth brushing as well as only 12 % confirmed that their children also cleaned their tongue regularly.

Conclusion: Parents should have admittance to knowledge of oral health to set in practice on their children in order to persuade them in acquisition of better oral health.

Keywords: Primary school children, dietary practices, hygiene practices, oral health knowledge

# 1. INTRODUCTION

Oral health is a major factor of fine health and general welfare of people.<sup>1</sup>For the child development it is very crucial to have positive parent's impact. Good oral health habits in childhood are moulded by parent's, especially by mothers.<sup>2</sup> The deprived attitude of fogeys toward oral health of infants and young children are connected with increased caries prevalence.<sup>3</sup> The limited data of caries risk factors, importance of deciduous dentition and oral maintenance ends up in increased prevalence of caries.<sup>4</sup> Inequality for seeking the services and also the age for the child's first dental visit are influenced by variables like age, mother's level of education, race and income.<sup>5-10</sup> The maintenance of oral care in children can only start from the fogeys who have sufficient knowledge of oral health maintenance. Consistently visiting the dentist will allow us to forestall various forthcoming issues associated to maneuver towards a positive oral health.<sup>11</sup> Unfortunately, the combination of prevention and dental visits, which successively evade us from painful visits. This will be avoided by adequate monitoring by the dentists and motivation of the fogeys to realize a trouble-free regular visits.<sup>12</sup> Parental opinion is taken into account a valuable tool within the

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assessment of the children's condition.<sup>13</sup> It's been reported that the tooth brushing habits amongst children were significantly related to the parental attitude towards importance in developing good oral hygiene.<sup>14,15</sup> Brushing of teeth a minimum of twice on a daily basis, within the morning before breakfast and at nighttime after last drink, is a crucial habit to take care of.<sup>16</sup> In keeping with Attin T et al. (2005), most patients don't achieve sufficient plaque removal. Therefore, brushing of teeth twice daily is usually recommended in order to boost plaque control.<sup>17</sup> The previous study conducted by Truby RJ et al. reported that frequency of brushing weekly was considerably greater within the mornings than in the evenings.<sup>18</sup> It's generally recommended that toothbrush should get replaced after three months of use in an attempt to take care of its efficacy.<sup>19</sup> Consistent with Galgut PN and Daly CG et al. the occurrence of toothbrush wear is very variable.<sup>20,21</sup> Brush employed by some individuals show evidence of damage within fortnight of use; for a few others, there's little wear over six months.<sup>22</sup> If the toothbrush is getting drained too early, it could probably ensue to the applying of an excellent amount of pressure while brushing and thereby causing damage to the enamel surface which can't be regenerated or replaced, eventually causing abrasion. On the contrary, if it's still intact after 3 months, it's probable that brushing time is insufficient. The recommended duration for brushing is 2-3 minutes.<sup>23</sup> Mouth rinsing as a proper practice has its reference credited to Chinese medicine about 2700 BC, for the treatment of diseases of the gums.<sup>24</sup>

# 2. AIM OF THE STUDY

The purpose of our research was to evaluate the awareness of parents regarding the oral hygiene maintenance in their primary school children of Alkharj city. We also tried to assess the level of education as well socioeconomic status of parents who can influence in maintaining oral health care in their children.

## **3. METHODOLOGY**

400 primary school children in the age range of 6-9 years were selected in Alkharj city. Informed consent was taken from the parents, who refused to give consent were excluded. A self designed close ended structured questionnaires regarding knowledge, attitude and practice was given to the children to get it filled from their parents. The validity of the questionnaire was measured on 40 subjects and who were excluded from the main analysis. The sample size was calculated d = Precision limit or proportion of sampling error which is usually a 5% confidence limit. = 0.05. After substituting the values required sample size was found to be 374.7 which was rounded to 400. The resulted kappa value was 0.87. The filled questionnaire was collected and statistical analysis was done. Questionnaire form were sent in both Arabic and English, this method was selected because it may provide chance to veil large group of population (Table 1). Inclusion criteria were cognitive Saudi parents whose children are within the age of 6-9 years. Exclusion criteria were those participants not adhering to the above limits, which have the fogeys who aren't Saudi nationals and people not having a child between 6 and 9 years old. Furthermore, the fogeys who are by anyway associated with dentistry like dentists or dental hygienists are excluded for this research. The designed questionnaire included 14 inquiries to assess the knowledge of the oldsters regarding oral health. Descriptive statistics were computed and data were statistically analyzed using the Chi-square test. All analyses were made with a 95% CI and a P value <0.05 considered as statistically significant. The information collected was analysed using SPSS software SPSS 25.0 (SPSS, Inc., Chicago, IL, USA). Mean and variance was accustomed to analyse between the fogeys (mothers and fathers) with their knowledge about oral health care practices.

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# 4. **RESULTS**

We observed in our study, that most (71%) of our study participants were graduate (i.e. parents of selected primary school children). Around 48% of the parents had two children whereas out of all the parents, 83 % of them were financially stable enough to take care of their children's oral health care needs. However, only 43% took their children to a dentist for their child's regular dental check-up. 86% of parents also included green leafy vegetables regularly in their child's diet. Unfortunately, only 31% regularly guided their primary school children for their tooth brushing as well as only 12 % confirmed that their children also cleaned their tongue regularly. 66% of parents also stated that they do monitor the amount of sugary foods as well as aerated drinks that their child consumes. (Table 2)

S. No.	Questions					
1	What is your level of education? Graduate/ Undergraduate					
2	How many children do you have? 1/2/more than 2					
3	Is your financial status sound enough to take care of your child oral health needs?					
	Yes/ No					
4	Do you take your children for regular oral health check- ups? Yes/ No					
5	Do you regularly guide your child's toothbrushing routine? Yes/ No					
6	Do you monitor your child's intake of sugary foods as well as aerated drinks? Yes/					
	No					
7	Do you include green leafy vegetables in your child's diet frequently? Yes/ No					
8	Does your child perform tongue cleaning? Yes/ No					

Q.No.	Торіс	Measurement recorded	Mean ± SD
1	Level of education	Graduate (71%),	5.8±6.0
		Undergraduate (21 %)	3.8±4.2
2	No. of children	1(20 %).	4.2±4.8
		2 (48 %),	$4.4 \pm 5.0$
		more than $2(32\%)$	$4.6 \pm 5.2$
3	Financial status	Stable (83%),	3.9±4.8
		not stable (17 %)	$5.4 \pm 5.8$
4	Regular oral health check-ups	Yes (47%)/	4.3±5.2
	for children	No (53 %)	$4.9 \pm 5.0$
5	Guidance on toothbrushing	Yes (31 %) /	3.9±4.8
	technique of child	No ( 69 %)	4.3±5.2
6	Monitoring sugary foods and	Yes ( 66 %) /	4.2±4.9
	aerated drinks in child's diet	No (34 %)	$5.5 \pm 4.8$
7	Inclusion of green vegetables	Yes (86 %) /	$4.8 \pm 5.2$
	in child's diet	No (14%)	$3.2 \pm 2.3$
8	Tongue cleaning in children	Yes (12%)/	3.1±2.0
		No ( 88 %)	$5.2 \pm 5.4$

Table 2- Data recorded in the present study	Table 2- Data	recorded	in the	present	study
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\*SD- Standard Deviation

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### 5. DISCUSSION

The mouth and mouth are the focal points for the interaction of the body with the external environment. Speech, chewing, swallowing and also the early stages of digestion are all vital physiological functions distributed by oral fissure. It's essential to practice mouth rinsing after every meal, to forestall food lodgement which provides a nidus for bacterial growth. In our study, 67% of the fogeys have documented to be making their children swish and spit with water after every meal. Education of mothers increases their knowledge about oral health behaviour followed by increasing their ability to supervise hygiene practice of their children. It's been reported that oldsters with educational activity have a more positive attitude and intention to manage their children's health behaviour than low-educated parents. In a study conducted by Abiola Adeniyi et al, an immense relationship was reported between mother's educational level and the oral hygiene status of their children.<sup>25-27</sup>

Oral health is additionally a mirror of a person's psychological identity.<sup>28</sup> It's well-known that good oral health can promote general health, self-esteem, social integration and hence, improves the standard of life.<sup>29</sup> Family values help to shape the health-related habits and practices among the members of the family.<sup>30</sup> During the childhood period, parents have the chance to shape their children's behaviour by encouraging and discouraging particular habits. It's important for those especially the mothers to own adequate knowledge on oral health promotion and have a positive attitude and practice to guide their young ones. It's thus recommended to teach the oldsters on the importance of oral health and periodic dental check-ups. A recent study showed that 33.9% of the oldsters thought that the first teeth aren't important and 45.1% thought it's better to extract the first teeth if there's pain rather than treating them. The explanation may be attributed to ignorance, high costs of dental treatments, parent's low socioeconomic status and lack of education and lack of information regarding the existence of specialist dentists for kids. Further motivation is required to ascertain positive attitudes towards paediatric preventive dentistry among the oldsters. Oral health literacy is what quantity people have the power to amass, process, and comprehend fundamental oral health data and services expected to decide on achieving proper health resources. Any decrease within the oral health knowledge among the oldsters will influence in maintaining diet and hygiene practices within their children. There are various associated components with decreased knowledge and poor attitudes among the fogeys like low socioeconomic status, living in impoverished areas, ethnicity or immigrant status, lack of further education, high caries status within the children, and difficult past dental experience, so this research was planned to summit the interest of Saudi parents on their children.<sup>31</sup> Our study revealed that folks who were well-educated, were well-informed about their child's oral health, oral hygiene practices in addition monitoring of sugary foods to limit caries in their children likewise regular dental check-ups, which is able to presently prevent dental diseases in their ward still. The findings within the present research have evolved to relinquish rise to new questions where we want to answer within the forthcoming researches like relating the parental knowledge and their practices with the child's oral health status to grasp how parents are applying their knowledge into practice.

# 6. CONCLUSION

It is essential for the dentist to acknowledge the 'root' of the growing population, particularly the youngsters, to assist them develop a positive and proper attitude towards oral hygiene as they'll develop. Parents are a significant influential figure and they can certainly reflect it upon their children. Further studies are required to gauge the tutorial qualification of fogeys and oral health behaviour of kids.

#### 7. REFERENCES

- Adeniyi AA, Ogunbodede OE, Jeboda OS, and Folayan OM. Do maternal factors influence the dental health status of Nigerian pre-school children? International Journal of Paediatric Dentistry. 2009;19:448–454.
- [2] Hooleya M, Skouterisa H, Boganina C, Saturb J, and Kilpatrickc N. Parental influence and the development of dental caries in children aged 0–6 years: a systematic review of the literature. Journal of Dentistry. 2012;40: 787–872.
- [3] Hinds K, Gregory JR. National diet and nutrition survey: Children aged 11/2 to 4<sup>1</sup>/<sub>2</sub> years. Report of dental survey. Vol. 2. London: HMSO; 1995.
- [4] Finlayson TL, Siefert K, Ismail AI, Sohn W. Maternal self-efficacy and 1-5 year old children's brushing habits. Community Dent Oral Epidemiol. 2007;35:272-81.
- [5] Kramer PF, Ardenghi TM, Ferreira S, Fischer LA de, Feldens CA. Use of dental services by preschool children in Canela, Rio Grande do Sul State, Brazil. Cad Saude Publica. 2008;24:150-156.
- [6] Noro LRA, Roncalli AG, Júnior Mendes FIR, Lima KC. Use of dental care by children and associated factors in Sobral, Ceará State, Brazil. Cad Saude Publica. 2008;24:1509-1516.
- [7] Pizarro V, Ferrer M, Salvany-Domingo A, Benach J, Borrell C, Pont A, Schiaffino A, Almansa J, Tresserras R, Alonso J. The utilization of dental care services according to health insurance coverage in Catalonia (Spain). Community Dent Oral Epidemiol. 2009;37:78-84.
- [8] Fisher MA, Mascarenhas AK. Does Medicaid improve utilization of medical and dental services and health outcomes for Medicaid-eligible children in the United States? Community Dent Oral Epidemiol. 2007;35:263-271.
- [9] Pinilla J, González B. Equity in children's utilization of dental services: effect of a children's dental care programme. Community Dent Health. 2006;23:152-157.
- [10] Sohn W, Ismail A, Amaya A, Lepkowski J. Determinants of dental care visits among low-income African-American children. J Am Dent Assoc. 2007;138:309-318.
- [11] Badri P, Saltaji H, Flores-Mir C, Amin M. Factors affecting children's adherence to regular dental attendance: A systematic review. J Am Dent Assoc 2014;145:817-28.
- [12] AlHumaid J, El Tantawi M, AlAgl A, Kayal S, Al Suwaiyan Z, Al-Ansari A. Dental visit patterns and oral health outcomes in Saudichildren. Saudi J Med Med Sci 2018;6:89-94.
- [13] Martins C C., Oliveira M J., Pordeus I A., & Paiva S M. Comparison between observed children's tooth brushing habits and those reported by mothers. BMC oral health. 2011; 11(1): 22.
- [14] Bozorgmehr E., Hajizamani A., & Malek Mohammadi T. Oral health behavior of parents as a predictor of oral health status of their children. ISRN dentistry. 2013.
- [15] Vanagas G., Milasauskiene Z., Grabauskas V., & Mickeviciene A. Associations between parental skills and their attitudes toward importance to develop good oral hygiene skills in their children. Medicina (Kaunas).2009; 45(9): 718-23.
- [16] Kuusela S., Honkala E., & Rimpela A. Toothbrushing frequency between the ages of 12 and 18 years-longitudinal prospective studies of Finnish adolescents. Community dental health. 1996; 13(1): 34-39.
- [17] Attin T., Hornecker E. Tooth brushing and oral health: how frequently and when should tooth brushing be performed? Oral health and prev dent. 2004; 3(3): 135-140.

- [18] Trubey R. J., Moore S. C., Chestnutt I. G. Children's Toothbrushing Frequency: The Influence of Parents' Rationale for Brushing, Habits and Family Routines. Caries research. 2015; 49(2): 157-164.
- [19] Warren P. R., Jacobs D., Low M.A., Chater B. V., King D. W. A clinical investigation into the effect of toothbrush wear on efficacy. The Journal of clinical dentistry.2001; 13(3):119-124.
- [20] Galgut, P. N. The influence of toothbrush wear on the variables of plaque and gingivitis in clinical trials. Journal of dental hygiene. 2000; 75(2):150-155.
- [21] Daly, C. G., Chapple, C. C., & Cameron, A. C. Effect of toothbrush wear on plaque control. Journal of clinical periodontology. 1996; 23(1): 45-49.
- [22] Hegde P.P., Ashok K.B., Ankola A.V. Toothbrush age, wear, and plaque control. Indian journal of dental research. 2004; 16(2): 61-64.
- [23] Ashley, P. Toothbrushing: why, when and how?. Dental update.2000; 28(1):36-4
- [24] S. Rupesh, Jasmin Winnier, Ullal Anand Nayak , Arun Prasad Rao, Venugopal N Reddy. Comparative evaluation of the effects of an alum-containing mouthrinse and a saturated saline rinse on the salivary levels of Streptococcus mutans. J Indian Soc Pedod Prev Dent. 2010 Jul-Sep;28(3):138-44.
- [25] Walsh, M. M. Effects of school-based dental health education on knowledge, attitudes and behavior of adolescents in San Francisco. Community Dentistry and Oral Epidemiology. 1985; 13: 143–147.
- [26] Case, A., Paxson, C. Parental behavior and child health. Health Affairs. 2002; 21(2):164-178.
- [27] Hooley, M., Skouteris, H., Boganin, C., Satur, J., & Kilpatrick, N. Parental influence and the development of dental caries in children aged 0–6 years: a systematic review of the literature. Journal of dentistry. 2012;40(11):873-885.
- [28] Jin, L.J.; Lamster, I.B.; Greenspan, J.S.; Pitts, N.C.; Scully, C.; Warnakulasuriya, S. Global burden of oral diseases: Emerging concepts, management and interplay with systemic health. Oral Dis. 2016, 22, 609–619.
- [29] Fiske, J.; Griffiths, J.; Jamieson, R.; Manger, D. Guidelines for oral health care for long-stay patients and residents. Gerodontology 2000, 17, 55–64.
- [30] Al-Saad S, Al-BoKhamseen M, Al-Shalan T. Saudi Parent's knowledge about the importance of children's primary teeth and prevention of dental diseases in Al-Ahsa region, Saudi Arabia. Pakistan Journal of Orthodontics, Pediatric and Community Dentistry. 2002;1: 53-56.
- [31] Mani SA, John J, Ping WY, Ismail N. Early childhood caries: Parents knowledge, attitude and practice towards its prevention in Malaysia. In: Mandeep V, editor. In Oral Health Care: Pediatric, Research, Epidemiology and Clinical Practices. Guildford, UK: In Tech; 2012.