What Makes The Medicine Go Down

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Background

Adherence will increase the benefit of the medication prescribed, resulting in a decrease in recurrence of illness as well as improved quality of life.[1] Although there has not been extensive research on children's medication preferences, it is clear that the medication taste highly correlates with adherence in pediatric patients. Medication characteristics correlate highly with adherence in pediatric patients. In several studies, adherence to medication has improved based on a favorable flavor added to the medication. Children prefer sweet and sour flavors and are less tolerable to bitterness.[2] This is an issue since most medications are bitter in nature.

However, there is a lack of literature in pediatric patients regarding their preferences for flavors, colors, and smells of medication. The focus of this research is to further explore the flavor preferences of children, since there is a correlation between palatability and adherence.

Objectives

The objective of this study is to determine children's medication preferences such as flavor, color, dosage form, and smell of medications and then to compare their preferences to what parents believe are children's preferences.
We hypothesize children will prefer brighter colors with a sour taste.

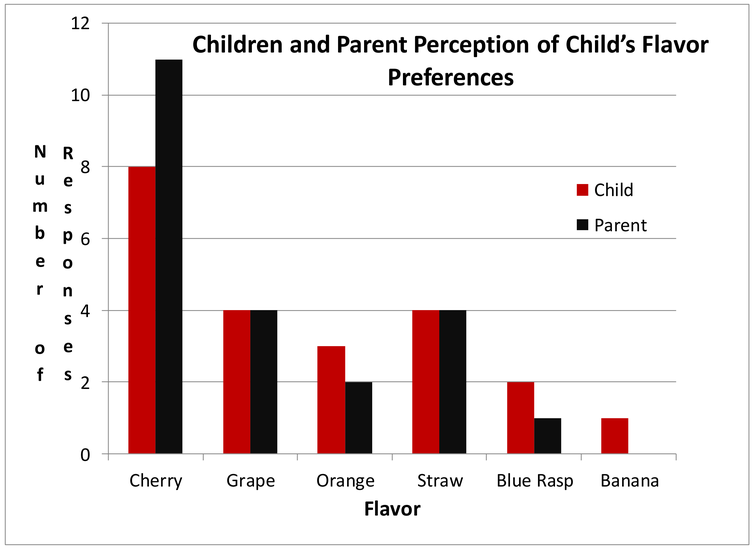
Methods

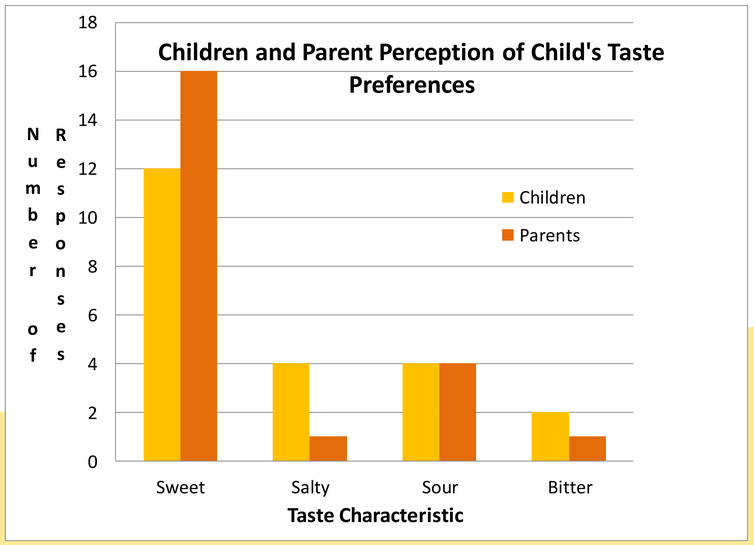
- Convenience sample prospective survey was administered to children and their parents.
- IRB approved by the University of Maryland
- A 10-item survey was administered to children ages 5-11 years old and an 8-item survey was administered to their parents.
  - The surveys consisted of questions regarding child and parent preferences of medication flavor, color, formulation, and smell. Questions about characteristics that influence medication adherence are also asked.
  - Children and parents were recruited at Maryland Mom's group and pediatricians' offices.
- Target sample size is 100 participants (50 parents and 50 children).
- Descriptive statistics will be used to analyze the survey results. McNemar test will be used to compare responses from parents to responses from children.

Results

- A total of 23 children and 23 parents were surveyed.

Demographics	
Gender (n=21)	57% Male
Age (n=22)	5-7 years 10 (45.5%) 8-9 years 10 (45.5%) 10-11 years 2 (9%)
Chronic medication use (n=22)	50%

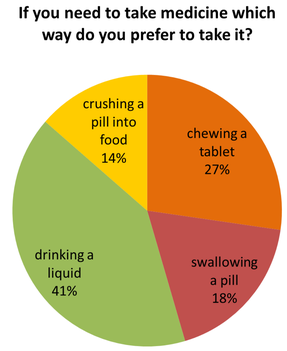


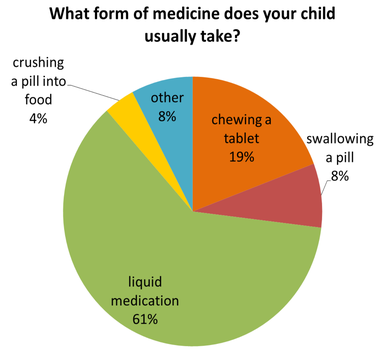


Results

- 72% of children said they have taken medication with a good taste
- 50% of children said they would eat something even if it didn't smell good.
- Parents believe that 48% of children would not take a medication if it smelled bad and 61% would not take it if the taste was bad

Children and Parent Perception of Child's Dosage Form Preferences





Discussion

- Children in this study prefer sweet, cherry flavored liquids to other flavors and parents in general are able to predict this preference.
- Limitations: Bias could have been introduced due to how the surveys were administered. Parents could have overheard children's responses. Also, children could have been influenced by the tone of voice or mannerisms of the surveyor.
  - Because most surveys were conducted in the Pediatrics department at the University of Maryland Medical Center, most patients were on chronic medications, and therefore, may be more comfortable with taking medications regularly.
- Children have their own preferences for flavor, dosage form and smell of medications

References

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3. Powers JL, Gooch WM,3rd, Oddo LP. Comparison of the palatability of the oral suspension of cefdinir vs. amoxicillin/clavulanate potassium, cefprozil and azithromycin in pediatric patients. Pediatr Infect Dis J [Internet]. 2000 Dec;19(12 Suppl):S174-80.

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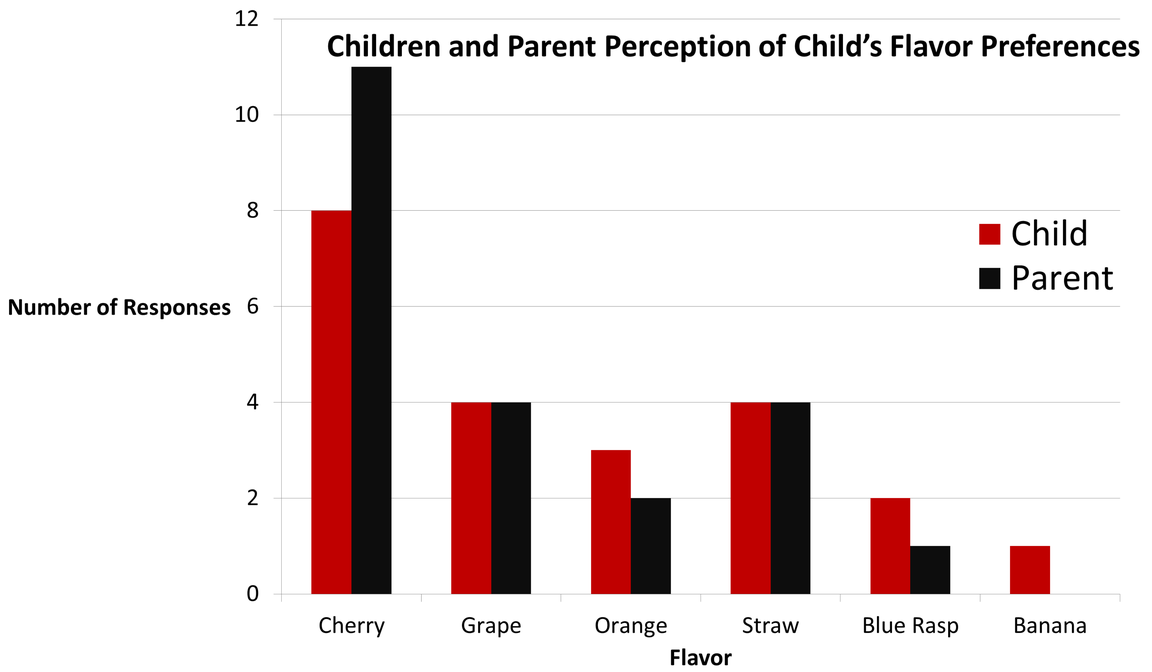

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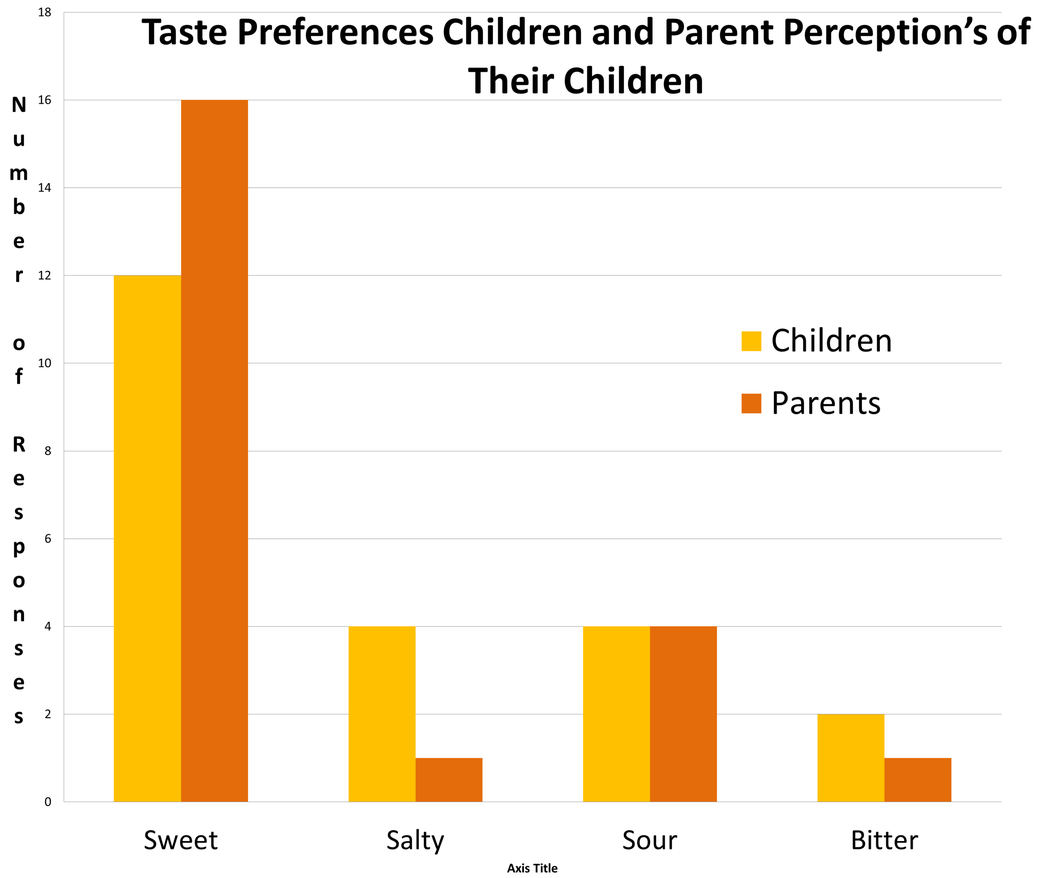

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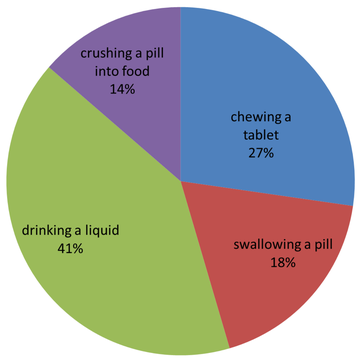
If you need to take medicine which way do you prefer to take it?



What form of medicine does your child usually take?