Evaluating Parent's Resources for Infant Oral Health Knowledge

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INTRODUCTION

▪Studies have shown that inadequate knowledge and attitude among caregivers is the major reason for poor oral health status among their children. Parents of infant and toddler children currently have access to a wide array of information regarding oral health habits and practices. While studies show the most trusted source of health information continues to be healthcare providers, individuals draw on a number of resources for health information.

▪The reliance on 3rd party sources such as social media or the internet has undoubtedly become increasingly substantial in today's society. Although these avenues lend strong support to new, overwhelmed parents, it also raises concerns about the quality and credibility of the information on the internet. Parenting attitudes and practices are now being shaped by internet websites, social media platforms, various healthcare providers, and cultural influences. The COVID-19 pandemic has also greatly influenced the healthcare field and accessibility of dental care, further delaying the initial dental visit and establishment of a child's dental home.

▪No previous research has been conducted in identifying parent's resource on infant or toddler's oral health knowledge or the impact these third-party resources have made on the child's caries morbidity. The aim of this study is to identify the first sources of information utilized by new parents regarding their child's oral health and the association to the child's prevalence of caries.

METHODS

This descriptional cross-sectional study was carried out at the Department of Pediatric Dentistry at the Nicklaus Children's Hospital between March 2021 to November 2021. First time parents/guardians with a single child of four years or younger were included. The objective of this study was explained to the parent or guardian accompanying the patient. An 18-item oral health questionnaire was completed by the parent/guardian to record demographics and assess the parent's knowledge on a variety of topics related to a child's oral healthcare. Upon completing a clinical and radiographic evaluation, the dental provider recorded the child's dmft index.

Survey results were tabulated in REDCap. Survey responses were aggregated and summarized by two sources of information: dentist and non-dentist sources of information. A 2 Sample T-test (of unequal variance) was performed to assess the mean dmft of parents who utilized a dentist as their initial source vs parents that utilized a source other than dentist (e.g. internet, books, internet, pediatrician, other). An a-priori sample size calculation assuming a two tailed p-value with a minimum effect size of 0.5 for dmft, and 80% power, would require 126 participants if making comparisons between 2 groups. Comparisons with two tailed P values less than 0.05 were considered statistically significant.

RESULTS

Table 1: Initial Sources of Information		
	N	%
Dentist	93	66.9
Pediatrician	17	12.2
Internet Medical Website	14	10.1
Family/Friends/Co-W	13	9.4
Social Media Pages	1	0.7
Table 2: Reason for Child's First Dental Visit		
Pediatrician Referral	76	54.7
Pain/Dental Concerns	27	19.4
Parent's Own Decision	24	17.3

- A total of 139 parents who met the inclusion criteria were surveyed in the study. The majority of parents surveyed included mothers (82%), ages 31-40 years (36%) and of Hispanic origin (87%). The analysis describing the first source of health information showed that the majority (67%) of parents reported the dentist as their first source of information regarding infant oral health, followed by pediatrician as the second source.
- The average age of first dental visit was 20±14 months and 55% of parents reported that their child's pediatrician referred them to the pediatric dentist and prompted the first dental visit.
- The overall average dmft index of the patients included in this study was 3±4. However, 56% of patients evaluated had a dmft score of zero.

Table 3: Child's mean dmft for parents who initially utilize a dentist vs parents who did not

Information Source	Parent has a Dentist?	Child's mean DMFT	N
Dentist	No	4.6	10
	Yes	2.81	75
	Total	3.02	85
Non-Dentist	No	1.6	10
	Yes	1.94	32
	Total	1.86	42

Table 5: Dmft distributation

dmft	Frequency (N)	Percent (%)
0	74	55.6
1	7	5.3
2	9	6.8
3	4	3
4	7	5.3
5	5	3.8
6	3	2.3
7	6	4.5
8	3	2.3
9	3	2.3
10	2	1.5

Table 4: Two sample T-test showing the mean dmft score of children with parents who sought a dentist vs non-dentist for information.

	N	Mean	Standard Deviation	P-value
Dentist	87	3.09	4.331	0.051
Non-Dentist	46	1.78	3.231	

DISCUSSION

▪In contrast to the 2018 Swadoba et al. study that found the internet to be the most frequent initial source of health information, our results showed that new parents most often utilized healthcare providers for information. The primary finding of this study showed that the first-time parents included in this study were most likely to utilize the dentist as their first source of information, followed by pediatricians. The group of parents that utilized a dentist as their first source of information presented with a higher dmft index when compared to the group of parents that utilized a source other than a dentist.

▪One possible reason for the higher dmft score in the "dentist" group is that the parent's child presented with one or more untreated carious lesions that were likely causing them pain and the parent valued the dentist's knowledge and expertise to resolve the source of pain that could no longer be treated or managed by pharmacological means at home.

▪ Given the diversity of sources of information and its widely varied quality, it is critical that dentists stay updated on trends associated with changes in how individuals source their health information. The combination of credible resources and earlier dental visits consisting of anticipatory guidance will provide early interventions, prevention of oral disease, and opportunities for necessary referrals.

A major limitation of this study is the sample size and convenient sampling methodology. A randomized controlled trial with a larger sample size is needed for future studies to further evaluate the variety of sources utilized by new parents and identify trends or patterns of certain demographic groups when searching for health information. A second limitation of the study could be the self-reported data, as parents may not always accurately recall details of their child's first dental visit or whether certain information sources were utilized. Lastly, the dentist administering the exam could also present a potential social desirability bias because the parent may feel inclined to answer in a manner that pleases the investigator. Conducting a similar study at other sites, such as schools/pediatrician offices/online forums while also excluding children with a dmft of zero could also provide more data variability and potentially yield more varied and significant results.

CONCLUSIONS

Based on this study's results, the following conclusions can be made:

1. The study observed that overall, the parent's initial source of information did not greatly influence the child's dmft.
2. The most common reason for the initial dental visit was that pediatricians referred the patient to a dentist (54%). The 2nd most common reason was that the child was experiencing dental pain or the parent had dental-related concerns (19%).
3. Healthcare providers, such as dentists and pediatricians, continue to be a trusting source of reliable and accurate information, despite the numerous resources available to new parents.