

Maternal Attitudes and Practices towards Child Dental Health of 3½ to 4½ Year Old in Lahore, Pakistan

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ABSTRACT

The present study is a cross-sectional survey undertaken to assess the dental health attitudes and behaviours of 95 mothers of preschool children, from middle and low socio-economic groups, in urban Lahore, using a questionnaire adapted from the one used in an international collaborative study on child dental health. The results fail to achieve significance for the frequency of sugar consumption, consumption of sweetened milk, Toothache experience, history of dental visits and the choice of professional in case of dental problem, quantity of toothpaste used for the child and dental health beliefs of the mothers.

INTRODUCTION

Parents have the responsibility to introduce health to their children and guide them through their early life. They act as role model for their children in adoption of the daily health related activities, and thus assigning the responsibility to young children.

Mothers have an important role to play not only in child development but also in introduction and acquisition of positive oral health behaviors¹ and practices including those related to diet and healthy eating². Maternal social characteristics, like her educational level, social class, mothers' age at the birth of first child, her dental visiting habits, and her attitudes towards child dental health have been observed to act as indicators for the dental health of the children³. Adoption of good health behaviors is dependent on the health related knowledge. To bring about positive health related attitudes and behaviors, oral health education programs for mothers, relevant to the child's dental health have been very effective⁴.

Cross-sectional survey was undertaken to assess the dental health attitudes and behaviours of mothers of preschool children, from middle and low socio-economic groups, in urban Lahore, using a questionnaire adapted from one used in an international collaborative study on child dental health⁵.

Mothers of the preschool aged children were chosen for this study because the previous dental surveys have ignored recording maternal child rearing practices and their impact on dental health of the children in the preschool children in Pakistan

MATERIAL AND METHODS

Sample consisted of ninety five mothers of children between the ages of 3 ½ - 4 ½ years (pre-school age), attending schools in middle and lower socioeconomic areas of urban Lahore, Pakistan.

Social grouping was based on the fee structure and the area of location of the schools, since no formal criteria for socioeconomic grouping exists in Pakistan⁶.

The public schools in Pakistan do not admit children below the age of 5 years and no playgroups exist in public educational sector, therefore six schools in the private sector, from the selected middle and lower socioeconomic areas, that had playgroups, were invited to participate in the study.

Schools were approached through personal contacts; one school did not have such young children enrolled and another declined because of other activities during the period. The remaining four schools consented to participate. Thus, two schools each from the middle and the lower social income group participated in the study. Letters of consent were sent to a total of 110 mothers through

the school authorities, inviting them to participate in the study. The school authorities took the responsibility to send out and collect the consent forms from the participating mothers.

A structured questionnaire based on the one used in the International Collaborative Study on Child Dental Health⁵ was used for this study. The questionnaire had components on the attitudes and behaviors regarding the child's dental health. The interviews were conducted in the school premises during the school hours by two trained and calibrated interviewers.

Data was entered in SPSS version 10. Uni-variate and bi-variate analysis was undertaken for the variables. Chi square test was used to look at the association between the two socioeconomic groups. The significance level was determined at $p=0.05$.

RESULTS

A total of 110 mothers were invited to participate in the study (60 from middle income and 50 from low income groups. One hundred responded to the invitation (50 from middle and all from low income groups). Five mothers in the middle income group refused to continue with the interviews. This dropout gave a response rate of 86.36%. Results are reported for responses from 95 mothers.

Mothers of 22 males and 28 females from low income group and 30 males and 15 females from middle income group were interviewed.

Most of the results in the present study failed to show statistically significant differences between the two groups. Significantly more women in the lower income group had breastfed their child in infancy compared to their more better off counterparts ($p<0.05$) (Table 1). No significant association, however, was observed between the two groups in the bottle feeding practices, nor in the practice of adding sugar to the child's drinks ($p>0.05$). Similarly, no significant difference was observed in the use of bottle feed in addition to breast feed between the two groups ($p>0.05$). Additionally, no difference was identified in the use of sweetened milk for the children by the two socioeconomic groups ($p>0.05$).

Table 1: Income Group and Infant Feeding Practices

	Low income		Middle income	
	Yes	No	Yes	No
Breast fed	26(52%)	24 (48%)*	14(31.1%)	31(68.9%)
Bottle fed	3(6%)	47 (94%)	7 (15.6%)	38(84.4%)
Both	21(42%)	29 (58%)	24(53.3%)	21(46.7%)
Add sugar to drinks	48(96%)	2 (4%)	42(93.3%)	3(6.7%)

* $p<0.05$

A very high percentage of the child population in this study were given sweetened drinks, by the mothers; 96% of mothers from low income and 93.3% of mothers from middle income groups added sugars to their child's drinks. Drinks with sugar added included milk (40%), tea (9.5%), water (5.2%), and other traditional drinks (9.5%). More than a quarter (30.5%) sweetened more than one drink for the child. Only 5.2% of the mothers stated they did not add sugar to the child's drinks. However, no statistical significant differences were observed for the frequency of consumption of sugary drinks and snacks by the children reported by the two study groups (Table 2). Even-though no statistical difference existed in the reported sugary foods and drink consumption by the children from the two groups, the children from the middle income group were reportedly consuming on an average more frequent sugary drinks, compared to those from the low income group (Table 2).

Table 2: Sugary snack intake in the two income groups.

	Low income		Middle income	
	Snacks	Drinks	Snacks	Drinks
Everyday	26(52%)	11(22%)	21(46.7%)	19(42.2%)
Most days	6(12%)	7(14%)	5(11.1%)	10(22.2%)
Once a week	2(4%)	10(20%)	2(4.4%)	2(4.4%)
Occasionally	10(20%)	20(40%)	15(33.3%)	13(28.9%)
Never	6(12%)	2(4%)	2(4.4%)	1(2.2%)

Toothache experience, history of dental visits and the choice of professional in case of dental problem are given in Table 3. Though not

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statistically significant, comparatively more children (22.2%) belonging to the middle income group were reported to have experienced toothache. Similarly, significantly more children from the middle income group were reported to have visited the dentist in the past compared to the children belonging to low income group (Table 3).

Table 3: Income group and child dental visit, pain experience and likely choice of treatment.

	Low income		Middle income	
	Yes	No	Yes	No
Past Dental Experience				
Toothache experience	7 (14%)	43 (86%)	7 (14%)	43 (86%)
Past Dental visit	10 (22.2%)	35 (77.8%)	17 (37.8%)	28 (62.2%)*
Choice of Treatment				
Dentist	27 (54%)	23 (46%)	35 (77.8%)**	10 (22.2%)
Doctor	14(28%)**	36 (72%)	2 (4.4%)	43 (95.5%)
Others	9 (18%)	41 (82%)	8 (17.7%)	37 (82.2%)

*p<0.01; ** p<0.05

The choice of the professional in case of problem with the child's teeth was significantly different between the two social groups (Table 3). It was observed that more mothers in the middle income group said they would take the child to a dentist if her child ever experienced any dental problem, compared to the mothers from the lower income group who responded they would prefer a doctor to treat the child's dental problem.

Table 4 gives information on toothbrush ownership, and dental hygiene practices of the two groups. All mothers from the middle income group and ninety four percent of the mothers from the low income group stated that their child owned a tooth brush. Those who did not report ownership of a toothbrush by the child were either reportedly using "miswak" (chewing stick) or finger for cleaning purposes. A very high percentage of the mothers reported that the child cleaned his/her teeth twice a day. None of these mothers used pediatric toothpaste formula.

Regarding the quantity of toothpaste used, the

mothers were shown pictures of toothbrushes with different quantities of toothpaste on each (1: pea size, 2: covering half of the toothbrush bristles, and 3: full length of toothbrush bristles). The mothers were asked to point to the picture representing the approximate amount of toothpaste used for their child. These children accordingly were using far too much toothpaste. The results did not show any statistically significant difference between the two groups.

Table 4: Child dental health practices.

	Low income	Middle income
Age brushing started		
< 1 years	0	1 (2.2%)
1 – 3 years	27 (54%)	32 (71.1%)
> 3 years	15 (30%)	9 (20%)
Toothbrush used / ownership		
Toothbrush used / ownership	47 (94%)	45 (100%)
Toothpaste	47 (94%)	43 (95.6%)
Pediatric toothpaste	3 (6%)	1 (2.2%)
Amount of paste used		
Adequate	17 (34%)	15 (33.3%)
Too much	30 (60%)	29 (64.4%)
Not used	3 (6%)	1 (2.2%)
Frequency of tooth cleaning		
Once	20 (20%)	12 (26.7%)
Twice	25 (50%)	31 (68.9%)
Not everyday	5 (10%)	1 (2.2%)
Never	0	0

Table 5: Parental dental health attitudes and beliefs

	Agree	Disagree	Neither
Regular dental visits stop decay	83(79.9%)	7(7.4%)	5(5.3%)
Tooth decay does not get better by itself	75(78.9%)	18(18.9%)	2(2.1%)
Baby tooth loss upsetting	56(58.9%)	35(36.8%)	4(4.2%)
Decay will occur no matter what we do	21(22.1%)	68(71.6%)	6(6.3%)
Should not force child to brush	27(28.4%)	68(71.6%)	0

No difference in the dental health beliefs held by the mothers was observed (Table 5). More than

three quarters (78.9%) of the mothers interviewed believed that regular dental visits would stop dental decay in their child's teeth. An equal percentage held the belief that tooth decay does not stop by itself. Almost 37% of mothers thought that loss of baby tooth was not upsetting while 58.9% of mothers agreed to the statement that children should not be forced to clean their teeth if they did not want to. Approximately 71% of mothers felt that their efforts to prevent dental decay would not go in vain.

DISCUSSION

The results of this study show that mothers from the middle and low socioeconomic groups generally have positive dental health attitudes, although, some of the behaviors adopted by them for their children may be less conducive to dental health of the young children. Examples of such less desired practices is the late commencement of tooth brushing for the children or the use of excessive amounts of adult type tooth paste for tooth cleaning for pre-school aged children and not following the recommended practice of regular dental checkups for the children. Questionnaire interviews like the one used in the present survey have their own drawbacks. These need to be considered while interpreting the results.

Research indicates that children are either exclusively breast fed during infancy or in combination with bottle feed depending on local culture. This practice may last from a few months to over two years⁸. Contrary to the reports that parents from lower socio-economic groups tend to bottle feed their babies for longer periods⁹, a higher number of the lower income mothers in the present study had breast feed their babies during infancy. Bottle feeding may be considered a step towards modernization¹⁰ and adopted for same reason. This may be the case for the mothers from middle income families in the present study who gave bottle to feed their children during infancy.

The current study is indicative of children consuming sugary foods and drinks frequently. The children in the present study are consuming sugar mainly added to milk, or as snacks such as biscuit and sweets. It is similar to the diet of preschool children in Romania¹⁰. This type of diet is an

important factor in the development of dental caries in the very young children¹¹.

Children' eating habits are determined by a number of factors like family practices regarding the foods offered, types and variety of foods made available and accessible by the parents, and exposure to the food items¹². Regular snack consumption among children is quite common, especially so in the low income urban areas, who are reported to consume more sweet snacks and drinks¹³. In this study, on the other hand, the sugary snack consumption is higher than sugary drink intake in children from the low income population. Apparently children from middle income families in this study consume more sugary drinks and beverages compared to sugary snacks.

The present study reveals no difference in practice of adding sugar to the drinks offered to the children. One of the consequences of sugar consumption is dental caries. Mothers in the present study gave their children sweetened foods and drinks quite often which might be compromising the children dental health. This would indeed require further investigation since this aspect i.e. dental caries was not a part of the aims and objectives of this investigation. It is recognized that the Committee on the Medical Aspects of food policy (COMA)¹⁴ recommends the reduction in consumption of non-milk extrinsic sugars (NMES) and replacement thereof, by fruits, starch staple foods and vegetables. They also recommend that the total consumption of the NMES should contribute to no more than 10% of the total food energy. In the pre-school children this should not exceed 30g/person/day¹⁵.

The low income groups are reported non-utilizers of dental health services¹⁶. This may be true for their children, too. The present study is suggestive of the same. More of the present population of mothers belonging to the middle income group reported having taken their child to the dentist in the past one year compared to the mothers of children from the low income group. The possible explanation for these visits may be a higher frequency of dental pain experienced by the children from the middle income families. Studies indicate that a very high percentage of children visit dentist for symptomatic reasons¹⁷. Some studies have

reported a high frequency of dental visits for asymptomatic reasons by the individuals from the low income groups, but these visits became less with increasing age¹⁸. Asymptomatic visits was not the case in the low income families in the current study, most likely because of the low perceived need since most of the children from this particular group had not experienced pain in their teeth. Another possible explanation may be the lack of priority for dental health especially for the young children. It is a common belief that the primary teeth, since replaced by the shedding process, need no restorative care¹⁹, a main reason for low dental visits for the infants, toddlers and young⁸. Affordability of cost of dental treatment is suggested as an important factor in making a dental health related visits¹⁹. Further research is needed to explore this in greater depth.

The source of consultation for health reasons differ with the economic standing. Results from Pakistan Health Education Survey²⁰ is suggestive of high income Pakistani families consulting doctors for their health related problems compared to the low income groups who mostly rely on their families and friends. Consultation with the family and friends was not the case for the dental health matters in the current study. Mothers from low income families responded that they would take their children to a doctor for any dental symptom or problems while those belonging to middle income group considered consultation with a dentist. Mothers from the low socio-economic level referred a doctor as a general medical practitioner. The difference in the source of consultation was statistically significant between the two income groups.

Present study population reported starting brushing for their children well after the child's first birthday, supporting the previous findings^{17,21}. Belonging to low income group, starting tooth brushing late in child's life has been said to put the children at a greater risk of dental caries²². Socio-economic status did not have any influence on the age tooth cleaning was begun in the present study. Wyne and Khan¹⁷ reported that a very high percentage of the Saudi children did not clean or brush their teeth; tooth cleaning was delayed as late as five years of age whereas the present study

sample reportedly started cleaning the child's teeth much earlier and more frequently, although this was not commenced soon after eruption of the first primary tooth.

The oral hygiene habits and aids of a particular population depend upon its cultural background, religious norms, awareness of the problems that a lack of hygiene can cause¹¹, knowledge of the existence of particular cleaning tools, educational levels and socio-economic status¹¹. Toothbrush, "dandasa" (bark of walnut tree) and "miswak" (chew stick) are commonly used in Pakistan by the adult population and children^{23,24}. Majority of mothers in this study stated their children were using toothbrushes for tooth cleaning, with the exception of two children in the low income strata who used either "miswak" or finger. Findings of present study support previous reports of children using such aids²⁴.

Tooth cleaning practices seem to be low amongst young children²⁵. Children may be cleaning their teeth only a few times during the week, once a day or more than once daily but once a day cleaning of teeth seems to be more prevalent^{21,26,27}. Such practices for children may be restricted to times not recommended by dentists i.e. before breakfast²⁷ or at more favorable times such as before they are put to bed²⁸. More than half of the mothers in present study reported twice a day tooth cleaning by their children. The reported twice a day brushing for the children in the present study might have been deemed a more desirable response since the mothers were aware that the interviewer was a dentist. This might have produced a bias in the current study.

Studies report children using adult type toothpastes containing levels of fluorides exceeding that recommended for children under twelve years of age²⁹. Mothers in the current study, too, were using excessive quantities of adult toothpaste for their children. The effect of the use of excessive amount of paste, especially adult fluoridated pastes, on dental health of children needs to be looked into for the Pakistani children.

Parental attitudes are important for the development of dental health behaviors and sustainability of these behaviors. Parents and caretakers holding the least positive attitudes, are

least motivated for preventive action for dental diseases²⁹. Inevitability of tooth loss and dental problems may be considered as social norms by some³⁰. Surveys on oral health status of preschool age children, on one hand, reveal mothers not finding dental care of deciduous teeth necessary or important²⁹ while others may be of the opinion that their children need to see a dentist from a young age³¹. Negative attitudes towards child dental health may lead parents not to seek care for the child. Parents from higher income groups are seen to hold better attitudes about dental health than those belonging to lower income groups³². However, no statistically significant difference was observed in the dental health attitudes in relation to socio-economic standing in the present study.

Interestingly though, a very high the number of mothers were of the opinion that children should not be forced to brush if they did not feel like it. A similar number did not agree that their efforts to stop decay would be in-vain. Even-though, in the present study, generally the mothers did hold a positive attitude towards dental health, only 14% from the lower income group and a little over one third of the study sample from the middle income group had actually taken their child to the dentist in the past. There are reports of care givers paying not much importance to the primary dentition³³ or keeping good standards of oral health for the children¹⁷. This may be because primary teeth are considered to have no particular function and thus considered not requiring any restorative care³⁴.

Children cannot be held responsible for their oral health care. Lack of dietary discipline and lacking good oral hygiene at this stage may be responsible for the dental decay in the young children, together with parents' attitudes towards routine dental checkups for the children^{17, 34}. Unemployment or poverty may bring dental health down in the list of priorities. Dental visits for the infants, toddlers and young children is usually very low¹⁷ and a considerable percentage of children never visit a dentist^{17, 34} and those who do, go for dental problems².

Mothers in the present study are representative of carrying such attitudes towards dental health matters. This study indicated some aspects which need to be addressed by dental health

professionals. Dental health education programmes and messages targeted especially to the females of child bearing age may help improve the knowledge on dental health related matters and help modify behaviors for the dental health of pre-school children.

REFERENCES

- 1 Blinkhorn AS. Influence of social norms on tooth-brushing behavior of pre-school children. *Community Dentistry and Oral Epidemiology* 1978; 6: 222-6
- 2 Holt RD, Moynihan PJ. The weaning diet and dental health. *British Dental Journal*, 1996; 181: 254-58
- 3 King JM, Pitter AFV, Edwards H. Some social predictors of caries experience. *British Dental Journal*, 1983; 155: 266-68
- 4 Petersen PE, Peng B, Tai B, Bian Z, Fan M. Effect of a school-based oral health education programme in Wuhan City, Peoples Republic of China.. *International Dental Journal* 2004; 54: 33-41
- 5 Adair PM, Pine CM, Burnside G, Nicoll AD, Gillet A, Anwar S *et al.* Familial and cultural perceptions and beliefs of oral hygiene and dietary practices among ethnically and socio-economically diverse groups. *Community Dental Health*, 2004; 21: 102-111
- 6 Anwar S, Downer MC. Dental caries experience of school going children in Lahore. *Pakistan Oral and Dental Journal*, 1992; 12-31.
- 7 Douglass JM, Tinanoff N, Tang JMW, Altman DS. Dental caries patterns and oral health behaviors in Arizona infants and toddlers. *Community Dentistry and Oral Epidemiology*, 2001; 29: 14-22
- 8 Gratrix D, Holloway PJ. Factors of deprivation associated with dental caries in young children. *Community Dental Health*, 1994; 11: 66-70
- 9 Semega-Janneh IJ, Bohler E, Hilm H, Matheson I, Holmboe-Ottesen G. Promoting breastfeeding in Gambia: combining traditional and modern knowledge. *Health Policy and Planning*, 2001; 16: 199-205

- 10 Petersen PE, Danila I, Samoila A Oral health behavior, knowledge, and attitudes of children, mothers, and school teachers in Romania in 1993. *Acta Odontol Scandinavia*, 1995; 53: 363-8
- 11 Beighton D, Brailsford S, Samaranayake LP, Brown JP, Ping FX, Grant-Mills D, Harris R, Lo ECM, Naidoo S, Ramos-Gomez F, Soo TC, Burnside G, Pine CM. A multi-country comparison of caries associated microflora in demographically diverse children. *Community Dental Health*, 2004; 21: 96-101
- 12 Cooke L. The development and modification of children's eating habits. *Nutrition Bulletin*, 2004; 29: 31-5.
- 13 Christensen LB, Petersen PE, Bhambal A. Oral health and oral health behavior among 11-13 year olds in Bhopal, India. *Community Dental Health*, 2003; 20: 153-58
- 14 Department of Health. Dietary sugars and Human Disease. Committee on Medical Aspects of food policy. COMA. Report no 37. London: H.M. Stationery Office, 1989
- 15 Sheiham A. Dietary effects on dental disease. *Public Health Nutrition*, 2001; 4): 569-91
- 16 Kuthy RA, Odom JG, Salsberry PJ, Nickel JL, Polivka BJ. Dental utilization by low income mothers. *Journal of Public Health Dentistry*, 1998; 58: 44-50
- 17 Wyne AH, Khan NB. Use of sweet snacks, soft drinks, and fruit juices, tooth brushing and first dental visit in high dmft 4-6 year olds of Riyadh region. *Indian Journal of Dental Research*, 1995; 6: 21-4.
- 18 Scott G, Brodeur JM, Olivier M, Benigeri M. Parental Factors associated with regular use of dental services by second-year secondary school students in Quebec. *Journal of Canadian Dental Association*, 2002; 68: 604-8.
- 19 Kim YO, Telleen S. Predictors of utilization of oral health services by children of low-income families in he United States: beliefs, cost or provider? *Taehan Kanho Hakhoe Chi*, 2004; 34: 1460-67
- 20 Pakistan Health Education Survey 1991-1992, MOH, Government of Pakistan, Islamabad
- 21 Dini EL, Holt RD, Bedi R. Caries association with infant feeding and oral health-related behaviors in 3-4 year old Brazilian children. *Community Dentistry & Oral Epidemiology*, 2000; 28: 241-48.
- 22 Farsi JMA, Farghal MM, Farsi N. Oral health knowledge, attitude and behavior among Saudi school students in Jeddah city. *Journal of Dentistry*, 2004; 32: 47-53
- 23 Almas K. Traditional oral hygiene habits of people from Pakistan. *Journal of Pakistan Dental Association Karachi*, 1997; 8: 77-80
- 24 Khan AA, Almas K, Mirza YB. The prevalence of dental disease and oral hygiene habits of school children in Punjab. *Pakistan Journal of Medical Research*, 1991; 30: 151-54
- 25 Wyne AH, Spencer AJ, Szuster FSP. Tooth-brushing practices of 2-3year-old children and their age at first dental visit: a survey in Adelaide, South Australia. *International Journal of Pediatric Dentistry*, 1997; 7: 263-64
- 26 Fazeli SAH, Fazeli SA. First-molar caries in primary school children of a northern city of Iran. *Pakistan Oral and Dental Journal*, 2005; 25: 93-6.
- 27 Petersen PE, Esheng Z. Dental caries and oral health behaviour situation of children, mothers and school teachers in Wuhan, Peoples's Republic of China. *International Dental Journal*, 1998; 48: 210-216
- 28 Schroth RJ, Smith PJ, Whalen JC, Lekic C, Moffatt MEK. Prevalence of caries among pre-school-aged children in a Manitoba Community. *Journal of Canadian Dental Association*, 2005; 71: 27-27f
- 29 Szatko F, Wierzbicka M, Dybizbanska E, Struzycka I, Iwanicka-Frankowska. Oral health of Polish three-year-olds and mothers oral health-related knowledge. *Community Dental Health*, 2004; 21: 175-80
- 30 Vaughn HS, Robinson PG. The oral health related experiences, attitudes and behaviors of the carers of Aboriginal children of Groote Eylandt. *International Dental Journal*, 2003; 53: 132-140
- 31 Kalyvas DI, Taylor CM, Michas V, Lygidakis

- NA. Dental health of 5-year-old children and parents perceptions for oral health in the prefectures of Athens and Piraeus in the Attica County of Greece. *International Journal of Paediatric Dentistry*, 2006; 16: 352-57
- 32 Williams NJ, Whittle JG, Gatrell AC. The relationship between socio-demographic characteristics and dental health knowledge and attitudes of parents with young children. *British Dental Journal*, 2002; 193: 651-654
- 33 Tickle M, Milsom KM, Humphris GM, Blinkhorn AS. Parental attitudes to the care of the carious primary dentition. *British Dental Journal*, 2003; 195: 451-55
- 34 Sundby A, Petersen PE. Oral health status in relation to ethnicity of children in the Municipality of Copenhagen, Denmark. *International Journal of Pediatric Dentistry*, 2003; 13: 150-157.

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