The Association of Parental Immigration Status and Cultural Dental Perceptions in Country of Origin with the Oral Health of Children

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Introduction

A variety of factors relating to a parent's immigration history including country of birth, time spent in the United States, and age at immigration have been shown to influence oral disease prevalence, independently of most known risk factors for oral diseases. The aim of this study is to determine whether the immigration status and history of a parent, as well as the cultural nuances and dental perceptions in the country of origin, has an effect on the oral health of his or her child including increased risk of caries.

We hypothesize that the longer a parent has been in the U.S. the lower DMFT/dmft the child will have.Parents of children ranging from the ages of 1-17 who are established patients of St. Barnabas Hospital (SBH) and Union Community Health Center (UCHC) will be asked to participate in this study. Parents of the patients will be asked to fill out a structured questionnaire with each item having multiple choice answers with questions related to access to dental care, oral health practices, self-perception of child's oral health, self-perception of child's need for oral health care, immigration history, knowledge regarding oral health, and attitudes regarding oral health. A Decayed, Missing and Filled Teeth (DMFT/dmft) score will be calculated for each patient.

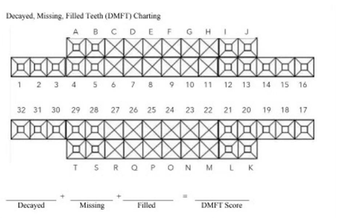

Figure 1. DMFT/dmft collection chart

Study Objectives

- To determine whether parental immigration history and cultural perceptions of dental care in country-of-origin place children at an increased risk of developing dental caries with higher DMFT/dmft scores.

Methods

Subjects

One hundred and two parents born outside of the U.S. of patients aged 1-17 years old that were born in the U.S. met the inclusion/exclusion criteria and took part in the study.

Patient Selection
Inclusion Criteria: One hundred and two foreign born parents of children who have previously had exams at SBH.
Exclusion Criteria: Parents that were not foreign born, parents with children born outside the US, and patients with insufficient information to calculate DMFT/dmft score did not fall within the inclusion criteria.

Data Collection

- A parent, of any gender of U.S. born patient (s) will be included in this study. In order to participate, the US born patients age 1-17 need to currently have a recall/ comprehensive appointment or need to have had at least one comprehensive or recall exam at St. Barnabas Hospital Health System and/or Union Community Health Center where a treatment plan was created, and findings documented with radiographs in order to determine DMFT/dmft.
- Data was collected by pediatric dental residents from St. Barnabas Hospital. The second portion of the study included a clinical and radiographic exam or retrospective review of clinical and radiographic exam in order to calculate the DMFT/dmft percentage which will be used to calculate the caries prevalence for each child.

Results

Statistical Analyses

The data collected was analyzed using correlations followed by multiple regression analysis. Three main questions were chosen to present and analyze including years in the U.S., how oral health hygiene was perceived in country of origin, and if participant learned about oral hygiene in country of origin.

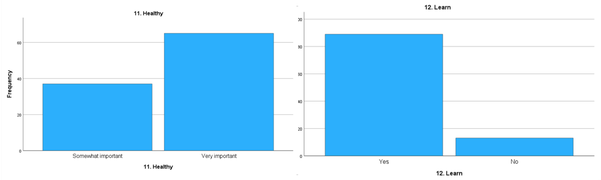

Chart 1. Frequency of answers to question #11 which asked do you feel healthy teeth were perceived as important in your country of origin.
Chart 2. Frequency of answers to question #12 which asked did you learn about brushing and flossing in your country of origin.

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	28.863	11.668		2.474	0.015
2. Years	-0.364	0.235	-0.158	-1.550	0.124
11. Healthy	2.268	3.621	0.064	0.626	0.532
12. Learn	1.573	5.181	0.031	0.304	0.762

Answer values for three questions were run with a multiple regression and found not statistically significant.

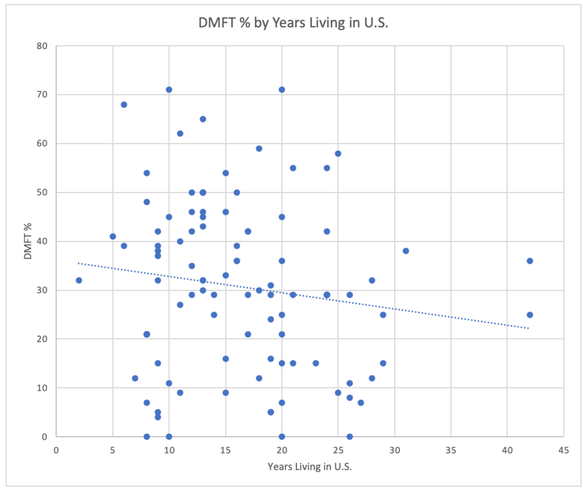

Chart 3. Though no statistical significance was shown in analysis, when comparing DMFT % to years living in the U.S., a trend was seen of lower DMFT % the longer the parent has been in the U.S.

Discussion

- A correlation exists in pediatric patients with foreign born parents with higher caries incidences. Specific interventions may be implemented to improve patient oral health,with the understanding that parental immigration history and cultural perceptions of dental care may place patients at increased risk of developing dental caries.
- With this, practitioners may provide early and specific interventions to communities with children with foreign-born parents. This may include educating patients and parents of the importance of oral hygiene instruction, attending routine dental visits to maintain oral health and ensuring children are eating a healthy diet and brushing and flossing daily and why these practices are so important.

Conclusions

- Public health initiatives to provide early and preventative interventions to communities where parents of immigrant status may improve oral health of pediatric patients.
- This study allows us to provide interventions to set the stage for patient oral health and hygiene practice for the rest of their lives and impact future caries and associated complications.

Study Limitations

- Other external/confounding factors that may have an affect on patient's DMFT/dmft
- Because the surveys collected self-reported information, the possibility of recall bias exists

References

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