



ORIGINAL RESEARCH PAPER

Public Health

ASSESSING THE KNOWLEDGE AND ATTITUDE OF MOTHERS TOWARDS THEIR CHILDREN ORAL HEALTH IN CHENGALPATTU DISTRICT – A CROSS SECTIONAL SURVEY

KEY WORDS: Mothers, Dentistry, Knowledge, Attitude, Survey.

Dr. Praveen Kumar. M	Undergraduate Student., Department Of Public Health Dentistry., Adhiparasakthi Dental College And Hospital., Melmaruvathur., Tamilnadu.
Dr. Ravisankar. B.	MDS., Lecturer., Department Of Public Health Dentistry., Adhiparasakthi Dental College And Hospital., Melmaruvathur., Tamilnadu.
Dr. Rajeswary. K.	MDS., Reader., Department Of Public Health Dentistry., Adhiparasakthi Dental College And Hospital., Melmaruvathur., Tamilnadu.
Dr. Kalaivani. S	MDS., Lecturer., Department Of Public Health Dentistry., Adhiparasakthi Dental College And Hospital., Melmaruvathur., Tamilnadu.

ABSTRACT

Introduction: Poor oral health has a significant impact on general health. In both affluent and developing nations, oral disorders significantly worsen people's quality of life. Geographical space is now thought of as a functional domain, as both a recipient and an activator of social processes. The study aims to present a new concept on including mother's concept on level of education in preventive aspect among a valuable population. **Materials And Methods:** The study is a cross sectional survey conducted among 100 moms and 100 children aged 6 from the Chengalpattu area made up the study sample. The mothers signed the informed and mandated permission after being told of the study's goals and procedures. **Results:** In terms of the demographics of the chosen group, it was found through the analysis of the data gathered that 50% of the moms have completed high school, followed by those who graduated from completed college (46.7%). Children with considerable caries experience are more likely to be among subjects with an inadequate practise score than those with a good practise score, according to the association between oral health practise level and children's carious experience (dmft among 1 and 4). (dmft between 5 and 8). **Conclusion:** The findings of our study demonstrated that mothers' knowledge and attitudes about oral health are moderate, and that mothers' levels of education have an impact on those levels of knowledge and attitudes, with mothers with higher levels of education having more knowledge than mothers with only a high school diploma.

INTRODUCTION

The most prevalent illnesses that people experience during their lives are those of the mouth, which can lead to pain, discomfort, and even aesthetic issues. Poor oral health has a significant impact on general health. In both affluent and developing nations, oral disorders significantly worsen people's quality of life[1]. Geographical space is now thought of as a functional domain, as both a recipient and an activator of social processes. The examination of the disparity and spatial distribution of oral issues is the key to allocating resources to the areas with the largest socioeconomic deficiency, which results in more notable efforts to address both general and oral health issues.[2]

Early childhood caries is common among preschoolers, according to several epidemiological research. The experience of caries is also linked to oral health-related behaviors, socioeconomic environment, parental education, and dental awareness[3]. In addition, numerous research have discovered a strong connection between parental education and children's dental health. The frequency of dental caries is high worldwide, ranging from 49% to 83%. The mother's educational level, social class, stressful life events, and geographic location of the family are all factors that affect her dental knowledge and oral hygiene practises[4]. Research studies have shown that mothers with higher educational levels have better oral hygiene knowledge and may have an impact on their children's poor oral hygiene habits (inconsistency in findings).[5]

Biological and behavioural aspects are potential risk factors for dental caries, and all of these aspects can be influenced by environmental aspects. Positive attitudes and tactics for encouraging oral health behaviours are strongly influenced by parents, particularly mothers[6]. Counseling sessions should be conducted by medical specialists and healthcare workers to address risk factors for the contagious disease. One of the main populations targeted for teaching on all

facets of health is mothers who are taking part in research. Health education should be designed in this situation to raise understanding and reduce misconceptions among moms as well as in the community at large [7]. The study aims to present a new concept on including mothers concept on level of education in preventive aspect among a valuable population in Chengalpattu district.

MATERIAL AND METHOD

The study is a cross sectional survey conducted among 100 moms and 100 children aged 6 from the Chengalpattu area made up the study sample. The mothers signed the informed and mandated permission after being told of the study's goals and procedures. Next, they answered questions on a questionnaire that evaluated their attitudes and knowledge regarding their children's dental health. The mother's knowledge was evaluated using a questionnaire that asked her about her brushing habits, the number of her permanent and temporary teeth, and the causes of carious disease. Mothers' attitudes were evaluated using questions on the necessity of supervising children while brushing their teeth, the impact of tooth decay on a child's overall health, the necessity of routine dental checkups for children, and the contribution of fluoride to the prevention of dental caries. In order to count the number of good teeth, decaying teeth, repaired teeth, and missing teeth, as well as to count the number of carious experiences, the kids of the involved moms got a dental check up at the camp site. The research variable sought to determine mothers' educational attainment in order to clarify how socioeconomic status affected the degree of effect. The study's objective was to evaluate the mother's oral health knowledge, attitudes, and behaviours in connection to the dental health of children from schools in and around chengalpattu who are 6 years old. The statistical analysis was done using the SPSS 20 software (IBM, Armonk, New York, USA). In order to compare two normally distributed qualitative independent variables, the chi-squared test was employed to assess descriptive data. For

quantitative data, the mean value and standard deviation (SD) were calculated, while frequency and percentage were utilised for qualitative data.

RESULTS

In terms of the demographics of the chosen group, it was found through the analysis of the data gathered that 50% of the moms have completed high school, followed by those who graduated from completed college (46.7%). Just one mother in our research sample only completed gymnasium courses. Considering the amount of children's primary and secondary teeth known to exist, The statistical analysis's findings revealed that 73.3% of moms are knowledgeable about this subject. 52% of the moms in this group had college degrees. Statistics showed that there were differences between the individuals ($p = 0.049$). 60% of the individuals, the bulk of whom were college graduates, correctly responded to the assertion that "consumption of candies and sugary beverages are variables that promote dental decay." Statistics showed that there were variations across education levels ($p = 0.037$). (Table In addition to the dietary element, the microbiological factor is also crucial for the growth and manifestation of dental caries. Just 63.3% of the individuals in the survey had correctly responded, with more mothers having completed college. These disparities were significant statistical ($p = 0.005$), according to the study's findings. In addition to limiting the quantity of plaque bacteria and eating foods that are not cariogenic, it's essential to regularly examine your dental health. Dental check-ups must be performed at 6 months for optimal oral health, according to more than half of the moms who participated in our survey . Of them, 64.7% had earned a college degree, with the differences noted being not statically important ($p = 0.092$).

Our study's findings showed that moms' views regarding oral health were generally on par. In light of the fact that 52% of mothers have earned a college degree, 83.3% of moms correctly responded to the statement, "Regular preventative control is vital for optimal dental health." According to statistics, there was no difference between the groups ($p = 0.049$). 63.3% of such participants correctly responded to the question on the importance of fluoride toothpaste in preventing tooth decay. The difference between the educational categories was statistically meaningful ($p = 0.013$) and 68.4% of the respondents had earned a college degree. When asked whether poor dental health may impair overall health, 83.3% of moms gave the right response 60% of the moms who gave erroneous answers to this question were high school graduates. There was no statistically significant difference between the study levels ($p = 0.049$). Dental issues should be resolved as fast as possible by trained medical personnel starting at a young age. Just 63.3% of moms, 68% of whom have earned a college degree, think we should adopt this approach. Whenever feasible, the oral cavity must be continuously cleaned after each meal to lower the possibility of tooth decay. 63.3% of moms correctly responded to the statement, "We want to clean ourselves first after every meal," with 68.4% having completed college. The differences in educational levels was statistically significant ($p = 0.013$). With 68.4% of moms having completed college and the disparities in educational levels were statistical significance ($p = 0.013$), 63.3% of mothers correctly responded to the question, "The level of understanding on oral health is crucial." So because mother is largely active in the child's education from a young age, oral health habits are the foundation of a child's good conduct. It is common knowledge that a child's oral hygiene starts in the first few months of life and is maintained using particular techniques. Raising a kid necessitates the diversification of hygiene practises, particularly with the emergence of baby teeth and the daily maintenance of cleanliness by the mother for the development of a proper sanogenic behaviour. Between the ages of 5 or 6, the youngster should have their dental hygiene under close observation. A regular dental checkup is another

crucial sanogenic behaviour that needs to be practised from a young age in order to avoid dental issues and help the kid grow acclimated to the dentist's presence. Just 53.3% of women, the majority of whom have graduated from college, are aware that they must take their kids to the doctor every six months for a checkup. Statistics show that there are variations here between study levels ($p = 0.005$). It is enough to wash the mouth using water to lessen food residue on the dentition if the kid lacks the regular hygiene tools, which considerably lowers the chance of tooth decay. 80% of mothers correctly responded to the question, "After every meal, a kid should rinse his mouth," and those who did so evenly split their education between high school and college, with no statistically meaningful variances between the two levels ($p = 0.117$). The final analysis of the data reveals that the scale of attitudes towards children's dental health has a moderate value (53.3%) , and that oral health knowledge is at a 60% level, which has an impact on the oral health practises score. These findings suggest a greater need for programmes that instruct moms and kids on the best hygienic procedures to follow in order to preserve excellent oral health.

The findings on education, attitudes, and sanogenic behaviours also provide an explanation for the children's carious experiences noted during clinical assessment. As a result, the dmft index had a value of 2.5, which was made up of the carious tooth indices (dt), which had a value of 1.6 and was greater than the filled tooth indices (ft), which had a value of 1.1. What is notable is that 20% of children of women with college degrees are susceptible to caries, whereas kids with mothers with high school degrees had dmft values from 1 and 8, with 16.67% being a dmft had value 2, along with those who had dmft = 1 (13.3%) compared to those who had dmft = 3 (10%). (Table II). Analysis of the relationship between oral health attitude and carious experience indicates that subjects with a positive attitude score have children with reduced carious experience (dmft between 1 and 4), while subjects with a negative attitude score have children with significant carious experience (dmft between 5 and 8) (table III). Mothers with an acceptable mean knowledge have had more children with little carious exposure (dmft values from 1 and 4), whereas women with a poor mean knowledge have much more children with considerable caries exposure (dmft scores from 5 and 8). (Table IV) The detected differences have statistical significance ($p = 0.015$).

Children with considerable caries experience are more likely to be among subjects with an inadequate practise score than those with a good practise score, according to the association between oral health practise level and children's carious experience (dmft among 1 and 4) . (dmft between 5 and 8).

DISCUSSION

Biological and behavioural aspects are potential risk factors for dental caries, and all of these aspects can be influenced by environmental aspects. Positive attitudes and tactics for encouraging oral health behaviours are strongly influenced by parents, particularly mothers[8]. Counseling sessions should be conducted by medical specialists and healthcare workers to address risk factors for the contagious disease. One of the main populations targeted for teaching on all facets of health is mothers who are taking part in research. Health education should be designed in this situation to raise understanding and reduce misconceptions among moms as well as in the community at large[9].

Biological and behavioural variables, which can be influenced by environmental factors, are potential risk factors for dental caries. This study evaluated the knowledge, attitudes, and oral hygiene practises of children by collecting data from a large random sample of mothers in chengalpattu district. Parents' knowledge, attitudes, and practises are impacted by their socioeconomic status, which may also have an impact on their degree of parental care, which in turn will

have an impact on their children's general health and dental health.[10] Out of all the participants in our study sample, 73.3% of them resided in semi urban areas of which 6% of mothers were stay-at-home moms, whereas 26.7% of mothers held a bachelor's degree or more.

Sixty percent of moms in the present research had high understanding of the dental hygiene of their kids. In a research conducted in India by Suresh et al., it was discovered that 73.8% of mothers had sufficient knowledge, whereas Mahmoud et al. found that 58.2% of mothers in the United Arab Emirates had appropriate knowledge.[11] In contrast, Alzaidi et al. found that 74.0% of mothers lacked sufficient information in their research in Saudi Arabia.[12] The significant disparity in mothers' levels of knowledge may be due to the participants' varying levels of education. In the present study, roughly 60% of moms were aware of the dangers of a high-sugar diet.

This information contrasts with the findings of the study by Dhull et al., which found that 77.8% of respondents did not concur that bacteria that cause caries is passed from mother to kid. According to Chala et al., 60.9% of mothers were aware that fluoride has a positive impact on preventing caries, and our study's results show that around 33% of mothers think fluoride supplementation has a role in dental protection.[13] About half of the mothers had a favourable attitude towards their children's oral hygiene, according to the study's findings on mothers' attitudes towards children's oral hygiene.

The studies by Babu et al. in India and Mubeen and Nisar in Pakistan, which found that 59 and 55.5% of mothers, respectively, had a good attitude towards their children's dental health, are both consistent with this finding[14]. Given that 53.3% of mothers were knowledgeable of their children's dental practices, including brushing techniques, brushing intervals, and when to seek a dentist's attention, mothers in this survey felt that their children's oral health practises were adequate.[14] The findings of the Mumbai, India study by Jain et al. were similar to those of our study in that 58.8% of mothers practised appropriate oral hygiene for their kids.[15]

This is in contrast to research conducted by Rajanna et al. in Rajasthan, India, and Abduljalil and Abuaffan in Sudan, which found that mothers' understanding of oral hygiene practises was quite low. The current study demonstrated that there are statistically significantly related to their children's use of dental care, with a P value of less than 0.001.[16] This is in regards to the children's carious experience (number of restored and decayed teeth) in relation to the mother's knowledge of their children's healthy oral cavity.

The findings from the knowledge, attitude, and sanogenic practises questionnaire can also be used to explain the child-suffering observed during clinical examinations. As a result, the dmft index had a value of 2.5 and was made up of the carious teeth index (dt), which had a value of 1.6 and was larger than the obturated teeth index (ft), which had a value of 1.1. What's interesting is that children of mothers with higher education have a caries-free rate of 20% (dmft = 0), whereas children of mothers with only a high school diploma had a dmft with a value between 1 and 8, 16.67% with a dmft of 2, followed by those with a dmft of 1 (13.3%), and those with a dmft of 3. Mothers, in particular, play a crucial role as parents. In addition to brushing the teeth, you should also clean the tongue, vestibule, gums, and palate to get rid of any leftover milk or food. The socioeconomic environment and parents' dental expertise, among other things, are linked to children's oral health, according to several academics. The oral health of children and parental knowledge are significantly correlated, according to other research. Children should not just be viewed as passive recipients of regular medical treatment in the context of a family since they actively participate in

making healthy decisions. The large impact of mothers' opinions on kids' dental health was discovered here, and it may be ascribed to how such attitudes affect kids' overall health.

Table 1. Chi-square Test For Checking The Association Between The Mothers' Educational Level Vs Statement

	Value	df	Asymp. Sig. (2 sided)
Pearson chi-square	10.214(a)	4	.037
Likelihood Ratio	11.618	4	.020
Linear-Linear Association	145	1	.703
N of valid cases	30		

Table 2: Interrelation Attitudes Regarding Oral Health And Carious Experience

		Children's carious experience (dmft)								Total	
		0	1	2	3	4	5	6	7	8	
Attitude score	Negative attitude	6.7%	6.9%	16.9%	0%	0%	3.3%	6.7%	3.3%	3.3%	47%
	Positive attitude	13.3%	10%	6.7%	13%	10%	0%	0%	0%	0%	53%
Total											100%

Table 3: Analysis Of The Relation Between The Mother's Level Of Knowledge About Oral Health And Children's Caries Experience.

		Children's carious experience								Total	
		0	1	2	3	4	5	6	7	8	
Knowledge score	Unsatisfactory knowledge score	.0%	6.7%	16.7%	.0%	.0%	3.3%	6.7%	3.3%	3.3%	40%
	Satisfactory knowledge score	20%	10%	6.7%	13.3%	10%	0%	0%	0%	0%	60%
Total											100%

CONCLUSION

The findings of our study demonstrated that mothers' knowledge and attitudes about oral health are moderate, and that mothers' levels of education have an impact on those levels of knowledge and attitudes, with mothers with higher levels of education having more knowledge than mothers with only a high school diploma. Analysis of the association between oral health knowledge and carious experience shows that subjects with satisfactory knowledge scores have more kids with little to no carious experience, while subjects with unsatisfactory knowledge scores have kids with a lot of carious experience. The situation is the same when examining the association between oral health practises and carious experience.

REFERENCES

- Bozorgmehr E, Hajizamani A, Malek Mohammadi T. Oral health behavior of parents as a predictor of oral health status of their children. ISRN Dent. 2013; 2013:741783.
- Nourijelyani K, Yekaninejad MS, Eshraghian MR, Mohammad K, Rahimi Foroushani A, Pakpour A. The influence of mothers' lifestyle and health behavior on their children: an exploration for oral health. Iran Red Crescent Med J. 2014; 16:e16051
- Frencken J, Sharma P, Stenhouse L, Green D, Laverty D, Dietrich T. Global epidemiology of dental caries and severe periodontitis. J Clin Periodontol 2017;44:94-105.
- WHO. Non Communicable Diseases and Their Risk Factors, 2018. Available at: <https://www.who.int/news room/fact sheets/detail/oral health>. [accessed September 24, 2018]
- Brignardello-Petersen R. Untreated dental caries associated with small worsening of oral health-related quality of life in 1- to 3- year- old children. J Am Dent Assoc. 2017; 148:e130.
- Vettore MV, Aqeeli A. The roles of contextual and individual social determinants of oral health-related quality of life in Brazilian adults. Qual Life Res. 2016; 25:1029-42.
- Alzaidi S, Alanazi I, Mohammed O, Abu Nawas O, Mulla M. Maternal knowledge and practice in Tabuk, Saudi Arabia. Egypt J Hosp Med 2017;

- 70:1544-1551.
8. Mubeen N, Nisar N. Mother's knowledge, attitude and practices regarding dental caries and oral hygiene among children (age 1 to 5 years) in Civil Hospital, Karachi. *Int J Dent Oral Health* 2015;2:2-7.
 9. Dhull K, Dutta B, Devraj I, Samir P. Knowledge, attitude, and practice of mothers towards infant oral healthcare, *Int J Clin Pediatr Dent* 2018; 11:435-439.
 10. Babu N, Doraikannan S, Indiran M, Rathinavelu. Assessing knowledge, attitude, and practice of parents regarding infant oral health among outpatients of private dental college in Chennai. *Drug Invention Today* 2018;10Special Issue:2849-2853
 11. Rajanna V, Khanagar S, Naganandini S. Oral hygiene knowledge and practices among mothers of 3 to 6 year old preschool children visiting anganwadis of Bangalore City. *J Indian Assoc Public Health Dent* 2019; 17:76-79.
 12. Duijster D, de Jong-Lenters M, de Ruiter C, Thijssen J, van Loveren C, Verrips E. Parental and family-related influences on dental caries in children of Dutch, Moroccan and Turkish origin. *Community Dent Oral Epidemiol* 2015;43: 152-162.
 13. Jain R, Oswal KC, Chitguppi R. Knowledge, attitude and practices of mothers toward their children's oral health: A questionnaire survey among sub population in Mumbai (India). *J Dent Res Sci Develop* 2014;1:40-45
 14. Abduljalil H, Abuaffan A. Knowledge and practice of mothers in relation to dental health of preschool children. *Adv Genet Eng* 2016;5:2-7.
 15. Chala S, Houzmali S, Abouqal R, Abdallaoui F. Knowledge, attitudes and self reported practices toward children oral health among mother's attending maternal and child's units, Salé, Morocco. *BMC Public Health* 2018; 18:2-8
 16. Begzati A, Bytyci A, Meqa K, Latifi Xhemajli B, Berisha M. Mothers' behaviors and knowledge related to caries experience of their children. *Oral Health Prev Dent* 2014;12:133-140.