

# The Influence of Child Attachment Security on the Relationship Between Feeding Responsiveness and Picky Eating Behavior

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## INTRODUCTION

- 14-50% of preschool-aged children actively experience picky eating<sup>1</sup>
- Picky eating can cause behavioral problems, parental stress, eating disorders, and both parent and child anxiety may be a result of picky eating<sup>1</sup>



- Picky eaters are unwilling to try new foods or have strong opinions on food preferences, preparation methods, and choice of food groups<sup>2</sup>
- Feeding responsiveness is prompt, physically and cognitively supportive, and appropriate for the child's developmental stage<sup>3</sup>
- A secure attachment provides a solid ground for the child especially when they do not understand societal cues involving the mealtime<sup>3,4</sup>



- No studies have examined the associations between picky eating, attachment, and feeding responsiveness.
- Feeding responsiveness and attachment both may create a foundation between the caregiver and child that may continue throughout his or her life.

## AIMS

1. Examine if there is an association between parent feeding responsiveness and picky eating (MAS; CEBQ; CFSQ)
2. Analyze if there is an association between smooth interactions with the mother and proximity seeking with the mother (AQS) and picky eating
3. Investigate if there is a moderation effect of child attachment security on the association between parent feeding responsiveness picky eating behaviors



## METHODS

### Design and Sample

- Sample (n=110) families participated a 2 hour home visit and surveys
- Children were on average 21 months old (SD= 2.73)
  - 48% male

Table 1. Participant Characteristics (n=109)

Demographic Characteristics	n	%
Monthly Income		
\$3,000 and under	30	27.3
\$3,001-\$5,000	31	28.2
\$5,001 and above	39	35.5
Parent Race		
White	81	73.6
Black	6	5.5
Asian	7	6.4
Biracial	5	4.5
American Indian/Alaska Native	1	0.9

### Self-Report Measures

- **Children's Eating Behavior Questionnaire<sup>5</sup> (CEBQ)**
  - Subscale included food fussiness which was used as a continuous picky eating variable (n=93, M = 2.73, SD = 0.75)
- **The Caregiver Feeding Styles Questionnaire<sup>8</sup> (CFSQ)**
  - Assessed food-related parenting styles (n= 93, M = 0.00, SD = 1.00)
- **Mealtime Assessment Survey<sup>6</sup> (MAS)**
  - Analyzed using a single item: "Is your child a picky eater?"
  - Picky eaters: 45.5%
  - Non-picky eaters: 38.2%

### Observational Measures

- **Feeding Behaviors: Parent Behavior Coding**
  - Number of child-centered feeding behaviors divided by the total number of feeding behaviors engaged by the parent
- **Attachment Behavior Q-Set<sup>7</sup> (AQS)**
  - Evaluated secure attachment within the home during the home visit
  - Smooth interaction with the mother (n=109, M=0.00, SD= 1.00)
  - Proximity seeking toward the mother (n=109, M=0.00, SD=1.00)

## SUMMARY OF RESULTS

**Aim #1:** Parent feeding responsiveness was associated with both picky eating variables

**Aim #2:** Attachment security was significantly related to the dichotomous and continuous picky eating variable

**Aim #3:** There was no significant interaction between smooth child attachment security and parent feeding responsiveness in the prediction of food fussiness. Child attachment security and parent feeding responsiveness independently predicted child picky eating variables.

## CONCLUSIONS

- The findings were consistent across two different picky eating variables while using an observational child attachment security measure.
- Longitudinal studies can examine if these associations stay consistent over time.
- To reduce picky eating habits, parents can: create more responsive feeding techniques and establish a secure relationship with their child.



## RESULTS

Table 2. Multiple regression analyzing associations between feeding responsiveness, attachment security, and picky eating

	Model 1		Model 2		Model 3	
	B (SE)	β	B (SE)	β	B (SE)	β
Self-reported feeding responsiveness	-0.26 (0.07)	<b>-0.35*</b>	-0.28 (0.07)	<b>-0.37*</b>	-0.29 (0.07)	<b>-0.39*</b>
Child smooth interaction with the mother (AQS)			-0.16 (0.07)	<b>-0.22*</b>	-0.16 (0.07)	<b>-0.21*</b>
Smooth interactions x Feeding responsiveness					-0.07 (0.07)	-0.10
R <sup>2</sup>	0.12		0.17		0.18	
ΔR <sup>2</sup>	-		0.05		0.01	
F	12.60		9.03		6.35	
ΔF	-		<b>5.04*</b>		0.99	

Note. Bolded lines and asterisk indicate statistically significant findings

### Aim #1:

- In logistic regression analyses, we found that self-reported feeding responsiveness (OR = .48, 95% CI = [.29, .79]) was associated with child picky eating.
- In multiple regression analyses, we found that parent feeding responsiveness predicted child picky eating behavior (Table 2).

### Aim #2:

- In logistic regression analyses, we found child smooth interaction with the mother (OR = .60, 95% CI = [.37, .94]) was associated with fussy eating.
- In multiple regression analyses, we found that attachment security predicted fussy eating (Table 2).

### Aim #3:

- Using both logistic and multiple regression models, no significant interaction effects were found.
  - Dichotomous variable: (OR = .84, 95% CI = [.53, 1.35]).
  - Continuous variable: (Table 2; p= 0.32)

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## REFERENCES

<sup>1</sup>(Cardona Cano et al., 2015), <sup>2</sup>(Shim, Kim, & Mathai, 2011), <sup>3</sup>(Black & Aboud, 2011), <sup>4</sup>(van Ijzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992), <sup>5</sup>(Wardle, Guthrie, Sanderson, & Rapoport, 2001), <sup>6</sup>(MacInnes, 2012), <sup>7</sup>(Posado German, Waters Everett, Crowell Judith A., & Lay Keng-Ling, 2008), <sup>8</sup>(Hughes, Power, Orlet Fisher, Mueller, & Nicklas, 2005).