Intervention IP-091: Healthy Homes/Healthy Families

Summary

The Healthy Home/Healthy Families intervention is a 16-week health coach-delivered intervention to reduce energy intake for the prevention of weight gain among predominantly rural African American women who are overweight or obese. The intervention uses tailored home environment profiles showing areas in need of improvement and positive aspects of the home environment, behavioral contracts for healthy actions, and mailed support materials. The intervention resulted in significant decreases in energy intake and self-reported weight gain compared to women in the control condition.

Overview

Purpose of Intervention:

To reduce energy intake to prevent weight gain through improved home environments for rural residents

Intervention Type:

Research-Tested — *Interventions with strong methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted health outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a control or comparison group and are published in a peer-review journal; No pilot, demonstration or feasibility studies.*

Intervention Details

Intervention was Primarily Driven, Led, or Managed by:

Both Community and Academic/Clinical Researchers

Citations:

- Kegler MC, Haardörfer R, Alcantara IC, Gazmararian JA, Veluswamy JK, Hodge TL, Addison AR, Hotz JA. Impact of Improving Home Environments on Energy Intake and Physical Activity: A Randomized Controlled Trial. American journal of public health. 2016 Jan;106(1):143-52.
  Relevance: Main Intervention
- Woodruff RC, Haardörfer R, Gazmararian JA, Ballard D, Addison AR, Hotz JA, Tucker RB, Kegler MC. Home Environment-Focused Intervention Improves Dietary Quality: A Secondary Analysis From the Healthy Homes/Healthy Families Randomized Trial. Journal of nutrition education and behavior. 2019 Jan;51(1):96-100. Epub 2018 Sep 18.
  Relevance: Post-Intervention Outcomes

Adaptation of Another Research-based Intervention:

No

Contact Information

Primary Contact Affiliation:

Emory Prevention Research Center

Intervention URL:

https://web1.sph.emory.edu/eprc/dissemination/healthy-homes.html

Results

Intention

Improve minority health or the health of other populations with health disparities (e.g. rural populations, populations with low SES)

Intervention Primary Outcome:

Energy intake

Intervention Secondary Outcome:

Energy expenditure, moderate/vigorous physical activity, healthy eating index, and home environment

Key Findings:

Significant decrease in energy intake: -274 intervention vs -69 control (p=.03) at six months; -195 verses -76 at 12 months (p=.09). Intent to treat was statistically significant through growth modeling using both six and 12 month data (p=.03). No change in moderate/vigorous physical activity. Self-reported weight loss: -9.1 pounds intervention vs -5 pounds control (p=.03) at six months and in intent to treat analysis. Healthy eating index: 3.4 intervention versus 2.0 control (p=.009) at six months. There were multiple significant changes in the home environment for both food and physical activity at six months, 12 months, and in intent to treat.

Statistical Method Used:

Growth modeling in the intent to treat analyses at 12 months. Methods varied for six and 12 month analyses, where independent t-tests or Wilcoxon-Mann-Whitney tests were used depending on each variable.

Evaluations and Assessments

Were Any of the Following Assessments Conducted (Economic Evaluation, Needs Assessment, Process Evaluation)?:

Yes

- **Process Evaluation:** Surveyed participants on the helpfulness of coaching sessions, the use of the materials, and analysis of coaching logs for selected healthy actions. Identified barriers and facilitators to implementation of these intervention components.

Demographic and Implementation Description

Diseases, Disorders, or Conditions:

Obesity, Nutrition, Physical Activity, Weight Management

Race/Ethnicity:

African American or Black, White

Populations with Health Disparities:

People with Lower Socioeconomic Status (SES), Racial and Ethnic Minority Populations, Underserved Rural Communities

Age:

Young Adults (18 - 39 years), Middle-Aged Adults (40 - 64 years)

Socio-demographics / Population Characteristics

Community Type:

Rural

Other Populations with Health Disparities:

Unspecified

Geographic Location:

Georgia

Socio-Economic Status:

Low SES

Research Framework

		Levels of Influence			
		Individual	**Interpersonal**	**Community**	**Societal**
Determinant Types	**Biological**				
	Behavioral	✔	✔		
	Physical / Built Environment	✔	✔		
	Sociocultural Environment		✔		
	Health Care System				

Community Involvement

The community's role in different areas of the Intervention (Choices are "No Role", "Participation", and "Leadership"):

Design:

Participation

Dissemination:

Participation

Evaluation:

Participation

Implementation:

Leadership

Outreach:

Participation

Planning :

Participation

Recruitment:

Leadership

Sustainability:

Leadership

Characteristics and Implementation

Intervention Focus Area:

Behavior Change, Physical Environmental Change

Disease Continuum:

Primary Prevention, Secondary Prevention

Delivery Setting:

Home

Mode of Delivery:

In-person, Telephone and mailed environmental supports

Who delivered the Intervention?:

Community Health Worker/Promoters, Trained community members (but not formal community health workers)

Conceptual Framework

Intervention Theory:

Social Cognitive / Social Learning Theory

Intervention Framework:

Social Ecological Model

Implementation

Intervention Study Design:

Individual Randomized Controlled Trial/Comparative (requires random assignment, a control/comparison group, and pre and post intervention outcome assessments)

Targeted Intervention Sample Size:

349

Actual Intervention Sample Size:

349

Start Year:

2011

End Year:

2013

Intervention Exposures

Duration of Intervention/How Long it Lasted:

4-6 months

Frequency of Intervention Delivery:

Monthly

Number of Sessions/Meetings/Visits/Interactions:

7-8 Sessions

Average Length of Each Session/Meeting/Visit/Interaction:

Less than 1 Hour

Format of Delivery:

Individual

Highest Reading Level of Intervention Materials Provided to Participants:

Unspecified

Impact, Lessons, Components

Produced an impact or change beyond the primary or secondary outcome:

No

Essential Aspects for Success:

There are four core components of this intervention: tailored home environment profile (this involves using our web-based platform which we provide access to for free); healthy actions; six coaching sessions; and behavioral contract.

Lessons Learned

Key Lessons Learned and/or Things That Could be Changed or Done Differently:

Since the main trial, we streamlined the intervention to focus on the nutrition component and deliver the intervention by telephone with broader eligibility criteria. We partnered with 2-1-1 to recruit participants and saw changes similar to those from the original trial in a pilot study.

Insights Gained During Implementation

Insight Category	Insight Description
Cost of Implementing or Sustaining	The main implementation cost is staff time to deliver the intervention. We estimate it takes about 10-15 hours of staff effort for each participant, including prep time for coaching sessions.
Logistics	The home visits added additional costs to the intervention. We are now testing this via telephone delivery. We are also conducting a small grants program to see how community-based organizations can adapt the intervention.
Equipment / Technologies	The program begins with a survey that is used to tailor a home food environment profile for participants. We provide access and training on the use of a web-based platform that automates this process to facilitate dissemination.
Training / Technical Assistance	We offer a training on the program for interested organizations, and the implementation manual is available on our website.
Transportation	The current model utilizes phone delivery, so no transportation is required. The original model involved three home visits by the health coach.
Staffing	The intervention requires a health coach. For the original trial, health coaches were trained community residents.
Recruitment	Some organizations were interested in weight loss interventions specifically (e.g., employers); however, this is not a weight loss intervention, but a healthy eating and weight gain prevention program.

Intervention Components

Intervention Has Multiple Components:

Yes

Assessed Each Unique Contribution:

Yes

Products, Materials, and Funding

Expertise, Partnerships, and Funding Sources

	Used for Implementation	Needed for Sustainability
Expertise		
Health Education / Health Literacy	Yes	Yes
Partnerships		
Health care facilities (local clinics)	Yes	No
Community groups (e.g. faith-based organizations, barbershops, beauty-salons, laundromats, food markets, community centers, cultural associations, tribal groups)	Yes	Yes
Funding Sources		
Public funding (e.g., federal, state or local government)	Yes	Unknown

Product/Material/Tools

	Tailored For Language	Language(s) if other than English	Material
Outreach/Recruitment Tools			
Publicity Materials (e.g. Posters, Flyers, Press Releases)	No		Attachment available for request at the bottom of the page.
Participant Educational Tools			
Healthy Actions (core component)	No		https://web1.sph.emory.edu/eprc/dissemination/healthy-homes.html
Measurement Tools			
Non-Standardized Instruments/Surveys/Questionnaires	No		Attachment available for request at the bottom of the page.

Implementation Materials and Products

	Material
Implementation/Delivery Materials	
Training/Operations manual	Attachment available for request at the bottom of the page.
Implementation/Output Materials	
Infographic summarizing study findings	Attachment available for request at the bottom of the page.

Articles Related to Submitted Intervention

	Article
Reports/Monographs	
No Reports/Monographs provided.	
Additional Articles	
Evaluation	https://pubmed.ncbi.nlm.nih.gov/30241706/
Adaptations	https://pubmed.ncbi.nlm.nih.gov/32658029/
Evaluation	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4695922/

Materials Available for Request

- HHHF flyer 2.pdf

- Home Environment Survey.pdf
- HHHF Implem Guide 2.1.23_Final.pdf
- HH-HF-Infographic 2020.pdf