

AWARENESS OF MOTHERS ABOUT NUMBER OF PRIMARY TEETH AND ASSOCIATED ERUPTION DISORDERS IN HAIL, KINGDOM OF SAUDI ARABIA

¹MOHAMMAD ESSA ALHUMAID

²HANAN MOHAMMAD ALFAHHAD

³SAQIB NAEEM

ABSTRACT

This cross-sectional study was done in Hail city of Saudi Arabia to evaluate awareness of mothers about the number of primary teeth and associated eruption disorders. Convenience sampling technique was used to select a sample of 245 mothers. Results showed that 46% of the participants belonged to 30-39 years. Numbers of mothers with two to four children were 59%. 50% mothers reported total number of primary teeth as thirty two ($p < 0.05$), 40% respondents reported age of eruption of first primary tooth as 4-6 months. 93.5% reported that first primary teeth to erupt were anterior teeth ($p < 0.05$). 45% reported that by the age of one and half years, eruption of primary teeth is complete ($p < 0.05$). Following signs and symptoms were reported to teething process; increased salivation 20 %, diarrhea 17%, loss of appetite 9% while other disorders included stomach disturbances and inflammation of gingiva.

Key Words: Awareness of mothers, number of primary teeth, eruption disorders.

INTRODUCTION

Tooth eruption is a physiologic process.^{1,2,3} Eruption of primary teeth start around six months and completes in around 2.5 years.^{1,2} Traditionally, tooth eruption is regarded as a developmental milestone.¹ In some societies premature tooth eruption is regarded as a sign of enhanced intelligence, while some families celebrate the eruption of first tooth of their babies. Although teething has been reported a physiological process in the literature¹, however, there are numerous studies which report that teething is associated with multiple systemic and local signs and symptoms like runny nose, increased salivation, diarrhea, rash, sleep disturbances, facial flushing, drooling, irritability.^{2,3,4} Different strategies have been used to relieve symptoms associated with primary tooth eruption like using analgesics, antibiotics and other home based remedies.⁴

Objective of the present study was to evaluate the awareness of mothers about the number of primary

teeth and associated eruption disorders, in Hail city of Saudi Arabia.

METHODOLOGY

This cross-sectional study was conducted in Hail city, Kingdom of Saudi Arabia. Convenience sampling technique was used to select a sample of 245 mothers.^{2,4,5} Inclusion criteria were; mothers of 20 years or older age and those having at least one child. Approvals for the study were taken from Research Committee of the College of Dentistry and Research Ethics Committee of the University of Hail. Two dental interns (one male, one female) collected the data. Questionnaires were distributed to mothers who visited OPD and emergency room of Maternity and Children's Hospital in Hail City and in their relatives, after taking informed consent. A pre-designed questionnaire was used.^{2,4} Data collection was completed in two months. Statistical analysis was performed by SPSS version 22 for MAC.

RESULTS

Overall, 83% of Saudi and 17% of non – Saudi mothers participated in the study. Most of the mothers belonged to 30-39 years of age (46%). 42% of mothers were having high school education with 29% having bachelor's education (Table 1). 66% were residents of Hail city. 59% belonged to the group having two to four children. 53% of mothers had the age of youngest child less than three years.

¹ Dr Mohammad Essa Alhumaid, General Dentist, Hail

² Dr Hanan Mohammad Alfahhad, General Dentist, Hail, Kingdom of Saudi Arabia.

³ Dr Saqib Naeem, Former Head Department of Preventive Dentistry, College of Dentistry, The University of Hail, Kingdom of Saudi Arabia and Current: Principal Dental Section, Azra Naheed Medical College, Superior University, Lahore, Pakistan

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TABLE 1: DEMOGRAPHIC DETAILS OF THE MOTHERS

Variable	Frequency	Percentage
Nationality		
Saudi	203	83
Non-Saudi	42	17
Age groups (in years)		
20-29	56	23
30-39	113	46
40-49	58	24
>50	18	7
Level of education		
Primary	13	5
Elementary	59	24
High School	103	42
Bachelor or Higher	70	29
Residence		
City	161	66
Village	81	34
Number of children		
One	51	21
Two to Four	144	59
Five and more	50	20
Age of youngest child		
Less than 3 years	130	53
More than 3 years	115	47

Almost 50% of participants selected 32 as the number of primary teeth ($p < 0.05$). Mothers who reported age of eruption of first primary tooth from four to six months and seven to eight months were 40% each (Table 2). 93.5% said that incisors are the first teeth to erupt. Similarly 45% of mothers expressed that by the age of 1.5 years babies' primary teeth are complete ($p < 0.05$). To manage symptoms associated with teeth eruption, 37% consulted with other mothers and 32% did self treatment at home ($p < 0.05$). 27% of the participants showed that fever is associated with primary teeth eruption (Table 3), with 20% showed concern that primary teeth eruption is also responsible for increased salivation. 17% opted diarrhea as an associated symptom.

DISCUSSION

The present study was conducted in Hail, Saudi Arabia to find awareness of mothers about teething

TABLE 2: AWARENESS OF MOTHERS ABOUT TEETHING

Variable	Frequency	Percentage
Number of primary teeth		
Fifteen	75	31
Twenty	47	19
Thirty-two	123	50
Age at eruption of first primary tooth		
4-6 months	98	40
7-8 months	97	40
9-12 months	50	20
First primary tooth to erupt		
Anterior	229	93.5
Posterior	16	6.5
Age of completion of primary tooth eruption		
1-1.5 years	109	45
2 years	104	42
3 years	32	13
Whether teething symptoms should be managed		
Yes	119	49
No	126	51
How to manage teething symptoms		
Visit a dentist	75	31
Consult with other mothers	91	37
Self treatment	79	32

TABLE 3: SIGNS AND SYMPTOMS OF TEETHING

Variable	Frequency	Percentage
Fever	65	27
Diarrhoea	42	17
Stomach disturbances	17	7
Increased salivation	49	20
Loss of appetite	23	9
Gum inflammation	17	7
Irritability and restlessness	4	1.6
Sleep disturbances	9	3.7
Ear pain	5	2
Desire to bite	14	5.7

problems. In this study 46% of participants belonged to the 30-39 years of age group. In a study done in Mysore, more than half of participants belonged to 21-25 years age group.¹ However, in another study done in Taif, Saudi Arabia, 56% of participants were above 35 years of age.⁴

One hundred and twenty three mothers (50%) reported total number of primary teeth as thirty two, which is in contrast with those of a study done in Mysore¹ with 54.6% respondents reported total number of primary teeth as twenty, 38% opted for twenty eight teeth, and only 2.9% reported total number of primary teeth as thirty two.

In the present study, 229 participants (93.5%) reported that first primary teeth to erupt were anterior teeth. In a study done in Mysore¹, it was reported by 73.2% that lower anterior teeth are first to erupt. In a study done in Turkey⁶, lower central incisor was found to be the first tooth to erupt in 288 infants (86%). In a Saudi study, most of the study population reported that lower central incisors are the first teeth to erupt.⁷ In another Turkish study (58.7%) it was found that first teeth to erupt were lower anteriors.⁸

In the present study, 109 respondents (45%) reported that age of completion of primary tooth eruption was 1-1.5 years. In an Indian study¹, 56.1% mothers agreed that all primary teeth erupt by 2.5 years of age. In a Saudi Arabian study⁴ 68.6% respondents reported that primary teeth eruption completes by two years of age.

In the current study, it was found that 91 (37%) mothers thought it is better to consult with other mothers to seek their advice for managing teething symptoms, while 75 mothers (31%) thought that visiting a dentist was a good idea to manage teething symptoms. In a study done by Abubaker Ibrahim Elbur, M.A. Yousif and colleagues⁴, 91.5 % of parents found that consulting a physician is the best option to deal with teething symptoms.

In this study, fever was associated to teething by 27% of mothers, increased salivation by 20%, Diarrhea by 17% of mothers. 9% of participating mothers related loss of appetite, 7% related stomach disturbances and gum inflammation to teething. In an Indian study done in Mysore¹, 65.4% mothers reported that diarrhea is associated with teething, 34.1% thought that fever, 18.5% irritability, 37.6% drooling of saliva, 68.3% finger sucking and 62.4% attributed gum biting to teething process. In a study done in Taif, Saudi Arabia teething was thought to cause following signs

and symptoms, desire to bite (93.1%), fever (87%), gum irritation (84.2%), increased salivation (84%) and diarrhea (83%).

In a Turkish study⁶, increase in biting, irritability and fever was found to be associated with teething. In an another Saudi Arabian study⁷, 97.5% of mothers reported desire to bite, fever by 93%, Diarrhea by 91.1%, increased salivation by 79.9%, loss of appetite by 77.4% and gum irritation by 71.7%. In a Turkish study⁸, following symptoms were attributed to process of tooth eruption; irritability, fever, increased mastication, increased salivation and diarrhea. In a study done by Mahtab and colleagues³, following signs and symptoms were attributed to teething; drooling, diarrhea, fever, loss of appetite, lethargy, lack of sleep, gum irritation, irritability, crying etc. Somewhat similar findings were found in studies done elsewhere.^{13,14,15}

Results of the present study are in line with studies done elsewhere, which showed that parents had misbelieves and lack of knowledge regarding tooth eruption.⁴ Limitations of the study are as data was collected from only one city so results cannot be generalized to the whole Saudi Arabia. Current study showed that teething process is associated with various signs and symptoms which is in accordance with earlier studies. Going in details of these studies show that prevalence of each problem is different; this is explained by difference in methodologies of these studies.

CONCLUSION

Results of the current study showed that majority of the mothers were not aware about the exact number of primary teeth. The eruption of primary teeth was associated with diarrhea, fever, stomach disturbances, increase in salivation, loss of appetite, inflammation of gingivae and sleep disturbances.

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CONTRIBUTIONS BY AUTHORS

- 1 Mohammad Essa Alhumaid:** Statistical analysis, data collection.
- 2 Hanan Mohammad Alfahhad:** Manuscript writing, data collection.
- 3 Saqib Naeem:** Supervision, questionnaire development.