



Assessment of Pregnant Women’s Knowledge of Infant Oral Health

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Introduction

Early Childhood Caries (ECC) continues to be a public health concern that has several negative implications for children and their families including pain, high treatment costs, and negative health outcomes.¹ This common childhood disease is defined as “the presence of one or more decayed, missing or filled surfaces, in any primary tooth of a child under six years of age.”² The cause of ECC is multifactorial. There are several preventative strategies to help reduce the prevalence of this disease. Establishing a dental home, improving oral hygiene, reducing a cariogenic diet, and applying topical fluoride can aid in minimizing ECC.³ It is important for caretakers to receive anticipatory guidance (information regarding a child’s growth and development) in a timely manner.⁴ The perinatal period, which includes the 20th-28th week of gestation to 1-4 weeks after birth, is an effective time to educate parents about infant oral health to help reduce the number of children with ECC.^{2,5} Oral health education can also be beneficial for pregnant patients in reducing risk of periodontal disease and adverse pregnancy outcomes.⁶

Objective

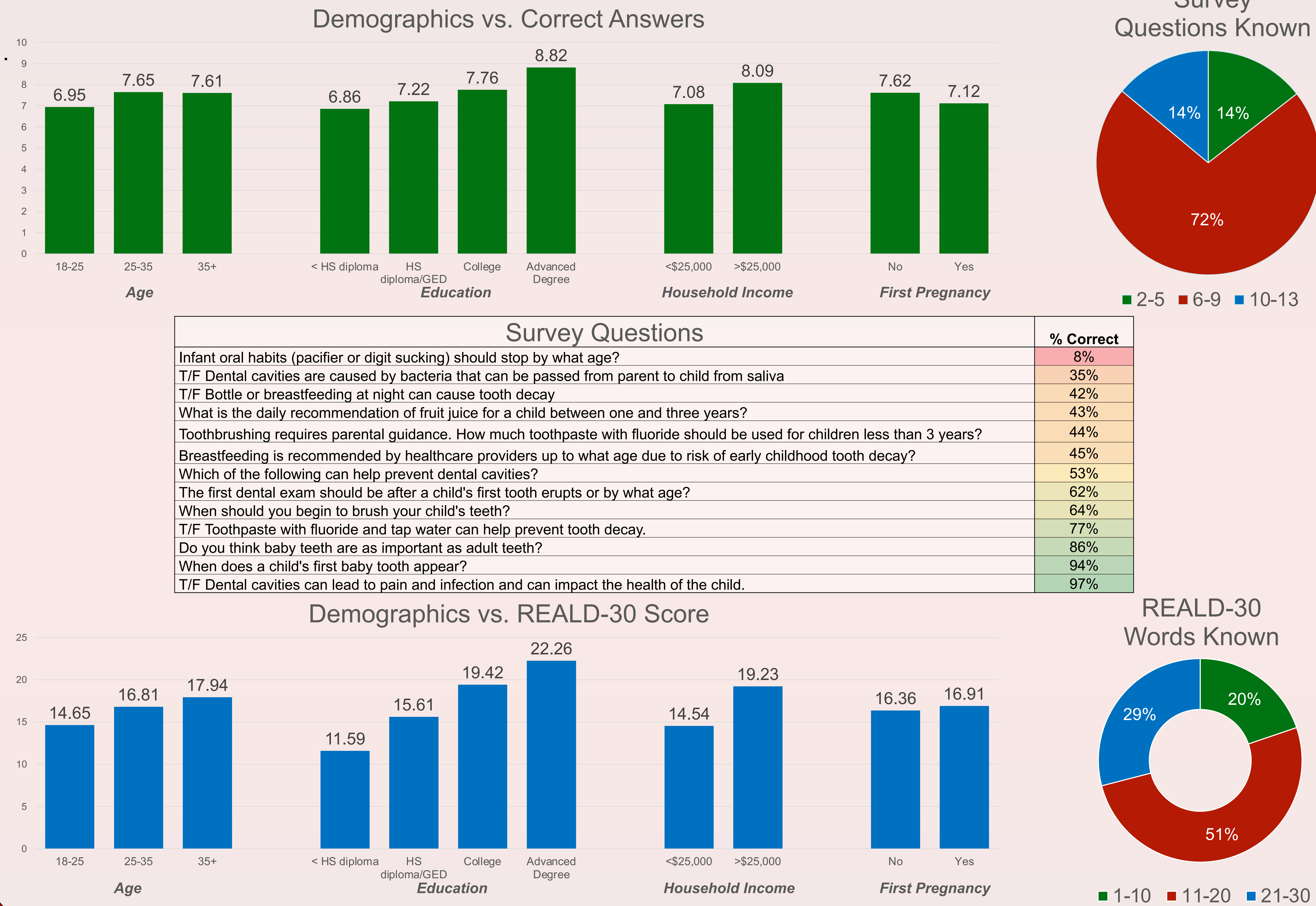
The purpose of this study is to assess the infant oral health knowledge of pregnant patients of UofL OBGYN medical offices using a survey, and to compare the responses between different demographics.

Methods

A 20-question survey was distributed to 415 pregnant patients in their perinatal period at the UofL OBGYN clinic and UofL Hospital Labor and Delivery floor. The survey questionnaire contained 6 demographic questions, 13 infant oral health questions, and dental terminology from the REALD-30 (Rapid Estimate of Adult Literacy in Dentistry). Questions were in multiple choice and true/false format, and available in both English and Spanish. Following the completion of the survey, participants received a handout with infant oral health information.

Questionnaires with greater than 8 unanswered questions and no response to REALD-30 were excluded from the data analysis. An independent t-test and one-way ANOVA was used to compare quiz scores and REALD-30 words known. A Chi-squared test was used for participant’s responses to last dental visit and confidence in taking care of their child’s teeth. Significance defined as P<0.05.

Results



The mean of correct infant oral health questions was 7.4 with a standard deviation of 1.9. 72% of participants received an **average** score (6-9 correct answers), 14% were **below average** (2-5 correct answers), and 14% were **above average** (>10 correct answers). Survey scores significantly differed between household income, education level, age, and first pregnancy. Age groups were only significantly different between 18-25 years and >25 years.

20% of the participants had **low knowledge** for REALD-30 words (1-10 known words). 51% had **medium knowledge** of dental terminology, 29% of participants had **high knowledge** in REALD-30 terminology (21-30 known words). REALD-30 scores statistically differed between household income, education level, and age. There was no statistical significance in the confidence level of participants taking care of their child’s teeth. Pregnant women with an advanced degree and an income greater than \$25,000 were more likely to have seen a dentist in the last 6 months

Conclusion

The survey scores statistically varied between age, level of education, household income, and pregnancy history. The terminology known from REALD-30 statically differed between age, level of education, and household income.

These findings will help determine the populations to target to improve infant oral health literacy in the Louisville community as well as the important concepts that are less known. New infant oral health initiatives should focus on reaching pregnant women younger than 25, household incomes less that \$25,000, and education levels less than an advanced degree.

Further studies will need to be conducted to determine the most effective method to address the infant oral health knowledge disparity.

Limitations: Surveys collected only from UofL clinics, surveys available in limited languages (English and Spanish)

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