

# Intervention IP-085: NIH-DC Initiative to Reduce Infant Mortality in Minority Populations: Healthy Outcomes of Pregnancy Education

## Summary

This intervention was designed to reduce psychosocial and behavioral pregnancy risk factors among African American or Black pregnant women living in Washington, DC. Participants were randomized to receive clinic-based individually tailored counseling sessions (intervention) or usual care only, and primary outcomes included cigarette smoking, secondhand smoke exposure, depression, and intimate partner violence. Findings showed that intervention participants, as compared to participants who received usual care only, more frequently resolved some or all of their risk factors.

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## Overview

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### **Purpose of Intervention:**

This intervention was a congressionally mandated project to address the high African-American infant mortality rate in Washington, D.C.

### **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:**

Academic/Clinical Researchers Only

### **Citations:**

- IP-085\_Reduce Infant Mortality in Minority Populations\_publications.pdf  
(Available upon request in "Products, Materials, and Funding" section)  
Relevance: Main Intervention, Post-Intervention Outcomes

**Adaptation of Another Research-based Intervention:**

Yes

**Name of Original Intervention:**

Testing an intervention to prevent further abuse to pregnant women

**URL to original Intervention:**

[https://doi.org/10.1002/\(SICI\)1098-240X\(199902\)22:1<59::AID-NUR7>3.0.CO;2-B](https://doi.org/10.1002/(SICI)1098-240X(199902)22:1<59::AID-NUR7>3.0.CO;2-B)

**Citations:**

- Kiely M, El-Mohandes AAE, El-Khorazaty MN, Gantz MG. An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstetrics and gynecology*. 2010 Feb;115(2 Pt 1):273-283.

**Intervention Primary Outcomes were comparable to the original:**

Yes

**Additional Influences:**

- Shneyderman Y, Kiely M. Intimate partner violence during pregnancy: victim or perpetrator? Does it make a difference? *BJOG : an international journal of obstetrics and gynaecology*. 2013 Oct;120(11):1375-85. Epub 2013 Jun 21.

## **Contact Information**

**Primary Contact Affiliation:**

Department of Psychiatry and the Department of Pediatrics, Medstar Georgetown University Hospital

**Intervention URL:**

Not available

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## **Results**

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**Intention**

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

**Intervention Primary Outcome:**

Improvement in pregnancy outcomes

**Intervention Secondary Outcome:**

Reduction in psycho-social risks addressed by the intervention: intimate partner violence, depression, smoking, and environmental tobacco smoke exposure

### **Key Findings:**

Women randomized to the intervention had significantly improved rates of very low birth weight (OR: 0.11 [95% CI: 0.01-0.86]) and very preterm birth (OR: 0.22 [95% CI: 0.07-0.68]).

Women randomized to the intervention compared to usual care

- Resolved some or all of their risks (OR = 1.61 [95%CI = 1.08-2.39])
- Less likely to have recurrent IPV victimization episodes (OR=0.48 [95%CI=0.29-0.80]), & less likely to experience further episodes during pregnancy (OR=0.53 [95%CI=0.28-0.99]) & postpartum (OR=0.56 [95%CI=0.34-0.93])
- Less likely to report environmental tobacco smoke exposure (ETSE) before delivery (OR=0.50 [95%CI=0.35-0.71])
- Reduction in # of risks postpartum
- If previously smoking less likely to relapse

Being very happy about the pregnancy, having emotional support, and positive expectations about regulating negative moods were associated with decreased depressive symptoms.

### **Statistical Method Used:**

Site- and risk-specific permuted block randomization was used for the intervention or usual care. Investigators and field workers were blinded to block size. All the possible risk combinations within each of the recruitment sites were considered. Data were analyzed using intent-to-treat. Analyses used SAS. Bivariate analysis preceded logistic regression based on care group assignment. Adjusted odd ratios were produced by models that included care group plus other covariates.

**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)?:**

No

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## **Demographic and Implementation Description**

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**Diseases, Disorders, or Conditions:**

Women's Health and Pregnancy

**Race/Ethnicity:**

African American or Black, Hispanic or Latino

**Populations with Health Disparities:**

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

**Age:**

Young Adults (18 - 39 years)

**Socio-demographics / Population Characteristics****Community Type:**

Urban / Inner City

**Other Populations with Health Disparities:**

Unspecified

**Geographic Location:**

District of Columbia

**Socio-Economic Status:**

Low SES

**Minority Health and Health Disparities Research Framework**

		Levels of Influence			
		Individual	Interpersonal	Community	Societal
<b>Determinant Types</b>	<b>Biological</b>				
	<b>Behavioral</b>	✓	✓		
	<b>Physical / Built Environment</b>	✓			
	<b>Sociocultural Environment</b>				
	<b>Health Care System</b>				

**Community Involvement**

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

**Design:**

No Role

**Dissemination:**

Participation

**Evaluation:**

No Role

**Implementation:**

Participation

**Outreach:**

Participation

**Planning :**

Participation

**Recruitment:**

Participation

**Sustainability:**

No Role

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## Characteristics and Implementation

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**Intervention Focus Area:**

Behavior Change

**Disease Continuum:**

Primary Prevention, Treatment

**Delivery Setting:**

Clinic / Health Care Facility

**Mode of Delivery:**

In-person

**Who delivered the Intervention?:**

N/A

## Conceptual Framework

**Intervention Theory:**

Social Cognitive / Social Learning Theory, Dutton's Empowerment Theory; Cognitive Behavioral Theory

**Intervention Framework:**

None

## **Implementation**

**Intervention Study Design:**

Cluster Randomized Controlled Trial

**Targeted Intervention Sample Size:**

1044

**Actual Intervention Sample Size:**

1044

**Start Year:**

2001

**End Year:**

2004

## **Intervention Exposures**

**Duration of Intervention/How Long it Lasted:**

4-6 months

**Frequency of Intervention Delivery:**

Every time a woman attended a prenatal care visit, she was invited to participate.

**Number of Sessions/Meetings/Visits/Interactions:**

3-4 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

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## **Adaptations and Modifications**

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**Were modifications made?**

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

## **Modification Details**

	<b>Explanation</b>
<b>Stages of Occurrence</b>	
Other	As sites closed, other hospitals were recruited to enroll a sufficient sample for statistical power.

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## **Impact, Lessons, Components**

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

No

**Essential Aspects for Success:**

Intervention delivery occurred with prenatal and postpartum visits. Sessions were 45 minutes. The standard sequence for the intervention: Cigarette smoking and/or environmental tobacco exposure, depression, and intimate partner violence. Intervention sequence adjusted as needed. Women had homework.

**Intervention Impact:**

Not available

## **Lessons Learned**

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

- Deliver interventions and other research activities where and when convenient for participants.
- Use technology to screen for at-risk behaviors, collect sensitive information, and enhance retention participation.
- Integrate counseling and education.
- Involve family members in intervention activities.

## **Insights Gained During Implementation**

<b>Insight Category</b>	<b>Insight Description</b>
Training / Technical Assistance	Used role-playing for recruiters and interventions to demonstrate respect and cultural sensitivity and to treat study participants with dignity regardless of their circumstances or appearances.
Recruitment	Only randomize women who successfully completed a baseline telephone survey. Used Audio-Computer Assisted Self-Interview to circumvent issues about literacy.

## **Intervention Components**

### **Intervention Has Multiple Components:**

Yes

### **Assessed Each Unique Contribution:**

Yes

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## **Products, Materials, and Funding**

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### **Expertise, Partnerships, and Funding Sources**

	Used for Implementation	Needed for Sustainability
<b>Expertise</b>		
Health Education / Health Literacy	Yes	Yes
<b>Partnerships</b>		
Health care facilities (local clinics)	Yes	Yes
<b>Funding Sources</b>		
Public funding (e.g., federal, state or local government)	Yes	Unknown

## Product/Material/Tools

	Tailored For Language	Language(s) if other than English	Material
<b>Outreach/Recruitment Tools</b>			
Publicity Materials (e.g. Posters, Flyers, Press Releases)	No		Attachment available for request at the bottom of the page.
Recruitment Manual	No		Attachment available for request at the bottom of the page.
<b>Participant Educational Tools</b>			
Reproductive Health (tool not available)	No		Attachment available for request at the bottom of the page.
<b>Measurement Tools</b>			
Conflict Tactics Scale (proprietary)	No		<a href="https://emerge.ucsd.edu/r_1pzt12hywnkog9o/">https://emerge.ucsd.edu/r_1pzt12hywnkog9o/</a>
Beck Depression Inventory	No		Attachment available for request at the bottom of the page.

## Implementation Materials and Products

<b>Material</b>	
<b>Implementation/Delivery Materials</b>	
Intervention implementation guidelines	Attachment available for request at the bottom of the page.
<b>Implementation/Output Materials</b>	
No Implementation/Output Materials provided.	

## **Articles Related to Submitted Intervention**

<b>Article</b>	
<b>Reports/Monographs</b>	
No Reports/Monographs provided.	
<b>Additional Articles</b>	
intervention outcomes	<a href="https://pubmed.ncbi.nlm.nih.gov/20211945/">https://pubmed.ncbi.nlm.nih.gov/20211945/</a>
intervention and outcome (smoking cessation and relapse)	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3218216/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3218216/</a>
Outcome (VPTB)	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2988881/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2988881/</a>
Qualitative findings	<a href="https://www.sciencedirect.com/science/article/pii/S1049386711000090?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S1049386711000090?via%3Dihub</a>
Qualitative findings	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3220795/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3220795/</a>
Qualitative findings	<a href="https://obgyn.onlinelibrary.wiley.com/doi/10.1111/1471-0528.12202">https://obgyn.onlinelibrary.wiley.com/doi/10.1111/1471-0528.12202</a>

## **Materials Available for Request**

- Recruitment Brochure.pdf
- Recruitment Manual.pdf
- Reproductive Health Manuscript.pdf
- Beck-Depression-Inventory-BDI.pdf
- intervention Manual.pdf
- IP-085\_Reduce Infant Mortality in Minority Populations\_publications.pdf