

Effectiveness Of Supports For Family Mealtimes On Obesity Prevention Among Head Start Preschoolers:

Preliminary Descriptives from a Confirming Phase Initial Cohort

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Simply Dinner



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Objectives and Design

Phase 1: Screening Phase

- Determine the feasibility and additive effects of 6 intervention components reflecting differing levels of supports for family mealtimes as associated with more frequent family meals and improved dietary outcomes.

Phase 2: Confirming Phase

- Evaluate the identified components as a bundled intervention in a randomized controlled trial (RCT).

DESIGN

- 12-week intervention (2 meals home-delivered/week, cookware/dinnerware set) implemented Summer 2018-Fall 2019)
- Primary outcomes: Child adiposity indices, frequency of family mealtimes, dietary quality
- The current poster reflects data for 44 participants who participated in the first cohort of the Confirming Phase. Enrollment, intervention delivery and data collection are on-going. These descriptive data are shown as exploratory only and should not be interpreted beyond any initial, descriptive value.

Measures

- Data collected in the home pre, mid, post intervention.
- Outcomes:** Child adiposity (BMIz, weight); dietary quality (Block screener and food photography app), frequency of family mealtimes
- Characteristics concerning mealtimes:** Perceptions of cooking, Barriers to mealtime planning & preparation
- Parent and Family Characteristics:** Food security, parental psycho-social functioning, mealtime climate via videotaped mealtimes, parental stress (phone app)
 - Participants reported on how stressful mealtimes were 2X per week for 12 weeks (up to 24 reports)
- Participant satisfaction data collected bi-weekly during intervention cycle; fidelity monitored via weekly meetings with intervention staff.

Preliminary Descriptive Pre to Post Means and SDs for BMIz, Dietary Intake and Mealtime Barriers and Resources

Measure	Control-Pre Mean (SD)	Control-Post Mean (SD)	Intervention-Pre Mean (SD)	Intervention-Post Mean (SD)	Response Scale
Parent and child eating together	5.9 (1.6)	5.4 (2.3)	5.8 (1.3)	5.7 (1.6)	Number of days out of 7
BMIz	0.7 (0.8)	.6 (1.0)	0.3 (1.3)	0.37 (1.4)	Z score
Daily saturated fat intake	14.5 (5.9)	16.7 (7.3)	15.0 (6.7)	16.9 (8.3)	Grams
Daily intake of potatoes, including French fries	0.2 (0.1)	0.3 (0.3)	0.2 (0.2)	0.2 (0.1)	Cups equivalents
Daily vegetable intake	0.5 (0.3)	0.4 (0.3)	0.6 (0.3)	0.6 (0.3)	Cups equivalents
Sugar sweetened beverages	1.8 (4.6)	8.8 (15.1)	15.3 (34.8)	8.5 (13.3)	kcal

n = 30

Synopsis: The descriptive means and standard deviations above reflect 30 participants for whom pre and post data were available. The descriptive data, to date, do not indicate differences between the control and intervention groups. Patterns suggest that the intake of sugar sweetened beverages may be decreasing for children in the intervention group.

Methods

- We have experienced challenges in recruiting the sample size (n = 250) needed for the Confirming Phase. Focus groups with a small group of parents suggested that some potential participants might have concerns with the receipt of meals. Potential sources of concerns raised included negative perceptions about receiving a food support intervention, concerns about an unknown delivery person from Meals on Wheels coming to participants' homes, and concerns about whether or not the food would taste good. We are currently completing our initial work with testing the intervention with Meals on Wheels as a partner.
- The remainder of the Confirming Phase will utilize a commercial meal delivery service that may offer a few advantages: deliveries do not require that someone be home; participants will choose from a selected list the meals they think their families would like best; commercial delivery allows for a wider geographic recruitment area.

The final intervention of delivery of 2 fully prepared meals delivered to participant's home once per week for 12 weeks, as identified from Phase 1, is being tested in a randomized controlled trial. Phase 2 recruitment methods were expanded beyond recruitment solely through Head Start as was the practice in Phase 1 (Screening Phase) to include the use of social media recruitment strategies and notices placed through UM Health system, which provides access to thousands of potential research participants. Moreover, the expanded recruitment and shift to the use of a commercial delivery system provides a unique opportunity to include the Meals on Wheels sample as a sub-study along with the larger sample in the more-widely recruited commercial delivery sample. This will allow us to examine any patterns in differences in outcomes and response rates that may be associated with intervention delivery modes.

Phase 2 recruitment is ongoing. We expect the final sample (N = ~ 60 in the Meals on Wheels subsample; N = 250 in the Direct Meal Delivery via UPS subsample) will reflect variability in family income and education levels.

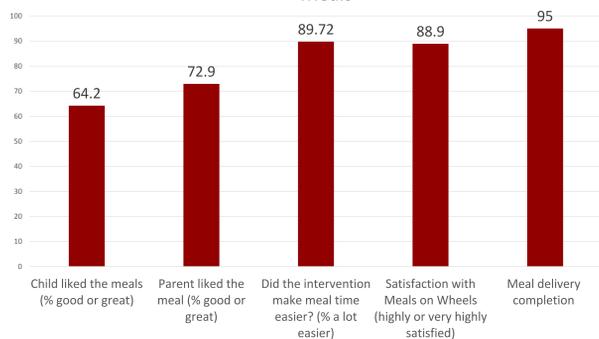
Confirming Phase Sample Demographic Characteristics

- 44 low-income parents and children in Head Start (20 control condition; 24 intervention condition).
 - Primarily White (33.8%), African American (23.4%) or Multiracial (22%)
 - 57.6% food insecure
- Mean child age = 51.5 months (SD = 6.8). 22.8% overweight; 10.5% obese.
- Mean parent age = 31.1 years old (SD = 7.9). 21% overweight; 53.9% obese)



Satisfaction with the Intervention

Percent Rating High and Success Rate in Delivering Meals



“Really grateful, healthy, seemed like real food.”

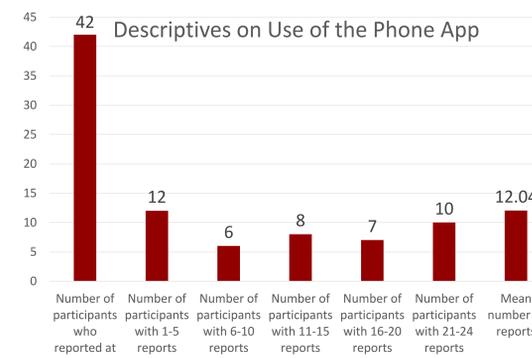
“Very good, saves me time”

“Really good for my son, opening his options to food more”

“We greatly appreciate it; it makes things easier”

“Meals is good, all pre-cooked and tastes good”

Reports of Mealtime Stress



Synopsis: The satisfaction with the meal delivery is very high and seems somewhat contrary to the twice weekly reports of how stressful mealtime is.

This discrepancy may reflect several characteristics:

- About half of participants are reached successfully on a bi-weekly basis; thus, results reflect very few participants. Mean scores across up to 6 satisfaction assessments are reported here.
- Mealtime stress reported twice weekly reflects on-going “real-time” perceived stress.
- It is possible that participants receiving meals might perceive meal time stress associated with:
 - Children or parents disliking the meals
 - The necessity to be home/or have another adult home to receive the weekly meal deliveries
 - The necessity to heat delivered meals (one delivered cool; one delivered frozen)



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