

Parenting While Food Insecure: *Links Between Adult Food Insecurity, Parenting Aggravation & Children's Behaviors*

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Study Overview

We investigated the parenting aggravation levels of parents who experienced food insecurity in the aftermath of the Great Recession of 2007-9



We also explored the extent to which such aggravation may be responsible for the link between food insecurity and children's behaviors



Food insecurity : "...[when] the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain." (Wunderlich & Norwood, 2006, p. 43)

Family level process effects

- Parental depression, anxiety, antisocial tendencies, poor self control (Whitaker, Phillips, & Orzol, 2006)
- Low structure and nurturance (Belsky et al., 2010)
- Stress due to poverty (Rose-Jacobs et al., 2008)
- Material hardship (Gershoff et al., 2007)

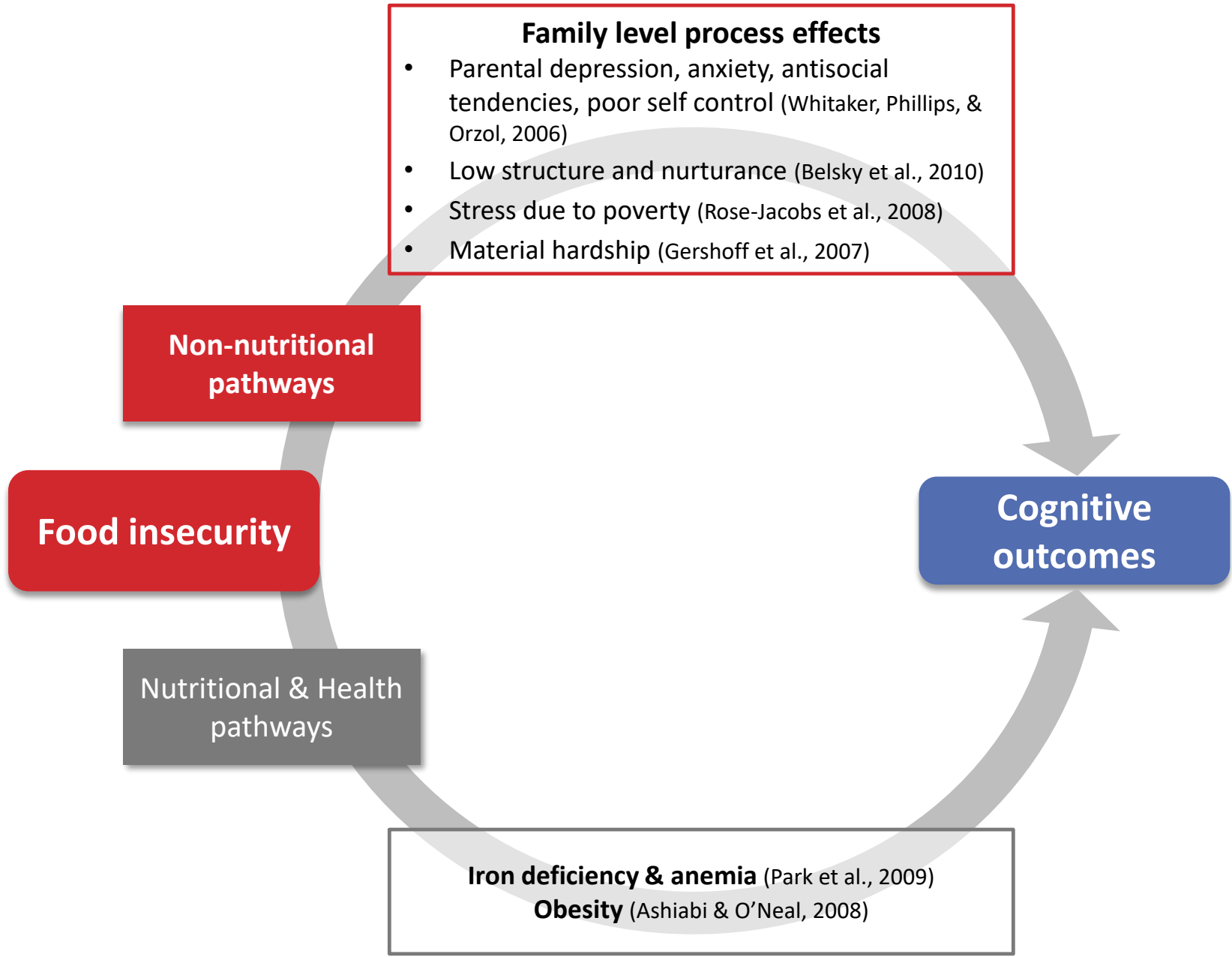
Non-nutritional pathways

Food insecurity

Nutritional & Health pathways

Cognitive outcomes

Iron deficiency & anemia (Park et al., 2009)
Obesity (Ashiabi & O'Neal, 2008)



Key Study Contributions

- We focus on **adult food insecurity**. We more precisely pinpoint food insecurity's effects to an adult in the home.
- We investigate an outcome that has received less attention: **children's executive functioning (EF)**
 - Children's EF
 - *Inhibitory control*: ability to “resist a strong inclination to do one thing and instead to do what is most appropriate” (Tourangeau et al., 2012)
 - *Attentional focus*: ability to “focus attention on cues in the environment that are relevant to the task in hand” (Tourangeau et al., 2015)
 - A critical foundation for their cognitive development particularly after age 5, a time when children can be especially vulnerable to food insecurity

US Adult Food Security Survey Module

Household Food Security Survey Module Survey— One-Year Reference Period

Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was **OFTEN** true, **SOMETIMES** true, or **NEVER** true for your household in the last 12 months.

1. "We worried whether our food would run out before we got money to buy more." Was that **OFTEN**, **SOMETIMES**, or **NEVER** true for you in the last 12 months?
2. "The food that we bought just didn't last, and we didn't have money to get more." Was that **OFTEN**, **SOMETIMES**, or **NEVER** true for you in the last 12 months?
3. "We couldn't afford to eat balanced meals." Was that **OFTEN**, **SOMETIMES**, or **NEVER** true for you in the last 12 months?
4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals, because there wasn't enough money for food? (Yes/No)
5. (If yes to question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
6. In the last 12 months, did you ever eat less than you felt you should, because there wasn't enough money for food? (Yes/No)
7. In the last 12 months, were you ever hungry, but didn't eat, because there wasn't enough money for food? (Yes/No)

8. In the last 12 months, did you lose weight, because there wasn't enough money for food? (Yes/No)
9. In the last 12 months, did you or other adults in your household ever not eat for a whole day, because there wasn't enough money for food? (Yes/No)
10. (If yes to question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

Which Adults are Considered Food Insecure?

Food Secure

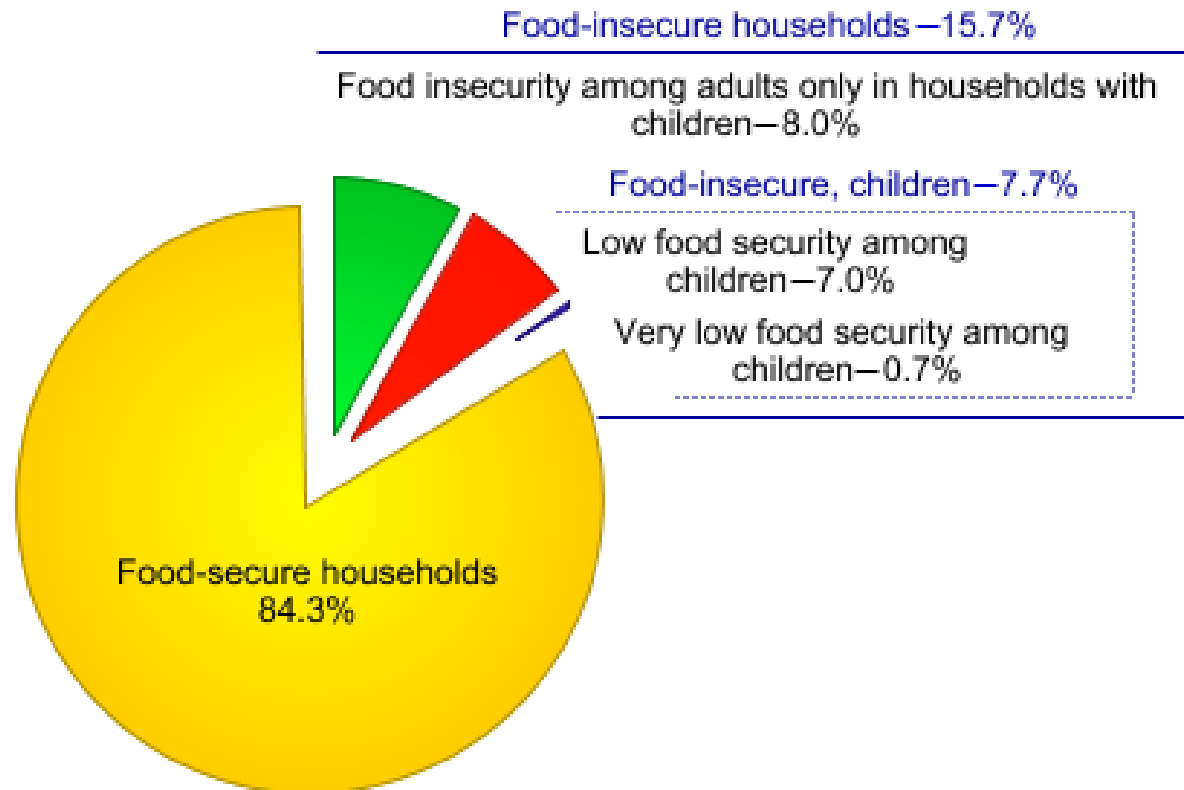
If responded *Often* or *Sometimes* to up to 2 items

Food Insecure

If responded *Often* or *Sometimes* to 3 or more items

<https://www.ers.usda.gov/media/8279/ad2012.pdf>

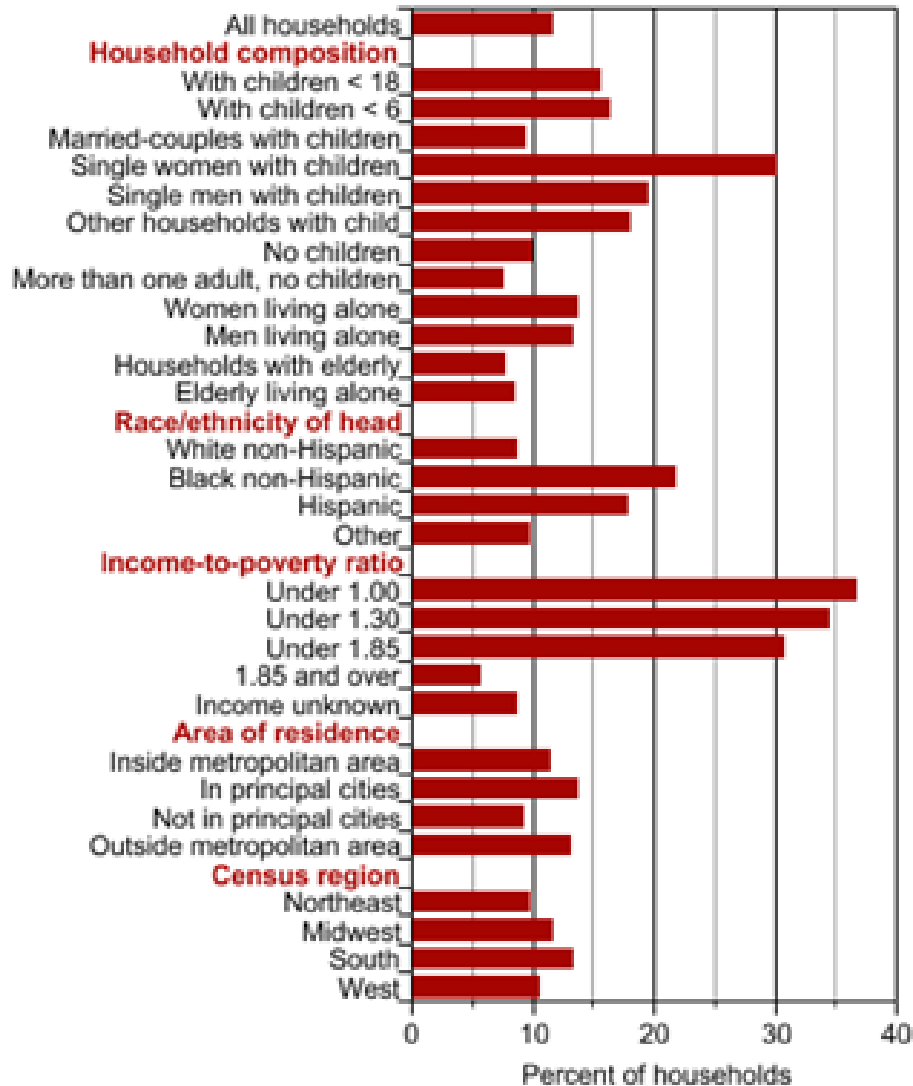
U.S. households with children by food security status of adults and children, 2017



Note: In most instances, when children are food insecure, the adults in the household are also food insecure.

Source: USDA, Economic Research Service, using data from the December 2017 Current Population Survey Food Security Supplement.

Prevalence of food insecurity, 2017



Source: USDA, Economic Research Service, using data from the December 2017 Current Population Survey Food Security Supplement.

*“It brings about all these emotions on **how you’re not good enough**, how people are superior to you, how it’s like no matter what you do you’re looked at differently because of your need.”*

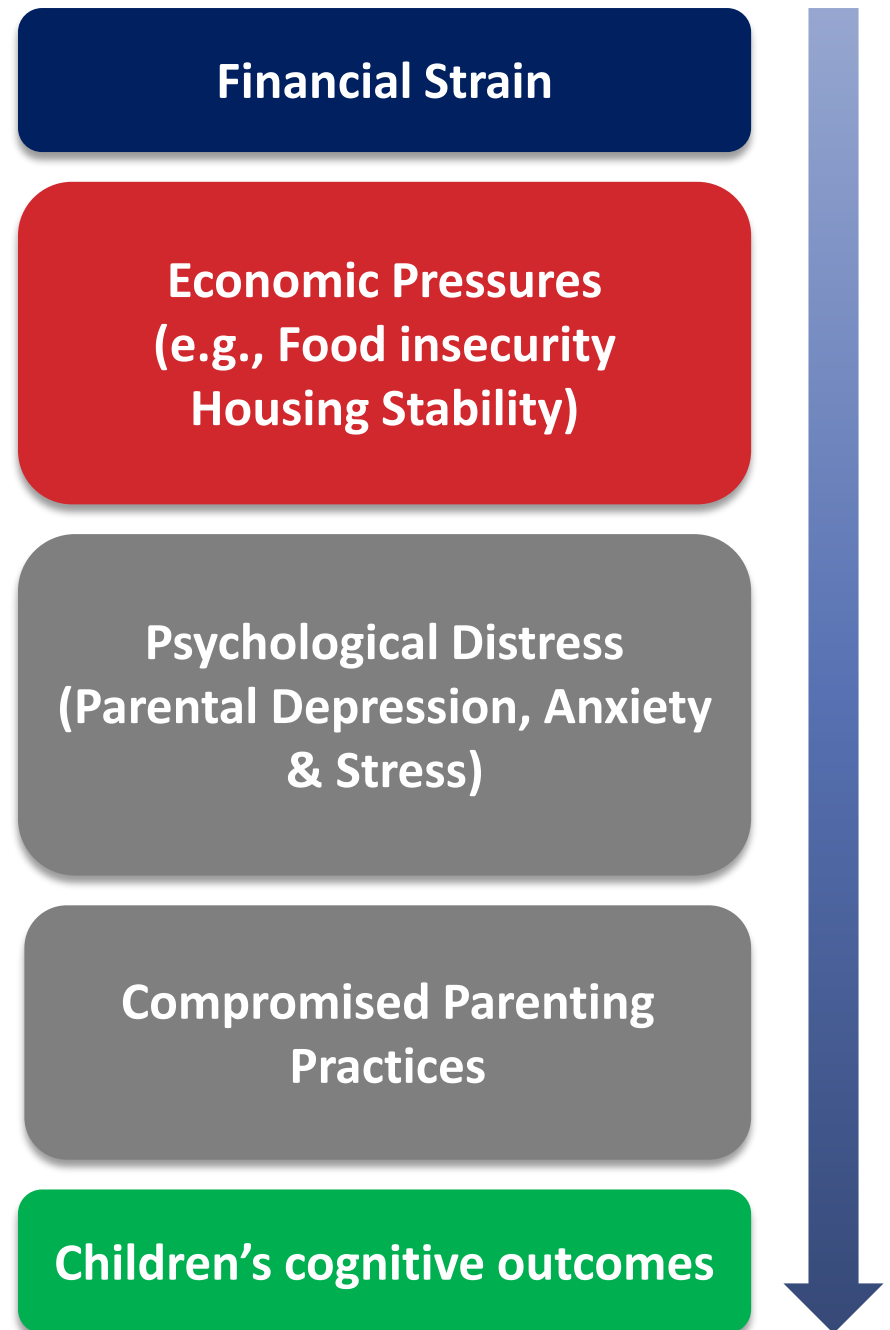


Source: <http://servingfoodsolutions.com/the-problem/economics/personal-story-barbie-izquierdo/>

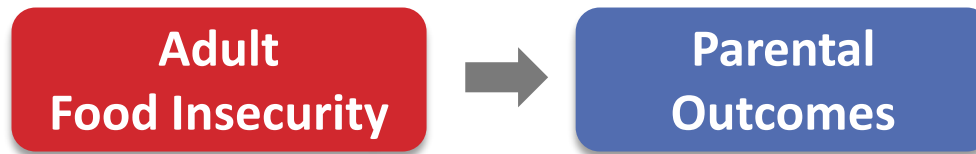
Image: http://www.philly.com/philly/news/20140514_Hunger-fighter_determined_to_share_story.html

Family Stress Model (FSM)

(Masarik & Conger, 2017)



Food Insecurity & Parents: What We Know

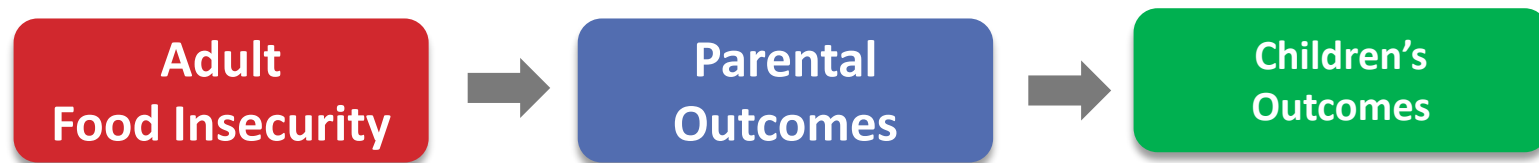


Mothers from food insecure homes can experience:

- Depression and psychosis spectrum disorders (Melchior et al., 2009)
- Heightened maternal anxiety and depression (Bronte-Tinkew et al., 2007; Whitaker et al., 2006)
- Parental irritability and anger (Hamelin et al., 1999)
- Higher parenting stress levels (Huang et al., 2010)

Mothers viewed their role as parents more negatively irrespective of whether they were from severe or very severe food insecure households (Powers, 2013)

Parenting as a Mechanism



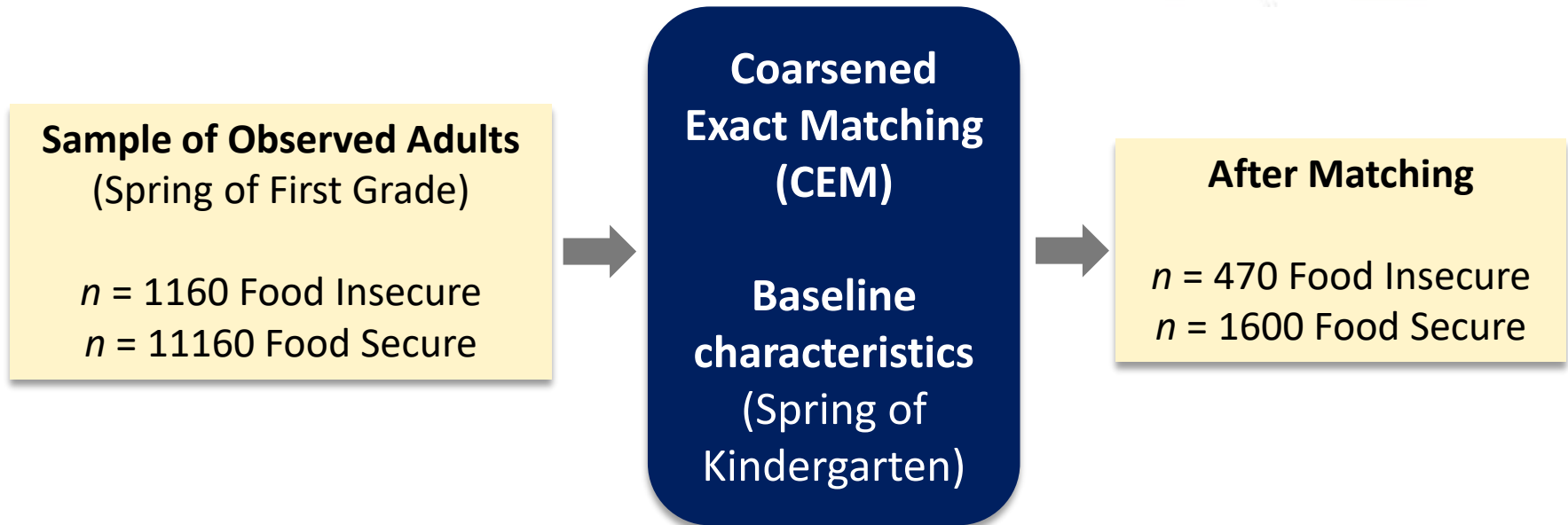
- Parenting stress among low-income parents mediates the association between household food insecurity and children's externalizing and internalizing behaviors in children older than 3 (Huang et al., 2010).
- Parenting stress, warmth and depression mediates household food insecurity's effect on children's internalizing and externalizing behaviors (Slack & Yoo, 2005).

Current Study

How does food insecurity, as experienced by parents, relate to their own levels of parenting aggravation?

Does parenting aggravation mediate the relationship between adult food insecurity and children's behavioral outcomes (executive functioning and behavior problems)?

Dataset & Sample



Baseline Measures Used for Matching
Food stamps (past 12 months)
of places child lived since birth
Access to medical care
Parental Income, Education, Employment Status
of siblings
Racial and Ethnic Background

Key Measures

Measure Type	Domain	Measures
Outcomes	Children's Executive Functioning (EF)	<ul style="list-style-type: none">• Attentional Focus and Inhibitory Control based on the CBQ ($\alpha=.87$; $\alpha=.86$)
Predictors	Adult Food Insecurity (10 item USDA survey)	<ul style="list-style-type: none">• Adult food insecurity status ($\alpha=.89$)• 12-month recall
Mediator	Parental Aggravation	<ul style="list-style-type: none">• Four questions on the Parental Stress Index (PSI). Aggravation in Parenting Scale ($\alpha=.71$)
Controls	Parent	<ul style="list-style-type: none">• Parental SES (after baseline), depression, school involvement
	Child	<ul style="list-style-type: none">• Gender, disability status

Parenting Aggravation

Used in studies on immigrant families (Yu & Singh, 2012) and parents of children with disabilities (Schieve et al., 2011)

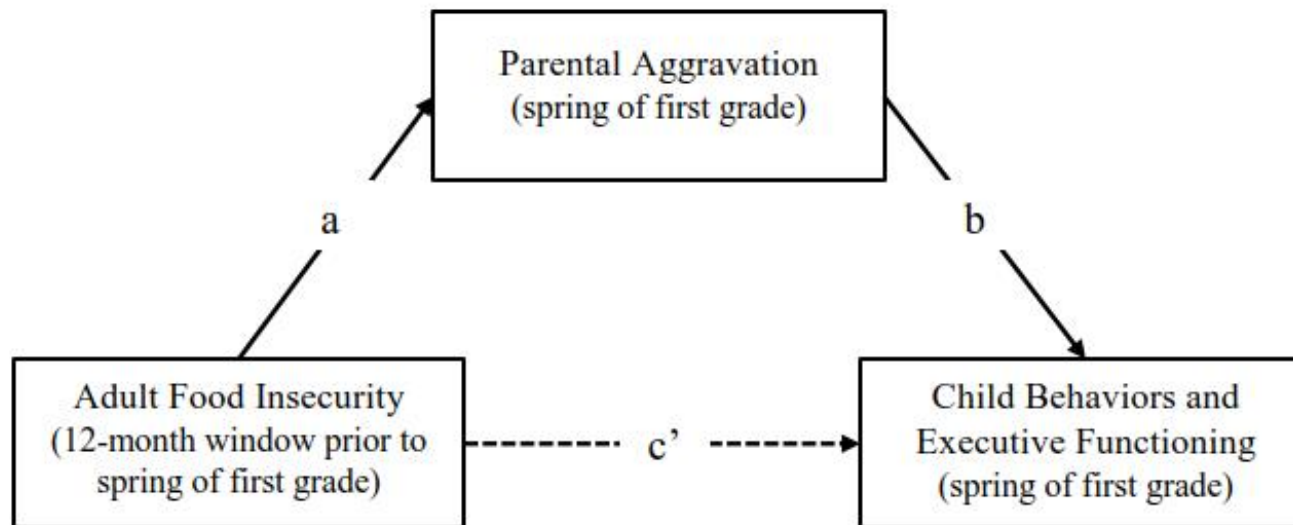
How often they felt it was true (*completely, mostly, somewhat, not at all*):

- (1) Being a parent is harder than I thought it would be
- (2) {CHILD} does things that really bother me
- (3) I find myself giving up more of my to meet {CHILD's} need more than I ever expected
- (4) I often feel angry with {CHILD}

Analytic Strategy

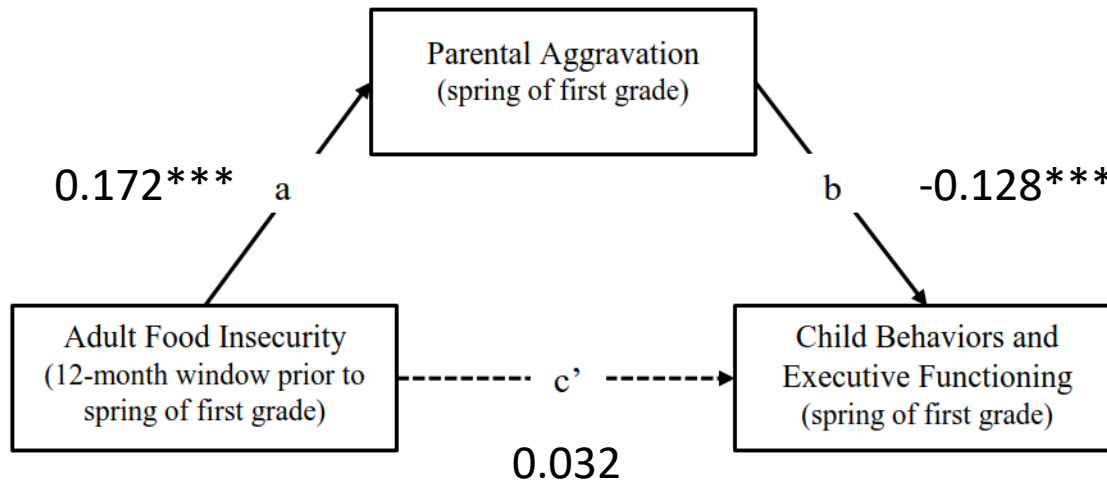
Mediation Analysis (MacKinnon, 2008)

Figure 1. Hypothesized Single Mediator Model. Mediation Relationship Between Adult Food Insecurity, Parental Aggravation and Child Behaviors.



Incorporated survey weights; SE's based on Taylor Linearization; Missing Data (MLMV)

Attentional Focus

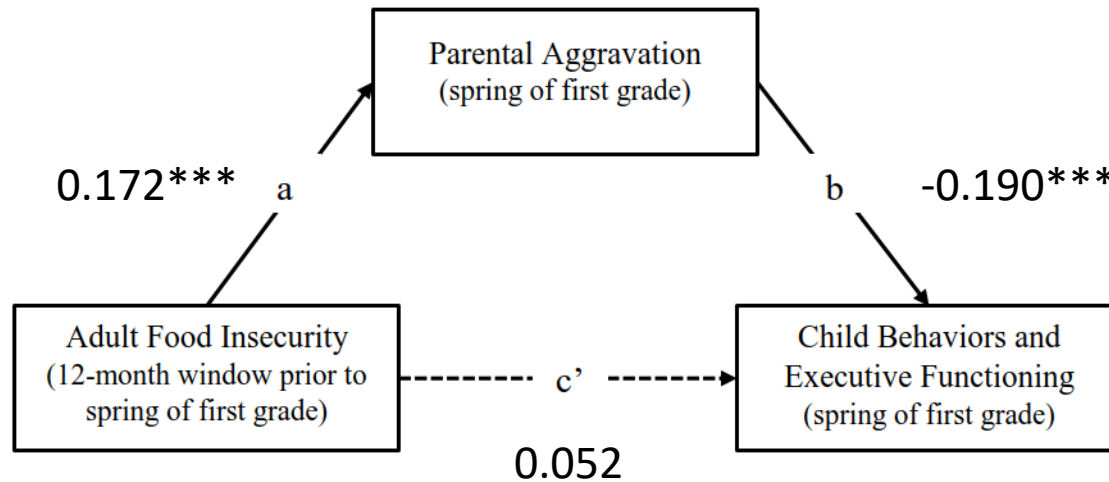


Indirect Effect (a x b)

-0.022*

* $p < .05$; *** $p < .001$

Inhibitory Control



Indirect Effect (a x b)

-0.033^{***}

$***p < .001$

Recap & Limitations

Recap

- Adults who were food insecure had heightened parenting aggravation.
- Food insecurity as experienced by adults does not directly relate to children's outcomes; rather, it **indirectly relates** to children's outcomes through the mechanism of parenting aggravation.

Limitations

- Matching helps reduce bias due to ***observables***
- Multitude of other mediators and pathways, especially those that remained unobserved and thus untestable in our mediation models.

Implications

- Beyond the nutritional dynamics of food insecurity, food insecurity is a **complex family microsystem-level phenomenon** influencing behaviors of parents and their children
- Given our findings, we suggest **strengthening parenting supports** to reduce parenting stress onset by food insecurity
 - Vulnerable parent groups such as single mothers from low-income backgrounds
- Supporting food insecure parents, not just by stabilizing their access to food, but with **broader psycho-social support** may ultimately have benefits for both parents and their children.

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Thank You

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