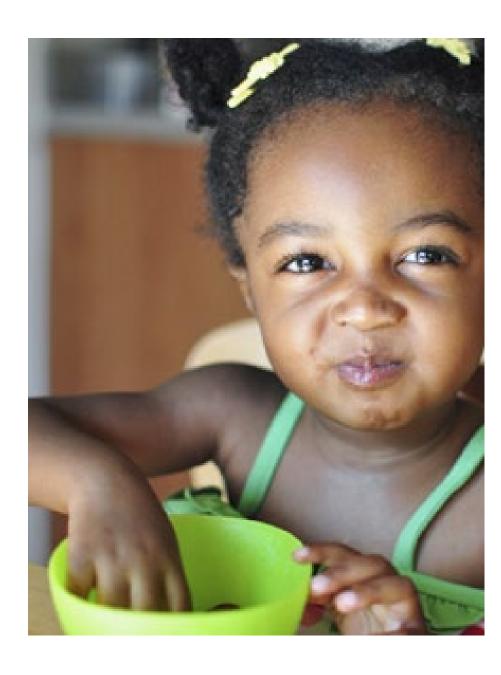
# Monsters don't eat broccoli – a pilot and feasibility study on play and food acceptance in preschoolers

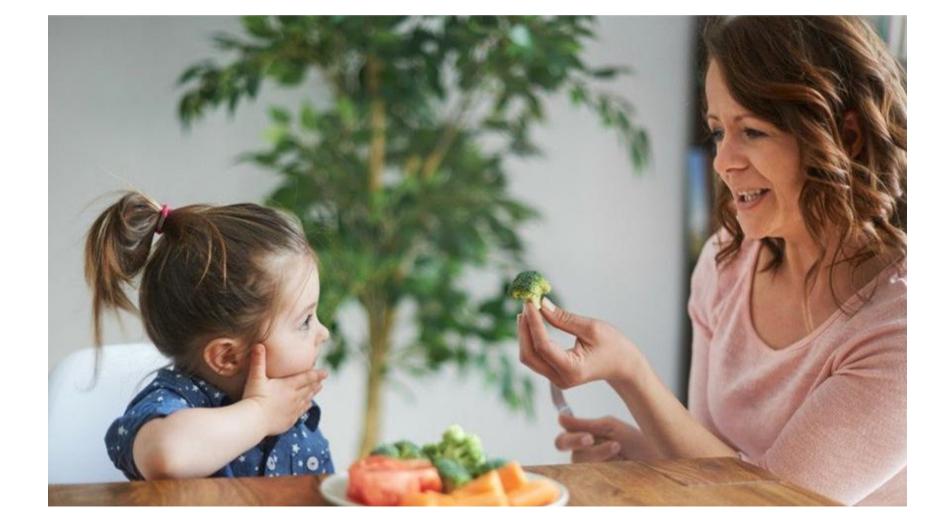
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Neophobia: The rejection of foods that are novel or unknown (Dovey et al., 2008) Food acceptance: The level of which a particular food is enjoyed (Meiselman & Bell, 2003).



# Background

- The preschool years signify a unique period of development during which children begin engaging in pretend play and during which food rejection is common
- Neophobia presents many challenges for children and their parents during meal-time, resulting in unbalanced, habitual diets that may lack the proper nutrients a child needs to grow (Dovey et al., 2008)
- It is important to study what factors may inhibit food acceptance and what behaviors promote it, in order to foster healthy and varied eating in children





### Pretend Play & Child Development

# Parenting and Child Eating Behaviors

# Play and Eating

# Purpose

There is no research to our knowledge about using pretend play situations to encourage children to eat new foods

### Therefore, the objectives of this pilot study were to:

• Pretend play has a significant role in both cognitive and socioemotional development during early childhood (e.g., Rosen,

Schwebel, & Singer, 1997)

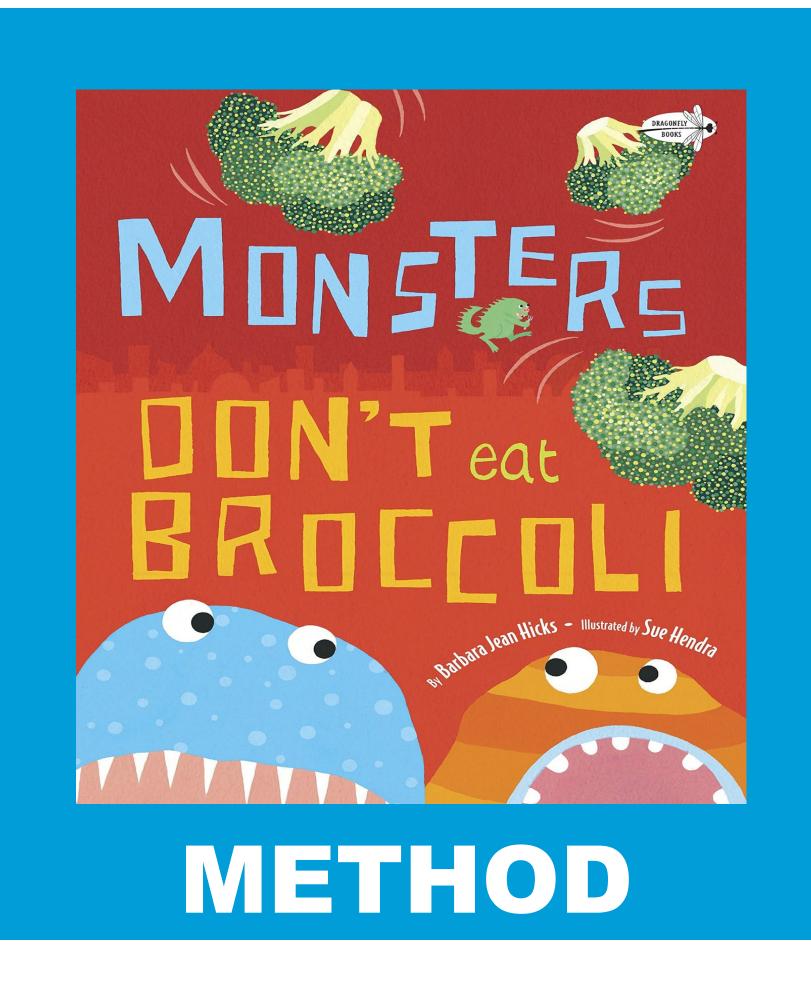
It is important for young children to eat fruits and vegetables in order to maintain a healthy and balanced diet

Many parents find it challenging to encourage their children to eat these foods

• Recent studies have shown that when parents read picture books that expose unfamiliar food to their children, they become more open to exploring the food from the book (Heath et al., 2014, Houston-Price et al., 2019)

> Assess the feasibility of using pretend play in preschool children to improve food acceptance

Develop a behavioral coding system to measure food acceptance



Children recruited from UNF preschool (N = 27) Obtained parental consent Distributed surveys to parents to gather demographic information

Assigned to one of two play conditions



 Participants were read the book "Monsters don't eat **brocolli,**" a book related to pretend play with food and acted out imagintive play with food



## General Play Condition (n = 15) Participants were read the book "Monsters love colors," and engaged in unstructured play time, both

of which were unrelated to food



# Food Acceptance

 Participants were offered brocolli after being exposed to conditions



Food acceptance was measured by:

1. Amount of brocolli eaten by weight

2. Self-report of acceptance of brocolli - Participants were shown an emoji scale and asked how much they enjoyed the food

3. Behavioral coding of food acceptance - Live coded by a research assistant observing the child while they were interacting with the food



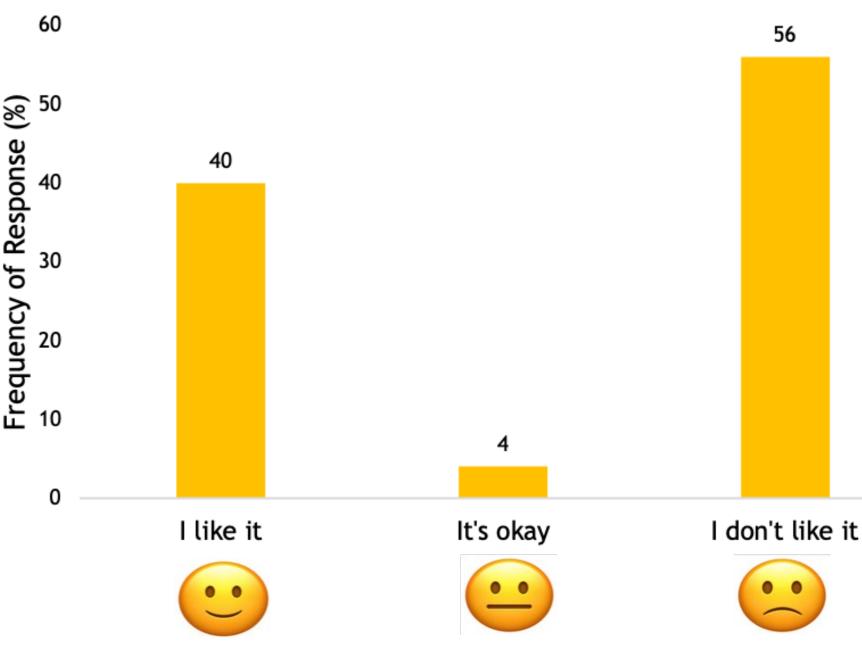
# **Objective 1**

- 12 children were assigned to the Pretend Play condition, 15 to the General Play condition; of those who participated (92.6%) had complete data for all three food acceptance measures
- There was variability in the food acceptance measures, presented below

### Amount of Broccoli Consumed (grams)

Mean	SD	Range
4.91g	8.77g	0.00g - 29.83

## Self-Report of Food Acceptance



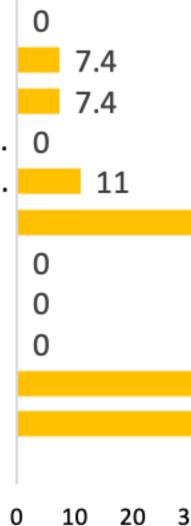
# **Objective 2**

• The behavioral coding captured a variety of food acceptance behaviors

# Behavioral Coding

Only touches plate to push food away 0 Never touches food or plate 7.4 Only touches plate, not food \_\_\_\_\_ 7.4 Moves face to plate without touching... 0 C Touches food with hand without picking... Picks up food without eating Touches food to face, avoids lips/mouth Touches food to lips/mouth Licks food Puts food inside mouth

Takes multiple bites



33.3

44.4



- Findings from this pilot study indicate that the behavioral coding and food acceptance measures are feasible
  - This supports the aim of the current study and sets the foundation for future research to test the hypothesis that pretend play increases food acceptance
  - Future studies should:
  - Include a larger sample of children
  - Work with participants individually rather than in groups to avoid peer-influence
  - Record research sessions and code behaviors from video, rather than conducting a livecoding, in order to minimize reactivity and improve the ecological validity

### References

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0 10 20 30 40 50 60 70 80 90 100 Frequency of Behaviors Observed (%)

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