Enhancing Early Head Start to Improve Toddlers' Self-Control Skills and Healthy Eating Habits: Recipe 4 Success

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Overview

- Background research
- Conceptual model
- Results from pilot study
- Efficacy trial
- Implications

Growing childhood obesity epidemic in US

- 1 in 5 preschoolers are overweight
- 1 in 8 are obese
- Numbers higher for children living in poverty

(Institute of Medicine, 2005; Ogden, Carroll, Kit, & Flegal, 2012; Wang & Lim, 2012)

Health risks of child obesity:

- High blood pressure
- High cholesterol
- Kidney disease
- Type II diabetes

Obesity accounts for 20% of all health care expenditures

(Cawley & Meyerhoefer, 2012; Deckelbaum & Williams, 2001; Vos & McClain, 2008)

Early Head Start identified the absence of effective programs to address child obesity

Penn State researchers engaged in community-based participatory research collaboration

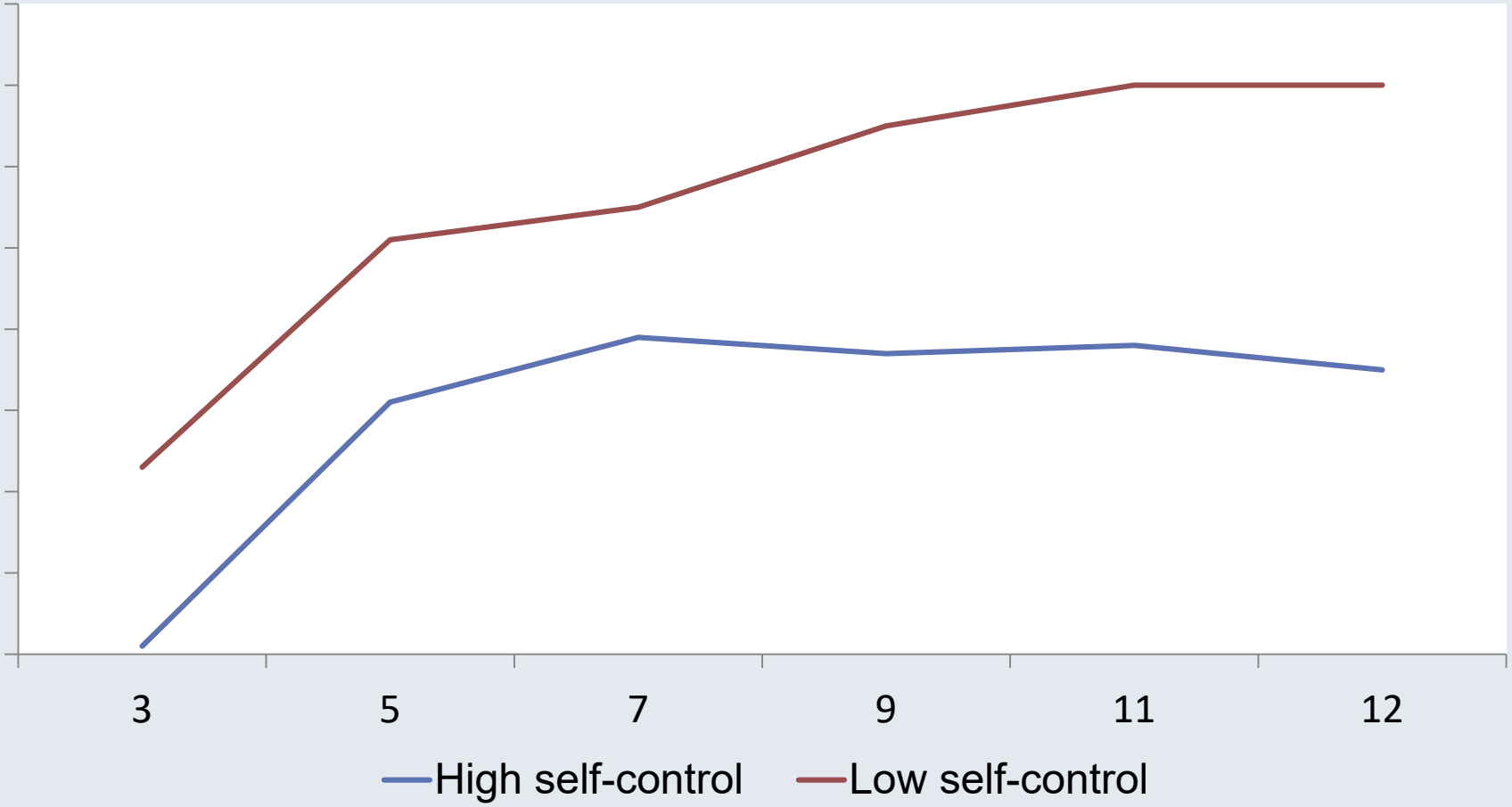
Recipe
4 Success
Promoting children's self-control skills and
healthy eating habits in Early Head Start.

Recipe 4 Success based on research findings in four areas

1. Parents' supportive feeding practices affect children's healthy eating habits

- Expose children to foods 10-20 times
- Only milk or water to drink
- Let children choose among healthy options
- Model enjoyment of healthy food

(Brown & Ogden, 2004; Fisher & Birch, 2002)



2. Children's self-control skills predict BMI from an early age

(Francis & Susman, 2009)

3. Parents' sensitive scaffolding improves children's self-control skills:

- Behavior descriptions
- Reflections
- Specific praise
- Choices

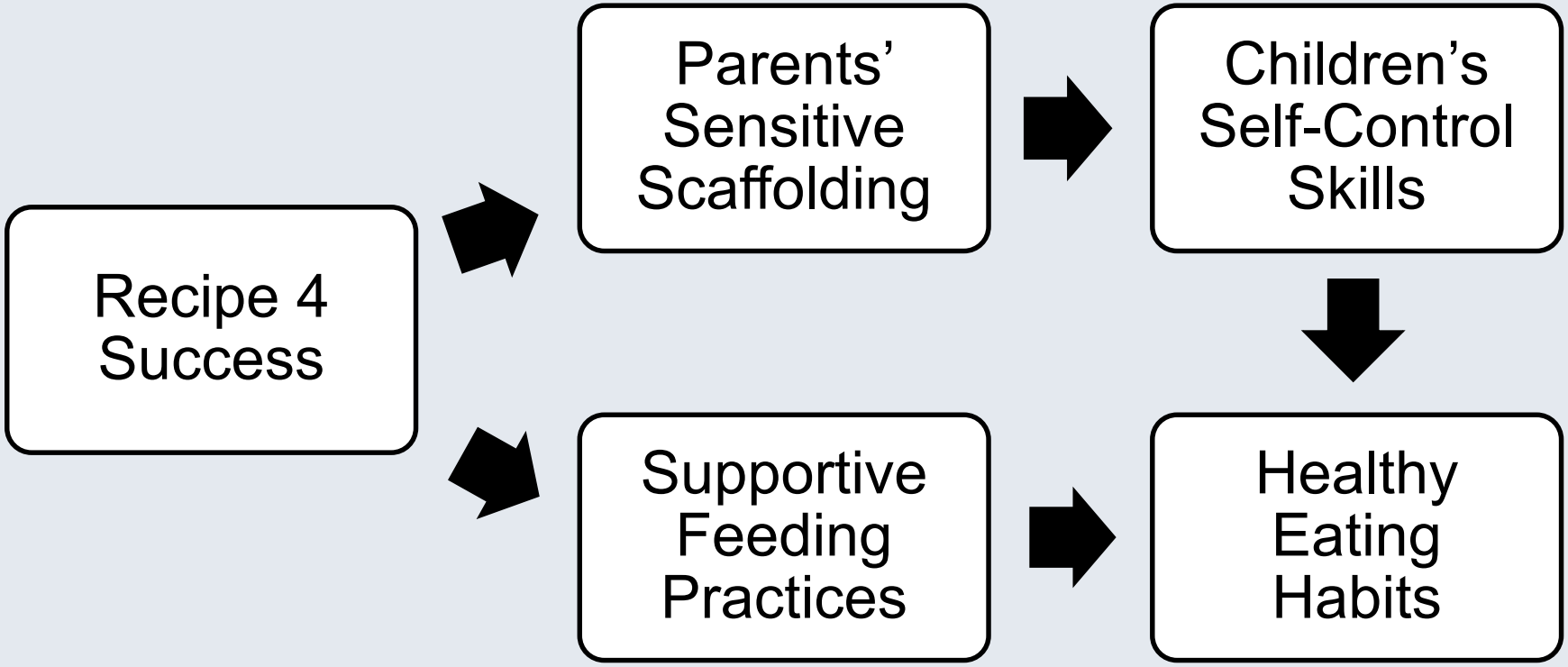
(Hembree-Kigin & McNeil, 1995; Hughes & Ensor, 2009; Hustedt & Raver, 2002)

4. Children more likely to eat healthy foods they help prepare:

- They are invested in food
- New ingredients become familiar through cooking

(Knai, Pomerleau, Lock, & McKee, 2005)

Recipe 4 Success Logic Model



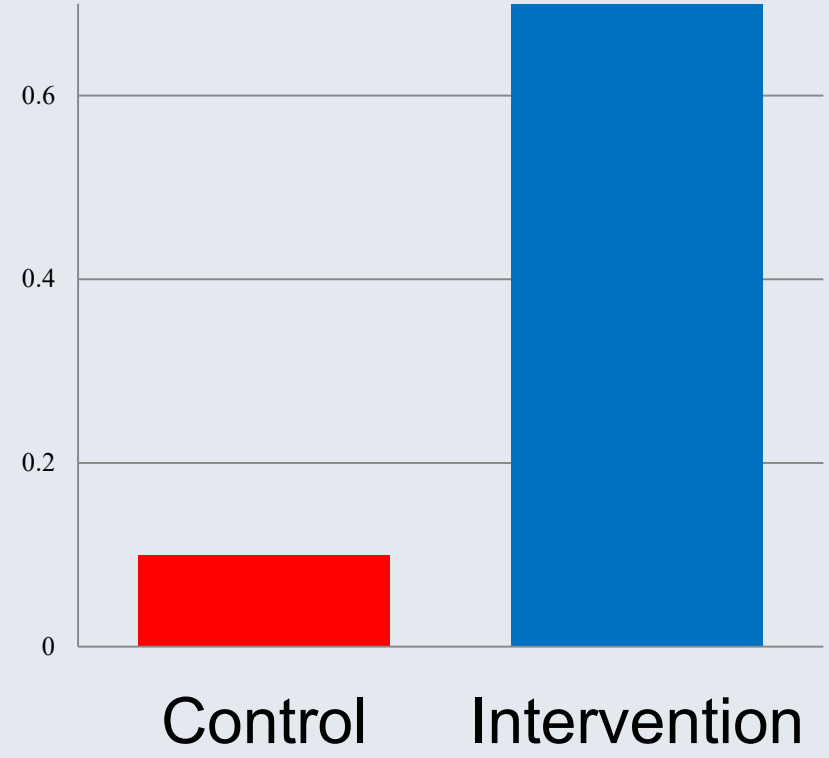
10-lesson cooking curriculum:

- Embedded within Early Head Start home visits
- Practice parent scaffolding and child self-control
- Provide parents with information about child eating
- Expose children to new foods

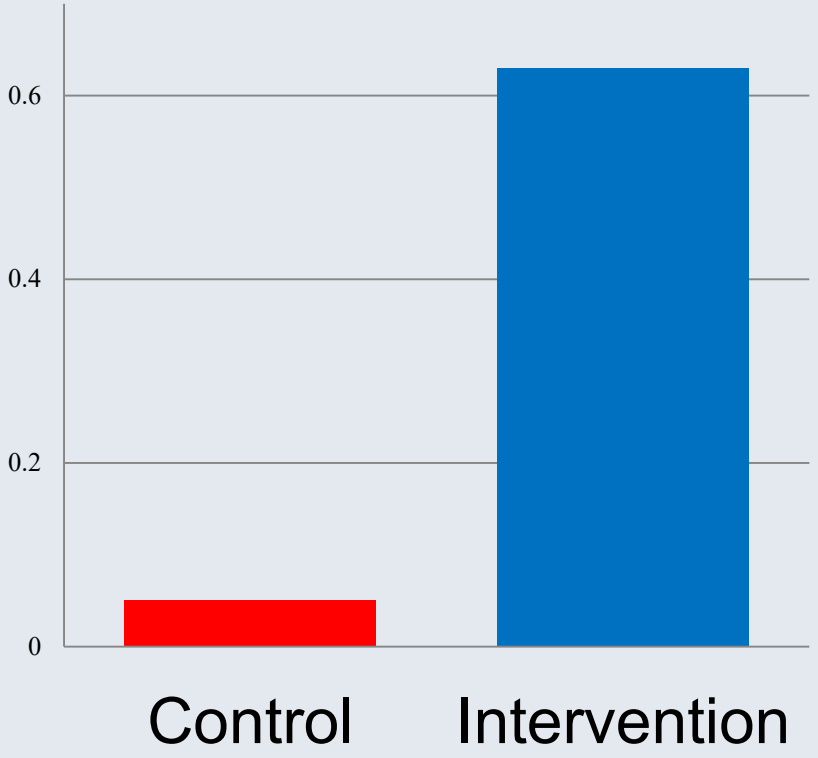
Recipe 4 Success Pilot Study

- 74 Early Head Start families
- 52% Black and/or Latino
- Randomly assigned to intervention or home visits “as usual” within caseload
- Extensive assessments pre- and post-intervention

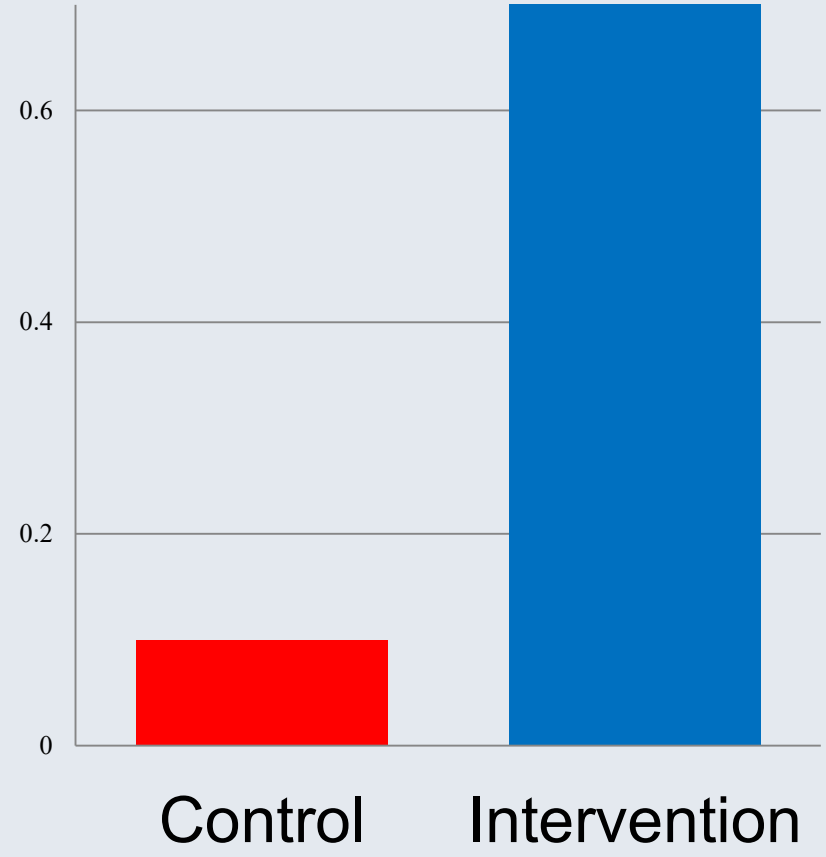
Supportive feeding practices
Parent report
d = .87***



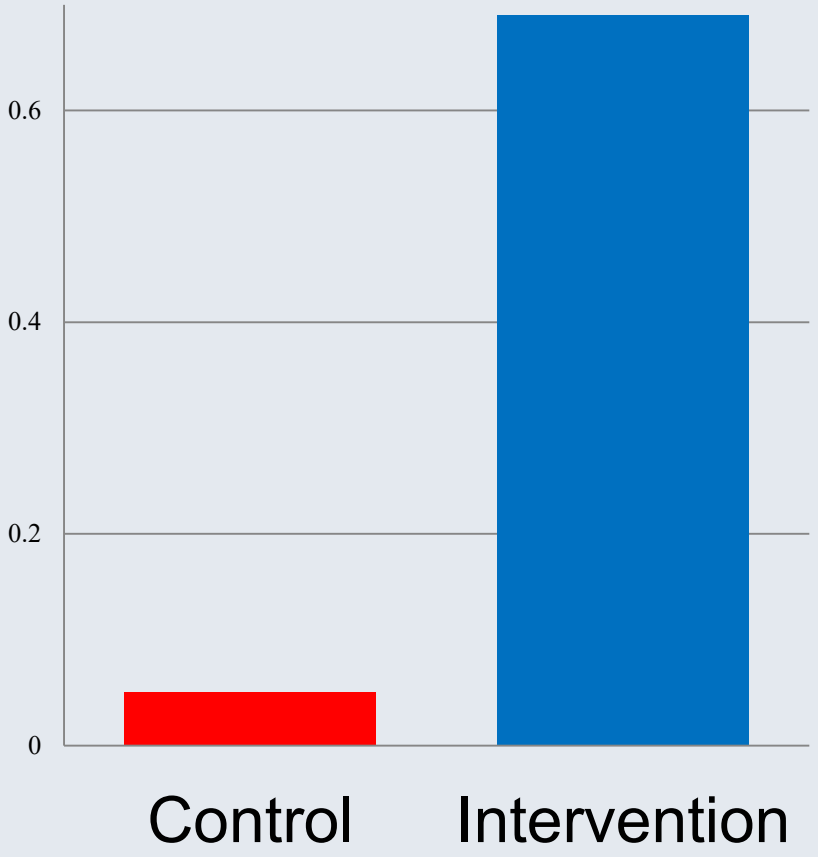
Sensitive scaffolding
Video ratings
d = .58*



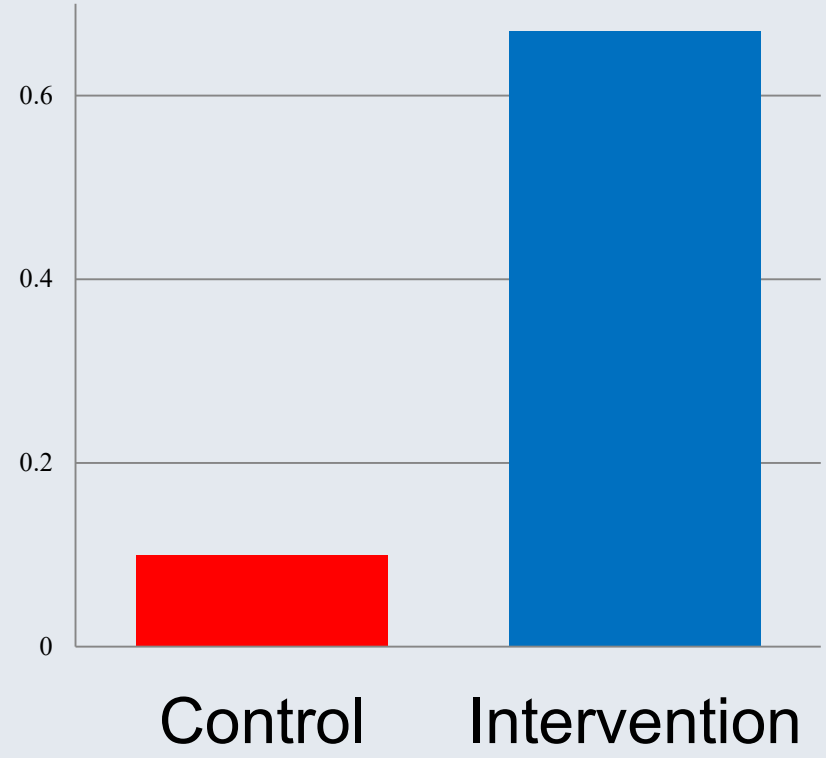
Ability to wait
Direct testing
d = .84***



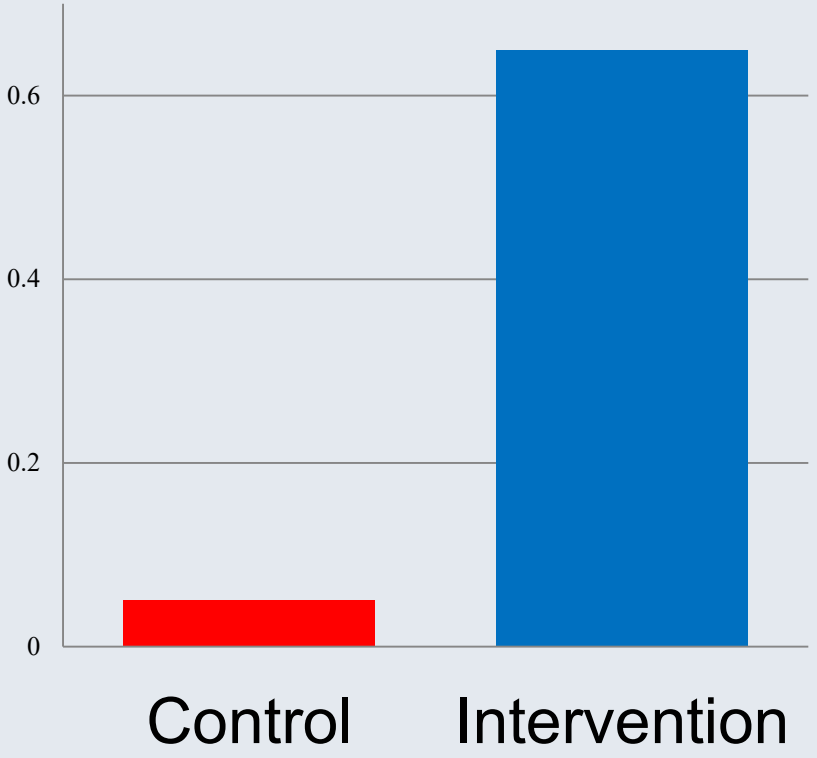
Concentration
Observer rating
d = .64*



Child ate
balanced meal
24-hour food log
d = .57*



Healthy
body mass index
24-hour food log
OR = 5.98*



Recipe 4 Success Efficacy Study

- 290 parents and toddlers
- Offered in Early Head Start centers in 7 U.S. cities
- Implemented in Spanish and English
- Pre- and post-intervention assessments
- 6- and 12-month follow-up assessments

Recipe 4 Success intervention:

- Focuses on high risk population
- Targets multiple important outcomes
- Takes advantage of pre-existing national infrastructure
- Brief, focused module can be easily integrated into ongoing curriculum

Thank you!

Questions?