

Experience of Mothers about their Infants' Teething in Mosul City.

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ABSTRACT

Aims: To evaluate mothers experience about their infants' teething, which symptoms they have seen and attributed to teething and how they have acted to manage these symptoms. **Material and Methods:** In this study, A total of 200 mothers of children less than 18 months of age, who had at least one tooth and who came to the primary health care centers for vaccination of their children were asked to participate in this study. The first part of the questionnaires was to clarify the eruption time of the first primary tooth and in the other part the mothers were also asked about the symptoms they attributed to teething and the methods they used to relief the symptoms. **Results:** The mean eruption time of the first tooth of the infants was 6.9 ± 2 months, with a range of 4 – 18 months. All of the mothers reported that their children had suffered from at least one of the symptoms that were mentioned in the questionnaire. The prevalence of teething symptoms distributed according to the age groups demonstrated that fever, irritability, sleep disturbance and lose of appetite were significantly highest in (below 6) months age group, while diarrhea, dribbling, runny nose, vomiting, cough, diaper rash and smelly urine were significantly highest in (6 – 12) months age group. **Conclusion:** It is commonly thought that teething in infants can cause a variety of signs and symptoms. In this study all the mothers believed that teething is associated with the appearance of symptoms, some of which are minor and related to discomfort, while others are physical illness.

Key words: Infants, teething.

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INTRODUCTION

The eruption of primary teeth in infancy is commonly referred as "Teething". The eruption of deciduous teeth usually begins by 4 – 10 month after birth. Further, tooth eruption continues at a rate of approximately one tooth for each month, and the 20 deciduous teeth are almost always completed by about 30 months of age ⁽¹⁾.

Tooth eruption is the process by which a tooth moves from its site of development within the jaws to its final functional position in the oral cavity ⁽²⁾. Although the tooth itself seems to play no active role in the process, the dental follicle, which is a rich source of growth factors, seems to be crucial ⁽³⁾.

The belief; that teething led to childhood mortality, seizures diarrhea, fever or other serious condition was criticized as

early as the 17th Century ⁽⁴⁾. Yet in 1839, 5016 deaths in England and Wales were attributed to teething ⁽⁵⁾. However; as recently as 1979, parents and physicians were identifying teething as a cause of presenting symptoms in children admitted to the hospital, a study of 50 of these children showed that in 48 cases, medical evaluation found other causes for the symptoms ranging from upper respiratory infection to bacterial meningitis ⁽⁶⁾.

The aims of this study were to evaluate mothers experience about their infants' teething, which symptoms they have seen and attributed to teething and how they have acted to manage these symptoms.

MATERIALS AND METHODS

Two hundred mothers of children less than 18 months of age, who had at

least one tooth and had come to the primary health care centers for vaccination of their children were asked to participate in this study. None of the mothers refused to answer the questionnaire form which was applied by face-to-face interview technique. The first part of the questions was to clarify the eruption time of the first primary tooth and in the other part the mothers were also asked about the symptoms they attributed to teething and the methods they used to relief the symptoms. The symptoms asked about them in this study were included in most previous studies (7-9).

Data were analyzed using numbers of infants and percentages. Z-test between two proportions was used for determining the gender differences for each symptom. Kruskal Wallis Test was used for determining the differences between age groups for each symptom. The differences were considered significant at $p \leq 0.05$.

RESULTS

A total of 200 mothers with children at an age range of (4 – 18) months with at least one tooth present participated in the study, the children's distribution according to their age was as follow: 65 (32.5%) infants were under 6 months of age, 72 (36.0%) were between 6 and 12 months and 63 (31.5%) were between 13 and 18 months. There were 93 (46.5%) males and 107 (53.5%) females, Table (1).

The mean eruption time of the first tooth of the infants was 6.9 ± 2 months, with a range of 4 – 18 months. The age groups according to the first tooth eruption include (4-6, 7-9, 10-12, 13-15 and 16-18) months. The distribution of the teeth eruption time was shown in Figure (1), and the number of infants in each group are 73, 92, 11, 20 and 4 respectively.

All of the mothers reported that their children had suffered from at least one of

ary health care centers for vaccination of the symptoms that were mentioned in the questionnaire. The prevalence of teething symptoms reported by mothers is shown in Table (2). The most commonly reported symptom that all of the mothers reported that their children had suffered was increase in biting, followed by fever (181, 90.5%) and irritability (180, 90.0%). The prevalence order of the other symptoms was sleep disturbance (173, 86.6%), lose of apatite (146, 73.0%), diarrhea (99, 49.5%), dribbling (98, 49.0%), runny nose (65, 32.5%), vomiting (57, 28.5%), cough (50, 25.0%), diaper rash (46, 23.0%), red cheek (45, 22.5%) and smelly urine (33, 16.5%). While no mother reported that her child had suffered from constipation or other symptoms that were not included in this study. No statistically significant difference was determined between the genders concerning the prevalence of teething symptoms ($p > 0.05$).

The prevalence of teething symptoms distributed according to the age groups is shown in Table (3), which demonstrated that fever, irritability, sleep disturbance and lose of appetite were significantly highest in (below 6) months age group, while diarrhea, dribbling, runny nose, vomiting, cough, diaper rash and smelly urine were significantly highest in (6-12) months age group.

Although all of the mothers reported that their children had suffered from different symptoms, only (45.5%) of them have consulted a health care centre for these symptoms. Overall (68.5%) of mothers reported some kind of methods to manage teething problems. Paracetamol (56.2%), objects to chew on (38.69%), anesthetic gels (35.77%), natural herbal medicines (6.57%) and sedating medications (2.92%) were the methods used as shown in Table (4).

Table (1): Number and percentage of infants distributed according to gender and age groups.

Age groups (months)	Male		Female		Total	
	Number	%	Number	%	Number	%
Below 6	25	26.88	40	37.38	65	32.5
6 – 12	37	39.78	35	32.71	72	36.0
13 – 18	31	33.33	32	29.91	63	31.5
Total	93	46.5	107	53.5	200	100

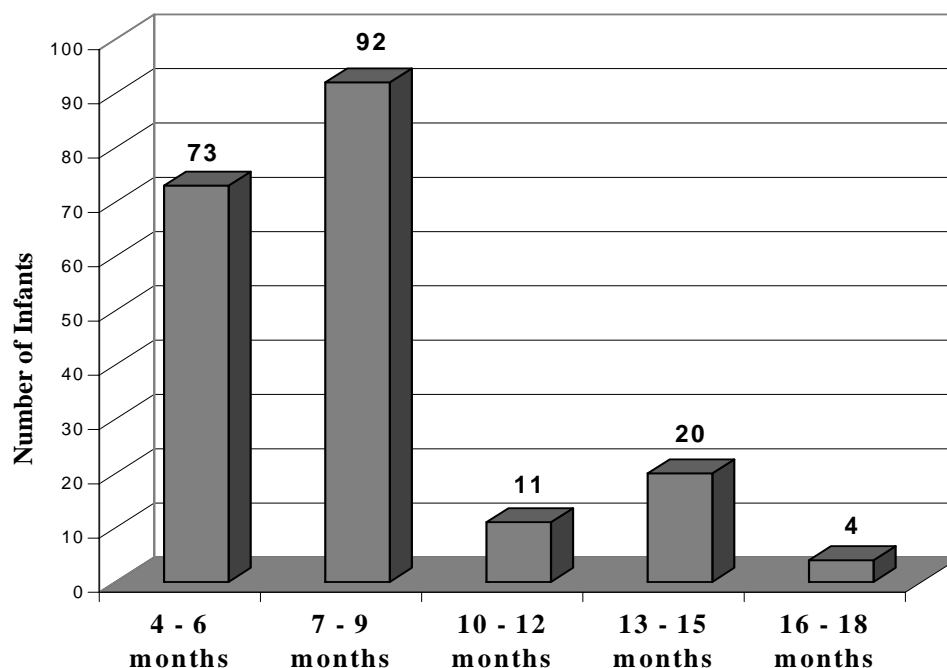


Figure (1): The number of infants grouped according to the eruption time of the first primary teeth erupted.

Table (2): Symptoms suffered resulting from teething distributed by genders.

Symptom	Age Groups (Months)						P - value
	Male (Number = 93)		Female (Number = 107)		Total (Number = 200)		
	Number	%	Number	%	Number	%	
Increase in biting or chewing	93	100	107	100	200	100	1.000
Fever	88	94.62	93	86.92	181	90.5	0.961
Irritability	83	89.25	97	90.65	180	90.0	0.602
Sleep disturbance	76	81.72	97	90.65	173	86.5	0.227
Lose of appetite	65	69.89	81	75.70	146	73.0	0.280
Diarrhea	49	52.69	50	46.73	99	49.5	0.731
Dribbling	46	49.46	52	48.60	98	49.0	0.483
Runny nose	32	34.41	33	30.84	65	32.5	0.211
Vomiting	30	32.26	27	25.23	57	28.5	0.771
Cough	24	25.81	26	24.30	50	25.0	0.315
Diaper rash	24	25.81	22	20.56	46	23.0	0.620
Red cheek	22	23.66	23	21.50	45	22.5	0.130
Smelly urine	19	20.43	14	13.08	33	16.5	0.784
Constipation	0	0	0	0	0	0	————
Others	0	0	0	0	0	0	————

No.: Number; %: Percentage.

Table (3): Symptoms suffered resulting from teething distributed according to the age groups.

Symptom	Age Groups (Months)								X ²	P-value
	Below 6 (No.= 65)		6 –12 (No. = 72)		13 – 18 (No.= 63)		Total (No. = 200)			
	No.	%	No.	%	No.	%	No.	%		
Increase in biting or chewing	65	100	72	100	63	100	200	100	0.67	0.720
Fever	65	100	68	94.44	48	76.19	181	100	23.01	0.000
Irritability	63	96.92	66	91.67	51	80.95	180	90.5	9.37	0.000
Sleep disturbance	60	92.31	64	88.89	49	77.78	173	90.0	6.30	0.040
Lose of appetite	60	92.31	61	84.72	25	39.68	146	86.5	52.30	0.000
Diarrhea	11	16.92	59	81.94	29	46.03	99	73.0	57.93	0.000
Dribbling	19	29.23	68	94.44	11	17.46	98	49.5	94.27	0.000
Runny nose	17	26.15	38	52.78	10	15.87	65	49.0	22.51	0.000
Vomiting	12	18.46	33	45.83	12	19.05	57	32.5	16.51	0.000
Cough	10	15.38	36	50.00	4	6.35	50	28.5	114.6	0.000
Diaper rash	13	20.00	25	34.72	8	12.70	46	25.0	9.64	0.008
Red cheek	10	15.38	19	26.39	16	25.40	45	23.0	2.80	0.250
Smelly urine	18	18.06	2	27.69	13	3.17	33	22.5	14.09	0.000
Constipation	0	0	0	0	0	0	0	0	—	—
Others	0	0	0	0	0	0	0	0	—	—

No.: Number; %: Percentage.

Table (4): Methods used for manage teething symptoms.

Methods for manage teething problems	Number	%
Mothers consult a health care centre	91	45.5
Mothers not consult a health care centre	109	54.5
No using of any management for teething problem	63	31.5
Using one or more of the below methods to manage teething problem:	137	68.5
Paracetamol	77	56.20
Object to chew	53	38.69
Anasthetic gels	49	35.77
Natural herbal medicines	9	6.57
Sedating medications	4	2.92

DISCUSSION

The time of eruption of deciduous teeth is highly variable between and within populations; genetic and environmental factors are thought to be important⁽¹⁰⁾. In this study the mean eruption time of the first tooth of the infants was 6.9 ± 2 months and it is within the normal eruption time documented in other studies^(1, 8-10).

The association between teething and some symptoms is an old debate. In this study all of the mothers reported that their children had suffered from different symptoms that are in agreement with other studies. Some of these studies⁽⁹⁻¹²⁾ reported that most of mothers think that infants suffer some illnesses during teeth eruption, while other studies⁽¹³⁻¹⁶⁾ demonstrated that not only the parents, but the medical professionals believe that there is an association between teething and some symptoms.

The most commonly reported symptom was an increase in biting ability which is in agreement with other studies^(7, 9, 14, 17). Hence, irritability, sleep disturbance and lose of appetite were significantly more frequent among smallest age group which in agreement with other studies^(4, 9) that explained those finding directed toward the inability of these young infants to express themselves in other ways and these behaviors represent normal developmental stages, of a relatively trouble – free first 6 months of life, rather than pathology. Another finding was high prevalence of mothers that believe that fever is associated with teething which in agreement with jabber *et al.*⁽¹⁸⁾ who carried out a prospective study of 46 healthy infants and noted statistically significant but only a 0.6 °C rise in temperature on the day of tooth eruption. On the contrary, a cohort study⁽⁸⁾ performed on twenty one infants could not confirm a strong relation between tooth eruption and fever.

Another finding was that diarrhea, dribbling, runny nose, vomiting, cough, diaper rash and smelly urine were significantly highest in (6 – 12) months age group, which in agreement with other studies⁽⁹⁻¹¹⁾ that have addressed possible relationship between teething and more general symptoms, while others concluded that the toddlers who have tendency to put objects in their mouth and the contaminated objec-

ts considered to be the causative factor for infection⁽¹⁹⁾. While other studies⁽²⁰⁻²²⁾ illustrated that severe infectious systemic upsets are unrelated to teething and, if present, the infant should be promptly referred to the physician for an accurate diagnosis and appropriate treatment. Since the eruption of teeth is a normal physiologic process, the association with fever and systemic disturbances is not justified, and should be considered coincidental to the eruption process rather than related to it.

All the mothers reported some symptoms during teething, most of them were managed without the help of a medical professional. The most common methods were over – the – counter pain – relief medications and teething objects, while others used topical and systemic pharmacological preparation and the natural herbal therapies which are safe and recommended in the medical literature and in agreement with those reported in other studies^(9, 11, 21).

CONCLUSIOS

It is commonly believed that teething in infant can cause a variety of signs and symptoms. In this study all the mothers believed that teething is associated with the appearance of symptoms, some of which are minor and related to discomfort, while others are physical illness and these still ascribes potentially serious symptoms to teething. So the danger of attributing all symptoms to teething without ruling out other possible causes must be emphasized.

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