



Introduction

Healthy beverage and food choices can impact a child's overall health and thus impact their dental health as well. Consuming sugary beverages not only fosters a cariogenic environment in the dentition but it also increases a child's likelihood of chronic diseases such as obesity, heart disease, and type 2 diabetes.⁶

The American Academy of Pediatrics (AAP) currently recommends juice should not be introduced to infants prior to one year of age; intake of juice should be limited to four ounces a day for children ages one to three years old; four to six ounces a day for children ages four to six years old and eight ounces a day for children ages seven to 18 years old.³ The AAP emphasizes these recommendations are the daily maximum, not daily requirements. The American Heart Association (AHA) recommends a limit of 25 grams of added sugar per day in both children and adolescents.³ The American Academy of Pediatric Dentistry (AAPD) policy emphasizes avoiding added sugars in the diet of children younger than age two to help minimize exposure of sweet tasting foods and drinks; to limit the consumption of sugar to less than five percent of total energy intake and to establish healthy beverage consumption patterns during the first five years of life to help promote intake of healthy nutrients. Furthermore, it is most ideal for children and adolescents to fulfill their fruit intake by whole foods, rather than juice substitutes.²

Dental professionals are in a unique position to provide this education as the biannual appointments for periodic dental examinations are often more frequent than regular wellness pediatric appointments that occur annually. Ultimately, it is important to help families establish healthy routines and educate them about their dietary choices as this can impact their oral and overall health.

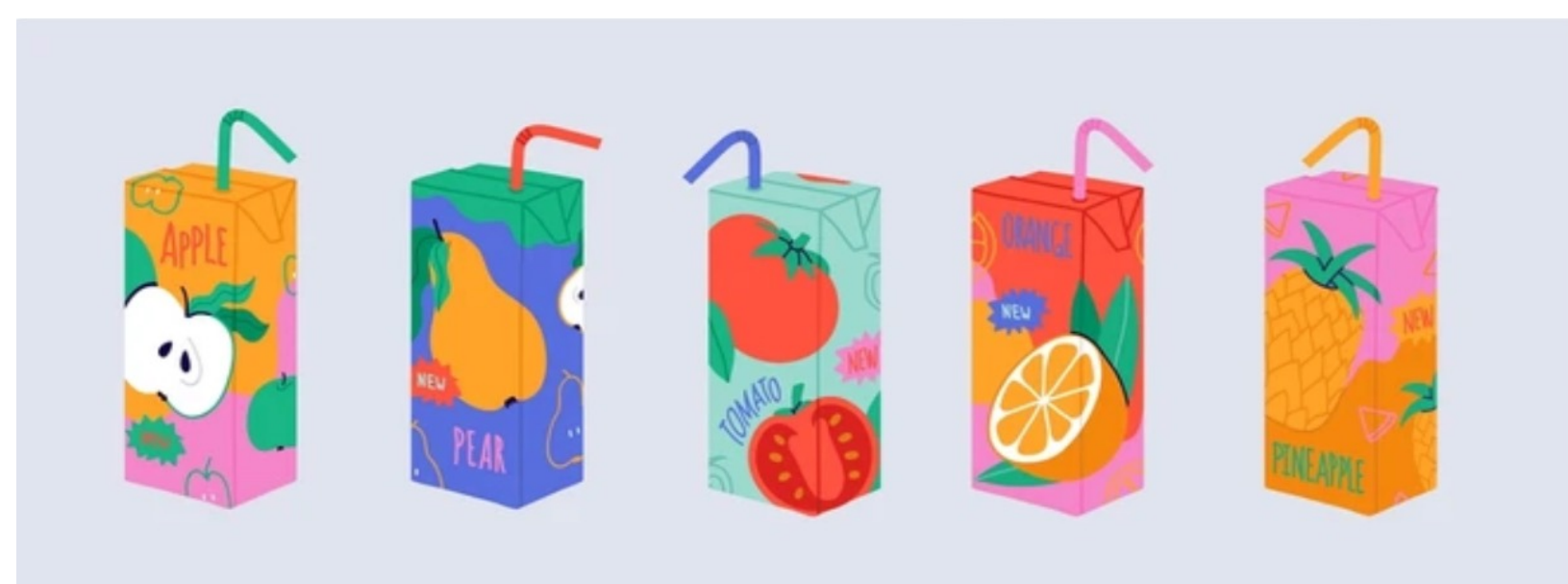


Figure 1. Juice Boxes

Study Objectives

The aim of this study was to both identify current knowledge of healthy beverage recommendations and to educate dental patients and families about healthy beverage choices by reviewing the daily recommended intake amount of juice and other sugar containing beverages developed by the American Academy of Pediatric Dentistry (AAPD), Academy of Nutrition and Dietetics (AND), Academy of Pediatrics (AAP), and the American Heart Association (AHA).

Methods

Subjects

Parents and legal guardians of children ages 1-17 who came to a dental appointment at a clinic affiliated with St. Barnabas Hospital were considered for this study. The parents and legal guardians were given information about the study and given the opportunity to participate. A total of 50 adults participated in this study. Their children ranged from ages 16 months to 13 years old.

Data Collection

A questionnaire was given to families in person at the dental visit. The questionnaire consisted of both open-ended and multiple-choice questions to determine their existing knowledge of healthy beverage choices and their understanding of the recommended intake amount of sugar and sugar containing beverages. At the completion of the survey, beverage recommendations according to the AAPD were reviewed with the families to help encourage healthy beverage consumption patterns.

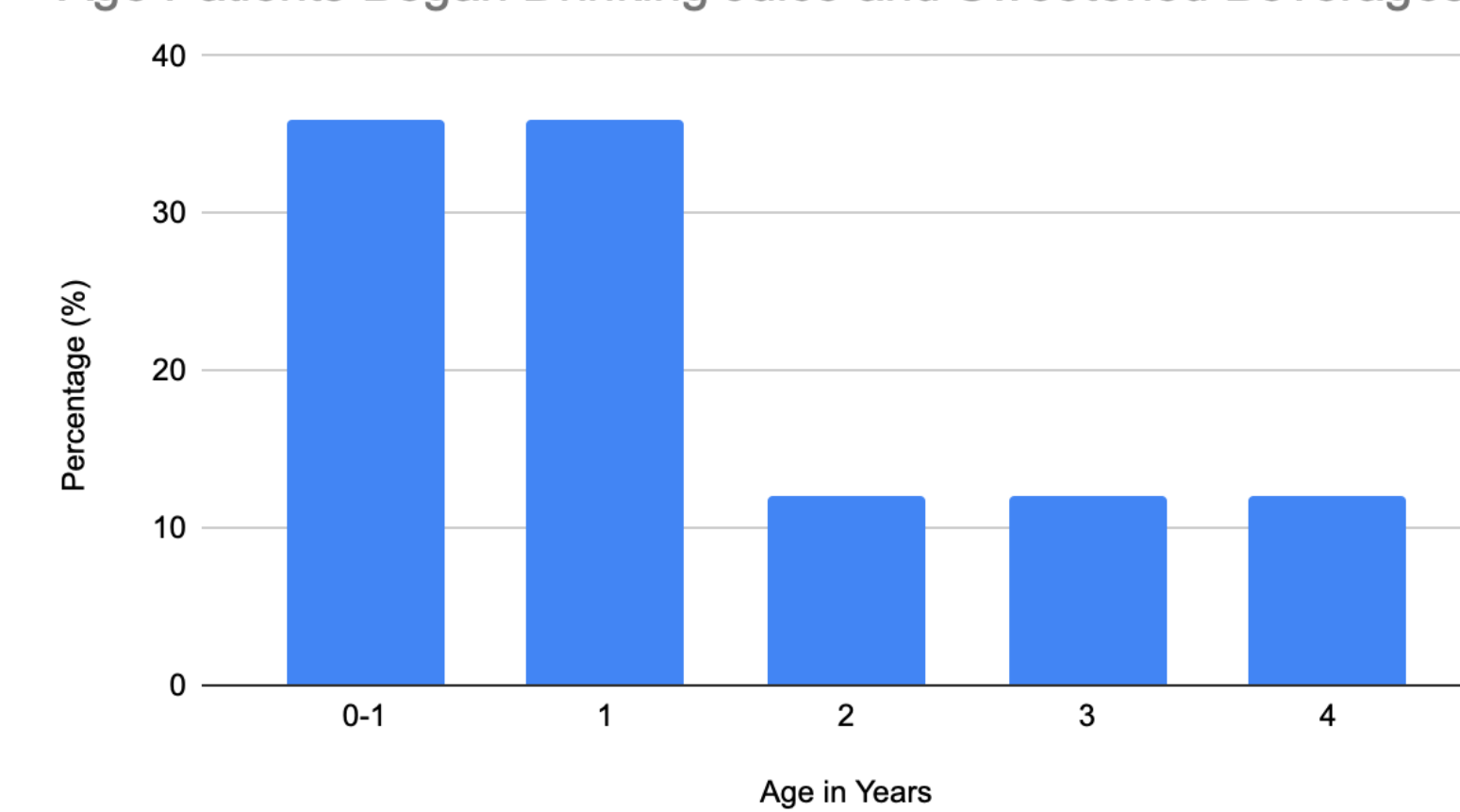
Statistical Analyses

The frequencies of collected data were described using categorical variables. Univariate analysis of variance was used to compare the usage of the most frequent beverages which yielded no significant difference with a p-value of > 0.05.

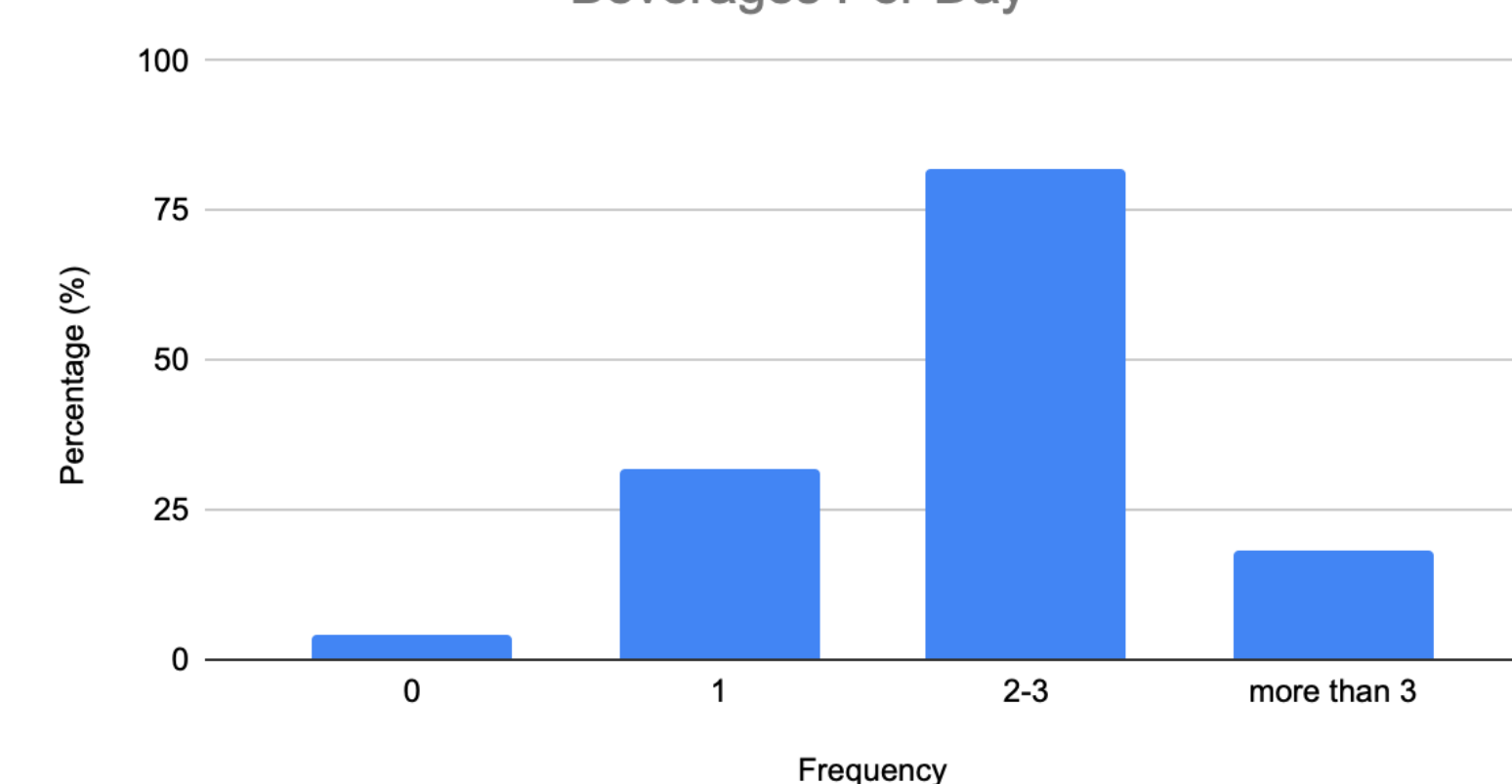
Results

1. Introduction and Frequency of Sugar Sweetened Beverages

Age Patients Began Drinking Juice and Sweetened Beverages

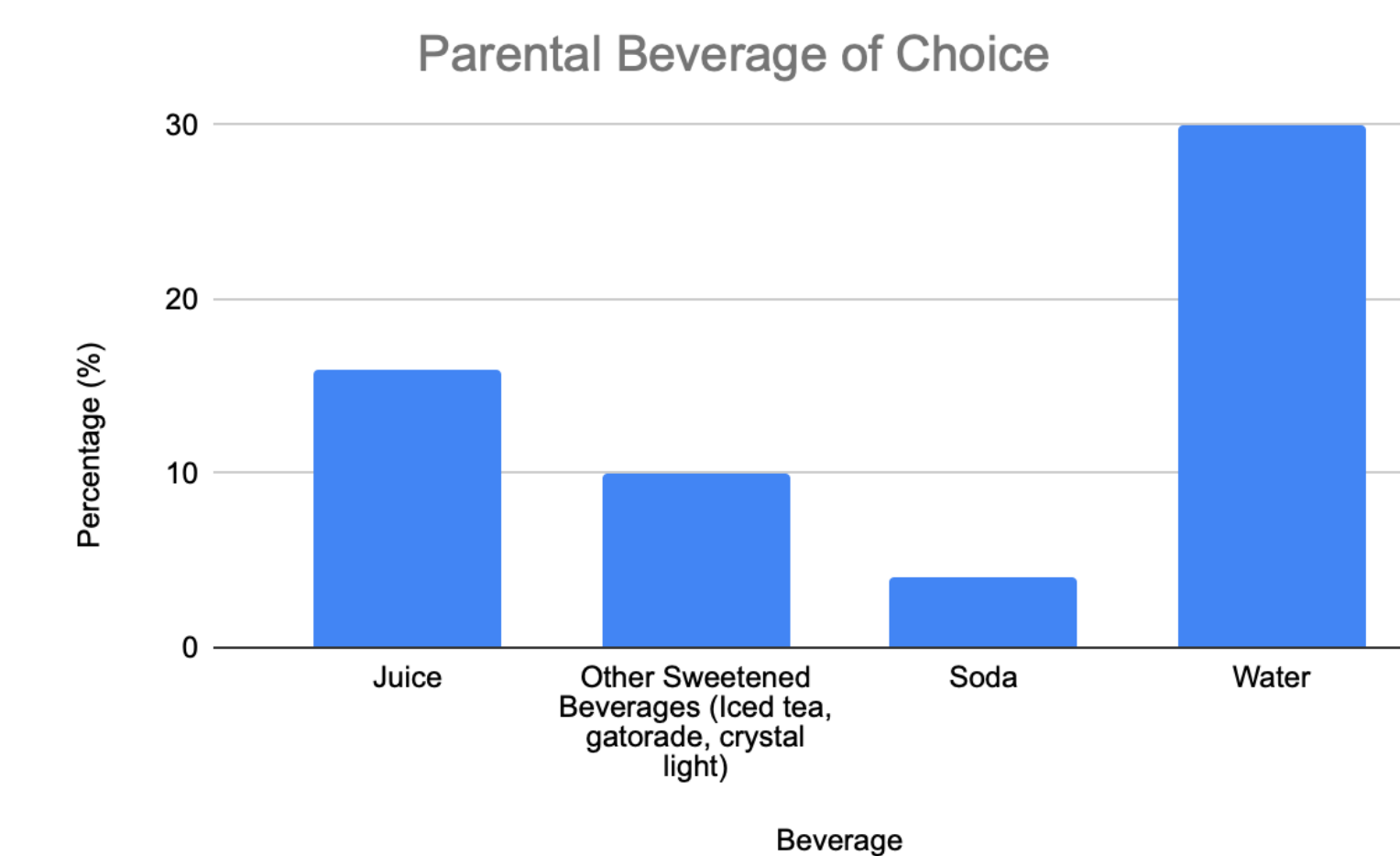
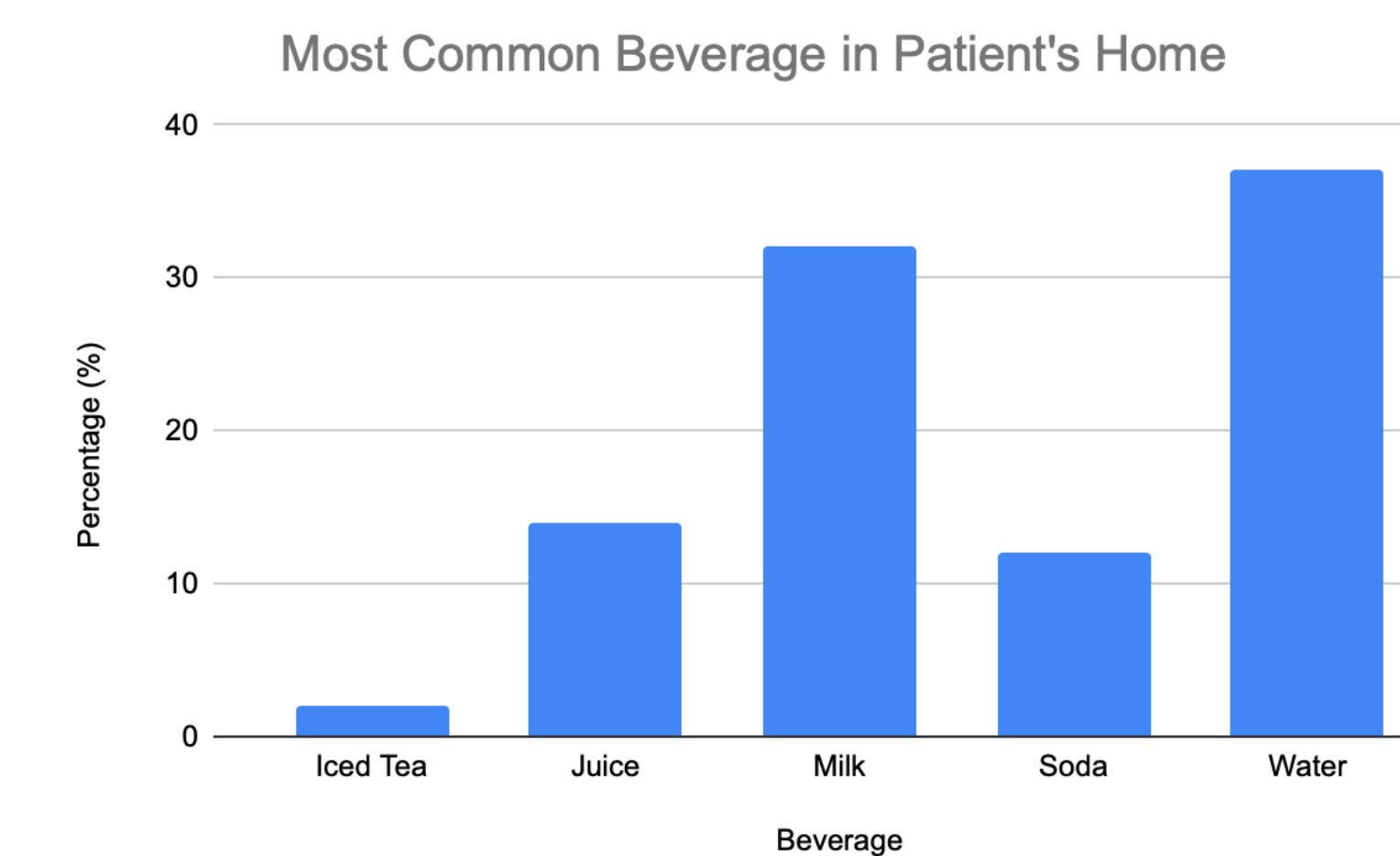


Frequency of Consumption of Sugar Sweetened Beverages Per Day

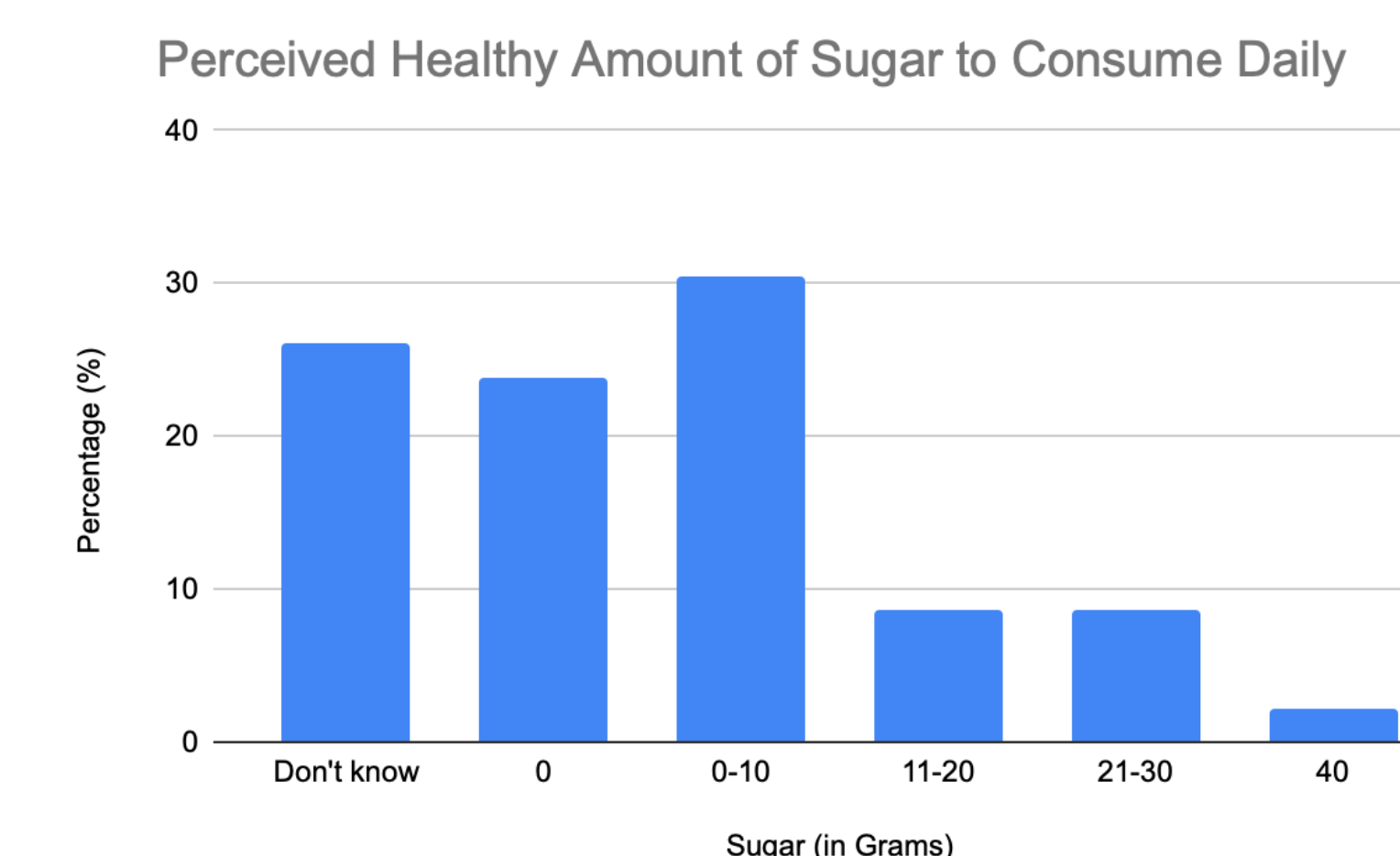
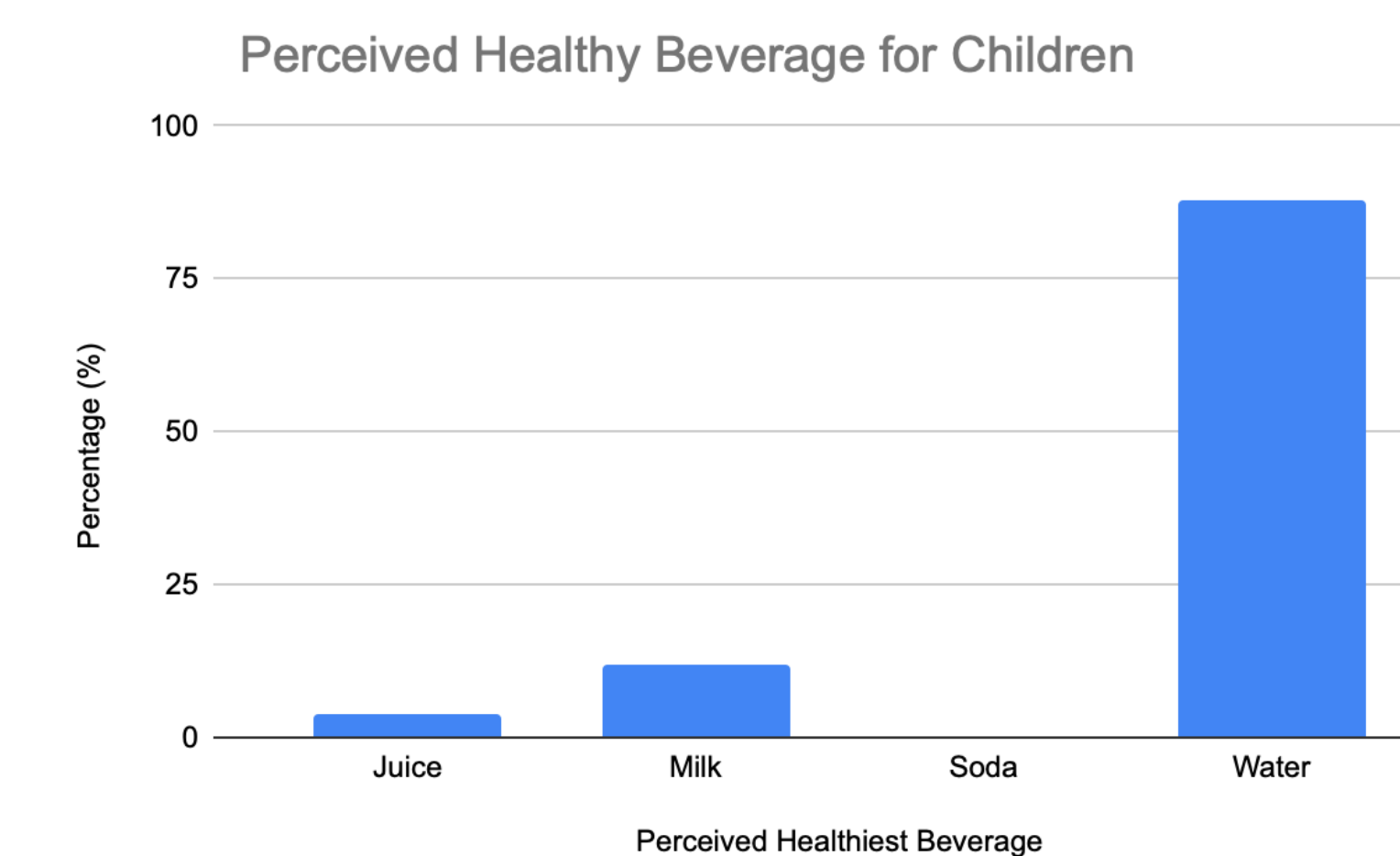


Results

2. Beverage Choices at Home



3. Perception of Nutritional Beverage Choices



Discussion

- While the AAP recommends that juice should not be introduced to infants prior to one year of age, the survey response indicated that 36% of reporting guardians believed they had introduced the child to juice or sweetened beverages prior to age one. This result suggests that additional education outreach may be appropriate to better inform parents and guardians.
- Reviewing the result for the survey question regarding the perceived healthy amount of daily sugar consumption, the most common response was 0-10 grams of sugar, provided by 31% of the survey respondents. The mean response was 11 grams. Based on the AHA, the recommended daily limit of sugar consumption for children and adolescents is 25 grams. These findings suggest that the typical perception of sugar allowance, in grams, is actually less than the official recommendation.
- The perception of the healthiest beverage based on the cross tabulations was water, by 88%, of respondents. The next most frequent response was milk by 12% of respondents. Both the dental and medical community emphasize that water is the healthiest beverage for children and the perception of the survey respondents is largely in alignment with this consensus.

Conclusions

- Children are consuming sugar sweetened beverages earlier than the recommendations by AAPD, AHA, and AAP; therefore, they are becoming accustomed to sweetened beverages as a result increasing their health risks.
- Promoting healthy beverage choices (and other nutritional choices) is a necessary part of early education of dental patients.

Study Limitations

- Small sample size (n=50)
- Response bias – some participants may have been uncomfortable responding honestly, especially in the setting of a health care office

References

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