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#### ABSTRACT

Although consuming five servings each day of fruits and vegetables has been designed as a national nutritional goal, there have been few studies of fruit and vegetable intake among 3- to 5-year-olds, even though this age group may benefit from nutrition intervention and education. This study examined the views of 55 Head Start families and 75 families of children in a university laboratory school regarding their child's daily fruit and vegetable consumption and whether they considered their child to be a very good, fair, fussy, or picky eater. Findings indicated that 15 percent of the Head Start children were described as picky eaters, in comparison to 31 percent of the lab school group. Head Start children also liked a wider variety of fruits and vegetables than did the children in the lab school. However, fewer than half the children in either group actually consumed five fruit and vegetable servings per day. (KB)



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PICKY EATERS: Relating Parental Perceptions in Fruit and Vegetables Consumption

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### **ABSTRACT**

Children may be labeled at "picky eaters" if they accept only a limited number of foods or avoid entire classes of foods. The level of fruit and vegetable (F&V) consumption is a concern of many nutrition educators. In addition, consuming five servings each day of F&V (the "5-a day" campaign) is a national goal. Few studies have looked at F&V intake in preschoolers, even though children aged 3 to 5 may benefit from nutrition intervention and education. In this study, 55 Head Start families and 75 families of children in a university laboratory school completed a survey which included questions regarding their child's daily F&V consumption, as well as asked them to indicate whether they considered their child to be a very good, good, fair, fussy, or picky eater. Only 15% of the Head Start children were described as picky eaters, versus 31% of the Lab School group. The sample of Head Start children also liked a wider variety of fruits and vegetables than the children in the Lab School. However, analyses indicated that fewer than half of the children in either group were actually consuming five F&V servings per day.

#### INTRODUCTION

During the preschool years, activity levels increase and appetites may decrease as children develop their own taste preferences in their quest for independence (Birch, 1979). Parents may now find their youngster decisive, opinionated, and even "picky" when it comes to food consumption (Satter, 1987; Wilkoff, 1998; Dietz & Stern, 1999). According to Carruth et al. (1998), picky eaters limit the number of food choices, are unwilling to try new things, totally avoid some food groups, and exhibit strong food preferences. The level of F&V intake, in particular, is the focus of a national goal termed "5-a-Day" (Kurtzwell, 1997). Nevertheless, increased F&V intake can be a hard goal to attain for young children during this "picky" phase.

The purpose of this study was to evaluate the relationship between parents' perceptions of what kind of eaters their children are and their actual consumption of F&V, in families whose children either attended Head Start or a university Lab School. We looked at the relationship between the children's likes and dislikes of specific F&Vs and how much they actually consumed. We also examined differences between the two groups.





#### **METHODS**

Questionnaires were distributed in Head Start centers and in a university laboratory school in urban Central New Jersey to parents of 3- and 4-year old children in 1998 and 1999. Surveys were in English and Spanish in the Head Start centers. Completed questionnaires from 55 Head Start families and 75 lab school families were returned. The questionnaire asked parents to rate their child on a scale of 1 to 5 (picky, fussy, fair, good, or very good eater) and to explain why they put their child into that specific category. The survey asked how many servings of fruit and how many of vegetables were consumed daily. It also asked parents to list fruits liked, fruits disliked, vegetables liked, and vegetables disliked by their child. For purposes of analysis, we collapsed the eating categories into picky (picky + fussy), fair, and good (good + very good).

#### RESULTS

The breakdown of children in each group classified as picky, fair or good eaters by their parents is shown in Table 1.

TABLE 1

Kind of eaters as characterized by parents

|              | <u>Head</u><br>N | Start<br>% | Lab S<br>N | School<br>% |
|--------------|------------------|------------|------------|-------------|
| Picky eaters | 8                | 14.5       | 24         | 31.2        |
| Fair eaters  | 12               | 21.8       | 20         | 26.0        |
| Good eaters  | 34               | 61.8       | 33         | 42.9        |

The children in the Lab School are clearly viewed as "pickier" by their parents than the Head Start children. This is corroborated in the variety of F&V that the parents report their children liking. The Lab School children had many more dislikes of both fruits and vegetables. Table 2 shows the means and significance levels of the F&V likes and dislikes.



TABLE 2
Mean Fruit/Vegetable Likes/Dislikes by School

|                     | Head Start<br>N=54 | Lat<br>N= | School<br>75 |
|---------------------|--------------------|-----------|--------------|
| Fruits Liked        | 4.66               | 4.83      | ns           |
| Fruits Disliked     | 1.66               | 2.48      | p<.01        |
| Vegetables Liked    | 4.18               | 4.64      | p<.05        |
| Vegetables Disliked | 2.29               | 3.57      | p<.00        |

Table 3 shows the breakdown of how many children in each group were consuming at least five servings per day of F&V. The results show that over 60% of Head Start children are not eating 5 servings of F&V each day.

TABLE 3

Consumption of 5 F&V Per Day

|                         | Head Start | Lab School |
|-------------------------|------------|------------|
| Ate 5-a-Day             | 32%        | 43%        |
| Did not eat 5-a-Day     | 68%        | 57%        |
| Good eaters/5-a-Day     | 18%        | 25%        |
| Good eaters/no 5-a-Day  | 43%        | 19%        |
| Picky eaters/5-a-Day    | 14%        | 17%        |
| Picky eaters/no 5-a-Day | 25%        | 39%        |

Analyses further showed that Head Start parents considered their children to be good eaters even when the child did not consume five servings per day of F&V. Twenty-one of the 30 children who were described by their parents as good eaters do not eat 5 F&V servings per day (X-square = 9.37, p<.02).



Tables 4 and 5 show the most- and least-liked F&Vs by the Head Start children. Apples, oranges, and grapes were the favorite fruits of these children, as compared to apples, grapes, and bananas in the lab school group. Head Start children preferred corn, green beans, and carrots, while the favorite vegetables for the Lab School children were carrots, broccoli, and corn. In terms of dislikes, Head Start children mention spinach, peas, and broccoli the most, while Lab School children dislike spinach, peas, and tomatoes most often. For fruits, more Head Start children dislike melon, pineapple, and strawberries, and Lab School children disliked kiwis, grapefruits, and oranges.

TABLE 4

Rank Order of "Most liked" F&V: Head Start

| <u>FRUITS</u>     | <u>VEGETABLES</u> |
|-------------------|-------------------|
| Apples (46)       | Corn (36)         |
| Oranges (36)      | Green beans (31)  |
| Grapes (35)       | Carrots (27)      |
| Bananas (34)      | Peas (22)         |
| Peaches (21)      | Broccoli (22)     |
| Strawberries (15) | Lettuce (15)      |
| Pears (13)        | Potato (12)       |
| Pineapple (9)     | Spinach (11)      |
| Mangoes (9)       | Cucumber (7)      |
| Watermelon (8)    | Tomatoes (6)      |
| ·                 |                   |

Note: Numbers in parentheses indicate number of parents who named this food item for their child

#### TABLE 5

## Rank Order of "Least liked" F&V: Head Start

| <u>FRUITS</u>    | <u>VEGETABLES</u> |
|------------------|-------------------|
| Melons (11)      | Spinach (16)      |
| Strawberries (9) | Peas (12)         |
| Pineapple (9)    | Broccoli (11)     |
| Kiwi (7)         | Carrots (10)      |
| Grapefruit (9)   | Peppers (7)       |
| Pears (5)        | Cauliflower (6)   |
| Peaches (5)      | Green beans (5)   |
| Oranges (4)      | Tomatoes (5)      |
|                  |                   |

Note: Numbers in parentheses indicate number of parents who named this food item for their child



#### CONCLUSIONS

Our study attempted to look at how parents characterize their children's eating habits, to determine how many servings a day these preschoolers are having of F&V, and to record children's patterns of likes and dislikes regarding F&V. We also attempted to compare the results of two groups of preschoolers: one group of children attending Head Start centers and another group attending a university laboratory school.

We found that less than half of all of the children were consuming the recommended 5-a-Day servings of F&V. However, a much smaller percentage of Head Start children (32%) were getting their daily allotment than the Lab School children (43%). Yet, parental reporting both by taste preferences and categorization of children strongly indicated that the sample of Head Start children are much less "picky" than their Lab School counterparts. They have far fewer dislikes of F&V, and parents find them more accepting of whatever food is offered to them.

The like/dislike section of the survey leads to some interesting observations. Some of the more popular F&V selections also show up high on the dislike list (broccoli, spinach, carrots, strawberries, pears, peaches). Some of the more disliked fruits have a strong citrus taste and some vegetables a strong bitter taste. Some children may not be ready for those tastes yet, or some may have a genetic predisposition against those tastes. Some parents reported that their children would eat some of the vegetables raw and reject the cooked form. The taste of some of the cooked vegetables may be too strong for some young children.

#### **IMPLICATIONS**

More than half of the Head Start parents felt that their children were good eaters, as opposed to less than half of the Lab School parents. Yet, despite good appetites and willingness to eat a variety of F&Vs, most Head Start children in this survey were not getting the 5 servings per day that nutritionists and policy makers now recommend. Based on this conclusion, it is imperative for the food service program at Head Start to emphasize fresh fruits and vegetables in their breakfasts, lunches, and snack on a daily basis. Additionally, it is important to educate the Head Start parents on the importance of providing 5 servings of F&V to their preschoolers each day. Head Start educators can help by providing easy recipes and nutrition hints for parents.

As in other areas of child development, the child's eating habits, likes, and dislikes grow and change at an individual rate. A parent may become upset when a child refuses a commonly liked food, but teachers can help parents learn what eating behaviors are appropriate for preschoolers and help them encourage good eating habits with "picky eaters".



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