

The Relationship Between Language, Birth Order, and Frequency of Parent's Dental Visits and the Pediatric Patient's Dental Health

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BACKGROUND

Oral health can be impacted by genetics, parental influences, hygiene practices, and more. If the dentist is aware of factors at play that could be increasing the oral health risk of their patient, they could engage in further education of the parents and/or child to ensure the patient has optimal knowledge and resources to maintain good oral health. Any factors that correlate with poorer oral health of the child may indicate a need for targeted interventions and resources supporting dental hygiene.

A DMFT > 5 is considered moderate or high caries experience, and DMFT ≤ 5 is considered low or very low caries experience.¹

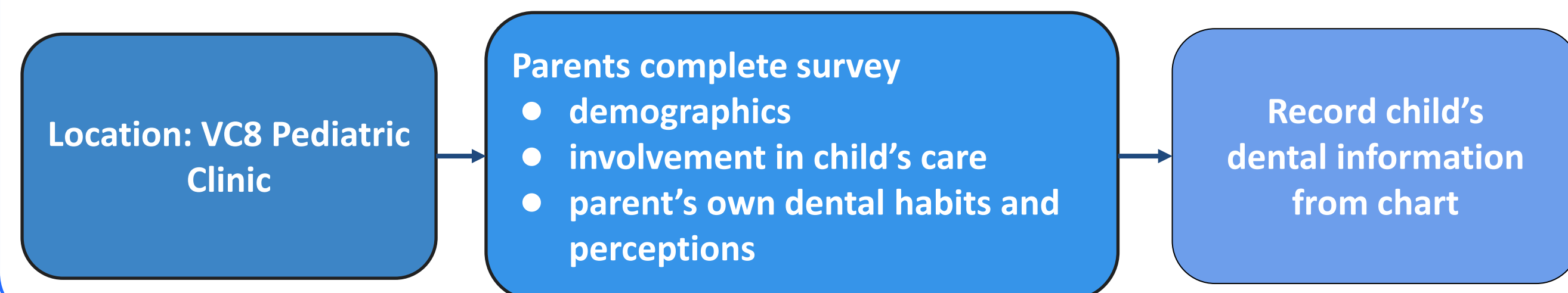
DMFT: The DMFT index is the sum of all decayed, missing, and filled teeth due to caries in a patient's mouth. A higher DMFT score is an indicator of poorer dental health.

OBJECTIVES

The objective of this study is to identify factors both in children and parents that may correlate with worse oral health outcomes for the pediatric patient.

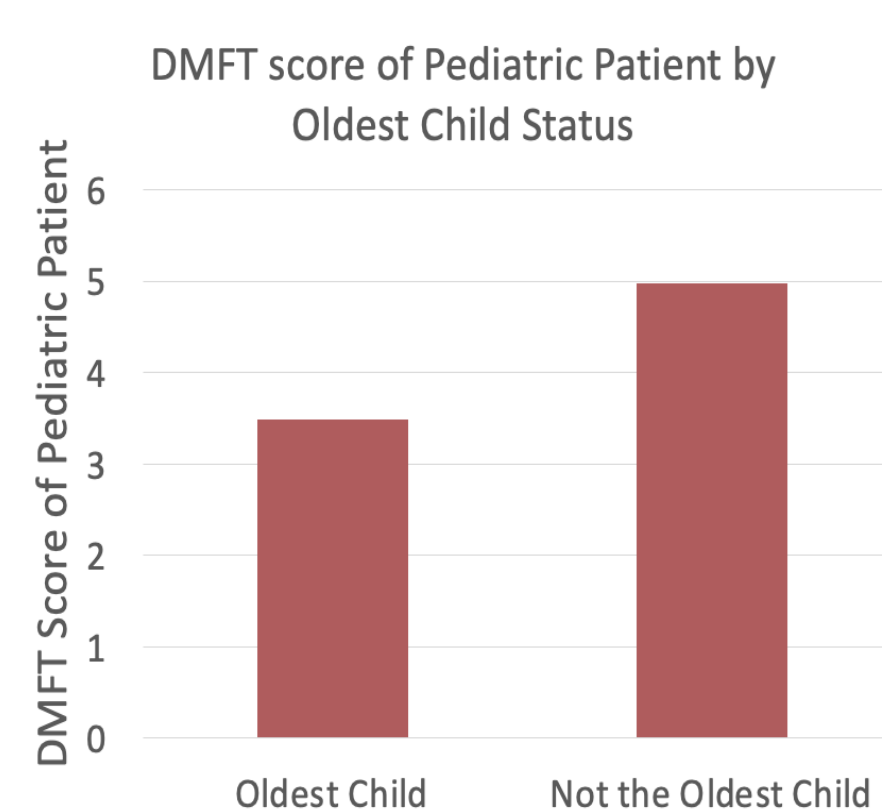
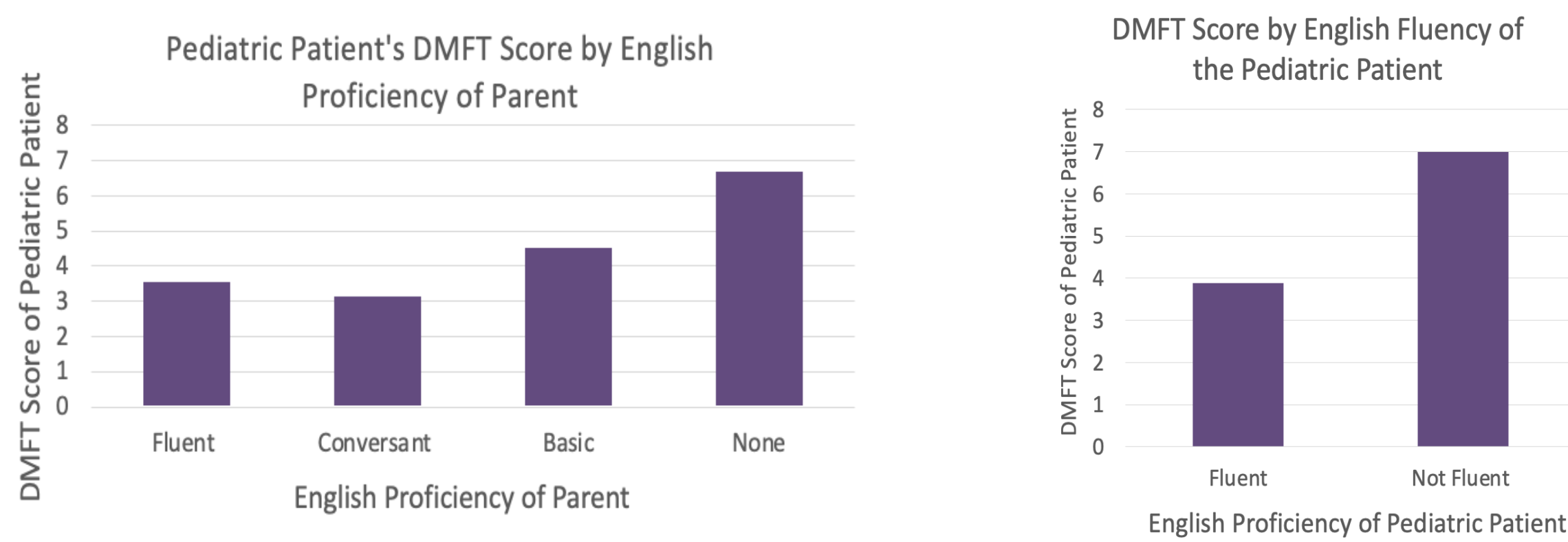
MATERIALS & METHODS

In the VC8 Pediatric Dental Clinic, 81 parents of pediatric patients ages 8-13 answered survey questions including demographic data, information about the parent's own dental care and perceived level of importance of dental care, and how involved the parents were in their child's oral hygiene. Data obtained regarding the pediatric patient included frequency of brushing, flossing, use of fluoridated products, and information from medical records about appointment compliance and number of decayed, missing due to caries, and filled teeth (DMFT).

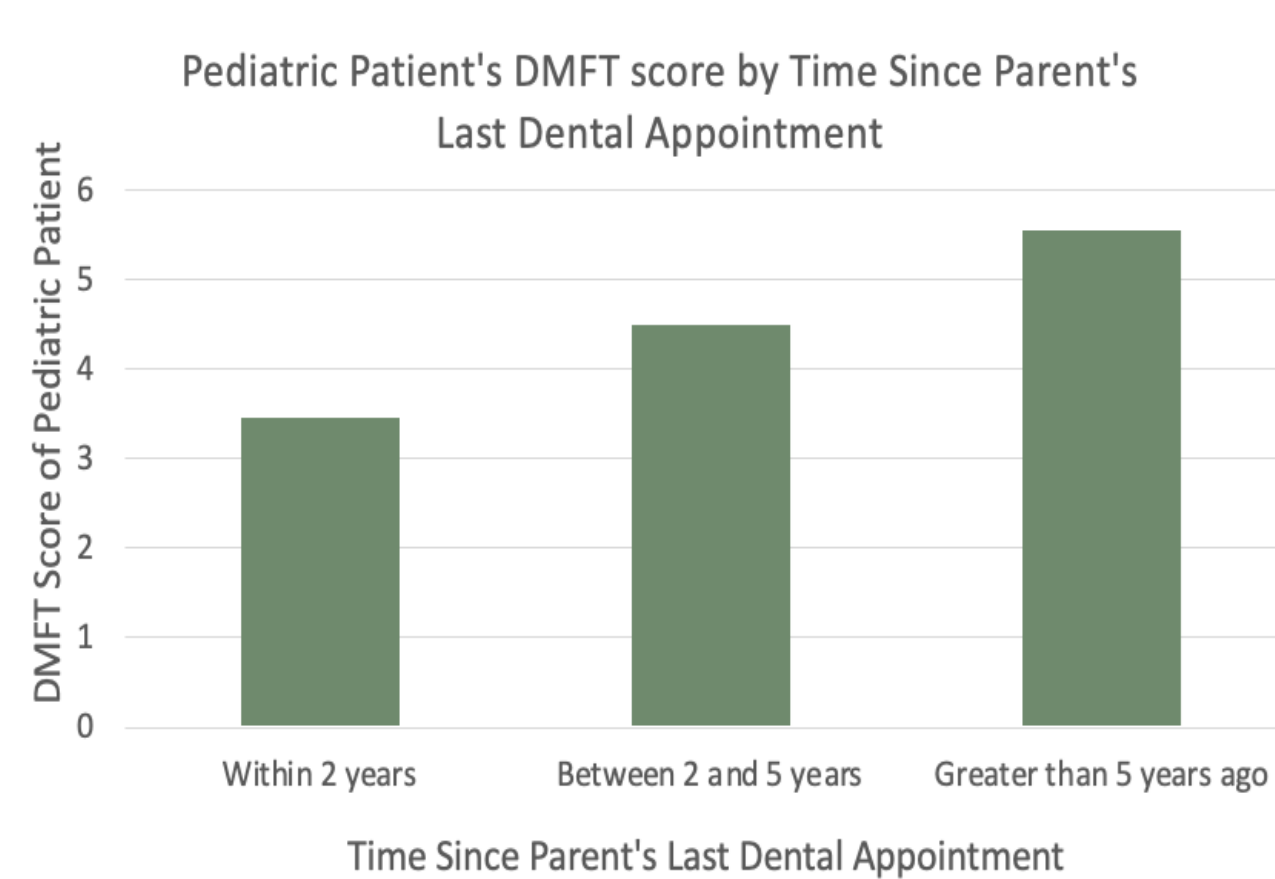


RESULTS

Parents with more proficiency in the English language tended to have children with lower DMFT scores, though the relationship was not significant ($p=0.077$). However, children who were fluent in English did have significantly lower DMFT scores than children who were not fluent in English ($p=0.046$).

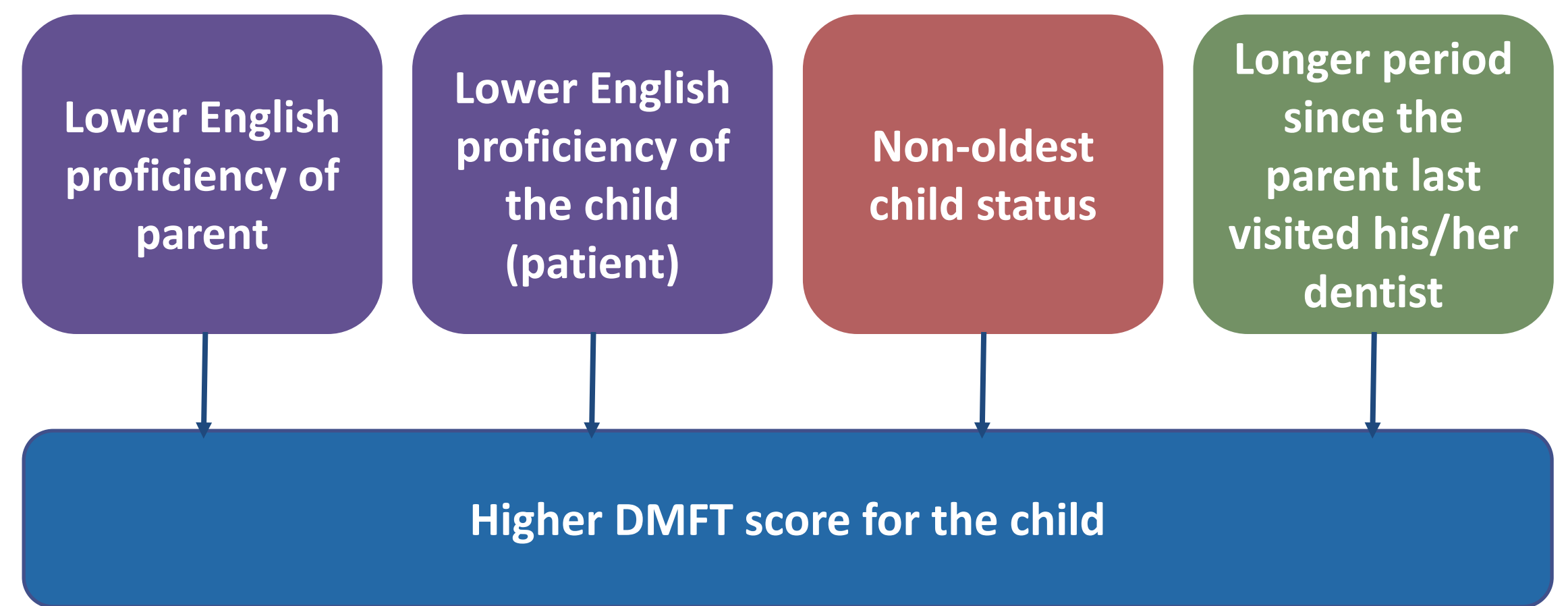


Oldest children in a family had significantly lower DMFT scores ($p=0.036$) than children who were not the oldest child. Beyond the first child, however, birth order did not trend with DMFT score.



There was a correlation between recency of parent's last dental visit and the DMFT scores of their children, though this relationship was not significant ($p=0.188$). Factors such as how involved parents were in their child's brushing and flossing, age child began to brush independently, and patient no-show rates were not found to correlate with children's DMFT scores in this study.

DISCUSSION



These risk factors identified suggest opportunities for intervention in order to improve the dental health of pediatric patients.

The level of English proficiency of both parents and the child did correlate with the child's DMFT scores, but only the child's proficiency did so with significance. While parents are no doubt a crucial contributor to the child's oral health, we may be overlooking the importance of the child understanding oral hygiene instruction and dental treatments. Although translation services are already available in the VC8 clinic, it is crucial to ensure that the child thoroughly understands the dentist, especially if they do not speak English fluently.

The oldest child tends to have a lower DMFT score, indicating that additional attention may need to be given to successive children to ensure they have proper oral hygiene instruction and that the parents encourage good at-home dental care, even for younger children.

Finally, as parents who saw their own dentist less frequently tended to have children with higher DMFT scores, dentists should be aware of the interaction between parental oral health and their child's oral health. Especially when dental care is less routine for the parents, interventions can be made to instill the importance of routine dental care for the parent and the pediatric patient.

CONCLUSIONS

A child's oral health is influenced by many familial factors. Those identified in this study are English language proficiency of the child and their parent, birth order, and the parent's own frequency of visiting the dentist. These factors, and the many others that influence how children take care of their teeth, can guide interventions in order to best care for patients with these risk factors. Ensuring that both the parent and child understands the importance of routine dental care, especially if a language barrier is present, is a critical step in developing healthy dental habits in the pediatric patient.

Limitations:

- Response bias: *as this survey was completed during the child's dental visit via self-reporting by the parent, there may have been a social desirability bias*
- Older age group: *this survey was limited to the VC8 Clinic, which sees children ages 8-13, so it is not known how the factors studied affect patients younger than 8 years old*
- Limited access to child's prior dental records, especially for new patients: *Without access to many of the children's prior dental records, there may have been missing information for children with prior caries*

Future directions:

- Allow the survey to be completed outside of the dental office to avoid response bias
- Perform study in a dental clinic that sees younger patients in order to investigate the correlation of these factors with the dental health of children younger than 8
- Match children who are not fluent in English with a dental provider fluent in their primary language to investigate if this mitigates the higher DMFT scores seen in this group

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