



# Parental Attitudes Regarding the Primary Dentition, Dental Decay and Trauma

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## Introduction

- Early Childhood Caries (ECC) is defined as the presence of at least one decayed tooth (cavitated or non-cavitated), missing teeth (due to caries), or filled dental surfaces (due to caries) in any primary tooth in a child aged six years or younger.<sup>1</sup>
- Dental caries is the single most common chronic childhood disease, 5 times more common than asthma.<sup>2</sup>
- Children were more likely to develop early childhood caries if their caregiver disagreed that primary teeth were important.<sup>3</sup>
- Child at a higher risk for development of dental caries if their diet contains high levels of fermentable carbohydrates.<sup>4</sup>
- The purpose of the study is to test knowledge of parents/guardians regarding primary dentition and to determine their level of concern regarding signs of decay and trauma.



Mild/Moderate Decalcification



Severe Decay



Severe Decalcification with Facial Caries



Discoloration from Previous Trauma



Healthy Dentition



Intrusion from Previous Trauma

## Methods

**Recruitment:** This was a cross-sectional study distributed to the parent or guardian at any new patient examination or recall examination appointment

The following exclusion criteria were used:

- Any non-English speaking parents or guardians
- Parents or guardians who brought their child for any other type of appointment besides a new patient or recall examination (restorative procedure, consult, sedation)

## Data Collection:

- Study data were collected and managed using REDCap
- Survey was given by the dental provider (first or second year pediatric dental residents) to the parent or guardian at any new patient examination or recall examination appointment
- Parent demographics gathered in the survey: gender, age race and level of education
- Parents asked to note their own personal dental experience: regular dental visits, fillings/restorations, extractions, orthodontics, gum disease/surgery, dentures
- Knowledge-based questions required parents to agree or disagree with statements about the primary dentition
- Parents shown six images/cases and asked to determine level of concern for each of the six cases
- After review of the cases, parents asked to state their level of concern (from extremely concerned to not at all concerned)
- State timeline of evaluation by a dentist based on their level of concern

**Statistical analysis:** Responses summarized with descriptive statistics (counts, percentages, median, interquartile range). Association between respondent characteristics and responses to knowledge questions were compared with chi-squared tests. Association between level of concern and timing for dental visits were also compared with chi-squared tests.

## Results

	Agree/Strongly Agree	Median*	IQR**	
Baby teeth are important.	95%	2 (Strongly Agree)	1	2
Frequently eating food or drinks that contain sugar may cause cavities.	93%	2 (Strongly Agree)	2	2
No function - they will all fall out and be replaced with adult teeth (Disagree/Strongly Disagree)	54%	-1 (Disagree)	-1	1
Ability to eat	95%	2 (Strongly Agree)	1	2
Jaw growth	81%	1.5 (Agree/Strongly Agree)	1	2
Hold space for adult teeth	92%	2 (Strongly Agree)	1	2
Ability to fit in with friends/peers	62%	1 (Agree)	0	2

A total of 107 guardians participated in the study. Guardians demonstrated strong knowledge of importance of baby teeth, with greater than 90% of guardians agreeing or strongly agreeing that primary teeth are important (95%), impact ability to eat (95%), and that they hold space for adult teeth (92%). Guardians were also aware that sugary foods/drinks cause cavities (93%), However, only 62% agreed/strongly agreed that they are important for fitting in with friends/peers. Almost half still agreed or strongly agreed that baby teeth have no function and will be replaced (46%).

## Discussion

The results from the 7 questions evaluating guardians' knowledge of importance of baby teeth showed that more than 90% agreed or strongly agreed to the statements: "Baby teeth are important" (95%), "Frequently eating food or drinks that contain sugar may cause cavities" (93%), that baby teeth are "important for the ability to eat" (95%) and that they "hold space for adult teeth" (92%). These results show that the parents or guardians from the VCU Pediatric Dental clinic are aware of the importance of baby teeth and that they have several functions (eating and holding space for adult teeth). Parents and guardians also recognized that frequently eating food or drinks that contain sugar may lead to cavities. It is to be noted on the statement "baby teeth have no function and will all fall out and be replaced by adult teeth", only 54% of parents and guardians disagreed and 38% of parents have either agreed or strongly agreed. There was an association with respondent's race as 80% of Caucasian compared to 43% of Black or African American respondents disagreed with this statement. Untreated caries in baby teeth is a strong predictor of future caries in the permanent dentition which indicates the chronic nature of this disease. Failure to recognize the importance of baby teeth among parents and guardians is associated with adverse health habits and outcomes for their children such as less frequent tooth brushing and a lower likelihood of having regular preventative visits to the dentist.<sup>5</sup>

## Conclusion

Parents and guardians appear to have a general understanding and knowledge of their child's primary (baby) teeth, but increased guardian education on the early signs of decay and anticipatory guidance regarding dental trauma could help to prevent cavities from forming and help parents and guardians understand the significance of a traumatic dental injury.

## References

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