

STRENGTH IN COMMUNITY: A COMMUNITY-BASED HEALTH PROGRAM TO
IMPROVE WEIGHT LOSS AND BLOOD PRESSURE WITHIN AN AFRICAN AMERICAN
FAITH-BASED ORGANIZATION

A Scholarly Project

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ABSTRACT

In general, conventional health promotion strategies have not successfully mitigated health inequality and health disparities in African American communities. Health disparities among African Americans continue to persist. Obesity and hypertension are more prevalent in African Americans and are well-known precursors to chronic illness such as cardiovascular disease, diabetes, and stroke. A wholistic solution to health disparities is complex and multifaceted. However, community-based programs such as faith-based health promotion programs can be an integral part of the solution. The purpose of this project was to provide a community faith-based weight loss program for African Americans to help guide weight loss and improve blood pressure readings. This evidenced-based practice project utilized a quasi-experimental design to educate eight African Americans using an 8-week faith-based health promotion program. The measurable outcomes for this project were weight, blood pressure, and lifestyle habits. The mean weight loss of the participants was 6.450 pounds, with a p -value of 0.001. The mean systolic blood pressure reduction was 24.0 mmHg, with a p -value of 0.026. The mean diastolic blood pressure reduction was 7.0 mmHg, with a p -value 0.125. Although lifestyle habits did not seem to change during the 8-week health promotion program, participants did report a greater perception of health after the program, and also decreased their frequency of overeating. Community faith-based programs undoubtedly have the potential to change health outcomes in African American communities; however, more studies are needed to establish an ongoing health promotion framework for this population.

Keywords: African Americans, African Americans and community-based health, Faith-based programs and African Americans, health disparities.

Dedication

I dedicate this paper to my loving grandparents, Marjorie Byrd, Lawrence Byrd, Freeman McCants, and Dorothy McCants. Through hard work and dedication, my grandparents provided a great life for their children and grandchildren; however due to continuing health challenges, their later years were not as productive. Had there been more or better health education, culturally competent health promotion programs, and increased access to healthcare, perhaps their later years could have been different.

Love,

Your Granddaughter

Acknowledgments

As with any great accomplishment, this scholarly paper could not have been achieved without key contributions. First, to my loving husband, Dr. Messanh Ameduite, who has been my biggest supporter. I am extremely enthusiastic about our future in healthcare together. To my loving parents, Rodney and Sylvia McCants who have taught me everything I know and have instilled in me a moral compass that has ignited my passion to change the world around me. To my Chair, Dr. Vickie Moore, who has been a constant encourager. To Pastor Johnson for giving me a chance to be a change agent. To Hampton University for cultivating that drive and passion to change the world around me and for allowing me to experience an engaging academic culture where my ideals were challenged and formed. To Liberty University, for allowing me to experience a Christian worldview within the nursing profession that changed the way I view the world.

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List of Abbreviations

American Association of Colleges of Nursing (AACN)

American Psychology Association (APA)

Centers for Disease Control and Prevention (CDC)

Doctor of Nursing Practice (DNP)

Faith-Based Weight Loss (FBWL)

Institutional Review Board (IRB)

SECTION ONE: INTRODUCTION

The poor state of health among most African Americans remains unchanged despite national efforts to improve health among minorities. Pre-existing health conditions such as diabetes, obesity, asthma, and hypertension are just some of the many health conditions that disproportionately affect African Americans. Recently, health disparities and pre-existing health conditions among African Americans have been spotlighted, as African Americans are disproportionately affected by the Coronavirus (Yancy, 2020). The Coronavirus Pandemic is a grim reminder that health disparities among African Americans and minorities is an enduring ubiquitous enigma that warrants change.

Health disparities and increased prevalence of chronic illnesses among African Americans is complex and rooted in social injustices and systemic racial policies. Consequently, the solution to health inequality within the African American community will, undoubtedly, require a multifactorial resolution. However, a potential component to improved health outcomes within African American communities are community-based programs, specifically, community-based initiatives that involve the African American church.

Historically, the African American church has been a pillar of hope and a catalyst for change within the African American community. Utilizing the church to implement health promotion programs to improve African American health could prove to be a beneficial avenue to improve health inequality within African American communities. One of eight African Americans identify as Christian; therefore, the church has the potential to be a pivotal influencer to promote health and prevent disease.

Background

African Americans are disproportionately affected by obesity and hypertension. From 2011 to 2014, African American men and women had the highest prevalence of hypertension, 42.4 and 44%, respectively (Noonan et al., 2016). Hypertension is often a silent disease that wreaks havoc on a person's body, insidiously causing organ damage. Key preventive and maintenance measures for hypertension include a healthy diet, low sodium intake, and weight loss. A significant predictor of hypertension is being overweight or obese. One out of four African American women are overweight or obese (Office of Minority Health, 2017). The reasons why African Americans are prone to hypertension and obesity are abstruse. Still, some causes include social determinants, health inequality, lower socioeconomic status, decreased access to health care, decreased medical compliance, and reduced health literacy. The prevalence of obesity and hypertension among African Americans is a concern because chronically elevated blood pressure can lead to myocardial infarction, heart failure, stroke, vision loss, and renal disease. These health conditions place an obvious personal and financial burden on the individual and their family, but also significantly increase healthcare costs. Hypertension associated with heart disease and stroke is estimated to cost the nation \$199 billion a year (Center for Disease Control [CDC], 2019).

The African American church has proven to be an instrumental proponent to address health behaviors and improve health outcomes in African Americans (Tucker et al., 2019). Given the impact of the church and other community-oriented interventions, a faith-based or community-based health promotion program should have obvious benefits. The social support, group accountability, cultural sensitivity, and trusted environment provided by the church may be the solution to improve African American health. Many African Americans still revere the

church and faith-based organizations as reputable and trustworthy pillars in the community. Utilizing faith-based organizations to promote community-based health promotion programs can improve health outcomes in African American communities by improving health literacy, increasing access to health care, and encouraging medical compliance.

Problem Statement

African Americans face higher rates of hypertension and obesity than Whites. African Americans are 25% more likely than Whites to have hypertension and 59% more likely to be obese than whites (Colen et al., 2018). Hypertension and obesity are well-documented precursors to chronic illnesses such as cardiovascular disease, stroke, and diabetes. The cost associated with chronic illness can be daunting. The CDC (2019) estimates the cost associated with chronic illness secondary to hypertension and obesity is \$346 billion a year and causes up to \$131 billion in loss of productivity on the job. Another problem associated with the increased prevalence of hypertension and obesity in African American communities hints to the more significant issues of social determinants and health inequalities such as poverty, decreased access to care, and reduced health literacy, among others. The current state of African American health is a multifactorial problem that consists of a byzantine web of events that include slavery, years of discrimination, poverty, and social injustices.

One constant that has historically acted as a beacon of light in the African American community is the church (Brand, 2017). The continued health disparities among African Americans solicits a new approach to African American health. The African American church is a stable community-based structure that has historically been the catalyst for significant change in the African American community (Brand, 2017). African American churches can once again

act as a beacon for health promotion and disease prevention to improve health care spending, health equality, and health outcomes among African Americans.

Purpose of the Project

The purpose of this evidence-based scholarly project was to provide a community faith-based weight loss program for African Americans. The project leader's goal was for the participants to experience weight loss and improved blood pressure readings as a result of this program.

Clinical Question

Among the African American population, does providing a community faith-based weight loss program for African Americans lead to weight loss and decreased blood pressure as compared to current weight management?

SECTION TWO: LITERATURE REVIEW

Search Strategy

CINHAL was used to perform a literature review utilizing the keywords *African Americans*, *African Americans and community-based health*, *faith-based programs and African Americans*, and *health disparities*, and *community programs for African Americans*. All articles were searched within five years of the date of the study, and were limited to American sources written in English. Some articles outside of the five-year parameter were used to provide historical content. The inclusion criteria for the literature review included studies that either implemented or reviewed community-based or faith-based programs to promote healthy behavior changes or health promotion. Articles that examined the impact of community-based programs on African American communities were also included.

Critical Appraisal

Twenty-three articles were reviewed, and 18 articles were used in this literature review. Some articles were not used due to the lack of evidence presented in the article to support community-based or faith-based initiatives among African American communities. Each study chosen to be included in the paper was critically reviewed using Melnyk's Level of Evidence and organized into a matrix. A table of evidence is provided in Appendix A. Most of the studies used were level three, four, or six evidence, according to Melnyk's Level of Evidence. Two studies were systematic reviews.

The literature findings included several studies that were controlled trials, cohort studies, and descriptive and qualitative studies, with one study reviewed being a systematic review of physical activity programs among African American women. Many of the articles reviewed were one-time studies. The systematic review provided appealing insight into the efficacy of faith-based programs in promoting physical activity; however, the authors noted that further research was warranted. A total of 32 articles were reviewed in this study, which showed promising preliminary results supporting group-based, community-based, and culturally competent programs (Jenkins et al., 2017). The remaining articles reviewed for this literature review provided similar results. Most of the articles and studies demonstrated promising results in utilizing a faith-based approach to health promotion. One article discussed the mistrust of physicians as a deterrent to colorectal screening among African American men and found that the church is a beneficial medium for health education and health promotion (Lumpkins et al., 2016). Another article discussed the circumstances associated with a church's preparedness to engage in health promotion programming and found that church infrastructure was a significant predictor of church preparedness for health promotion programming (Brand & Alston, 2017).

The major limitations of the studies included the lack of follow-up. The majority of the studies reviewed lacked follow-up after the initial intervention; therefore, the long-term effects of these programs are unknown. Also, many of the articles reviewed had small sample sizes and lacked randomization, which calls into question the statistical significance of these studies.

Synthesis

Throughout the literature review, four themes emerged as the dominant factors for the benefits and successful use of faith-based health promotion programs. The literature review supported the use of both faith-based health promotion initiatives in African American communities and community-based initiatives in African American communities. The literature review also underscored the monumental role of the Black church in health promotion among African Americans. Lastly, the literature review also highlighted the current barriers to health care experienced by African Americans.

Faith-Based Health Programs

In a quasi-experimental study conducted by Schoenthaler et al. (2018), faith-based programs resulted in greater improvement in blood pressure measurement compared with traditional educational programs. In addition, Cooper and Zimmerman (2017) utilized a correlational design to implement a faith-based program to teach blood pressure self-monitoring and lifestyle change to improve blood pressure. Their study showed an overall improvement of blood pressure and lifestyle choices. Utilizing a correlational design, Pinsker et al. (2017) also established the African American church as an effective medium for health promotion through their research. After implementing the faith-based health promotion program, Body and Soul, consumption of fruits and vegetables increased among the African American participants.

Community-Based Health Programs

When discussing community-based programs, Victor et al. (2018) utilized a quasi-experimental design to explore a community-based health promotion program that used barbershops to reach hypertensive African American males. The study resulted in a significant decrease in blood pressure readings, where a blood pressure of less than 130/80 mmHg was reached among 63.6% of the participants (Victor et al., 2018). Another quasi-experimental study by Baker et al. (2016) found that a community-based program that promoted Dietary Approaches to Stop Hypertension (DASH) diet in an African American community significantly decreased the prevalence of overweight and obesity among the participants. Furthermore, the participants reported eating more servings of fruits and vegetables.

The Role of the Black Church in Health Programs

A descriptive study conducted by Carter-Edwards et al. (2018) found that pastors and church leaders are regarded as important role models and advocates of African American health. Brand (2019) conducted several studies about African Americans and the impact the church has on African American health. Brand continues to promote the African American church as a useful medium to promote health among the African American community. Furthermore, Brand and Alston (2017) examined a church's preparedness to host health promotion programs and found that funding and church infrastructure can be key factors in sustainable and effective health promotion programs.

Barriers to Healthcare among African Americans

The literature contains a plethora of reasons why African Americans remain the least healthy ethnic group in the United States. Noonan et al. (2016) discussed causes such as social injustices, poverty, and decrease access to healthcare, among others, as key barriers to improved health care. Upon further review of the literature, a significant theme emerged that a barrier to health care in the African American community was the tacit mistrust of health care and the health care system (Lumpkins et al., 2016). The authors conveyed essential qualitative data that explored barriers to health promotion perceived by African American men (Lumpkins et al., 2016). Their findings suggested that mistrust of physicians presented barriers to routine health promotion screening.

The literature review supported not only the effectiveness of faith-based programs among African Americans, but also the call to find a more effective avenue to reach African Americans to promote health and prevent disease. The articles unanimously recommended the use of community-based programs in African American communities and broadly agreed that there remains a strong reverence of the church by many African Americans. The African American church acts not only as a guide for spiritual health, but it is also a social network of support and trust (Brand, 2017). The literature supported the use of faith-based health promotion programs among African Americans. Although the literature does provide promising results regarding faith-based health promotion programs in the African American church, more research is warranted to further solidify the effectiveness of faith-based health promotion programs.

Conceptual Framework/Model

The conceptual framework for this evidence-based project was the Iowa Model for Evidence-Based Practice. Permission to use the Iowa Model is found in Appendix E. The Iowa Model is a decision-making algorithm to guide nurses in implementing nursing research findings to improve the quality of care (White et al., 2016). The Iowa model encouraged the project leader to identify triggers, develop a PICO question, form a team, design and pilot practice changes, and integrate the practice change (The Iowa Model Revised, 2019).

Identify Triggers

The triggers for this project included the continued health inequality among African Americans and the need to re-evaluate how health promotion and disease prevention are negotiated within this population. The church posed a likely medium for improved health promotion in African American communities.

State the Purpose

The purpose of this project was to use a faith-based health promotion program to solidify a health promotion approach within the African American community and ultimately help to improve health inequalities within the African American community.

Team

The team for this project included the church leadership and the local health department. The church leadership was the focal point of this project. Not only did the church leadership provide permission to implement this project, but they also acted as knowledgeable stewards of their congregation and provided meaningful information regarding the health care needs of their congregations. Pastors, deacons, and ministers were often available and made aware of church

members' illnesses and health care challenges. The health department provided educational material and offered information regarding the health trends of the local population.

Examine the Evidence

A literature review of African American and community-based and faith-based health care demonstrated promising results and enough evidence to support this approach in African American communities.

Design the practice change

The evidence-based project utilized a quasi-experimental design to collect and analyze data. This project was inspired by some of the principles from Madison's *7 Spiritual Principles to Weight Loss* (2017) which discusses weight loss as a spiritual journey. An 8-week health promotion program underscoring weight loss and spiritual principles was developed and implemented in a faith-based organization.

Implementation

An 8-week faith-based weight loss program was implemented as a pilot. The program focused on a culturally competent approach to weight loss in a predominately African American church.

Evaluation

The program was considered successful with improvements in the following measurable outcomes: weight, blood pressure, and lifestyle habits. Although lifestyle habits did not change as expected, some lifestyle changes were observed post-implementation.

Theoretical Framework

The self-efficacy theory is a theory that evaluates how people exercise influence over what they choose to do (Smith & Liehr, 2014). Bandura and Walters conceptualized the early development of the self-efficacy theory in 1963 (Smith & Liehr, 2014). Bandura, a social scientist, believed that exposure to treatment conditions could result in behavioral change by altering an individual's level and strength of self-efficacy (Smith & Liehr, 2014). The two components of self-efficacy are self-efficacy expectations and outcome expectations (Smith & Liehr, 2014). "Self-efficacy expectations are judgments about [the] personal ability to accomplish a given task, whereas outcome expectations are judgments about what will happen if a given task is successfully accomplished" (Smith & Liehr, 2014, p. 199). This project aimed to improve health outcomes by utilizing a faith-based health promotion program and improving individual perceptions of self-efficacy. Through health education, group support and accountability, and self-realization in a trusted environment, this project facilitated the improvement of self-efficacy regarding weight loss and hypertension.

Summary

The purpose of this literature review was to research the efficacy of community-based and faith-based health promotions within African American communities. The literature review supported the use of faith-based health promotion programs among African Americans. Faith-based health promotion programs have been shown to have positive outcomes in the African American community. No one faith-based approach was identified; however, coalescing of faith and health promotion was well documented and efficacious among this population. The literature supported the need for this scholarly project, which was to provide a community faith-based

weight loss program for African Americans to improve weight loss and decrease blood pressure readings.

SECTION THREE: METHODOLOGY

Design

This evidenced-based practice project utilized a quasi-experimental design to collect and analyze data. The Iowa Model was the framework for this project. The measurable outcomes for this project were weight and blood pressure. Baseline weight, height, and blood pressure were taken before the 8-week health promotion program and again post 8-week health promotion program. A survey evaluation assessing program satisfaction and the participants' suggestions was conducted to gain insight regarding the feasibility of a long-term program.

This study group involved a small sample from a predominantly African American Church. Participation in the program was voluntary. The health promotion program followed some of the spiritual concepts from *The 7 Spiritual Principles for your Weight Loss Transformation* by Elizabeth M. Madison (2017). Madison's correlation between spiritual welfare and weight loss was a resounding theme throughout the 8-week program. The program covered several topics over eight weeks, which included calorie counting, nutrition, hypertension, and meal planning. See Appendix G for the complete program agenda.

Measurable Outcomes

The main goal of the project was to improve health outcomes among African Americans by improving their eating habits and by losing weight. The key measurable outcomes included weight, blood pressure, and a pre and post survey of the participants' eating habits (See Appendixes H and I).

Measurable Outcome 1: Weight

The first measurable outcome during this project were the pre and post program weights of each participant. After the completion of the faith-based weight loss program, it was expected that African American participants would show a decrease in weight. Critical outcomes during this project were the before and after weight of each participant. The CDC (2020) states that healthy weight loss should not exceed more than one to two pounds per week. Therefore, if a participant lost the maximum amount of weight during the eight weeks, they could lose anywhere from eight to 16 pounds. However, for this project, a decrease in weight of two to 10 pounds would be considered a success.

Measurable Outcome 2: Blood Pressure

Lifestyle choices and weight have a positive association with blood pressure. The second measurable outcome would be a decrease in overall blood pressure as participants adopted healthier lifestyle choices during the 8-week weight loss program. This would be evidenced by a decrease of two to five mmHg in systolic blood pressure.

Measurable Outcome 3: Lifestyle Habits

Lifestyle choices affect both weight and blood pressure. The third measurable outcome would be an improvement in lifestyle choices scores as participants participated in the 8-week weight loss program. A survey of eating habits was taken pre and post implementation of the faith-based weight loss program and measured critical aspects of the participants' views of health and current lifestyle choices. The DASH diet guided lifestyle choices and was reflected on both the pre and post surveys.

Setting

This project was conducted in a predominantly African American church, in northern Alabama comprised of a small metropolitan area with outlying rural areas. The socioeconomic climate of northern Alabama varies, ranging from lower socioeconomics to higher socioeconomics.

The leadership of the predominantly African American church was enthusiastic about the program. One of the church leaders had started his weight loss journey and was adamant that the congregation needed to have access to such a program. Key stakeholders of this project included the church leader, deacons, and church members. A support letter is provided in Appendix D.

Population

For this evidence-based project, adult African Americans 18 years and over were included. The inclusion criteria included being overweight or obese. Those who had a normal blood pressure were included in this study. Ideally, this project leader wanted to include hypertension as an inclusion criterion; however, the project leader feared that making the inclusion criteria too exclusive would decrease the sample size.

The participants were recruited on a volunteer basis approximately one month before the start of the project. Flyers and marketing materials, which included the project leader's contact information, were produced to educate the potential participants about the health promotion program and what to expect (see Appendix J). This program was implemented during the beginning of the year, in February, which encouraged participants who were hoping to lose weight and become healthier. Participation was also incentivized with a \$10 gift card for those participants who completed all eight weeks of the program.

The program started with 10 participants but completed with eight participants. The project leader hoped to have an equal mix of male and female participants; however, given trends in the literature, women tend to volunteer more often than men.

Ethical Considerations

The scholarly project leader and the scholarly project chair completed research ethics training to ensure the protection of human subjects through the Collaborative Institutional Training Initiative (CITI Training). They were awarded a certificate of successful completion (see Appendix C). The project was submitted to the Liberty University Institutional Review Board for approval, and a copy of the approval is placed in Appendix B.

In addition, all participants signed a consent form (see Appendix F) to participate in the program. Participant involvement in the project was confidential; no personal or private information will be shared or published. Data collected was de-identified and coded for use with the Statistical Package for Social Sciences (SPSS) software. After statistical analysis of the data was completed, the information will be stored in a password protected computer for three years and then deleted.

Data Collection

Data were collected through various forms, surveys, records of weight, and blood pressure readings. Demographic information was garnered during registration for the 8-week weight loss course. The registration form for the course (see Appendix K) asked for the participants' name, age, email, cell phone number, county of residence, ethnicity, sex, annual household income, marital status, number of people living in the household, and highest level of education.

Pre and post surveys were also used as a key tool for data collection. The pre survey was a three-page survey that investigated the participants' current lifestyle choices before the implementation of the 8-week weight loss program (see Appendix H and I). The pre survey collected information about how the participants perceived their current health and if they had previously participated in a weight loss program. Utilizing the DASH diet as a guide, the pre-survey gathered information regarding the participants' eating habits and lifestyle habits. The pre survey also addressed the participants' current health status and health maintenance habits.

The post survey included several of the same questions from the pre survey, as the intent was to evaluate if eating habits and lifestyle habits changed because of the 8-week weight loss program (see Appendix H and I).

Weight was recorded via a portable automated scale and blood pressure readings were taken via a manual blood pressure cuff. However, due to the arm diameter of some of the participants, the manual arm blood pressure cuff was not optimal and was later changed to an automated wrist cuff. Weight and blood pressure were tracked with a password-protected Microsoft Excel datasheet. A pre and post screening questionnaire was utilized. (See Appendix H and I).

Tools

The 8-week weight loss program was an educational course that helped to equip the participants to lose weight. An 8-week program was created by the project leader and included PowerPoint presentations and lectures, cooking classes, and a trip to the grocery store. *The 7 Spiritual Principles for your Weight Loss Transformation*, by Elizabeth M. Madison (2017), was an important tool used to help associate spiritual principles and weight loss. The project leader writer received verbal permission to reference Madison's work in the study. The MyFitness pal

application was used to help participants count calories. Portion control sheets and models were used to help participants visualize appropriate food portions. *Nutrition Made Clear* (Anding, 2009) was used as a guide to educate participants about basic nutrition.

Intervention

The increasing health disparities within the African American community bolstered the significance of this project. The project leader, who is African American, believed that finding an approach to reach African Americans regarding their health, can help to improve health disparities within the African American community.

The first step to implementing this project was to coordinate with an African American church to garner support. Brochures were made to help illustrate the benefits of the program (see Appendix J). The project leader worked with the church leadership to ensure that the program was tailor-made for the church. The project leader also coordinated with the church leadership to establish a dedicated time to conduct the program. After collaborating with the pastor of the church and other church leaders, Thursdays at 6:00 p.m. were dedicated to host the 8-week weight loss program. Each class was approximately one and a half hours. The program started on February 6, 2020 and ended on March 26, 2020.

Baseline data were obtained before the start of the program, which included age, income, diagnosis of hypertension, hypertensive medications, current blood pressure, height, and weight. Weight was taken weekly during the weight loss program. The project leader collected, then reviewed and analyzed the data.

Timeline

The following table outlines the project timeline. Preparation for the project began in September 2019. The 8-week faith-based weight loss program started in February 2020 and concluded in March 2020.

Table 1*Timeline*

Task	Date completed
Develop a rough draft of Faith-Based Program agenda	1 October 2019
Develop brochure draft for program	1 October 2019
Finalize brochure for program	10 October 2019
Meet with church leaders regarding the program	15 October 2019
Receive approval from church leadership to do study	1 November 2019
IRB submission	15 November 2019
Received IRB Approval	6 January 2020
Present program to church members	12 January 2020
Finalize Faith-Based Program Agenda	24 January 2020
Met with Local Health Department Dietician	27 January 2020
Start program sign up	26 January 2020
End program sign up	6 February 2020
Start of program: Sign consent and collect baseline data	6 February 2020
Mid-point: Collect 4-week data	27 February 2020
Program end: Collect 8-week data	26 March 2020

Feasibility Analysis

The feasibility of this project was relatively high. The program was created by the project leader and was rather easy to implement. Despite the help needed to organize the area in which the program took place and the help required to obtain the participants' blood pressure, weight, and height, the project leader did not need manual labor or personnel.

Regarding the project budget, the cost of a scale, brochures, paper handouts, snacks, blood pressure cuffs, and food items for the cooking class were anticipated, and these items totaled approximately \$700.00.

Data Analysis

The data were analyzed using SPSS software, and the data were discussed using descriptive statistics and graphs. Data were also analyzed via a paired sample *t*-test. The paired sample *t*-test was utilized to determine if there was a statistical difference between the participants' pre-program weight, blood pressure, and lifestyle habits and their post-program weight, blood pressure, and lifestyle habits.

Measurable Outcome 1: Weight

The first measurable outcome during this project was the pre and post participation weight of each participant. After the completion of the faith-based weight loss program, African American participants will show a decrease in weight of two to ten pounds. Weight was tested using a paired *t*-test where statistical significance equaled a *p*-value of less than 0.05. SPSS software was used to determine the *t*-score, statistical mean, and 95% confidence interval of the differences. Each participant's weight was measured weekly with a digital scale.

Measurable Outcome 2: Blood Pressure

The second measurable outcome would be a decrease in overall blood pressure as participants adopted healthier lifestyle choices during the 8-week weight loss program. This would be evidenced by a decrease of two to five mmHg in systolic blood pressure. The blood pressure was tested using a paired *t*-test where statistical significance will equal a *p*-value of less than 0.05. SPSS software was used to determine the *t*-score, statistical mean, and 95% confidence interval of the differences. Blood pressure was measured with an adult-sized blood pressure cuff.

Measurable Outcome 3: Lifestyle Habits

The third measurable outcome would be an improvement in lifestyle choice scores as participants participated in the 8-week weight loss program. A survey of eating habits was taken pre and post-implementation of the faith-based weight loss program, and measured critical aspects of the participants' view of health and current lifestyle choices. The DASH diet guided lifestyle choices and was reflected on both the pre and post surveys.

Table 2*Pre and Post Survey Questions*

 Pre and Post Survey Questions

On a scale of 1 to 10, how healthy do you consider yourself?

How many servings of whole grains do you eat per DAY?

How many servings of vegetables do you eat per DAY?

How many servings of fruits do you eat per DAY?

Pre and Post Survey Questions

How many servings of low-fat or fat-free milk and milk products do you eat per DAY?

How many servings of lean meats (poultry and fish) do you eat per DAY?

How many servings of nuts, seeds, and legumes (beans) do you eat per DAY?

How many servings of fats (butters and oils) and oils do you eat per DAY?

How many Sweets and added sugars do you eat per WEEK?

How many times do you eat out (fast food, restaurants) a WEEK?

How much physical activity do you get per WEEK?

How many sugary drinks (sodas, sweet teas, fruit juices) do you drink per DAY?

How many times do you eat processed food per DAY? (food out of a package, can, box, bag)

How many hours of sleep do you get a NIGHT on average?

On a scale of 1 to 10, how often do you feel you overeat?

The assumption was that participants would report better eating and lifestyle habits after the 8-week program. The answers to the questions were converted to numeric scales that correlated to the participants' responses (see Table 3 for example). The survey responses were tested using a paired *t*-test where statistical significance equaled a *p*-value of less than 0.05. SPSS software was used to determine the *t*-score, statistical mean, and 95% confidence interval of the differences for each selected question. Participants' eating and lifestyle habits were measured utilizing a pre and post survey that evaluated each participant's current eating habits based on the DASH diet.

Table 3*Numeric Scales Example*

Question	Participant Answer Choices	Corresponding Numeric Scale
On a scale of 1 to 10, how healthy do you consider yourself?	1-10	1-10
How many servings of whole grains do you eat per DAY? *	Less than 1	1
	1 to 2	2
	3 to 4	3
	5 to 6	4
	7 to 8	5
	Greater than 8	6
How much physical activity do you get per WEEK?	Less than 30 minutes	1
	30 to 60 minutes	2
	61 to 90 minutes	3
	91-120 minutes	4
	121-50 minutes	5
	Greater than 150 minutes	6

Note: the above table provides clarification for how survey questions were coded to perform statistical tests.

* The same coding format was used for questions 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, and 14.

SECTION FOUR: RESULTS

Demographics

The project started with 10 participants and ended with eight participants. Participants who did not complete both a pre and post survey, and complete at least four out of eight sessions were dropped from the project. The project included a sample size of eight African Americans with the average age of 52.2 years. The demographics of the eight participants are presented in Tables 4, 5, and 6.

Table 4*Demographics Sex*

Sex	Frequency	Percentage
	<i>N</i>	%
Male	3	37.5%
Female	5	62.5%
Total	8	100%

Table 5*Demographics Income*

Income	Frequency	Percentage
	<i>N</i>	%
Less than \$35,000	1	14%
\$35,000 to \$49,999	0	0%
\$50,000 to \$74,999	3	43%
\$75,000 to \$99,999	0	0%
\$100,000 or more	3	29%
No answer	1	14%
Total	8	100%

Table 6*Demographics Highest Level of Education*

Highest Level of Education	Frequency	Percentage
	N	%
GED	0	0%
High School	1	12%
Associate degree or some college	3	37%
Bachelors	2	25%
Masters	1	13%
Doctorate or above	1	13%
Total	8	100%

Some participants lost weight slowly in the first couple of weeks; however, momentum seemed to pick up after the fourth week. During the project blood pressure remained stable for most of the participants; however, the limited number of blood pressure measurements taken over the course of the program may have altered the perception of blood pressure changes. It appears participants were receptive to the dietary changes that were taught in each class.

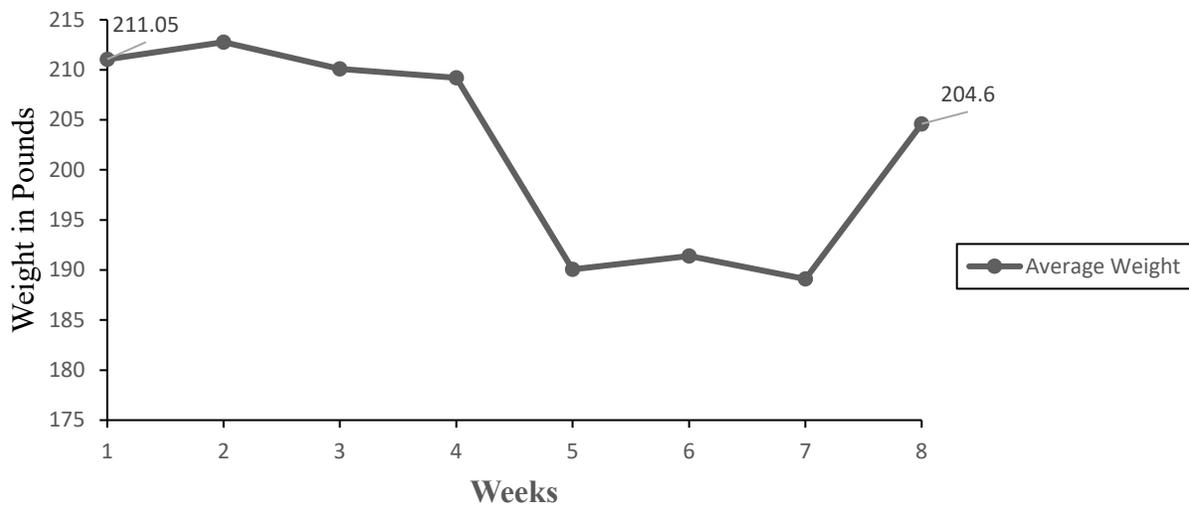
Descriptive Statistics*Measurable Outcomes 1: Weight*

The mean baseline weight was 211.0 pounds, and the mean post-weight was 204.6 pounds. The difference of the means was 6.4500 pounds, with a standard deviation of 3.2031 and standard error mean of 1.1325. The lower 95% confidence interval of the difference was 3.7721,

and the upper 95% confidence interval of the difference was 9.1279. The t -score was 5.695, and the two-tailed p -score was 0.001. There was an obvious 3-week deviation from the downward trend seen in Figure 1 due to decreased participation between weeks five and seven. Regardless, these findings met the measurable outcome goals.

Figure 1

Average Weight Change Throughout 8-Week Program



Measurable Outcome 2: Blood Pressure

The mean baseline systolic blood pressure was 145.13 mmHg. The mean post systolic blood pressure was 121.13 mmHg. The difference was 24.0 mmHg, with a standard deviation of 24.142 mmHg and standard error of 8.536 mmHg. The lower 95% confidence interval of the difference was 3.816, and the upper 95% confidence interval of the difference was 44.184. The t -score was 2.812, and the two-tailed p -score was 0.026. These findings supported the measurable outcome goals.

The mean baseline diastolic blood pressure was 81.88 mmHg. The mean post systolic blood pressure was 74.88 mmHg. The difference was 7.0 mmHg, with a standard deviation of 11.364 mmHg and standard error of 4.018 mmHg. The lower 95% confidence interval of the difference was -2.501, and the upper 95% confidence interval of the difference was 16.501. The *t*-score was 1.742, and the two-tailed *p*-score was 0.125. Although the mean diastolic blood pressure decrease met the measurable outcome goals, these findings were not statistically significant.

Measurable Outcome 3: Lifestyle Habits

The baseline question that addressed the perception of health had a mean of 7 based on a scale of 1-10. The post perception of health question had a mean of 7.75. The difference in means was -0.750 with a standard deviation of 1.035, and standard error mean of 0.366. The lower 95% confidence interval of the difference was -1.615, and the upper 95% confidence interval of the difference was 0.115. The *t*-score was -2.049, and the two-tailed *p*-score was 0.080. This outcome met the measurable outcome goal and was statistically significant.

The baseline question that addressed servings of whole grains a participant ate per day had a mean of 2.75. The post responses had a mean of 2.38. Mean differences were 0.375 with a standard deviation of 1.50 and standard error mean of 0.532. The lower 95% confidence interval of the difference was -0.884, and the upper 95% confidence interval of the difference was 1.634. The *t*-score was 0.704, and the two-tailed *p*-score was 0.504. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many servings of vegetables a participant ate per day had a mean of 2.75. The post responses had a mean of 2.63. Mean differences were

0.125 with a standard deviation of 0.835 and standard error of mean 0.295. The lower 95% confidence interval of the difference was 0.295, and the upper 95% confidence interval of the difference was -0.573. The *t*-score was 0.424, and the two-tailed *p*-score was 0.685. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many fruits a participant ate per day had a mean of 2.50. The post responses had a mean of 2.38. Mean differences were 0.125 with a standard deviation of 0.641 and standard error of mean 0.227. The lower 95% confidence interval of the difference was -0.411, and the upper 95% confidence interval of the difference was -0.661. The *t*-score was 0.552, and the two-tailed *p*-score was 0.598. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many low-fat milk products a participant ate per day had a mean of 1.75. The post responses had a mean of 2.00. Mean differences were -0.250 with a standard deviation of 0.707 and standard error of mean 0.250. The lower 95% confidence interval of the difference was -0.841, and the upper 95% confidence interval of the difference was 0.341. The *t*-score was -1.00, and the two-tailed *p*-score was 0.351. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many lean meats a participant ate per day had a mean of 2.25. The post responses had a mean of 2.38. Mean differences were -0.125 with a standard deviation of 0.641 and standard error of mean 0.227. The lower 95% confidence interval of the difference was -0.661, and the upper 95% confidence interval of the difference was 0.441. The *t*-score was -0.552, and the two-tailed *p*-score was 0.598. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many servings of nuts, seeds, and legumes a participant ate per day had a mean of 2.25. The post responses had a mean of 2.13. Mean differences were 0.125 with a standard deviation of 0.835 and standard error of mean 0.295. The lower 95% confidence interval of the difference was -0.573, and the upper 95% confidence interval of the difference was 0.823. The *t*-score was 0.424, and the two-tailed *p*-score was 0.685. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many fats and oils a participant ate per day had a mean of 2.00. The post responses had a mean of 2.13. Mean differences were -0.125 with a standard deviation of 0.991 and standard error of mean 0.350. The lower 95% confidence interval of the difference was -0.954, and the upper 95% confidence interval of the difference was 0.704. The *t*-score was -0.357, and the two-tailed *p*-score was 0.732. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many sweets and added sugars a participant ate per week had a mean of 3.25. The post responses had a mean of 2.00. Mean differences were 1.250, with a standard deviation of 2.435 and standard error of mean 0.861. The lower 95% confidence interval of the difference was -0.786, and the upper 95% confidence interval of the difference was 3.286. The *t*-score was 1.452, and the two-tailed *p*-score was 0.190. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how much fast foods a participant ate per week had a mean of 2.13. The post responses had a mean of 1.88. Mean differences were 1.250, with a standard deviation of 2.435 and standard error of mean 0.861. The lower 95% confidence interval of the difference was -0.786, and the upper 95% confidence interval of the difference

was 3.286. The *t*-score was 1.452, and the two-tailed *p*-score was 0.190. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how much physical activity a participant gets per week had a mean of 4.75. The post responses had a mean of 5.00. Mean differences were -0.250 with a standard deviation of 1.389 and standard error of mean 0.491. The lower 95% confidence interval of the difference was -1.411, and the upper 95% confidence interval of the difference was 0.911. The *t*-score was -0.509, and the two-tailed *p*-score was 0.626. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how many sugary drinks a participant consumes per day had a mean of 1.63. The post responses had a mean of 1.63. Mean differences were 0.0 with a standard deviation of 1.309 and standard error of mean 0.463. The lower 95% confidence interval of the difference was -1.095, and the upper 95% confidence interval of the difference was 1.095. The *t*-score was 0.000, and the two-tailed *p*-score was 1.000. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how much processed foods a participant ate per day had a mean of 2.25. The post responses had a mean of 1.88. Mean differences were 0.375 with a standard deviation of 1.118 and standard error of mean 0.420. The lower 95% confidence interval of the difference was -0.618, and the upper 95% confidence interval of the difference was 1.368. The *t*-score was 0.893, and the two-tailed *p*-score was 0.402. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how much sleep a participant gets a night on average had a mean of 5.13. The post responses had a mean of 4.75. Mean differences were

0.375 with a standard deviation of 0.744 and standard error of mean 0.263. The lower 95% confidence interval of the difference was -0.247, and the upper 95% confidence interval of the difference was 0.997. The *t*-score was 1.426, and the two-tailed *p*-score was 0.197. This outcome did not meet the measurable outcome goal and was not statistically significant.

The baseline question that addressed how often a participant felt they overate had a mean of 2.75. The post responses had a mean of 4.13. Mean differences were -1.375 with a standard deviation of 1.506 and standard error of mean 0.532. The lower 95% confidence interval of the difference was -2.634, and the upper 95% confidence interval of the difference was -0.116. The *t*-score was -2.582, and the two-tailed *p*-score was 0.036. This outcome met the measurable outcome goal and was statistically significant.

SECTION FIVE: DISCUSSION

Summary of Findings

Many of the results of this project supported the expected measurable outcome goals. Weight loss had a two-tailed *p*-score of 0.001 and a one-tailed *p*-score of 0.0005. The weight loss was statistically significant, with an average weight loss of 6 pounds for the sample. The study was 8-weeks long and more weight loss would have been expected if the program were longer. Safe weight loss is considered to be one-half pound to two pounds per week, making the expected weight loss from four to 16 pounds total loss (CDC, 2020). An average of six pounds of weight loss is within the predicted weight loss range.

The cause of this weight loss is accredited to the participants' willingness to lose weight. Another key contributing factor is cultural relativism and cultural competence. The project leader was able to relay health information utilizing cultural frameworks that were understood

throughout the group. Utilizing hand measuring techniques to manage portion control was well received by the group as many participants related to cooking southern dishes with their hands rather than measuring cups. The project leader also addressed the social stigma of mental health within African American communities and emphasized the importance of identifying emotional connections to food and stress eating. The project leader also offered the participants better alternatives when preparing African American dishes. For example, participants were encouraged to use smoked turkey when preparing collard greens instead of ham hocks.

Reductions in systolic and diastolic blood pressure were not statistically significant. Participants saw an average of 24 mmHg decrease in the systolic blood pressure. Participants also saw an average of 7 mmHg decrease in diastolic blood pressure. Although neither they systolic or diastolic blood pressures were statistically significant, the reductions in blood pressure are significant.

While participants did not show a significant statistical difference in lifestyle changes as reflected on the pre and post questionnaire comparison, most participants experienced an increased self-perception of health. Participants also self-reported an increase in the number of instances that they overeat which the project leader attributes to an increased awareness of when they overeat.

Implication for Practice

The findings of this project at baseline are exciting. Major implications of this project include the potential identification of a health promotion framework that is effective among African Americans. Identifying a framework that appropriately addresses lifestyle behavior

among African Americans could have a significant impact on the prevalence of chronic illnesses within the African American population.

The community is a fundamental construct within African American culture. Over 80% of African Americans agree that community involvement is essential to their well-being (Taylor, 2018). A community-based health promotion program is not only an education platform but is a platform that incorporates a valued construct that is highly revered within the African American community. Community-based health promotion programs combine health education that can improve health literacy and health outcomes while utilizing the pre-existing community to improve accountability among the members.

Utilizing community-based programs is a prudent avenue to reach the African American community. However, the use of community-based health promotion programs is not a resolute solution to health disparities. Community-based health promotion programs indeed offer a framework to provide effective, culturally competent, and sustainable health promotion programs with African American communities to help improve health literacy and overall health. However, a combination of improved social policy, economic stability, and health care accessibility will be needed to fully address health disparities among minorities. Understanding that certain minorities have high regard for their community will help to assist providers in advocating for care that is effective for specific minority populations.

Limitations and Biases

Several limitations were noted during this project. One limitation pointed out during this project is the small sample size, which may have resulted in lower statistical power. Using a larger sample size would have been preferable.

Another limitation that was noted during this project was the inconsistent methodology of obtaining blood pressure. The project initially utilized a manual blood pressure cuff to take blood pressures; however, it was found that the manual blood pressure could not be used on all the participants due to the diameter of some of the participants' arms. As a result, the remainder of the blood pressures during the duration of the project were taken utilizing an automatic wrist blood pressure cuff.

The other limitations were related to COVID-19 and the restrictions placed on social congregations. The state of Alabama declared a state of emergency on March 13, 2020, which affected the last two weeks of the program. The last two sets of weights and the last set of blood pressures were self-reported by participants. In addition, the last two sessions were video-recorded utilizing "Kaltura" and sent to participants via text messaging.

Lastly, the duration of the program is considered a limitation. If ever allowed to conduct this project again, the project leader should consider a longer study or a retrospective study to see if progress gains made during the program were sustained.

When evaluating the results of this study, it is important to identify potential biases. This project was voluntary; therefore, it is assumed that each participant had a willingness to lose weight and may have been motivated to lose weight regardless of the program materials. The decrease in systolic blood pressure may not have been as significant since the method to measure blood pressure was not standardized throughout the entire project. Another clear indicator of potential bias is seen in the participants' responses on the pre and post surveys. The surveys did not show a dramatic, statistically significant difference between pre and post answers. The only two questions that demonstrated statistical significance were questions that pertained to the health perceptions of each participant and how often the participants felt that they overate. When

reviewing the data, it is assumed that participants lost weight without making significant changes to their diet. The pre and post survey answers did not directly support the changes in body weight and blood pressures as predicted.

Sustainability

The sustainability of this project truly challenges the status quo of health care delivery. However, changing the status quo of health care delivery can potentially improve the lives of minorities throughout the nation and save millions of dollars in averting preventable diseases, ultimately reducing the cost of the nation's health care. This change may not seem to have many fiscally prudent advantages initially but will assuredly help improve the health disparities among minorities.

Funding to create sustainable community health promotion programs within African American communities is needed; however, non-profit organizations that align African American churches and galvanize existing medical professionals within African American churches can be utilized to provide health promotion programs within African American communities.

Ultimately, this would require that many health care systems decentralize their health promotions programs. It would also require the development of critical relationships with influential members within African American communities. Engaged African American church leaders can be integral partners to house and promote health promotion programs among African Americans. Nearly 80% of African Americans identify as Christian or Protestant (Masci, 2018).

Dissemination Plan

The major dissemination plan for this project is via publication. The writer hopes to publish with “The Journal of Racial and Ethnic Health Disparities”.

SUMMARY

Community faith-based health promotion programs have the potential to improve health outcomes and health literacy in African American communities. The project leader acknowledges that community-based programs is not an exhaustive solution to health disparities among African American communities; however, community faith-based programs can be a start. Community faith-based programs can offer culturally competent health education to communities to empower members to make better lifestyle choices that are sustainable and culturally relevant. Utilizing “power of community” within African American communities is a practical health promotion framework that can be used to slowly dismantle the longstanding quagmire of health disparities in America.

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