

Parental Myths, Beliefs, Awareness and Practices Regarding Teething in Infants

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ABSTRACT

Background: Teething is a physiological process that involves the eruption of teeth from their intraosseous position in the jaws into the oral cavity. **Objective:** To investigate parental beliefs, myths and awareness that exists regarding teething and to find out parental practices to alleviate teething troubles in their children. **Study Design:** Descriptive cross-sectional study. **Settings:** This study was conducted at Outpatient Department of Sharif Medical and Dental College & CMH Lahore Medical College and Institute of Dentistry. **Duration:** Six months from May 13, 2021 to November 13, 2021. **Methods:** This was a descriptive cross-sectional study encompassing 120 parents, conducted at the OPD of Sharif Medical and Dental College & CMH Lahore Medical College and Institute of Dentistry. Parents who have had a past experience of managing their child during his/her teething period were enquired, using a self-designed and validated structured questionnaire. **Results:** According to 87.5% of the parents it was problematic for them to manage their child during teething. Most frequent sign and symptom reported by parents was general irritability (80%), followed by diarrhea (74.2%) and desire to chew / bite on something (70.8%). To alleviate their child's teething troubles, 43.3% of them used homeopathic medicine and 26.7% allowed bottle feeding at night. Almost one-third parents regarded delayed eruption as an abnormality and indication of presence of underlying systemic disease, hence, 2.5% of them wanted to take the child to a faith healer while, 4.2% were in favor of getting a gum incision. Interestingly, 17.5% and 6.7% parents thought that early eruption is a sign of intelligence of the child and sign of a cursed family respectively. **Conclusion:** Myths related to teething and erroneous parental practices to deal with this phenomenon can be detrimental to Childs health, however it is still being reported by few parents. Hence, this matter needs to be addressed and false beliefs to be eliminated with the help of dental health professionals through parental education.

Keywords: Teething, Myths, Beliefs, Awareness, Practices, Infant.

INTRODUCTION

Teething is a stressful and poorly understood phenomenon.¹ People have contemplated and studied the effects of teething on infant's health for long but the traditional beliefs on this have still not been thoroughly overridden by scientific rulings.² During

eruption tooth moves from its developmental position within the jaws, through the mucosa to appear in the oral cavity.³ This begins when the lower incisors erupt around 4-8 months and is completed with the eruption of primary second molars at about 30- 36 months. This timing can fluctuate by as much as six months.⁴

According to epidemiological studies the prevalence of systemic illnesses while eruption of primary teeth ranges from 68-95%.^{5,6} Although, literature is insufficient to conclude that eruption of primary teeth leads to systemic illnesses or they merely coexist at that time period⁷ still there is a need to carefully assess these illnesses during teething to prevent any serious condition from being ignored.⁸ It has been established that certain signs and symptoms such as appetite loss, diarrhea, sleep disturbance, cough, vomiting or fever more than 38.9°C should not be ascribed to teething. Parental belief of systemic symptoms being caused by teething is unsubstantiated but low-grade fever and localized symptoms may be seen.⁹

Uneasiness in infants & anxiety in parents is a common outcome of teething period.¹⁰ Teething troubles may be due to tapering of maternal antibodies^{11,12} moreover, night crying and sleeplessness could be due to attention seeking or separation anxiety.¹³ Considering this, the best possible treatment should aim to relieve the discomfort. The phrase “born with a silver spoon in his mouth” originated around nineteenth century when wealthy parents gave silver spoons to their teething infants to gnaw. Nowadays, this practice is replaced by more reasonable option of cold teething rings.¹⁴ Cold objects cause localized vasoconstriction which helps in reducing inflammation and as biting applies pressure to the gums its gives added relief.¹⁵ Homeopathy and use of natural remedies are commonly adopted by parents as they have reported to help relieve teething discomfort. However, there is not enough evidence that advocates its use in infants. Therefore clinicians must be mindful of the kind of alternative medicine accessible to parents to guide them accordingly.⁹ In the past lancing was commonly used to deal with delayed eruption or teething difficulties, however with the advancement of medical science this practice was abandoned.¹⁶ Moreover according to literature lancing can lead to deformed teeth, defects in enamel and altered mandible size.¹⁷ Midwives in Nigeria believed that early eruption of teeth was due to influence of evil spirits, defying cultural taboos, and long gestational period. They also attributed child exhibiting odd behavior, having wicked spiritual power and mental disturbances to effects of natal/neo-natal teeth.¹⁸

Majority of parents in Jordan wrongly ascribed fever, diarrhea and sleep to teething. Moreover, around eleven percent of them permitted nursing and bottle-feeding at night time to cope with teething troubles.¹⁹ Mistaken beliefs held by parents regarding teething might hinder with the timely identification and management of various systemic illnesses. Although these beliefs are not substantiated, but it is very unlikely that they change their perception. Hence, parents need to be educated

about the false beliefs as well as the facts regarding teething²⁰ and a logical explanation should be given to the anxious parents by medical professionals.⁹

The objectives of this study were to investigate parental beliefs, myths and awareness that exist regarding teething and to find out various practices of parents to alleviate teething troubles in their children. Moreover, to highlight the importance of providing education to parents by dental health care professionals, for improved management of teething as well as eradication of various myths.

METHODS

A descriptive cross-sectional study was conducted encompassing 120 parents, at the OPD of Sharif Medical and Dental College and Institute of Dentistry, CMH Lahore Medical College, from 13/5/2021 to 13/11/2021 with the approval from local ethical committee at Sharif Medical and Dental College (Ref.101-19). A self-designed and validated structured questionnaire with a Cronbach's alpha coefficient of 0.70 was used. After conducting a pilot study on 10 parents with simple modifications, questionnaire was then translated in Urdu.

The questionnaire consisted of 24 items, and it was divided into 4 sections; demographic, parental awareness regarding teething, practices used to alleviate teething troubles, beliefs and myths regarding this phenomenon. The inclusion criterion was parents who have had past experience of managing their child during his/her teething period. However, if their youngest child was more than 10 years old, he/she was excluded in order to reduce the possibility of parents forgetting their experience.¹⁹ Recorded data was coded and entered using SPSS statistical Package version 23.0. Age was reported as mean and standard deviation. Nominal data like level of awareness and practices was recorded as frequencies and percentages.

RESULTS

One hundred and twenty respondents/parents were interviewed. Mean age of the participants was (33.7 ± 6.5) with a female preponderance of (89.2 %). Amongst respondents, 6.7% respondents had primary education, 23.3% had secondary education, 23.3% had higher secondary education, 35% were graduates and 11.7% possessed no formal education. Majority of the mothers were housewives (92.5 %) and half of the fathers (53.8 %) were running their businesses as shown in table 1.

According to 91.7% parents, children experienced difficulty during teething period and 87.5% of them thought that it was problematic for parents to manage the child during this phase. However, 54.2% parents reported improvement in the experience with their subsequent

children and 47.4% owed it to awareness of managing their child during teething, due to their previous experience. Approximately seventy five percent parents were aware of the age of eruption of first deciduous tooth (4-5 months). However, few of them had varying response in which 20% stated that the eruption time was 1.5 to 2.5 years and 4.2% said its 2-3 months. Parents were also questioned whether they had any specific food preferences for their children during teething, 69.2% reported they preferred soft diet, 10.8% said fluid diet and 5.8% stated hard diet while 14.2% parents reported no preference. Although, majority of the parents (80%) thought that dental health care professionals give adequate advice regarding management of teething but upon questioning whether they would take their child to any dental or health care professional during their Childs teething period, 55% of them stated that they will not do so as shown in table 2.

Most frequent sign and symptom reported by parents was general irritability (80%), followed by diarrhea (74.2%) and desire to chew/bite on something (70.8%), amongst one of the many signs and symptoms as shown in (Table 3).

When enquired about the remedies or practices adopted by parents to deal with their child during teething period, more than half of the parents (53.3%) gave their children something to bite on like a teether, 43.3% of them used homeopathic medicine, 26.7% allowed bottle feeding or nursing at night. Other parental practices mentioned by parents to deal with this phenomenon are shown in (Table 4).

On being inquired about early and delayed tooth eruption indications, half of the parents owed it to individual variation. However, 35.8% of the respondents regarded delayed eruption as an abnormality and indication of presence of underlying systemic disease. As far as early eruption is concerned, interestingly, 17.5% and 6.7% parents thought it's a sign of intelligence of the child and sign of a cursed family respectively. See (Figure 1). Almost one-third of parents stated that early and delayed eruption has no effect on Childs health in addition to stating that children exhibit strange behavior in case of early (37.5%) and delayed (38.3%) eruption. See (Figure 2)

Upon enquiry regarding parents response in case their children have variation in eruption timings, more than half of the parents (51.7%) wanted to take the child to a dentist/medical professional in case of early eruption as compared to just 14.2% in case of delayed eruption time. On the contrary 2.5% of them wanted to take the child to a faith healer in this case. Furthermore, 4.2% were in favor of getting a gum incision in case of delayed eruption. (Figure 3)

Table 1: Demographics of the study participants

Characteristic	Detail	Percentage %
Gender	Male	10.8%
	Female	89.2%
Educational Level	Primary Education	6.7%
	Secondary Education	23.3%
	Higher Secondary Education	23.3%
	Graduates	35%
	No Formal Education	11.7%
Occupation	Housewives	92.5%
	Fathers Running Businesses	53.8%

Table 2: Awareness and beliefs about teething among the parents of the children

Questions	Responses	Frequency
Beliefs of parents based on their experiences?	Children experienced difficulty during teething	91.7%
	It was problematic for parents to manage the child during teething period	87.5%
	Improvement in parents experience of managing the child during teething in the subsequent children	54.2%
	Owing improved experience, to increased awareness of managing children during teething, due to previous experience.	47.4%
When does the first tooth appear in the mouth?	4-5 months	75%
	1.5 to 2.5 years	20%
	2-3 months	4.2%
Any specific food preferences for your babies during teething?	Soft diet	69.2%
	Fluid diet	10.8%
	Hard diet	5.8%
	No preferences	14.2%
Do dental health care professionals give adequate advice regarding management of teething?	Adequate advice	80%
Do you take your babies to any dental or health care professional during teething period?	Yes	55%

Table 3: Signs and symptoms related to teething

Signs & Symptoms	Percentage %
General irritability	80.0%
Diarrhea	74.2%
Desire to chew/bite on something	70.8%
Gum irritation	67.5%
Fever	61.7%
Thumb sucking	45.0%
Sleep disturbances	27.5%
Increased salivation/drooling	25.0%
Ear problems	20.0%
Runny nose	13.3%
Vomiting	12.5%
Constipation	10.8%
Increased susceptibility to other diseases	10.8%
Skin rash	5.0%
Heavy headedness	4.2%
Cough	3.3%

Table 4: Remedies/Parental practices to deal with teething

Remedies / Parental practices	Percentage %
Something to bite on / teether	53.3%
Homeopathic medicine	43.3%
Bottle feeding / nursing at night	26.7%
Increased fluid provision to prevent dehydration	26.7%
Oral analgesics	17.5%
Topical anesthetic application on gums	15.0%
Gum massage	15.0%
Honey	4.2%
Gripe water	2.5%
Head massage	1.7%
Herbal medicine	1.7%

Figure 1: Early and late eruption indicates

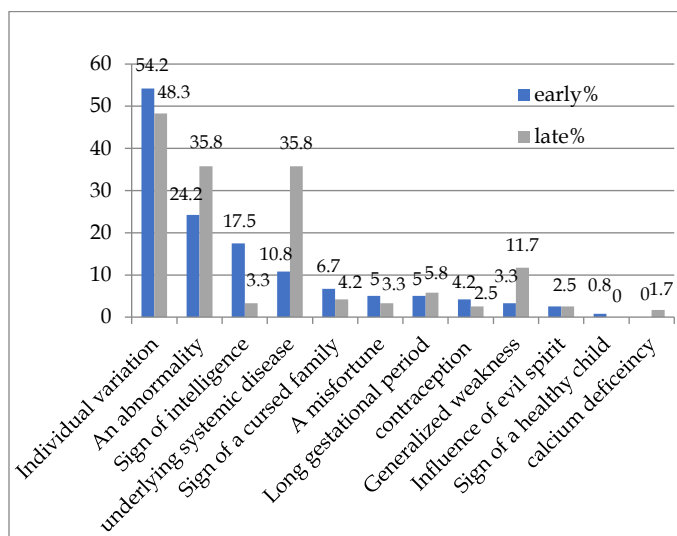


Figure 2: Effects of early and delayed tooth eruption on child health / behavior

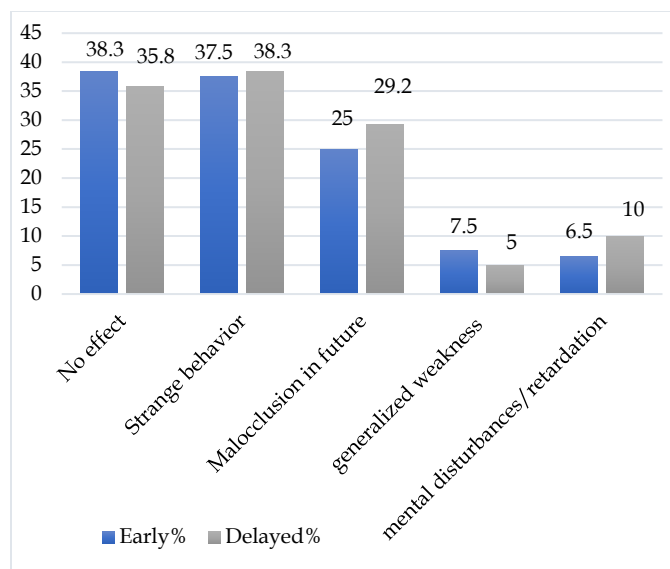
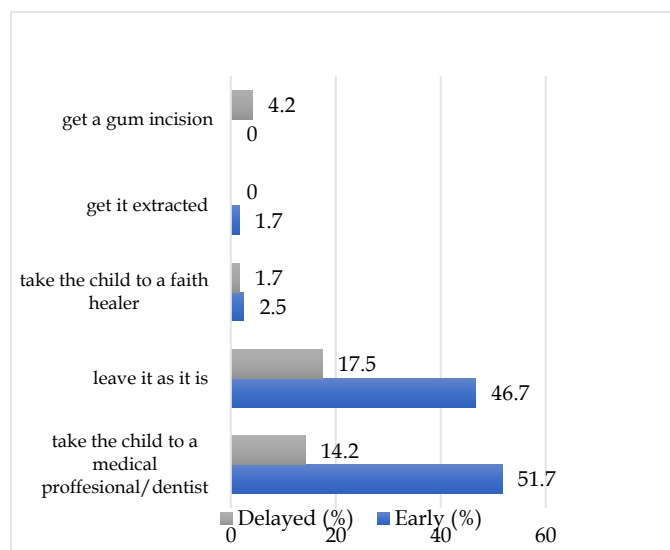


Figure 3: Parents response to arsy and delayed eruption



DISCUSSION

Upon analysis of the demographic data, greater percentage of mothers/females responding to the questions could be suggesting that in most instances, mothers are the primary caregivers to the infants and are better at recalling and reporting their children’s teething experience than the fathers such as studies done in Saudia and Nigeria.^{19,21,22}

Respondents of this study also reported broad range of signs and symptoms related to teething, which is in accordance with the previous studies.^{5,7,8} However, in past studies the most commonly reported symptom was fever,^{19,21,23} but in our study, it was general irritability (80%) exhibited by the child. Some earlier reports state

that mild increase in body temperature is seen during tooth eruption,^{24,25} however an Iranian study found that the misconception that teething leads to fever was widespread in many mothers, whereas few of the children actually had fever when checked clinically.¹⁵ This may reflect parents' mistaken belief in the relationship between teething and fever.^{15,26,27} Reported fever can be a result of child's developmental changes for instance decrease in maternal immunity and increased susceptibility to infections.^{7,28} Moreover, release of tumor necrosis factor (TNF) alpha and IL-1beta may be contributing to fever and sleep disturbances.²⁵ Parents believe that they see changes in their child's behavior specifically during teething, as gum irritation may lead to irritability.^{1,13,28} In our study other prevalent signs and symptoms associated with teething were, desire to chew/bite on something, gum irritation and drooling which is in line with previous studies.^{6,7,29} Drooling may result from irritation of the gums⁷ excessive saliva may cause cough or skin rash which is not alarming as long as child is systemically healthy.^{1,28} Seventy four percent parents reported diarrhea as a teething symptom in our study which is in accordance with the study conducted in Irbid.¹⁹ The reason for this difference could be postulated to higher incidence of diarrhea in underdeveloped countries like Nigeria and Pakistan as compared to advanced countries like Australia. Moreover, contamination of the objects that infants tend to bite on while teething might cause loose stools. According to other studies, even swallowing excess saliva⁹ as well as release of IL-8 and IL-1beta cytokines²⁵ have been considered to contribute towards diarrhea in infants during teething.

More than half of the respondents of our study gave something to their children to bite on like teether (53.3%), among other remedies to deal with teething troubles, which is similar to the studies conducted in Saudia²¹ and Iran.¹⁵ Almost seventeen percent parents gave oral analgesics and fifteen percent applied topical anesthetic on gums to relieve teething pain in our study. These findings are similar to a study from south-east Nigeria²³ but contrary to few other studies which report much higher percentage of people using these remedies.^{19,21} A little less than half the parents of our study (43.3%) used homeopathic medicines which is way more than used by respondents of a study conducted at Enugu.²³

Almost half of the respondents of our study considered early eruption as a result of individual variation and only five percent wrongly owed it to long gestational period which is similar to a study conducted in the past.¹⁸ However, there were a small percentage of parents from our study who attributed early eruption to influence of evil spirits which is very less than the one mentioned in the study conducted at Ibadan. Misconceptions like these

and others mentioned by parents in our study and other studies can be a result of low literacy rates of these underdeveloped countries; furthermore, it reflects the lack of awareness regarding this phenomenon.

Parents of our study also attributed strange behavior and mental retardation of child to early eruption, as in the study conducted in Nigeria.¹⁸ Moreover, in our study more than half the respondents wanted to take the child to a medical professional/dentist in case of early eruption which indicates that they consider early eruption as a problem that is to be addressed. Moreover, few parents wanted to take the child to a faith healer in case of early eruption and some wanted to get a gum incision in case of delayed eruption although literature does not support this.⁹

CONCLUSION

Majority of the parents believed that teething is very troublesome for the child as well as it is problematic for parents to manage their children during this phase. Among varying signs and symptoms related to teething, general irritability and diarrhea were most commonly reported. Moreover, Myths related to teething and erroneous parental practices to deal with this phenomenon can be detrimental to Childs health; however, it is still being reported by few parents. Hence, this matter needs to be addressed and false beliefs to be eliminated with the help of dental health professionals through parental education. Further research, with a bigger sample size and from various cities of Pakistan is essential to explore the role of proper education of parents by dental health care providers and its effect on eradicating false beliefs regarding this phenomenon of teething.

LIMITATIONS

In this study sample size was small.

SUGGESTIONS / RECOMMENDATIONS

Further studies should be conducted with larger sample size.

CONFLICT OF INTEREST / DISCLOSURE

There is no conflict of interest.

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