

Intervention IP-089: A community health worker intervention to improve blood pressure among Filipino Americans with hypertension: A randomized controlled trial

Summary

This intervention was designed to test the effectiveness of a Community Health Worker (CHW) intervention on hypertension-related outcomes among Filipino Americans with hypertension living in New York City from 2011-2013. A randomized controlled trial was conducted of 240 Filipino Americans with uncontrolled hypertension using CHWs to provide educational workshops and visits over a 4 month period. Findings showed that there was increased blood pressure (BP) control and improved related factors at 8-month follow-up among the participants.

Overview

Purpose of Intervention:

To improve hypertension-related outcomes among Filipino Americans living in New York City

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:

- Ursua RA, Aguilar DE, Wyatt LC, Trinh-Shevrin C, Gamboa L, Valdellon P, Perrella EG, Dimaporo MZ, Nur PQ, Tandon SD, Islam NS. A community health worker intervention to improve blood pressure among Filipino Americans with hypertension: A randomized controlled trial. Preventive medicine reports. 2018 May 9;11:42-48. doi: 10.1016/j.pmedr.2018.05.002. eCollection 2018 Sep. Relevance: Main Intervention

- Ursua RA, Aguilar DE, Wyatt LC, Katigbak C, Islam NS, Tandon SD, Nur PR, Van Devanter N, Rey MJ, Trinh-Shevrin C. A community health worker intervention to improve management of hypertension among Filipino Americans in New York and New Jersey: a pilot study. *Ethnicity & disease*. 2014 Winter;24(1):67-76.
Relevance: Evaluations and Assessments
- Katigbak C, Foley M, Robert L, Hutchinson MK. Experiences and Lessons Learned in Using Community-Based Participatory Research to Recruit Asian American Immigrant Research Participants. *Journal of nursing scholarship : an official publication of Sigma Theta Tau International Honor Society of Nursing*. 2016 Mar;48(2):210-8. Epub 2016 Feb 2.
Relevance: Evaluations and Assessments

Adaptation of Another Research-based Intervention:

Yes

Name of Original Intervention:

National Heart Lung and Blood Institute (NHLBI) Healthy Heart, Healthy Family curriculum

URL to original Intervention:

<https://www.nhlbi.nih.gov/resources/healthy-heart-healthy-family-community-health-workers-manual-filipino-community>

Citations:

- U.S. Department of Health and Human Services, National Institutes of Health. Healthy Heart, Healthy Family: A Community Health Worker's Manual for the Filipino Community. September 2008.

Intervention Primary Outcomes were comparable to the original:

Yes

Contact Information

Primary Contact Affiliation:

NYU Grossman School of Medicine

Intervention URL:

<https://classic.clinicaltrials.gov/ct2/show/NCT03100812>

Results

Intentions

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

Intervention Primary Outcome:

Blood pressure (BP) control

Intervention Secondary Outcome:

Decreased systolic blood pressure (SBP), decreased mean diastolic blood pressure (DBP), increased appointment keeping compliance

Key Findings:

The odds of BP control from baseline to 8-months for the treatment group was 3.2 times the odds of the control group in adjusted analysis (95% CI, 1.9-5.4). A greater improvement in mean SBP was seen for the treatment group compared to the control group in adjusted analysis (difference in slopes was -6.2 [95% CI, -8.4, -4.0]). A greater improvement in mean DBP was seen for the treatment group compared to the control group in adjusted analysis (difference in slopes was -2.8 [95% CI, -4.3, -1.4]). The intervention group saw a significant change in appointment keeping while there was no change for the control group. The intervention effect was not significant.

Statistical Method Used:

To assess changes across groups for each continuous outcome (SBP, DBP, appointment keeping), we ran generalized estimating equations (GEE) models for repeated measures over time, adjusting for study arm, time-point, the intervention effect (study arm x time-point), as well as socio-demographics and behaviors; the intervention effects were reported. For BP control, we ran GEE models using a binomial distribution, and odds ratios were produced.

Was statistical method used to analyze data from original Intervention comparable to the original:

Yes

Evaluations and Assessments

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

Yes

- **Process Evaluation:** Interviews were conducted with pilot study community health workers (CHW) and trainers, and pilot participants; a secondary qualitative analysis was conducted using an interview with one CHW and their participant care logs. Acceptability of the intervention was high in part due to shared culture, language, and life experiences. Feasibility was achieved through community and academic partners working together. Efficacy was shown through a sense of ownership and empowerment by participants.
- **Needs Assessment:** A community health needs assessment was administered to Filipino adults prior to the AsPIRE intervention and helped to inform the development of the intervention, with the focus on the high burden of cardiovascular disease in the Filipino community.

Demographic and Implementation Description

Diseases, Disorders, or Conditions:

Hypertension

Race/Ethnicity:

Asian

Populations with Health Disparities:

Racial and Ethnic Minority Populations

Age:

Young Adults (18 - 39 years), Middle-Aged Adults (40 - 64 years), Older Adults (65+ years)

Socio-demographics / Population Characteristics

Community Type:

Urban / Inner City

Other Populations with Health Disparities:

Unspecified

Geographic Location:

New York

Socio-Economic Status:

Unspecified

Minority Health and Health Disparities 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:

Leadership

Planning :

Leadership

Recruitment:

Leadership

Sustainability:

Leadership

Characteristics and Implementation

Intervention Focus Area:

Behavior Change

Disease Continuum:

Tertiary Prevention

Delivery Setting:

Local Community (e.g. Barbershops, Beauty / Hair Salon, Laundromats, Food Markets, Community Centers),
Houses of Worship

Mode of Delivery:

In-person

Who delivered the Intervention?:

Community Health Worker/Promoters

Conceptual Framework

Intervention Theory:

Health Belief Model, Social Support / Social Network Theory

Intervention Framework:

CBPR Framework

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:

305

Actual Intervention Sample Size:

182

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:

3-4 Sessions

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

1-2 Hours

Format of Delivery:

Group (e.g. Community leaders), Individual

Highest Reading Level of Intervention Materials Provided to Participants:

Unspecified

Adaptations and Modifications

Were modifications made?

Intervention Elements	Modified
Content	Yes
Context	No
Implementation	Yes
Funding	No
Organization	No
Participants	No
Providers	No
Sociopolitical	No
Stages of Occurrence	Yes

Modification Details

	Explanation
Content	
Shortening	The intervention was streamlined, by combining sessions, in order to be delivered in 4 sessions instead of the original 12 sessions
Implementation	
Delivery, Duration	The intervention was delivered in 4 sessions instead of the original 12 sessions, and the sessions were delivered monthly instead of weekly. This lasted 4 months instead of 3 months.
Stages of Occurrence	
Planning/Pre-implementation/Pilot	The intervention was modified in the planning phase and then pilot tested.

Impact, Lessons, Components

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

Not Tested

Essential Aspects for Success:

The strong leadership role of a trusted community partner, who employed the CHWs, was essential for the success of the intervention. The community partner was able to establish a storefront community center space staffed by CHWs, which helped to address health needs in the community.

Intervention Impact:

Not available

Lessons Learned

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

Socio-cultural characteristics of CHWs are key to building trust with participants.

Insights Gained During Implementation

No insights available.

Intervention Components

Intervention Has Multiple Components:

Yes

Assessed Each Unique Contribution:

No

Products, Materials, and Funding

Expertise, Partnerships, and Funding Sources

	Used for Implementation	Needed for Sustainability
Expertise		
Community mobilization, community organization/coalition building	Yes	Yes
Key informants, Tribal leaders, Community gatekeepers	Yes	Yes
Patient Navigation	Yes	Yes
Health Education / Health Literacy	Yes	Yes
Research/Data science	Yes	Yes
Partnerships		
Universities	Yes	Yes
Local leaders/families	Yes	Yes
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	Yes

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.
Informed Consent Form	No		Attachment available for request at the bottom of the page.
Participant Educational Tools			
Brochures/Factsheets/Pamphlets	No		Attachment available for request at the bottom of the page.
Measurement Tools			
Non-Standardized Instruments/Surveys/Questionnaires	No		Attachment available for request at the bottom of the page.
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Implementation Materials and Products

	Material
Implementation/Delivery Materials	
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Coordinator or Facilitator’s Guides	Attachment available for request at the bottom of the page.
Curricula	Attachment available for request at the bottom of the page.
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Curricula	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Implementation/Output Materials	
No Implementation/Output Materials provided.	

Articles Related to Submitted Intervention

	Article
Reports/Monographs	
Overview of the study for the community	Attachment available for request at the bottom of the page.
Additional Articles	
Adaptations, Development of Kalusugan Coalition and results from a community needs assessment in the Filipino community	Attachment available for request at the bottom of the page.
Secondary results from screening data	Attachment available for request at the bottom of the page.
Secondary results from screening data	Attachment available for request at the bottom of the page.
Evaluation	Attachment available for request at the bottom of the page.
Methodology	Attachment available for request at the bottom of the page.
Evaluation	Attachment available for request at the bottom of the page.
Qualitative findings	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4386525/
Evaluation	Attachment available for request at the bottom of the page.

Materials Available for Request

- AsPIRE Recruitment Health Fair Flyer.pdf
- AsPIRE Consent Brochure.pdf
- Project AsPIRE Brochure.pdf
- AsPIRE 8-Month Survey.pdf
- AsPIRE Baseline Survey.pdf
- AsPIRE 4-Month survey.pdf
- AsPIRE Session 2 Handouts.pdf
- AsPIRE Session 3 Handouts.pdf
- AsPIRE Session 4 Handouts.pdf
- AsPIRE CHW Manual for the Filipino Community.pdf
- AsPIRE Session 1.pdf

- AsPIRE Session 2.pdf
- AsPIRE Session 3.pdf
- AsPIRE Session 4.pdf
- AsPIRE Session 1 Handouts.pdf
- Project_AsPIRE_Executive Summary_FINAL.pdf
- Aguilar 2010 Lessons learned and challenges in buliding a filipino health coalition.pdf
- Ursua 2014 Awareness, Treatment, and Control of HTN Among Filipino Immigrants.pdf
- Ursua 2013 Awareness treatment and control of hypertension among Filipino immigrants.pdf
- AsPIRE Pilot Intervention Paper.pdf
- Islam 2017 CHW Attribute and Pathways of Action.pdf
- AsPIRE Full Intervention Paper.pdf
- Wyatt 2022 CHW Physical Activity.pdf