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Improving Hypertension Self Management in African American Men

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This doctoral project, directed and approved by the candidate’s committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

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Date: 08/26/2022 ________________

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School of Nursing

Improving Hypertension Self-Management in African American Men

A doctoral project submitted in partial satisfaction
of the requirements for the degree of
Doctor of Nursing Practice

by

Elizabeth C. Felix

October 2022

Dedication

First, this project is dedicated to vulnerable populations all over the world who are doing their best to manage chronic illnesses despite the lack of health literacy, education, or resources. I am confident that the knowledge and credentials associated with an ACU DNP degree have allowed me to be an effective patient advocate at the federal, state, and local legislative and jurisdictional board levels. Second, this project is dedicated to my daughter, Nuri Phillips. I hope that this project will ignite her purpose and that she can be of excellent service to communities. Lastly, to my best friend and twin flame, Lawrence Floretin: If it were not for you, there would be no way I would have gained the confidence and momentum to pursue this project and complete this doctoral journey.

Acknowledgments

To my project chair, Dr. Faisal Aboul-Enein, thank you for your gentle support, guidance, and direction. I could not have selected a better chair for this project. To my committee member Dr. Colleen Marzilli, thank you for your positive feedback and encouragement. Special thanks go to Dr. Linda Gibson and Dr. Christina Ryan. Thank you for being excellent examples of influential nurse leaders.

Abstract

Hypertension is a cardiopulmonary condition linked to genetic, environmental, and social factors. Left untreated, it can lead to fatal conditions such as heart disease. In the United States, African Americans experience disproportionately high rates of hypertension, earlier onset of symptoms, greater severity, and higher related mortality rates. African Americans also statistically have more difficulty self-managing their hypertension than other demographics. The aim of this project was (a) to identify, define, and measure perceived barriers to self-management of hypertension among African American men and (b) to target these barriers and increase patient engagement through personalized intervention plans. The researcher recruited 24 African American male participants over the age of 18 seeking treatment for hypertension in clinical settings within New York City. Participants received 12-week personalized health interventions based on the patient health engagement model and completed the 22-item Chronic Disease Self-Efficacy Scales, Patient Health Questionnaire-9, and Patient Health Engagement Scale before and after the intervention. The research project was quasi-experimental. The researcher performed a correlative analysis on various social factors and their impact on patients' ability to manage self-care. The data demonstrated that using the self-care model massively reduced participants' systolic pressure. Health care providers should consider making individualized hypertension management programs available to Black communities throughout the United States.

Keywords: African American men, Chronic Disease Self-Efficacy Scales, self-management, systolic blood pressure

Table of Contents

List of Tables

Chapter 1: Introduction

Background

Hypertension is a chronic disease linked to genetic, environmental, and social factors. Minimizing the adverse effects of hypertension requires lifelong self-management in the form of proper nutrition, exercise, and medication (Bokhour et al., 2016). African Americans experience disproportionately high rates of hypertension along with earlier onset, greater severity of symptoms, and higher rates of mortality. High rates of hypertension in this community are related to stress factors like poverty and low quality of living. Unfortunately, these same factors interfere with patients' self-perception of their ability to manage their condition. These efforts contribute to the goal of improving African American men's confidence and ability to self-manage their hypertension.

According to recent data from the National Center for Health Statistics, the prevalence of hypertension among non-Hispanic Black adults was 40.3% in 2015–2016, compared with 27.8% for Hispanic and non-Hispanic White adults and 25.0% for Asian American adults (Fryar et al., 2017). Moreover, African Americans had lower rates of hypertension control than White Americans (44.6% versus 50.6%) but higher rates than Asian Americans (37.4%; Fryar et al., 2017). For all race and gender categories, hypertension control increased between 1999 and 2010 but remained unchanged from 2011 to 2016 (Fryar et al., 2017).

African Americans have faced even worse disparities in mortality and other adverse outcomes from hypertension. According to Lackland (2014), African Americans' hypertension-related stroke mortality risk is twice as high as White Americans', and their risk of end-stage renal disease is five times higher. African Americans also have a considerably earlier onset of stroke risk. For instance, "a 45-year-old African-American man residing in the Southeast has the stroke risk of a 55-year-old white man in the Southeast and a 65-year-old white man residing in the Midwest" (Lackland, 2014, p. 135). Moreover, 30-year mortality from hypertension is significantly higher for African American men and women (45.2% and 39.5%, respectively) than for White men and women (23.8% and 18.3%, respectively; Lackland, 2014).

It is difficult, if not impossible, to isolate a single set of causes for these disparities. However, research has suggested that social determinants of health play an important role in the higher prevalence of hypertension and worse outcomes for African Americans. According to Buchanan et al. (2018), several social determinants contribute to increased blood pressure and the lower likelihood of adherence to effective self-management strategies among African American men. These social determinants include perceived structural constraints against improved quality of life, which in turn leads to pessimism about the future. Buchanan et al. (2018) described these determinants as having a cascading effect, which is further strengthened by conditions of low income and poverty.

Significance of the Problem of Interest

Managing hypertension remains a leading concern for the health of older African American adults. Aspects of self-management of hypertension include dietary choices, physical activity, and medication adherence. A growing body of literature has addressed the factors contributing to the presence or absence of these activities among African Americans with hypertension. For example, Bolin, Crane et al. (2018) noted that only 58% of cases of hypertension are effectively controlled by medication. Consequently, other activities such as exercise are necessary supplements to pharmacological management. In a cross-sectional correlational study on factors contributing to physical activity adherence among African Americans with hypertension, Bolin, Crane et al. (2018) found that social support, creatinine levels, and depression all affected whether African Americans with hypertension adhered to recommended levels of physical activity. Depression, in particular, was linked to physical activity adherence, as participants with no depression were significantly more likely to have high adherence. Based on these findings, Bolin, Crane et al. (2018) recommended screening for depression and intervening to improve patients' mental health as methods for improving physical activity adherence in African Americans with hypertension. These findings align with the results of another study by Bolin, Horne et al. (2018), who found that depressive symptoms had the strongest negative correlation with low-salt diet adherence as compared with social support, education, and locus of control.

Nature of the Project

In this project, I aimed to mitigate or eliminate barriers to hypertension self-management through counseling, knowledge and skill development, and social support to improve participants' confidence. These interventions were informed by patients' self-reported barriers and designed to build on research identifying the sociocultural and emotional barriers to self-management among African American men with hypertension. The interventions were co-created with patients and built on results reported by Moss et al. (2019) and Wright et al. (2018) using similar approaches. Specifically, patients devised self-management tools for stabilizing, monitoring, and reducing their blood pressure. These tools formed patients' overall self-management plans. Additionally, patients underwent education and training led by nursing staff in order to improve their health literacy and perceived self-efficacy to manage and reduce the adverse effects of hypertension.

Patients kept logs consisting of nutritional intake, exercise, medication adherence, and blood pressure twice daily. I conducted weekly follow-up calls to provide educational and social support for patients' efforts to adhere to their self-management plans. Measures of success included decreases in or stable blood pressure, reduction of comorbidities, and improvements in overall quality of life. I defined quality of life using several indicators, including frequency and quality of physical activity, self-reported confidence in ongoing efforts to self-manage hypertension, and other indicators of self-reported well-being. I administered the Chronic Disease Self-Efficacy Scales (CDSS), Patient Health Questionnaire-9 (PHQ-9), and Patient Health Engagement Scale (PHE-s) and quantified participants' level of engagement in health care before and after the intervention.

Statement of the Problem

The aim of this project was two-fold. First, in order to address disparities in hypertension and control of hypertension, I aimed to define, measure, and identify perceived barriers to self-management of hypertension in the target population and to mitigate or eliminate those barriers by improving patient engagement. Patient engagement has been linked to improved patient outcomes for a wide range of disorders, including hypertension. Along these lines, the project was informed primarily by the Patient Health Engagement (PHE) model, as outlined by Graffigna and Barello (2018). I used the CDSS to identify barriers to hypertension self-management within the target population and to determine patients' engagement in their own health care (Heath, 2017). Second, I aimed to mitigate or eliminate these barriers through the PHQ-9 and PHE-s depression questionnaires, counseling, knowledge and skill development, and social support to improve participants' confidence in self-management.

These interventions were informed by patients' self-reported barriers and designed to build on research identifying the sociocultural and emotional barriers to self-management among African American men with hypertension. The interventions were co-created with patients, building on the results reported by Moss et al. (2019) and Wright et al. (2018) using similar approaches. Specifically, patients devised self-management tools for stabilizing, monitoring, and reducing their blood pressure. These tools formed each patient's overall self-management plan. Additionally, patients underwent education and training led by nursing staff in order to improve their health literacy and perceived self-efficacy to manage and reduce the adverse effects of hypertension. Patients kept logs of their nutritional intake, exercise, medication adherence, and blood pressure twice daily. Further, I conducted weekly follow-up calls to provide patient education.

Purpose of the Study

The main reasons for selecting this problem of interest (POI) were the prevalence of hypertension among African Americans and the outcome disparities for this population. The data show that African Americans, particularly males, are disproportionately affected by hypertension, comorbidities, and mortality. Moreover, African American men are in greater need of improvements in hypertension self-management than the general population. Such disparities flow from social determinants that not only make hypertension more likely but also contribute to barriers to effective self-management. Consequently, this POI is well-suited for a nursing intervention designed to provide social support, patient engagement, and overall improvements to patients' health literacy and self-efficacy.

Another reason for selecting this POI was its relevance to the clinical area of geriatric health. Given that the key problems facing African Americans with hypertension include poor self-management at home, higher risk of stroke, and earlier onset of mortality risk, older adults are the right population to target with an educational intervention. By focusing on this population, the health intervention is more likely to achieve measurable positive results.

Patient engagement has been linked to improved patient outcomes for a wide range of disorders, including hypertension. The project was informed primarily by the PHE model, as outlined by Graffigna and Barello (2018). According to this model, patient engagement involves four developmental phases: blackout, arousal, adhesion, and eudaemonic project (Graffigna & Barello, 2018). These phases are defined, respectively, as (a) feelings of vulnerability and paralysis upon experiencing a critical event such as a disease diagnosis or relapse, (b) initial awareness coupled with superficial knowledge about disease management, (c) better emotional regulation and awareness of the disease and management strategies, and (d) full awareness along with the adoption of life habits appropriate to the management of the disease and mitigation of its worst effects (Graffigna & Barello, 2018).

Research Question

The PICOT question for this study was as follows: To what extent do education, skill development, and social support help African American men with hypertension develop better self-management skills and improve their confidence in their ability to manage hypertension after a 12-week intervention? These variables were selected in light of the literature's heavy emphasis on the social and motivational factors influencing hypertension self-management and outcomes within the target population. Education and counseling tie into the other variables targeted in this study, including knowledge of best practices for self-management and motivation to adhere to recommended routines, such as exercise, a healthy diet, and medication.

Subjects for this research were African American males over the age of 18 seeking treatment for hypertension at research settings within the five boroughs of New York City. Subjects were not currently receiving guidance or counseling related to personal engagement in their health care. I further narrowed the subject pool to patients who either had been recently diagnosed with hypertension or had shown evidence of poor self-management, such as frequent hypertension-related emergency room visits. These criteria ensured that participants were at the developmental stage of the CDSS model when the assessment and interventions took place. Because mistrust of the health care industry is a long-standing issue among African American men (Scharff et al., 2010), I made special efforts toward complete transparency in the research methods and objectives when contacting potential subjects.

Hypothesis

I hypothesized that education, skill development, and social support would help African American men with hypertension develop better self-management skills and improve their confidence in their ability to manage hypertension after a 12-week intervention. Several researchers have examined the influence of social support on successful hypertension self-management among African American men (Bolin, Crane et al., 2018; Buchanan et al., 2018; Long et al., 2017; Spikes et al., 2019). Taken together, these studies reflect a consensus in the literature around the importance of social determinants of health and social support for the target population in the realm of effective self-management. These findings align broadly with the interaction model of health behavior, which identifies the following categories as predictors of hypertension self-management: perceived communication skills, quality of interactions with health care providers, and health literacy (Hickman et al., 2016). In this light, it is not only the patient’s personal network of social supporters but also their interactions with health care professionals that influence their success in managing the symptoms of hypertension.

Conceptual Framework

This project supported the development and implementation of an educational and motivational intervention for African American adult males with hypertension. I used the interaction model of client health behavior (IMCHB), originally developed by Cox (1982), and assessed the results using the CDSS, originally developed by Hibbard et al. (2004). Cox (1982) developed the IMCHB as a set of prescriptions for improving nursing practice and measuring improvements for evidence-based practice. Cox pointed to the need to “explicitly conceptualize the client as an individual, the process of client–professional interaction, and the healthcare outcomes subsequent to nursing intervention” in ways that previous nursing research had failed to do (p. 41). Cox (1982) designed the IMCHB to address gaps in previous frameworks to improve nurse–patient interactions and patients’ health behaviors.

Definition of Key Terms

Self-management. Self-management interventions aim to equip patients with skills to actively participate in and take responsibility for managing their chronic condition in order to function optimally. Self-management includes knowledge acquisition and a combination of at least two of the following: stimulation of independent sign/symptom monitoring, medication management, enhancing problem-solving and decision-making skills for medical treatment management, and changing physical activity, dietary, or smoking behavior.

Scope of Project

Study participants were African American males between the ages of 18 and 65. These patients displayed increased vulnerability to hypertension and decreased capacity for self-management based on their shared environmental and socioeconomic factors. Researchers have not previously explored the use of personalized engagement plans to confront barriers to hypertension self-management among this demographic. In this study, I examined whether personalized engagement is a viable option for assisting patients, especially those in the demographic of concern, with overcoming self-management barriers.

A complex set of factors contribute to the disparities facing African Americans with hypertension. A growing body of research has indicated that social and economic factors play important roles in producing and reinforcing the disparities and disadvantages facing this population with respect to severity, mortality, and self-management. Moss et al. (2019) found that the primary stressors impeding effective self-management include those relating to communication, healthy eating, and adequate sleep. Communication-related stressors include difficult or confusing interactions with health care providers. This finding aligns with the findings of Hickman et al. (2016) on the relationships between nurse–patient interaction and self-management behaviors.

Chapter Summary

This project is supported by the literature on the lower rates of control and disproportionate risks and mortality rates related to hypertension among African Americans. This topic is appropriate to current and future workplaces. Both of the theoretical models I selected are closely related to hypertension self-management. Research on hypertension self-management among African American adults has also addressed the role of knowledge, beliefs, and attitudes about self-management among patients and the impact of these personal factors on self-management practices. Taken as a whole, these findings indicate that hypertension self-management involves a complex and challenging set of issues. Measures of success in this project included decreases in or stable blood pressure readings, reduction of comorbidities, and improvements in overall quality of life.

Chapter 2: Literature Review

For this project, I developed and implemented an educational and motivational intervention for African American adult males with hypertension. In this project, I used the IMCHB, originally developed by Cox (1982), and the CDSS, originally developed by Hibbard et al. (2004). This discussion reviews the literature on this model and instrument and discusses their relevance to the POI. The PICOT question for this study was as follows: To what extent do education, skill development, and social support help African American men with hypertension develop better self-management skills and improve their confidence in their ability to manage hypertension after a 12-week intervention? I selected these variables in light of the literature's heavy emphasis on social and motivational factors influencing hypertension self-management and outcomes among African American men. Education and counseling tie into the other variables targeted in this study, including knowledge of best practices for self-management and motivation to adhere to recommended routines, such as exercise, a healthy diet, and medication.

Literature Search Methods

I conducted a literature review to find peer-reviewed studies meeting the following criteria: (a) use of the CDSS instrument, (b) application of the IMCHB, and the use of the instrument and framework for interventions to improve hypertension self-management. Hickman et al. (2016) successfully validated the IMCHB for adults with hypertension and reported an excellent fit with the data as measured using the CDSS instrument. Ultimately, the good fit between the IMCHB and the CDSS demonstrated the importance of health literacy screening and evaluation of patient–provider interactions in developing interventions for hypertension self-management. In addition to Hickman et al. (2016), the only study to meet all three criteria, one prospective study tested the relationship between the CDSS and the health care costs for patients with hypertension (Mosen et al., 2014).

Several researchers have examined the influence of social support on successful hypertension self-management among African American men (Bolin, Crane et al., 2018; Buchanan et al., 2018; Long et al., 2017; Spikes et al., 2019). These studies reflect a consensus around the importance of social determinants of health and social support to effective self-management among African American men. The findings align broadly with the interaction model of health behavior, which identifies the following categories as predictors of hypertension self-management: perceived communication skills, quality of interactions with health care providers, and health literacy (Hickman et al., 2016). The importance of interaction and patient engagement are discussed in more detail in the next section on the theoretical framework.

Theoretical Framework

This project supported the development and implementation of an educational and motivational intervention for African American adult males with hypertension. In this project, I used the IMCHB, originally developed by Cox (1982), and assessed the results using the CDSS, originally developed by Hibbard et al. (2004). This discussion reviews the literature on the model and instrument and discusses their relevance. Cox (1982) developed the IMCHB as a set of prescriptions for improving nursing practice and measuring improvements for evidence-based practice. Cox pointed to the need to “explicitly conceptualize the client as an individual, the process of client–professional interaction, and the health care outcomes subsequent to nursing intervention” in ways that previous nursing research had failed to do (p. 41). Cox (1982) designed the IMCHB to address the gaps in previous frameworks to improve nurse–patient interaction and patients’ health behaviors.

Education is discussed in the literature both directly in the form of interventions and indirectly through research on the knowledge, attitudes, and beliefs about hypertension among African American men. Researchers have found education is more effective when coupled with socio-emotional elements. For example, Bokhour et al. (2016) measured the impact of storytelling on African American patients' intention to improve their hypertension management behaviors. In this randomized trial, the researchers noted improvements in both the control group, which viewed an information-only DVD, and the treatment group, whose educational intervention included the same information supplemented with stories from veterans in the same demographic with hypertension (Bokhour et al., 2016). However, the treatment group had significantly better results and a greater degree of improvement.

Long et al. (2017) did not directly study an educational intervention; rather they generated data to serve as the basis for interventions aiming to improve patient knowledge. They found that participants had a high level of knowledge about hypertension self-management, but this knowledge did not translate into adherence largely due to barriers such as absent social support and cultural notions of masculinity. The common thread linking much of the current literature is motivation as a key predictor of adherence to self-management strategies. In two studies, Bolin, Crane et al. (2018) and Bolin, Horne et al. (2018) noted that social, environmental, and economic factors influenced adherence to physical activity recommendations and low-salt diets, respectively. Similarly, Long et al. (2017), Moss et al. (2019), Spikes et al. (2019), and Still et al. (2018) examined the importance of motivation and feelings of self-efficacy to encourage adherence to hypertension management best practices within the target population.

More broadly, in a study of the perspectives of medical clinicians and academic scholars with experience treating or researching at-risk African Americans, Timmons et al. (2017) identified the three categories of social support, lifestyle coaching, and personalized medical management as key determinants of motivation. Once again, the factors of social support and coaching were central to patients' success as key influences on motivation. In addition to the underlying themes of social support and motivation, most of the researchers who conducted these quantitative studies measured the outcome of adherence to self-management regimens, the ultimate outcome variable in the PICOT question. For example, Bolin, Crane et al. (2018) and Bolin, Horne (2018) measured low-salt diet adherence and physical activity and correlated these behaviors with factors such as health knowledge, access to healthy food and facilities, and beliefs about hypertension. Spikes et al. (2019) similarly focused on medication adherence as the key outcome measure; it was more significantly related to comorbidities than depressive symptoms or social support. Wright et al. (2018) more broadly measured self-management outcomes encompassing exercise, healthy eating, blood pressure checks, and medication adherence.

Conceptual Framework

The IMCHB provides a framework comprising three elements—each of which, in turn, comprises several subfactors—to understand the relationships between clients, health care providers, and outcomes. The three elements are client singularity, client–professional interaction, and health outcome (Cox, 1982). Client singularity includes the two categories of background variables (such as demographics, social influence, and previous health care experiences) and dynamic variables (such as intrinsic motivation, cognitive appraisal, and affective response; Mathews et al., 2008). Client–professional interaction includes affective support, health information, decisional control, and professional/technical competencies (Cox, 1982; Mathews et al., 2008). This element mutually and directly interacts with the dynamic variables grouped under client singularity. Finally, the third element, health outcome, includes several variables such as using health care services, the severity of the health care problem, clinical indicators of success, satisfaction with health care, and adherence to applicable care regimens. The model works as a cycle, such that the health outcomes feed back into the patient's singular variables, thereby influencing future client–professional interactions.

Literature Review

In a handful of studies in the current literature, researchers measured the effects of interventions instead of conducting empirical measures of correlations between existing variables and self-management outcomes. In these studies, counseling from nursing staff was central to the intervention, in alignment with this project's PICOT question. Wright et al. (2018) designed an intervention co-created by patients and nurses using findings from focus group sessions. The intervention targeted the main stressors and self-management obstacles identified in the focus group sessions. Bokhour et al. (2016) carried out a more rigorous randomized intervention to test the efficacy of storytelling on self-management intentions relative to an information-only intervention. The treatment group experienced significantly better results, supporting the emphasis on counseling and social support highlighted in the PICOT question. Hebert et al. (2012) conducted a nurse-led intervention for hypertension control in an urban community that yielded a significant average decrease in systolic blood pressure among participants. Similarly, Zabler et al. (2018) designed an intervention using the individual and self-management theory for low-income African Americans. They found that individualized interventions were effective in empowering patients with hypertension and improving their motivation and confidence to adhere to guidelines developed in collaboration with a nurse specialist.

The current literature provided a viable foundation for an intervention designed to answer the PICOT question chosen for this study. Although nurses and other health care providers cannot directly improve the social structures of patients, they can serve as supplemental motivators by helping patients understand how social factors influence their behavior and provide motivational coaching to improve patients’ confidence. Counseling and education should be tailored to patients’ specific needs in light of findings from Hebert et al. (2012) and others showing that patients struggle to respond to lifestyle challenges preventing effective self-management. Counseling should be responsive to the unique, individual challenges patients face. While a certain level of standardization is necessary to ensure the integrity of data, researchers can incorporate individualized support (Hebert et al., 2012; Zabler et al., 2018). Specifically, participants can be screened for depressive symptoms, which have been found to correlate with difficulties in self-management and blood pressure outcomes (Bolin, Crane et al., 2018; Bolin, Horne, 2018b).

Setting Facilitators and Barriers

The primary advantage of using the CDSS to measure outcomes included in the IMCHB was the compatibility of the two tools for interventions focusing on patient education and motivation for self-management. The CDSS heavily focuses on items reflecting patients’ level of knowledge as well as their motivation and commitment to adhering to self-management strategies (Hibbard et al., 2004). Likewise, the IMCHB provides a useful framework for measuring wide-ranging outcomes, including satisfaction with care and adherence to the care regimen—both of which are mediated by the quality of the patient–provider interaction (Cox, 1982; Mathews et al., 2008). Given the high number of items included in the CDSS, it is well suited to capture the multivariate construct provided by the IMCHB.

One disadvantage of the IMCHB is that findings derived from the CDSS may not be generalizable if the researcher does not account for all variables identified by the model. As Carter and Kulbok (1995) pointed out, variables that are isolated for a particular study (such as patient health literacy) must be critically examined in context with the other variables in the IMCHB. This disadvantage may be mitigated through holistic use of the multi-item CDSS to capture a wider range of variables and relate them back to the overall efficacy of the patient–provider interaction.

Chapter Summary

The current literature provided a viable foundation for answering the PICOT question. Observational and intervention studies on hypertension among African American men should address some of the gaps in the current state of knowledge. For example, researchers should investigate the degree to which social support and depressive symptoms predict medication adherence, given the mixed research results on this relationship. Researchers should also study factors that affect blood pressure management with the goal of quantifying the relative impacts of these factors. For instance, researchers should quantify the importance of low-salt diet adherence, physical activity, and medication adherence in order to tailor interventions toward areas with the greatest influence. By addressing these gaps in the literature, researchers can achieve greater improvements for a higher number of patients. Ideally, findings should be generalized for use in clinical settings to benefit a larger population beyond the treatment groups participating in any given intervention.

Chapter 3: Research Method

Project Design

The purpose of this research was to improve African American male patient engagement in managing hypertension. I hypothesized that personalized health interventions could help resolve common psychosocial barriers that complicate self-care for hypertension among men in this disproportionately impacted community. I identified barriers to patient engagement using the 22-question CDSS (Heath, 2017) and then addressed them through personalized health interventions based on the PHE model (Graffigna & Barello, 2018).

This research project was quasi-experimental because I did not use a control group. A truly experimental research project would have involved examining the effectiveness of the PHE model through a comparative assessment between an experimental group receiving personalized interventions and a control group left to other methods of developing personal care skills. This would have entailed assisting only half of the research sample while simultaneously observing the struggles of the other half. Although this is a common design for health care research, I believed that the vulnerabilities of the sample population had significant ethical implications. Learning that some research subjects would not receive assistance in developing self-care skills could have caused potential research subjects to lose confidence in the intentions of the investigator. To avoid potential misgivings about the project's ethics or aims, I decided to give all participants the opportunity to benefit from the intervention.

Project Site and Population

Prospective subjects for this research were African American men over the age of 18 seeking treatment for hypertension at a comprehensive wellness clinic. I selected subjects from patients meeting these criteria who were not currently receiving guidance or counseling related to personal engagement in their health care. I further narrowed the subject pool to patients who either had been recently diagnosed with hypertension or had shown evidence of poor self-management, such as frequent hypertension-related emergency room visits. Selecting from this pool ensured that participants were still at the developmental stage of the PHE model when the assessment and intervention took place. Because mistrust of the health care industry is a long-standing issue in African American research subject engagement (Scharff et al., 2010), I made special efforts toward providing complete transparency about my research methods and objectives when contacting potential subjects.

Measurement Instruments

The primary instrument I used to measure the success of the intervention in this research was the CDSS. Hibbard et al. (2004) developed this scale with the express aim of standardizing the definition and quantification of patient activation. Featuring a total of 22 questions, the CDSS has four main categories of measurement:

1. Believing the patient’s role in health care management is important.
2. Having the knowledge and confidence necessary to take action.
3. Proactively taking action to maintain and improve one’s health.
4. Staying the course when under stress.

Measuring patient activation in this way can indicate the specific categories where the patient is experiencing barriers. This can, in turn, lead to more specialized support to encourage self-management.

Data Collection Procedures

I decided to perform the data collection and analysis entirely through digital means, keeping both ethical issues and practical constraints in mind. Digital collection allowed for rapid and seamless transfer of data from the survey instrument directly to a password-protected repository. This ease of transfer allowed for a high degree of data security. I secured several tablet devices specifically for exclusive use in this research. A member of the research team provided the tablets to research subjects at an arranged time and location before the intervention began to self-administer the CDSS; the PHQ-9, which measures symptoms of depression; and the PHE-s, which measures overall patient engagement. Next, I arranged weekly virtual visits on self-management strategies to provide patient education. Administration of the CDSS was repeated at the conclusion of the 12-week time frame. After each data collection event, I retrieved the data from the secure HIPAA Hushmail email account associated with the survey and stored them on a hard drive within 24 hours for security purposes.

Data Analysis

Upon completion of the postintervention research protocol, I collected the data and assessed them for outliers. In the case of this research, an outlier was any patient displaying a unique or anomalous trajectory in their response to the intervention that was significantly different from the other responses. I removed the outliers to avoid any distortion they may have caused to the otherwise clear trends in the sample. I then analyzed the data using JASP (0.11.1.0) statistical analysis software. In the initial analysis, I assessed the data for positive or negative correlations between participation in a personalized health intervention and capacity to assist in personal health care. I then performed a paired-samples *t* test on the pre- and postintervention results to ascertain the data’s *p* value. This indicated whether the results were statistically significant or the result of chance.

Timeline

The aim of this research was to assess the effectiveness of personalized intervention plans in helping African American males participate in the management of their hypertension. After assessment with the CDSS, PHQ-9, and PHE-s, patients spent 12 weeks working with a support team on a personalized intervention aimed at increasing their capacity to be active in their own care (see Table 1). A follow-up assessment using the same instruments provided data for pre- and postintervention comparison. I assessed the data for statistical significance using a paired-samples *t* test, expecting that a significant positive correlation would emerge between self-care capacity and participation in a personalized intervention. Table 2 provides a timeline of the research project by month.

Table 1

Project Timeline

Research Subject Selection	Preintervention	Intervention	Postintervention	Analysis
Prospective research subjects informed of study methods and aims; consent requested.	PAM, PHQ-9, and PHE-s administered for baseline data.	Patients work with support staff on personalized intervention.	PAM, PHQ-9, and PHE-s readministered for follow-up data.	Data cleaned and examined for correlations; paired *t* test performed to assess statistical significance.
1 week	2 weeks	12 weeks	6 weeks	8 weeks

Table 2

Timeline of Research Project by Month

Month	Activities			
January 2022	IRB approval*	Fliers generated	CDSS fliers and forms created	Consent forms generated
February 2022	Recruitment of candidates	Consent and fliers provided at clinic	Education and fliers provided	Follow-up calls initiated
March 2022	End patient recruitment	Implementation of self-engagement strategies	Follow-up phone calls made	CDSS and PHQ-9 and PHE-s collected
April 2022	IMCHB results	Google form results secured	Results of assessments translated	Data synthesized
May 2022	Patients work on personalized interventions	PHQ-9 and PHE-s administered	Data cleaned and examined for correlations	Data synthesized
June 2022	PHQ-9 and PHE-s readministered for follow-up data	Symptoms of depression and overall patient engagement (PHE-s) measured	Survey collected and closed	Research inactivated

*See Appendix B

Chapter 4: Results

The purpose of this research was to assess the impact of personalized interventions on the ability of African American male patients to self-manage their hypertension. I used the patient activation measure to determine the success of these interventions. This concept is meant to assess the ability of patients to participate in their own care. The primary measurement tool I used was the CDSS, a specialized scale for use with chronic conditions like hypertension. I paired the CDSS with the PHQ-9, which measures symptoms of depression, and the PHE-s, which measures overall patient engagement. This chapter focuses on the comparative data I collected from these tools. It also reports associated data, such as improvements in patient condition and cooperation with medical advice.

Data Collection

In total, 24 participants agreed to take part in the study. All were recruited through posters soliciting for participants at a designated research site. Of these participants, 12 had recently been diagnosed with hypertension, and 12 had been recommended for the study by their physician based on previous poor self-management. Before participating, all received a secure email form that provided an informed consent statement. Once informed consent was confirmed, I administered digital versions of the CDSS, PHQ-9, and PHE-s remotely through the internet (see Appendix A). Participants then began a 12-week personalized intervention program based on the IMCHB, designed to improve their self-management skills. After 12 weeks, participants digitally completed the same three assessment tools to measure their progress.

Data Analysis

All three measurement instruments relied on a Likert-type response mechanism providing a spectrum of predetermined responses to each question, beginning with the most negative response (*strongly disagree* or *never*) to the most positive response (*strongly agree* or *always*). This means the assessment mechanisms in this research produced ordinal data or data in which possible responses have a meaningful order but not necessarily meaningful intervals between each response. Each assessment tool featured a different number of potential responses. The CDSS scale offered a 10-option response spectrum (see Table 3), the PHQ-9 offered four options, and the PHE-s offered seven options. To translate the results of these assessments into calculable data, I assigned numeric values to each response, with 0 being associated with the most negative response and 9, 3, or 6 assigned to the most positive response.

As displayed in Table 4, comparative results from the PHQ-9 showed a significant drop in depression and related symptoms. Questions regarding low self-esteem and feelings of hopelessness displayed major improvement between pre- and postintervention assessments. Comparative results from the PHE-s showed dramatic improvement in terms of optimism and self-motivation following personalized interventions (see Table 5). In the posttreatment assessment, respondents identified far more with statements that indicated their illness no longer dominated their lives, identities, or future plans.

Table 3

Comparison of Select CDSS Scale Questions

Question	Preintervention	Postintervention	Change
How confident are you that you can keep the emotional distress caused by your disease from interfering with the things you want to do?	4.6 (*s* = 1.4)	7.1 (*s* = 1.0)	+2.5 (*p* = .02)
How confident are you that you can keep any other symptoms or health problems that you have from interfering with the things you want to do?	4.1 (*s* = 2.2)	6.9 (*s* = 1.6)	+2.8 (*p* = .008)
How confident are you that you can do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?	3.6 (*s* = 2.4)	7.9 (*s* = 0.9)	+4.3 (*p* = .05)
How confident are you that you can do things other than just taking medication to reduce how much your illness affects your everyday life?	2.5 (*s* = 1.1)	8.1 (*s* = 1.3)	+5.6 (*p* = .03)

Note. Values represent averaged answers from participants. The CDSS scale offers a 10-option response format ranging from *not at all confident* to *totally confident*.

Table 4

Comparison of Select PHQ-9 Questions

Question	Preintervention	Postintervention	Change
Feeling bad about yourself or that you are a failure or have let yourself or your family down.	2.7 (*s* = 0.3)	1.4 (*s* = 0.7)	–1.3 (*p* = .03)
Feeling down, depressed, or hopeless.	2.4 (*s* = 0.9)	1.2 (*s* = 0.3)	–1.2 (*p* = .006)
Trouble concentrating on things such as reading the newspaper or watching television.	2.1 (*s* = 0.5)	0.8 (*s* = 0.2)	–1.3 (*p* = .01)
Thoughts that you would be better off dead or thoughts of hurting yourself in some way.	1.7 (*s* = 0.9)	0.4 (*s* = 0.8)	–1.3 (*p* = .05)

Note. Values represent averaged answers from participants. The most positive answer for this tool was 3 = *nearly every day*, whereas the most negative answer was 0 = *never*.

Table 5

Comparison of Select PHE-s Questions

Question	Preintervention	Postintervention	Change
I find my life is meaningful despite my illness.	2.3 (*s* = 1.1)	4.1 (*s* = 0.7)	+1.8 (*p* = .05)
I have a sense of purpose despite my illness.	3.7 (*s* = 0.9)	4.8 (*s* = 0.7)	+1.1 (*p* = .03)
I feel optimistic about my future.	1.8 (*s* = 1.0)	5.1 (*s* = 1.3)	+3.2 (*p* = .007)

Note. Values represent averaged answers from participants. The PHE-s offers a 7-value Likert scale response format in which participants are asked to identify which statement best applies to them. The most positive answers (score of “6”) are represented here.

The number of participants who reported self-adequacy in their way of life increased between the pre- and postinterventions. Likewise, they showed a greater willingness to proactively engage with their condition. There was also an improvement in participants' willingness to do more than just take medication, such as following the doctor's recommendations for diet and physical activity. Data outside of these assessment tools demonstrated that the self-care model brought about a massive reduction in participants' systolic pressure in the wake of teaching and engaging them. Individuals who were consistent in attending weekly counseling and education services and taking their antihypertensives showed a significant change in their systolic pressure (10.62 mmHg) within a 12-week time frame ($p < .0375$). Consistent reporting of data and setbacks to the clinician demonstrated a significant decrease in systolic pressure. Additionally, the study results demonstrated that members who did not adhere to their medications or weekly calls saw no significant change in their systolic pressure ($p > .05$).

Cost and Benefit Analysis

The expenses related to this study were insignificant. The total cost, including the organizers, survey printing, and informational flyers, was $165.00. A review distributed in the *Journal of the American Heart Association* expressed that people with hypertension have annual medical costs of almost $3,000 higher than people without hypertension. Putting resources into preventing hypertension would save the 24 patients who took part in this study medical costs of roughly $122,988 each year.

Limitations

The use of standardized survey instruments offers only a limited amount of information regarding each participant's particular circumstance and experience during the personalized interventions. The addition of in-depth unstructured interviews, in combination with the instruments used here, could yield greater insight into how personalized programs affected the participants and what aspects of their health they were more willing to engage with. In this study, I did not include interviews due to the additional time demands they would put on participants. Because I passively recruited participants, I assumed that the additional time demands of the interview process would have dissuaded some from participating.

Chapter Summary

The personalized intervention program had 24 participants. All 24 were assessed before starting the intervention program using the PHQ-9, PHE-s, and CDSS. They then spent 12 weeks working with health care providers on an individualized program designed to address barriers to their participation in the management of their hypertension. After 12 weeks, I again assessed the participants using the same three instruments. Comparison of pre- and postintervention results of all three assessment tools showed major improvements. Participants reported feeling less depressed, more optimistic, and more confident regarding their ability to take part in their health management.

Chapter 5: Discussion, Conclusions, and Recommendations

Hypertension is among the chronic illnesses whose impacts can be constrained if properly managed. Depression and general lack of awareness about the severity of the condition, however, can cause hypertensive patients to be uncooperative with therapy. These issues are especially prevalent among African American males, who have higher rates of hypertension and often less access to adequate health care. Therefore, it is vital to distinguish their instructive requirements, enable these patients, and furnish them with materials that support sticking to drug treatment and partaking in legitimate mediations. In this evidence-based study, self-care focused on drug adherence and receiving education every week. The study findings demonstrated the adequacy of self-management and drug adherence in bringing down systolic pulse.

Discussion

Results from the PHQ-9, PHE-s, and CDSS indicated that the personalized health intervention had a significant and positive impact on the willingness and ability of participants to self-manage their hypertension. The PHQ-9 showed that, prior to the intervention, participants had a sense of low self-esteem and inadequacy. Many reported feeling depressed and having difficulty concentrating. This result was not surprising, as participants were assessed directly after being diagnosed with hypertension or told they were managing their hypertension poorly. The presence of such a chronic condition in one’s life, especially when it is first introduced, can be psychologically crippling.

After 12 weeks of personalized counseling, participants uniformly reported that these feelings of depression had been reduced considerably. The comparative results of the PHE-s corroborated this finding. Following the intervention, participants in this study were more willing to agree with statements that suggested hypertension did not have to control their lives or define who they were after 12 weeks of intervention. Together, these assessments suggest that personalized care helps participants realize they can manage their hypertension and life can still be enjoyable with a chronic illness. Intervention CDSS results showed that many participants were unwilling to be open about the degree of emotional distress their condition caused them. This conflicted with the results of the PHQ-9. While participants readily gave low scores regarding their confidence in their ability to self-manage their condition, they rated the emotional distress caused by their condition as being less impactful. This may indicate that feelings of weakness or inadequacy accompanied thoughts of concern about chronic illness among the study populations.

Conclusions

Hypertension is among the chronic diseases that can be managed through self-care. It is imperative that health care providers recognize hypertension patients' needs, empower them, and outfit them with materials about adhering to medication and participating in authentic intercessions. This study demonstrated that improving self-engagement can improve systolic pressure. Moreover, the results are supported by the literature, which showed patients experienced significant improvements in managing systolic pressure through self-care. Assessments showed that participants found the emotional burden of having a chronic illness was less intrusive after the intervention. Results also suggested that participants felt more confident in their ability to follow the recommendations of health care givers, including those beyond regularly taking medication. An accompanying reduction in systolic pressure among participants suggested that this increased confidence and optimism translated directly into more effective self-management of hypertension.

Recommendations

In this study, I used findings from telemedicine visits to gather information from African American males aged 18–65. One strength of this study was the opportunity to foster a collaborative relationship with participants and gain their trust. The racial foundation for the study may have helped inspire confidence between the participants and researcher (Scharff et al., 2010). Expression of a high degree of support and solace encouraged members to straightforwardly share data and pose inquiries on a case-by-case basis. Overall, the environment was conducive to sharing thoughts and data with study participants.

Future Implications

Future research could explore cultivating familial bonds to facilitate a bond between clinicians and patients. Proceeding with work in this space could help primary care providers learn new approaches to working with different racial groups and identify opportunities and barriers to learning. This study introduced an original way to deal with African American males with hypertension by targeting specific learning challenges. Participants cited a desire for education on communication, smart dieting, and rest for self-care for hypertension. The results of this study could help inform a model for how self-management techniques for hypertension are conveyed in clinical settings.

Relationship to Doctor of Nursing Practice Essentials

Among the essential elements of doctoral education and advanced nursing practice, Doctor of Nursing Practice (DNP) Essentials V and VI are perhaps the most progressive. Most of the DNP Essentials are concerned with traditional aspects of modern medicine, such as evidence-based practice and an understanding of its scientific foundations. Essentials V and VI, however, represent a recognition that effective health care requires advocacy for underrepresented groups and interprofessional collaboration to ensure the medical community adequately assists these groups. In the United States, the Black community has historically been marginalized mainly due to the lack of access to quality health care and healthy living opportunities. The elevated rate of hypertension among African American males is a symptom of this. This research effort engages with DNP Essentials V and VI by suggesting an individualized program to assist a marginalized population with self-managing care of a chronic illness.

Implications of Analysis for Leaders

The scholarly project aligns well with my short- and long-term professional DNP leadership goals. The prevalence of hypertension among African Americans is 1.5 times higher than among White Americans (Fryar et al., 2017), and African Americans' hypertension-related stroke mortality risk is twice as high (Lackland, 2014). At the same time, personal and social barriers tend to exacerbate these existing structural inequities. In terms of professional goals, nursing leaders should aim for both therapeutic and community-level solutions to health disparities, so these educational interventions aiming to empower patients do fit into my nursing career aspirations. Unfortunately, the U.S. health care system is defined as much by its disparities and inequities as by its innovations and high standards of care for those who have access. As nursing leaders continue to push for more progress along these lines, I hope that this research can make a significant impact.

Chapter Summary

This research aimed to assist African American male hypertension patients in better self-managing their condition. Doing this required addressing several unique barriers among participants, including depression, lack of confidence, and lack of concern for their condition. After 6 months of personalized intervention, all participants reported significant gains in their ability not only to manage their health but also to cope with the reality of life with a chronic illness. These results translated directly into lowered systolic pressure, suggesting this program may be a viable option for a population often ignored by larger medical institutions. It is hoped that, with further research, such individualized programs could become more available to Black communities throughout the United States. This research offers evidence that these programs are not only effective but also affordable.

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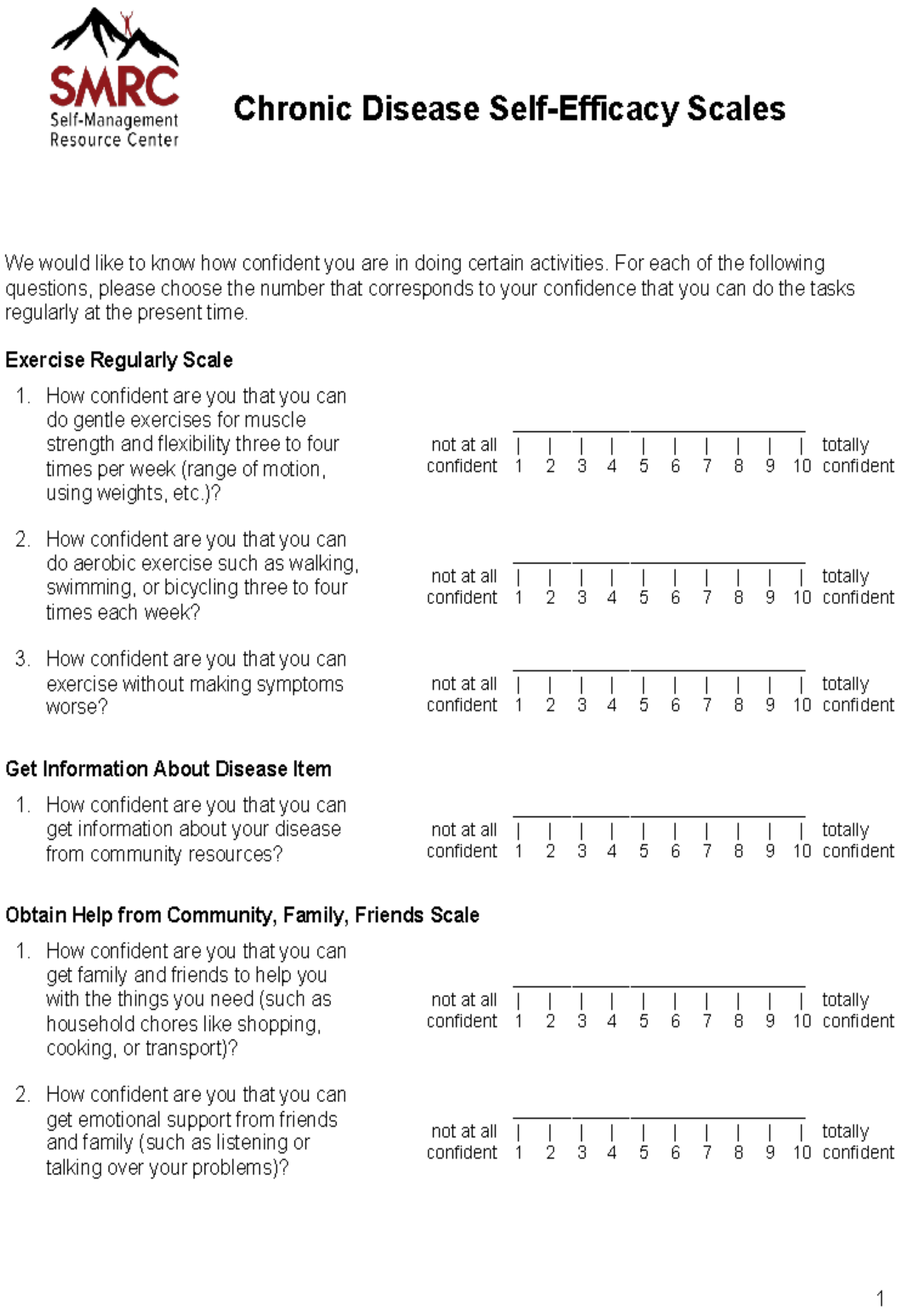
Appendix A: Chronic Disease Self-Efficacy Scales



SMRC
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Chronic Disease Self-Efficacy Scales

We would like to know how confident you are in doing certain activities. For each of the following questions, please choose the number that corresponds to your confidence that you can do the tasks regularly at the present time.

Exercise Regularly Scale

1. How confident are you that you can do gentle exercises for muscle strength and flexibility three to four times per week (range of motion, using weights, etc.)?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can do aerobic exercise such as walking, swimming, or bicycling three to four times each week?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
3. How confident are you that you can exercise without making symptoms worse?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Get Information About Disease Item

1. How confident are you that you can get information about your disease from community resources?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Obtain Help from Community, Family, Friends Scale

1. How confident are you that you can get family and friends to help you with the things you need (such as household chores like shopping, cooking, or transport)?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can get emotional support from friends and family (such as listening or talking over your problems)?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

3. How confident are you that you can get emotional support from resources other than friends or family, if needed?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
4. How confident are you that you can get help with your daily tasks (such as housecleaning, yard work, meals, or personal hygiene) from resources other than friends or family, if needed?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident

Communicate With Physician Scale

1. How confident are you that you can ask your doctor things about your illness that concerns you?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
2. How confident are you that you can discuss openly with your doctor any personal problems that may be related to your illness?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
3. How confident are you that you can get work out differences with your doctor when they arise?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident

Manage Disease in General Scale

1. Having an illness often means doing different tasks and activities to manage your condition. How confident are you that you can do all the things necessary to manage your condition on a regular basis?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
2. How confident are you that you can judge when the changes in your illness mean you should visit a doctor?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
3. How confident are you that you can do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident
4. How confident are you that you can reduce the emotional distress caused by your health condition so that it does not affect your everyday life?	not at all confident 1 2 3 4 5 6 7 8 9 10 totally confident

5. How confident are you that you can do things other than just taking medication to reduce how much your illness affects your everyday life?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Do Chores Scale

1. How confident are you that you can complete your household chores, such as vacuuming and yard work, despite your health problems?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can get your errands done despite your health problems?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
3. How confident are you that you can get your shopping done despite your health problems?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Social/Recreational Activities Scale

1. How confident are you that you can continue to do your hobbies and recreation?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can continue to do the things you like to do with friends and family (such as social visits and recreation)?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Manage Symptoms Scale

1. How confident are you that you can reduce your physical discomfort or pain?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can keep the fatigue caused by your disease from interfering with the things you want to do?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
3. How confident are you that you can keep the physical discomfort or pain of your disease from interfering with the things you want to do?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
4. How confident are you that you can keep any other symptoms or health problems you have from interfering with the things you want to do?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

5. How confident are you that you can control any symptoms or health problems you have so that they don't interfere with the things you want to do?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Manage Shortness of Breath Item

1. How confident are you that you can keep your shortness of breath from interfering with what you want to do?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Control/Manage Depression Scale

1. How confident are you that you can keep from getting discouraged when nothing you do seems to make any difference?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
2. How confident are you that you can keep from feeling sad or down in the dumps?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
3. How confident are you that you can keep yourself from feeling lonely?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
4. How confident are you that you can do something to make yourself feel better when you are feeling lonely?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
5. How confident are you that you can do something to make yourself feel better when you are feeling discouraged?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident
6. How confident are you that you can do something to make yourself feel better when you feel sad or down in the dumps?	not at all confident	1	2	3	4	5	6	7	8	9	10	totally confident

Scoring

The score for each item is the number circled. If two consecutive numbers are circled, code the lower number (less self-efficacy). If the numbers are not consecutive, do not score the item. The score for each scale is the mean of the items. For scales of 1-2 items, do not score the scale if any item is missing; for scales with 3-4 items, do not score the scale if more than 1 item is missing; for scales with 5-6 items, do not score the scale if more than 2 items are missing. Higher number indicates higher self-efficacy.

Characteristics

Scale	No. of Subjects	No. of items	Observed Range	Mean	Standard Deviation	Internal Consistency Reliability	Test-Retest Reliability
Exercise regularly	478	3	1-10	6.30	2.70	.83	.86
Get information on disease	478	1	1-10	7.37	2.65	—	.72
Obtain help from community, family, friends	478	4	1-10	6.18	2.42	.77	.85
Communication with physician	477	3	1-10	7.30	2.71	.90	.88
Manage disease in general	292	5	1-10	6.92	2.15	.87	—
Do chores	478	3	1-10	6.29	2.70	.91	.86
Do social/recreational activities	478	2	1-10	6.50	2.65	.82	.84
Manage symptoms	478	4	1-10	5.88	2.40	.91	.89
Manage shortness of breath *(only reported on those reporting shortness of breath)*	280	1	1-10	5.87	2.97	—	.82
Control/manage depression	478	6	1-10	6.51	2.23	.92	.82

Source of Psychometric Data

Stanford Chronic Disease Self-Management Study. Psychometrics reported in: Lorig K, Stewart A, Ritter P, González V, Laurent D, & Lynch J, Outcome Measures for Health Education and other Health Care Interventions. Thousand Oaks CA: Sage Publications, 1996, pp.24-25,41-45.

Comments

These scales were developed and tested for the Chronic Disease Self-Management study. We use the shorter, 6-item scale now (shown in another document), as it is much less burdensome for subjects. There are 2 ways to format these items. We use the format above, because it takes up less room on the questionnaire. The other is shown on the web page.

References

Lorig K, Stewart A, Ritter P, González V, Laurent D, & Lynch J, Outcome Measures for Health Education and other Health Care Interventions. Thousand Oaks CA: Sage Publications, 1996, pp.24-25,41-45.

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Appendix B: IRB Approval

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January 11, 2022

Elizabeth Felix
Department of Nursing
Abilene Christian University

Dear Elizabeth,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Improving Hypertension Self-Management in African American Men",

(IRB# 21-175)is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Our Promise: ACU is a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world.