

Development of an Intervention to Enhance Children's Nutrient Quality in Family Child Care Homes

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Introduction

Early childhood is a critical developmental period.[1] Nationally, 66% of young children are in non-parental care for an average of 32 hours/week.[2] Nationwide, there are over 1 million children in Family Child Care Homes (FCCH) (26% of all early care attendance).[3] Providers serving low-income children can participate in the Child and Adult Care Food Program (CACFP), which reimburses qualifying food costs.[4] CACFP participation is associated with increased access to nutritious foods,[5, 6] but however, there are variations in the fidelity with which it is implemented. These variations may compromise overall nutritional quality for some children,[7, 8] and leave substantial room for improvement in implementation.

Purpose

To describe development of Happy Healthy Homes, an interdisciplinary, community-based study in Oklahoma to improve FCCH quality of foods served in FCCH and promote compliance with CACFP best-practices.

Theoretical Foundation

- Evidence-based obesity prevention interventions [9]
- Public Health Ecological Model [10, 11, 12, 13] (Figure 1)
- Social Cognitive Theory [14, 15]
- Self Determination Theory [16]
- Adult Learning Practices [17]
- Social Support [18]
- Table 1 indicates how model constructs are operationalized

Figure 1. Constructs and Operationalization of the Public Health Ecological Model

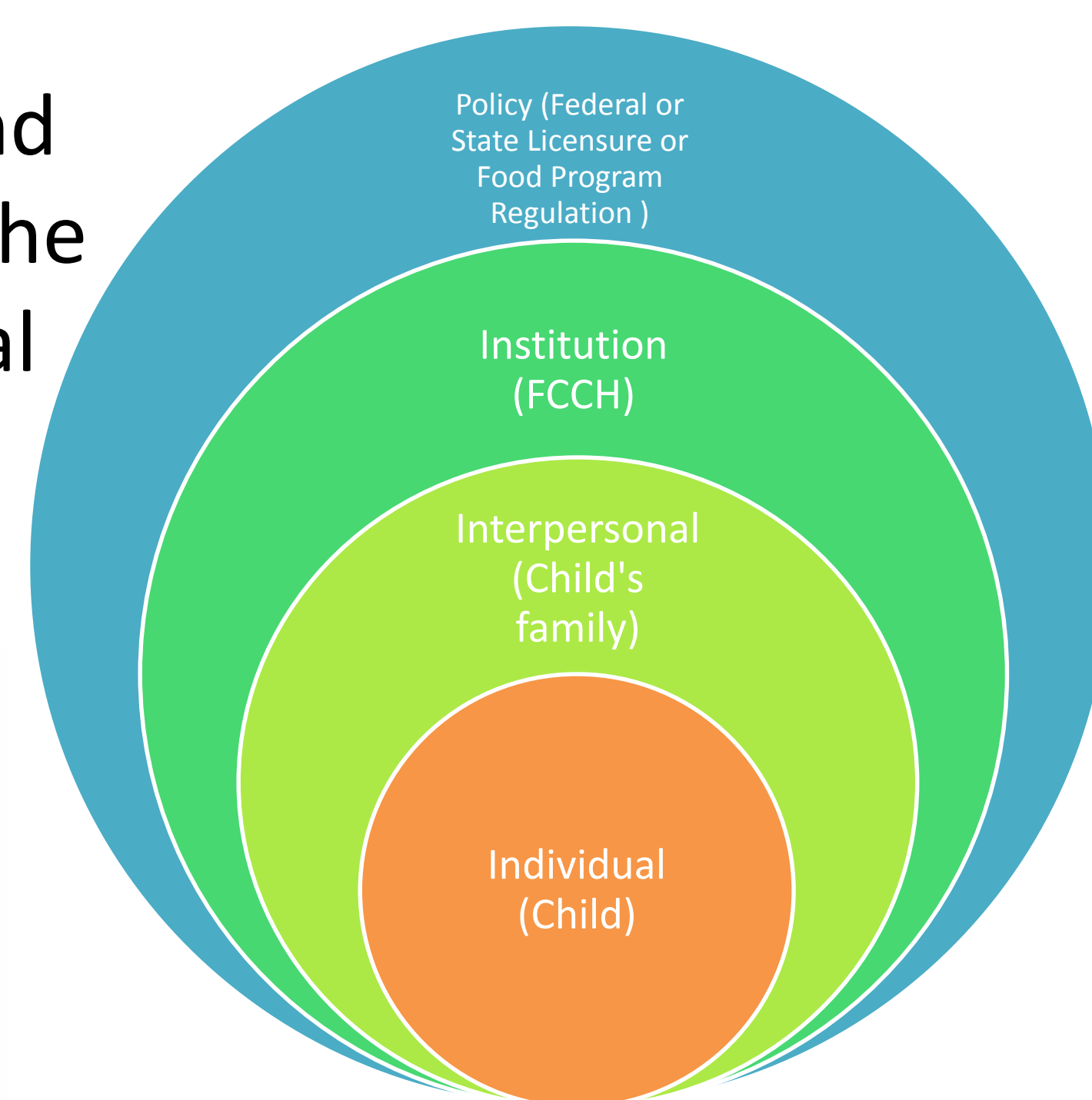


Table 1. Model constructs and parallel intervention activities

	Intervention Activities
Social Cognitive Theory	
Behavioral capability	Educational lessons, hands-on activities, cooking class, making household cleaners
Self-control	Goal setting, problem solving, goal progress evaluation
Expectancies (value of outcome)	Educational lessons integrated with qualitative teacher self-perspectives
Observational learning	Hands-on activities, cooking class, making household cleaners, community partner involvement
Self Determination Theory	
Proactive	Elective modules, hands-on activities
Personal importance	Educational lesson integrated with qualitative teacher self-perspectives
Interest	Hands-on activities
Adult Learning Principles	
Active Learning	Elective modules, hands-on activities
Preconceptions	Reflective listening
Understanding	Educational lesson includes "why"
Self-assessment	Goal setting, progress check, troubleshooting
Community-centered	Small group cooking and environmental health class
Social Support	
Instrumental support	Hands-on activities, cooking class
Informational support	Educational lessons, goal setting, trouble shooting
Appraisal support	Goal progress, troubleshoot
Peer support	Small group cooking and environmental health class

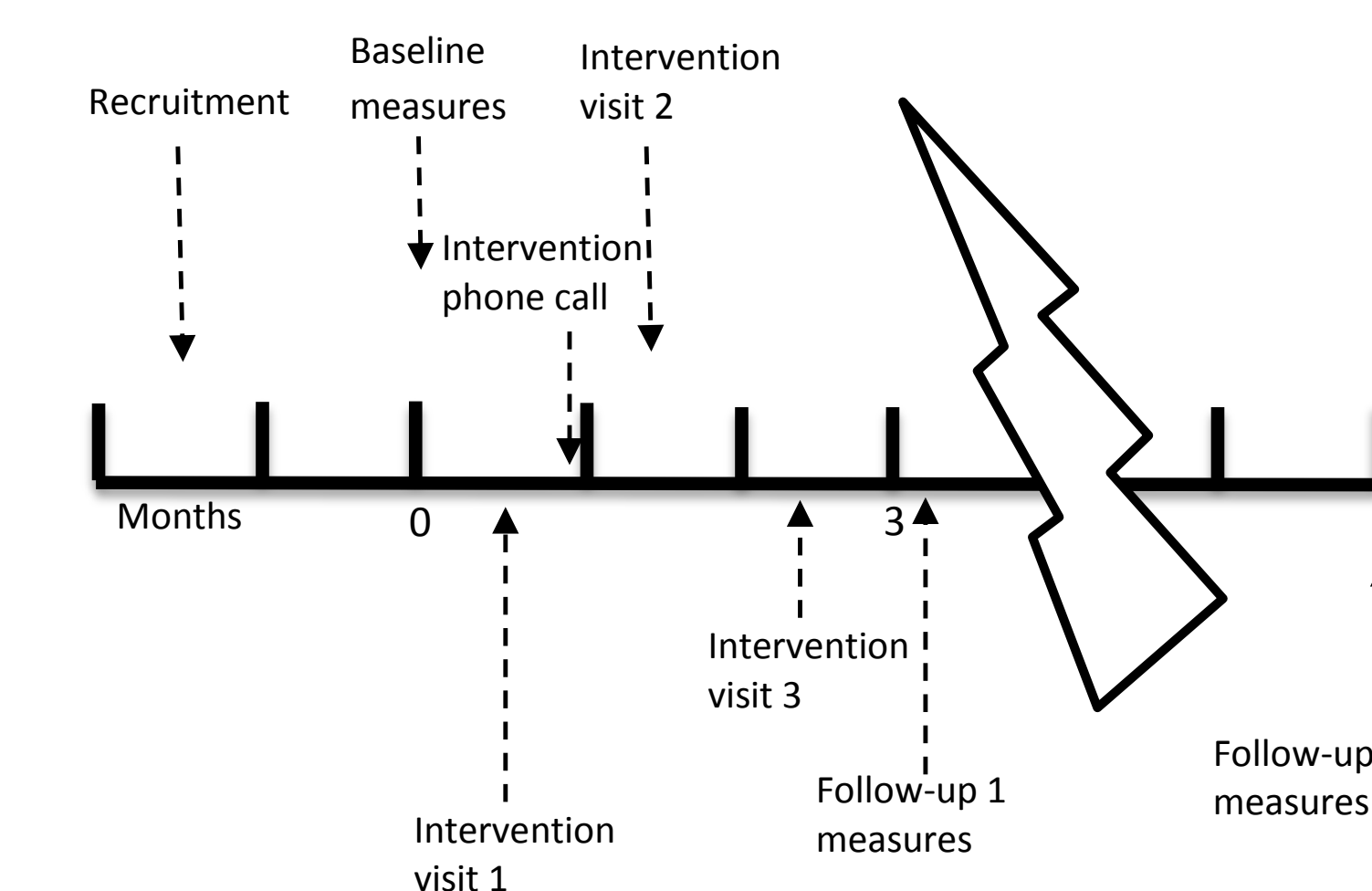
Methods

- Randomized controlled trial with attention comparison
- Recruit 52 FCCH providers who participate in the CACFP within 60 miles of Oklahoma City over 3 waves (18 planned per wave)
- Random assignment to nutrition or environmental health technical assistance intervention
- 90 minute individual sessions including 4 core modules and 3 selected electives (Table 2.)
- Complete a 3 month intervention including 2 individual sessions with a trainer, a mid-point phone call to discuss goals and trouble shoot, and a 3-hour small group class (Figure 2.)

Table 2. Core Modules of Nutrition Technical Assistance

Core Modules	Elective Modules	Small Group Cooking Class
Nutrition Technical Assistance		
1. SMART goals	1. Understanding Nutrition facts	1. Making family style work for you
2. Why meet best practices	2. Menu and meal planning	2. Best practice recipes
3. Portion distortion: What's the right size	3. Picky eating, food allergies, food aversions	3. Meeting best practices
4. Staff behaviors: Leading the way	4. Cooking across the rainbow	4. Shopping local
	5. A fluid situation	
	6. Gardening	
	7. Cooking with kids: getting kids in the kitchen	
	8. Breakfast	

Figure 2. Protocol time-course for sample participant



Implications for Practice

Implementation of this intervention will enhance the quality of nutrition provided to young children in FCCH and can be disseminated and implemented in other rural environments and states.

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