

ADDRESSING HYPERTENSION IN THE BATEYES OF THE DOMINICAN REPUBLIC: A MODEL FOR CHRONIC DISEASE MANAGEMENT IN DEVELOPING COUNTRIES



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INTRODUCTION

Background and Significance

Hypertension screening and treatment programs are needed for persons living in the bateyes surrounding La Romana, Dominican Republic as:

- Most people living with hypertension reside in low and middle-income countries and have limited access to health care services (CDC, 2015b).
- In the Dominican Republic, cardiovascular disease is responsible for over 39% of deaths (CDC, 2013).
- The Dominican Republic is home to a large population of Haitian migrants and Dominican families living in the bateyes, or towns that were formerly sugar cane work camps and consequently lack access to clean water, electricity, educational resources, and health services (Pirela & Silvestre, 2013).

Literature Review

- Capitalizing on antihypertensive treatments can help to decrease the risk of heart failure in individuals over the age of 65, 3.08%, 95% CI [2.88%-3.31%], and in high risk individuals, 1.29%, 95% CI [1.23%-1.36%] (Tocci et al., 2008).
- Reducing SBP by only 12-13 mmHg can reduce the risk of stroke by 37%, coronary heart disease by 21%, cardiovascular-related deaths by 25%, and deaths related to all causes by 13% (CDC, 2014).
- Limiting salt intake from the current 3,400 mg to less than 2,300 mg could decrease the incidence of hypertension by 11 million cases and could save over 18 billion health care dollars annually (CDC, 2014).

PICOT

In Haitian adults living in the bateyes of the Dominican Republic who are hypertensive based on JNC-8 recommendations (P), does dietary salt-reduction education (I), compared to the patient's current diet (C), enhance adequate blood pressure control (O), within a 6-month time frame (T)?

Purpose Statement

This DNP project was part of an ongoing research study that is evaluating the expansion of a grass-roots hypertension screening and treatment program to four unserved bateyes in the Dominican Republic.

Project Objectives

1. Screen 100% of adults ages 18 and over presenting to mobile clinics for hypertension.
2. Provide 100% of hypertensive participants with educational intervention

MATERIALS AND METHODS

Setting and Population

This project was implemented in four unserved bateyes in the surrounding areas of La Romana, Dominican Republic: Batey Nuevo, Batey 18, Cuya, and Magdalena. Participants included all hypertensive persons 18 and older who presented to the clinics. Individual patient demographics included age and gender.

Design: Pre/post-test design using convenience with purposive sampling

- Members of a non-governmental organization named Fundacion Enciende Una Luz (FEUL) delivered the intervention to participants. The DNP student worked with members of FEUL in the field.
- Participants received the nutritional educational video in their preferred language: Creole or Spanish. The videos provided information on hypertension, adverse effects of uncontrolled hypertension, as well as prevention of hypertension .

RESULTS

- At Batey 18, 47 participants were screened, and 46.8% ($n=22$) were hypertensive and successfully completed the salt reduction intervention
- At Batey Nuevo, 85 participants were screened, and 28.2% ($n=24$) were hypertensive and successfully completed the salt reduction intervention
- At Magdalena, 97 participants were screened, and 56.7% ($n=55$) were hypertensive and successfully completed the salt reduction intervention.
- At Cuya, 33 participants were screened, and 36.4% ($n=12$) were hypertensive and successfully completed the salt reduction intervention
- In total, 262 individuals participated in the intervention over the 6-month study period. The average age range of participants was 46-55, and 67.5% ($N=177$) were female.

CONCLUSIONS

- Educational interventions in the format of brief animated videos coupled with interpersonal interactions increased knowledge about the potential benefits of salt reduction among the batey residents who were living with hypertension.
- This study suggests that expansion of this hypertension education program to other underserved bateyes may be beneficial.
- Disseminating these research findings on a larger scale would have widespread potential and be applicable to impoverished and under served communities throughout the world.

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RESULTS

