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## An Educational Intervention to Increase Knowledge and Awareness of Hypertension among Nurses

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# Walden University

College of Nursing

This is to certify that the doctoral study by

Sylvia Kabba

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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Walden University  
2023

Abstract

An Educational Intervention to Increase Knowledge and Awareness of  
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By

Sylvia Kabba

MS, Walden University, 2020

BSN, Chamberlain University, 2012

Project Submitted in Partial Fulfillment of the Requirements for the  
Degree of Doctor of Nursing Practice

Walden University

December 2023

## Abstract

Hypertension (HTN) affects nearly half of the United States population and despite improvements in HTN treatment and control, only 54.4% of those diagnosed with HTN have their HTN under control. Research has demonstrated that enhancing a nurse's knowledge and awareness may result in positive patient, provider, and organizational outcomes. In a local organization, nurses care for culturally diverse population where 32% of the patients are diagnosed with HTN. As a result, the purpose of this Doctor of Nursing Practice project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population. A total of 25 individuals agreed to participate in the educational intervention. The average age of the participants was 35.44 ( $SD = 10.85$ ) and 64% ( $n = 16$ ) of the participants identified as female. The mean pretest score for knowledge was 5.96 ( $SD = 1.08$ ) and the mean posttest score for knowledge was 9.88 ( $SD = 0.33$ ). Using a Wilcoxon signed rank test to analyze the data, there was a statistically significant difference between pretest and posttest scores, indicating an increase in knowledge among the participants ( $z = -4.31$ ,  $p < 0.001$ ). The mean pretest score for awareness of culturally sensitive HTN care was 2.67 ( $SD = 0.56$ ) and the mean posttest score for awareness of culturally sensitive HTN care was 3.80 ( $SD = 1.04$ ). Using a Wilcoxon signed rank test to analyze the data, there was a statistically significant difference between pretest and posttest scores, indicating an increase in awareness for culturally sensitive HTN care among the participants ( $z = -3.27$ ,  $p < 0.001$ ). This project may contribute to social change by increasing nurses' ability to translate knowledge into practice to improve patient and organizational outcomes.

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## **Dedication**

I dedicate this project to my dearest mother, Priscilla Temple, without whom I would have never opted to become a nurse. Her tenacious spirit, hardworking nature, and unconditional love are constant reminders that I must do right through this nursing education project to support patients from various cultural backgrounds. While under the care of culturally insensitive and incompetent nurses, she succumbed to a condition that would have easily been managed had the nursing practitioners integrated the right cultural knowledge in treatment.

I also dedicate this project to nurses who interact daily with hypertensive patients. I believe that this insightful submission will motivate them to learn more about the cultural preferences of clients. Since culture subconsciously influences health-seeking behaviors, it is important for nurses to understand how underlying cultural preferences affect access to care among hypertensive patients.

Finally, I dedicate this project to nurse managers who must realize the importance of providing routine training to nurses working with hypertensive patients. Through culturally sensitive training on HTN management, nurses will acquire the necessary skills to handle patients from diverse cultural backgrounds. This will positively influence health outcomes among HTN patients.

## **Acknowledgements**

I am eternally grateful to God for granting me peace and composure to undertake this project effortlessly, albeit the challenges that accompanied every step. I would additionally like to acknowledge my Doctor of Nursing Practice committee chairperson, Dr. Marilyn Stankiewicz Losty for her unwavering support, especially in areas I felt stuck. Her involvement constantly reminded me to remain steadfast, focused, and genuinely interested in this process.

It would not go without saying that my greatest pillar of strength, my husband, Anthony Kabba was always present physically or emotionally to see me through this project. For always reminding me to remain grounded, I am thankful for my children Sylton, Ansyl, Sylny, and Sylan. Your encouraging words and sacrifices did not go unnoticed. For everyone who contributed towards the successful completion of this project, words cannot explain how gratified I am.

## Table of Contents

Section 1: Nature of the Project .....	1
Introduction.....	1
Problem Statement .....	3
Purpose Statement.....	4
Nature of the Doctoral Project .....	5
Significance.....	6
Summary .....	6
Section Two: Background and Context.....	8
Introduction.....	8
Concepts, Models, and Theories .....	8
Pender’s Health Promotion Model.....	9
Benner’s Novice to Expert Theory .....	10
Relevance to Nursing Practice .....	11
Search Strategy .....	11
Hypertension.....	11
Current Treatments and Modalities.....	13
Factors Affecting Hypertension.....	15
Role of the Nurse in Educating Patients on HTN.....	17
Summary .....	17
Local Background and Context.....	18
Role of the DNP Student.....	18
Role of the Project Team .....	19



Summary .....	20
Section Three: Systematic Analysis and Collection of Evidence .....	21
Introduction.....	21
Practice-Focused Question.....	21
Definitions of Terms .....	22
Sources of Evidence.....	22
Evidence Generated for the Doctoral Project .....	23
Participants.....	23
Procedures.....	24
Protection .....	25
Analysis and Synthesis .....	25
Summary .....	25
Section 4: Findings and Recommendations.....	27
Introduction.....	27
Results of the Project .....	27
DNP Findings.....	28
Knowledge.....	29
Awareness .....	29
Implications.....	31
Recommendations.....	32
Contribution of the Doctoral Project Team .....	33
Strengths and Limitations of the Project.....	34
Summary .....	34

Section 5: Dissemination Plan .....36

    Introduction.....36

    Dissemination.....36

    Analysis of Self.....36

    Completion of Project .....38

    Summary .....38

References.....39

Appendix A: Outline of Educational Intervention.....45

Appendix B: Pretest and Posttest.....46

Appendix C: Posttest.....49

## **Section 1: Nature of the Project**

### **Introduction**

High blood pressure, also known as hypertension (HTN), is a serious medical problem affecting nearly half of the United States (US) population. HTN is operationally defined as having systolic blood pressure exceeding 130 mmHg or diastolic blood pressure above 80 mmHg (Chobufo et al., 2020). HTN can damage one's health in various ways as the disease causes blood vessels to become more elastic, thus decreasing the flow of blood and oxygen to the heart and other vital organs. Over time, the individual can develop heart disease, chest pain, stroke, heart attack, kidney damage, and heart failure as a result of HTN (Centers for Disease Control [CDC], 2022). According to the Centers for Disease Control and Prevention (CDC), approximately 116 million (47%) adults in the US currently are diagnosed with HTN (CDC, 2022). Further, in 2020, HTN was the primary or contributing cause of over 670,000 deaths in the US (CDC, 2022). Heidenreich et al. (2011) estimated that the prevalence of HTN will increase by more than 10% by 2030. As a result, HTN is a cause for concern.

Despite improvements in HTN diagnosis, treatment, and control, only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018). Currently, treating HTN costs the US healthcare system \$198 billion annually, with patients spending over \$2,000 more in healthcare expenses per year as compared to individuals without HTN (Kirkland et al., 2018). Specifically, adults diagnosed with this condition use \$131 billion more in inpatient, outpatient, and medication prescription costs as compared to those patients without HTN (Alves et al., 2021). Thus, effective strategies

must be identified to improve the prevention and control of HTN among the US population.

Compounding this issue, there are significant differences in HTN prevalence and control rates based on race and ethnicity (Lackland, 2014). For example, HTN is common in 56% of non-Hispanic black adults as compared to 48% in non-Hispanic white adults; 46% in non-Hispanic Asian adults; and 39% in Hispanic adults (CDC, 2022). Furthermore, approximately 32% of non-Hispanic white adults have their blood pressure under control as compared to the 25% of non-Hispanic black adults (CDC, 2022; Foti et al., 2019). The reasons for the racial disparities in HTN remain unclear, however, the implications are compelling (Lackland, 2014). Given this need, the need for culturally sensitive HTN care is essential.

Despite prevalence rates and disparities based on race and ethnicity, the treatment of HTN has never been more effective using prescription medications, lifestyle modifications, diet, and exercise. As a nation, the US Department of Health and Human Services (2020) announced *The Surgeon General's Call to Action to Control Hypertension* in order to set specific goal to combat this chronic disease. This *Call to Action* (2020) set specific goals and strategies and provided recommendations for areas of focus to improve HTN within the US. As part of this, the role of the nurse is a key member of the healthcare team. Himmelfarb et al. (2016) posited the importance of the nurse's role as a provider and educator in this challenge. Thus, for many organizations, expanding the role of the nurse is one strategy to improve BP control among a culturally diverse patient population (Himmelfarb et al, 2016).

In the local organization, care is provided to a culturally diverse population where 32% of adult patients are diagnosed with HTN. Through various reports and patient outcomes measures, the leadership team recognized the need to improve HTN control among its patients. To achieve this goal, the organization identified the nurse as having a key role in this initiative. Himmerfarb et al (2016) described the “importance of nurses in measuring, monitoring, and educating patients diagnosed with HTN using a combination of strategies to prevent, recognize, and respond to the patient and their needs efficiently and effectively” (p. 243). To confirm that all nurses working in the organization were educationally prepared to enhance their role, the organization identified the need to conduct an educational intervention to provide the nurses with a working knowledge of HTN and culturally sensitive HTN management practices. Thus, the purpose of this Doctor of Nursing Practice (DNP) project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices could increase knowledge and awareness among cardiac care unit nurses working with a culturally diverse patient population.

### **Problem Statement**

The evidence clearly identified that HTN was a cause for concern among the U.S. population. Yet, despite available, current information regarding HTN and the importance of treating HTN, nurse knowledge and awareness of HTN and culturally sensitive HTN management practices may be limited (Himmelfarb et al., 2016). As a result, patients may not be receiving the necessary information to manage and appropriately care for patients diagnosed with this disease. Nurses are often seen as vital participants in patient education, however, if nurses are not adequately educated

regarding HTN and its management practices, they may not be able to translate the evidence into practice by effectively educating patients. As a result, educating nurses about HTN and culturally sensitive HTN management practices was one plausible strategy to address and mitigate the challenges of HTN. Thus, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population.

### **Purpose Statement**

As demonstrated by the literature, approximately 116 million (47%) adults in the US currently are diagnosed with HTN (CDC, 2022). Further, Heidenreich et al. (2011) estimated that the prevalence of HTN will increase more than 10% by 2030. However, despite improvements in hypertension diagnosis, treatment, and control, only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018). As a result, HTN is a cause for concern. In the local organization, care was provided to a culturally diverse population where 32% of the patients were diagnosed with HTN. Through various reports and patient outcomes measures, the leadership team recognized the need to improve HTN control among its patients. As a result, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population. The practice-focused question for this DNP project was, “Does an educational intervention focused on HTN and culturally sensitive HTN management practices increase knowledge and awareness among nurses working with a culturally diverse patient population?”

## Nature of the Doctoral Project

Following Walden University Institutional Review Board (IRB) approval, I worked with my DNP mentor to identify three to five specific stakeholders to be part of the DNP stakeholder team and collaborated with them to gain support and further insight into the organization's identified problem. To achieve the purpose of this staff education project, a comprehensive search of the literature was conducted to support the project. Several databases, including the Cumulative Index to Nursing and Allied Health Literature (CINAHL) plus with full text, nursing and health databases, Medline with full text and Ovid, Pub Med, Google Scholar among other databases were accessed for relevant evidence-based strategies to help identify the current evidence with regard to HTN and culturally sensitive HTN management practices. The following search terms were used to identify the evidence: *educational intervention hypertension, cultural sensitivity hypertension management, nurse knowledge hypertension diverse patients, cultural competence hypertension nursing, cross-cultural hypertension nursing education, and cultural sensitivity hypertension patient education*. With the stakeholders' input and the current literature, an educational intervention was developed to specifically address the proposed project question. Along with the educational program, I created a pretest and posttest to match the educational intervention.

After the materials were developed, the identified stakeholders reviewed them and established the Individual-Content Validity Index (I-CVI) and Scale-Content Validity Index (S-CVI) of the educational program, pretest, and posttest (Polit & Beck, 2006). Once content validity was established, nurses currently working on the cardiac care unit were invited to attend an educational intervention. Before the educational intervention,

the nurses were asked to complete a pretest, and following the educational intervention, the nurses were asked to complete a posttest. Pretest scores were matched with posttest scores using a unique identifier that determined if there was an increase in knowledge and awareness of HTN and culturally sensitive HTN management practices. It was expected that there was a difference in pretest and posttest scores, indicating an increase in knowledge and awareness of this important topic.

### **Significance**

The stakeholders involved in this DNP project included the hospital's executive committee, the nurse manager of the cardiac care unit, and cardiac nurses. As presented, the organization provides care to a culturally diverse population where 32% of the patients are diagnosed with HTN and through various reports and patient outcomes measures, the leadership team recognized the need to improve HTN control among its patients. As a result, the leadership team identified nurses as a key component in educating patients on HTN and HTN management. In order to prepare nurses for this role, it was essential that the nurses themselves were educated. Thus, the leadership team supported the DNP project and encouraged the nurses to participate in an educational intervention focused on HTN and culturally sensitive HTN management practices to increase their knowledge and awareness. The hope was that the increased knowledge and awareness of the nurses would then be translated to the organization's patients, and ultimately, result in improved patient, provider, and organizational outcomes.

### **Summary**

HTN is a cause for concern among the US population as HTN is directly responsible for increased mortality, increased morbidity, and a poor quality of life among



patients diagnosed with the disease (Kirkland et al., 2018). Moreover, there are significant difference in HTN prevalence and control rates based on race and ethnicity (Lackland, 2014). However, despite prevalence rates and disparities based on race and ethnicity, the treatment of HTN has never been more effective using prescription medications, lifestyle modifications, diet, and exercise. By empowering and preparing nurses through education, nurses may be prepared to translate the evidence into practice by effectively educating patients regarding HTN and HTN management skills to promote and maximize positive patient outcomes. In Section Two of this DNP proposal, the contents focused on the background and context of the project.

## Section Two: Background and Context

### **Introduction**

Hypertension (HTN) is a cause for concern as it affects a significant portion of the US adult population. Despite improvements in hypertension diagnosis, treatment, and control, only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018). Further, there are significant differences in HTN prevalence and control rates based on race and ethnicity (Lackland, 2014). It has been identified that the local organization provides care to a culturally diverse population where 32% of the patients are diagnosed with HTN and through various reports and patient outcomes measures, the leadership team has recognized the need to improve HTN control among its patients. As a result, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population. In this section, the relevant concepts were discussed, and a review of the literature presented.

### **Concepts, Models, and Theories**

Nursing theories, concepts, and models are often used in nursing to assist nurses in understanding patients, the specific needs of patients, and care delivery. According to Younas & Quennell (2019), nurses should continue to acclimate and use nursing theories to build knowledge and skills as nursing is an ongoing learning process. As a result, nurses should set goals to learn new information for the delivery of quality care to their patients; nurse educators and nurse leaders should have a complete understanding of how to deliver educational interventions to nursing adult learners. Therefore, Pender's Health

Promotion Model and Benner's Novice to Expert were used as the theoretical frameworks to support my DNP project.

### **Pender's Health Promotion Model**

Pender's Health Promotion Model (HPM) explores the factors that contribute to health-promoting behavior among individuals in an attempt to improve their health and quality of life (Srof & Velsor-Friedrich, 2006). Not in reference The HPM is a framework that provides "a guide for exploration of the complex biopsychosocial processes that motivate individuals to engage in health behaviors directed toward the enhancement of health" (Pender, 1996, p. 51). The theory posited that health promotion is based on three important concepts: individual characteristics and experiences; behavior specific cognitions and affects; and situational / interpersonal influences (Pender, 1996). The relevance of these concepts is that each individual has unique experiences and qualities that influence their subsequent actions (Habibzadeh et al. 2021).

Specifically, individual characteristics and experiences are innate factors such age, gender, and experiences that are mostly unmodifiable (Pender, 1996). However, behavior-specific cognitions and affects include "benefits-barriers to behaviors and perceived self-efficacy" which is the target area of most interventions (Srof & Velsor-Friedrich, 2006, p. 366). Last, situational and interpersonal influences are social and environmental factors that influence health behaviors. Thus, to promote health, these concepts must be considered in order for the health promotion intervention to be effective (Pender, 1996). As a result, this model enabled the nurses to understand the role these concepts play in the adoption of health promotion strategies. The educational intervention was created with Pender's HPM in mind, focusing on those strategies that bring value or

benefit to the patient in order to encourage the adoption of behaviors that benefit a patient's health status.

### **Benner's Novice to Expert Theory**

Dr. Patricia Benner's Novice to Expert theory explains the rationale behind nurses advancing their skills and knowledge of patient care as they progress in their careers based on individual experiences and a firm educational foundation. Benner defined five levels of nursing knowledge: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). These levels demonstrate a nurse's skills advancement, perception of different clinical situations, knowledge of abstract principles learned from their experiences, and situational engagement. Thus, it is through new knowledge through these stages that expands a nurse's clinical expertise as they elevate through the different levels of the theory (Pender, 1996).

Benner's Novice to Expert theory is a circular, rather than a linear process. Given this, the individuals may or may not have the expertise of the specific topic, and thus have the potential to move along the continuum regardless of their starting point (Quinn, 2020). Thus, by approaching the topic from a novice starting point, the learner will have the opportunity to move continuously throughout this process as new knowledge and skills are presented and reviewed (Ozdemir, 2019). In applying this theory to the educational intervention, a baseline of HTN knowledge was presented as well as complex concepts surrounding HTN and the treatment of HTN. As a result, it was hoped that the educational intervention would provide the nurses with a broader concept of understanding HTN and its standards of care by bringing knowledge and awareness of the five stages of learning (Quinn, 2020).

## **Relevance to Nursing Practice**

### **Search Strategy**

A comprehensive literature review was conducted by exploring academic, full-text articles available online between 2018 and 2023. The databases utilized were the Walden University online database, Google Scholar, CINAHL, and PubMed to identify the articles. Keywords include educational intervention hypertension, cultural sensitivity hypertension management, nurse knowledge hypertension diverse patients, cultural competence hypertension nursing, cross-cultural hypertension nursing education, and cultural sensitivity hypertension patient education. Approximately 60 journals were identified and after eliminating duplicates, 50 articles remained. The abstracts of the remaining articles were reviewed for content and relevancy. Articles examining HTN interventions and cultural dimensions of HTN treatment were selected for inclusion while those articles that focused on hypertension complications and non-cultural HTN interventions were excluded. As a result, 36 articles were selected for inclusion. After reviewing the articles, the following themes were identified across the articles: Hypertension, Current Treatments and Modalities, Factors Affecting Hypertension, and the Role of Nurses in Educating Patients about Hypertension.

### **Hypertension**

Blood pressure is the force of blood pushing against the blood vessel walls and is measured in millimeters of mercury (mmHg). HTN defined as blood pressure that is constantly higher than normal (AHA, 2021). With HTN, the pressure within the arteries is higher than normal, which in turn, damages the individual arteries, making them less elastic, which decreases the flow of blood and oxygen to the heart and other vital organs.

This decrease in blood flow predisposes patients to strokes, heart disease, and kidney failure and is a primary or contributing cause of death in nearly 700,000 individuals in the US (CDC, 2022).

According to the American Heart Association (AHA, 2021), there are five categories of blood pressure. Normal blood pressure is considered less than 120/80 mmHg and elevated blood pressure is 120 to 129/80. Stage 1 HTN occurs when the systolic pressure is between 130-139 and the diastolic pressure is 80-89 mm Hg. When this level exceeds 140/90 mmHg, a patient is considered to have Stage 2 HTN (CDC, 2022). A hypertensive crisis emerges when one's pressure exceeds 180/120 mm Hg. Individuals at risk of developing high blood pressure include those genetically predisposed to HTN, the elderly, males, those diagnosed with diabetes, and those who are overweight or obese. Additionally, individuals who drink alcohol excessively, have high intake of salt, and are physically inactive are at risk of developing HTN (CDC, 2022).

In the US, nearly half of all adults (48.1%; 119.9 million) have HTN. According to Million Hearts (2021), nearly one in two adults in the country has HTN, 34% of those with HTN remain untreated, and one in five adults have undiagnosed HTN. National medical costs associated with HTN are estimated to be about \$131 billion annually, with the annual medical costs for people with HTN are estimated to be \$2,500 higher per person as compared to those without HTN (AHA, 2021). As a result, HTN is a cause for concern and effective strategies must be developed to control and manage this chronic disease.

## **Current Treatments and Modalities**

Clinicians use a variety of approaches to treat patients with HTN as the goal of HTN treatment is to lower high blood pressure and protect important organs that HTN may affect such as the heart, brain, and kidneys (AHA, 2021). Given that HTN is the most common risk factor for cardiovascular disease and death, it is paramount that the HTN be addressed. The use of the medication is the most common approach, however, clinicians often consider other modalities such as lifestyle and technology as modalities to treat the disease.

### ***Controlling Hypertension with Medication***

Various drugs are used to treat hypertension and include alpha-blockers, diuretics, renin inhibitors, angiotensin-converting enzyme (ACE) inhibitors, beta-blockers, and alpha-agonists (Spies et al., 2018). The choice of medications depends on the level of blood pressure and the existence of other medical problems. For example, in patients with over 20/10 points, providers should consider a combination of drugs for effective treatment (Spies et al., 2018). Similarly, when treating patients over 55 years, patients receive a combination of drugs are used. For instance, a patient diagnosed with HTN and has type-2 diabetes is given an angiotensin-2 receptor blocker or ACE inhibitor medications such as valsartan and enalapril. Recently, Baxdrostat was introduced in the US for the treatment of resistant HTN after trials showed produced success results.

### ***Lifestyle***

Lifestyle and lifestyle changes play a critical role in the management of HTN (Spies et al., 2018). For instance, smoking and the use of alcohol has long been associated with increased blood pressure (Spies et al., 2018). Lack of physical exercises

and poor dietary habits such as high salt intake are also associated with inadequate blood pressure control. As a result, lifestyle changes such as weight reduction, diet restrictions, smoking cessation, regular aerobic physical activity, avoidance of excessive alcohol intake, and stress reduction are strategies that may reduce and possibly prevent HTN. Spies et al. (2018) posited that lifestyle changes start with simple routines. For instance, a thirty-minutes-walk daily or moderate physical exercise could help a patient manage their HTN. Therefore, to achieve better rates of blood pressure control, the nurses should have adequate knowledge to advise lifestyle modifications such as adequate physical activity and low salt intake, in addition to prescribing medication and monitoring the patient for hypertension control.

### ***The Use of Technology to Manage Hypertension***

In today's HTN management, technology has become an important part of increasing medication adherence. Research has posited that non-compliance with anti-hypertensive medication is common in 30 to 50% of individuals diagnosed with HTN (Choudhry et al., 2022). Thus, the use of technology interfaces such as Siri and Alexa can effectively "update medication lists and set reminders" (Kitt et al., 2019, p. 43) so that patients are reminded to take their medication. Further, the use of technology allows patients to monitor their blood pressure, exercise routines, and heart rate. As a result, these interventions have improved HTN self-management and has increased compliance of HTN treatments. Additionally, technology has allowed patients to virtually access healthcare providers for HTN consultations. This alternative is a preferable substitute for in-person visits, particularly, when a patient and clinicians are in different locations. As a result, the use of technology in managing hypertension has the potential to reduce the



disease's prevalence by monitoring the patients' commitment to treatment (Kitt et al, 2019).

### **Factors Affecting Hypertension**

As demonstrated, HTN is a complex disease that affects many adults. While HTN rates in the US are increasing across all demographic subsets of the US population, there are specific internal and external factors that may affect the prevalence of HTN among certain groups (Himmelfarb et al., 2018). For example, HTN rarely exists in isolation, thus may be a co-morbidity of diseases such as diabetes (Burt et al., 1995). Thus, is it important to be aware of those internal and external factors that may influence the prevalence of HTN.

#### ***Internal Factors***

Research has demonstrated that there is a difference in the prevalence of HTN based on internal factors such as gender, age, and race as well as external factors such as socioeconomic status and education. For example, men tend to be at greater risk for HTN as compared to women. However, the prevalence of HTN tends to increase with age, from 7.5% among adults aged 18 to 39; 33.2% in adults 40 to 59; and 63.1% in adults over 60 years of age. Interestingly, HTN rates tend to increase in women as women age (Zhou et al., 2021). As a result, Burt et al. (1995) posited that HTN is the most important risk factor that affect women in early postmenopausal years as 30 to 50% of all women develop HTN after the age of 60, which suggests that gender and age has a prominent role in HTN.

Non-Hispanic Black adults (59%) tend to have highest rates of HTN as compared to non-Hispanic Whites (47%), while non-Hispanic Asians (45%), and Hispanic (44%)

tend to have lower rates when compared to these groups (Ogunniyi et al., 2021). Two in five Black males (42%) and women (43%) tend to have high rates of HTN as compared to White males (31%) and White women (27%). Further, there are twice as many Black, Asian, and Hispanic men with uncontrolled hypertension as there are with controlled HTN (Ogunniyi et al. 2021). Black women tend to be more at risk for HTN (16%) as compared to Hispanic women (10%), and White women (9%), putting Black women most at risk for HTN among females (AHA, 2021). Interestingly, HTN control is higher among non-Hispanic whites (50.8%) as compared to non-Hispanic Blacks (44.6%) and non-Hispanic Asians (37.4%) (CDC, 2022).

### ***External Factors***

While internal factors like age, gender, and race affect HTN, research has demonstrated that external factors such as socio-economic status and education also affect HTN (Himmelfarb et al., 2018). Oparil et al. (2018) posited that socioeconomic status (SES) is a significant predictor for HTN. Specifically, income, poverty, education, and employment are indicators for HTN (Fan et al., 2015). For example, adults living below the poverty line have a 14% higher change of HTN compared to those living above the poverty line. Further, those with a higher education level tended to have a lower incidence of HTN as compared to those with a lower education level (Fan et al., 2015). Job strain and unemployment has been associated with HTN among younger workers as compared to their older counterparts (Mezuk et al., 2011). However, highly educated individuals and those doing labor-intensive work have lower blood pressure levels (Oparil et al., 2018). Thus, in order to adequately manage HTN among individuals, it is important that these external factors are considered as well.

## **Role of the Nurse in Educating Patients on HTN**

The evidence supports that educational interventions can increase patients' knowledge of HTN and positively influence their motivation to adapt to their condition (Alves et al., 2021). However, in order for patients to receive the proper education, nurses must be adequately educated in HTN knowledge as demonstrated by the literature. Research demonstrated that nurses are a critical part of patient education in controlling HTN and expanding the role of the nurse is one of the most effective strategies to improve BP control (Himmelfarb et al., 2016). Thus, educational interventions focused on HTN is warranted for nurses caring for patients diagnosed with HTN.

According to Guerra et al. (2018), most HTN patients fail to effectively control their HTN. Given this, nurses play a key role in educating patients as they are "...in a position to improve adherence rates by guiding the patient toward self-help and lifestyle improvements" (Guerra et al., 2018, p.366). This opportunity enables nurses to educate patients on preventive as well as treatment through educational interventions (Guerra et al., 2018). Thus, given the relevance of education interventions in managing HTN, nurses can use this knowledge to educate patients on the importance of living proper lifestyles to manage HTN.

### **Summary**

As demonstrated, HTN is a serious medical problem that is a cause for concern as it affects nearly half of the US population. It is estimated that the prevalence of HTN will increase 15 to 20% in the next 3 to 5 years with the increase focused on those aged 60 and older (CDC, 2020). As demonstrated by the literature, lifestyle interventions and pharmacotherapy are two strategies that can effectively lower HTN. Given the role of

nurses in patient education, nurses are strategically positioned to educate patients on this disease process. However, it is imperative that the nurse is educated to provide the correct information to patients. Thus, by educating patients, nurses can be aware of the prevalence, causes, factors, and treatments of HTN with the hope that the education will then be translated into practice and passed along to the patient in order to improve patient and organizational outcomes.

### **Local Background and Context**

The proposed setting for this DNP project was a private medical facility located in the northeast U.S. that serves a culturally diverse population. On average, the organization serves 300 patients whose demographics include 41% non-Hispanic white: 38% non-Hispanic black, 15% Hispanic, and 6% non-Hispanic Asian. The leadership of the organization has recognized that 32% of the patient population has HTN as one of their primary diagnoses. Given the diversity of the patient population, understanding HTN and culturally sensitive HTN management practices was necessary among nurses working in this organization. Thus, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population.

### **Role of the DNP Student**

As an experienced nurse pursuing my Doctor of Nursing Practice (DNP) degree, I understand the important role of nurses in educating patients regarding their diseases, especially HTN. Given the complexity of HTN, it is imperative that nurses have a working knowledge of HTN, the factors that affect HTN, and how culturally sensitive

management practices can promote patient outcomes for those diagnosed with HTN. Therefore, I was interested in determining if an educational intervention focused on HTN and culturally sensitive HTN management practices would increase nurses' knowledge and awareness among nurses working in a cardiac care unit. My goal was to provide these nurses the necessary knowledge to improve their ability to educate patients on self-care practices. It was hoped that by educating the nurses on HTN and culturally sensitive HTN management practices, the nurses would then educate their patients. As a result, the knowledge would translate into nursing practice that would result in positive patient, nurse, and organizational outcomes.

### **Role of the Project Team**

For this project, the members of the DNP team included the hospital's executive committee, specifically the director, the nurse manager of the cardiac care unit, and one cardiac care nurse. These individuals participated in the project by providing information about the creation and implementation of my DNP project. To share background knowledge, all the project stakeholders received information via email to notify them about my DNP project and their role in the project. Once completed, three members of the DNP team reviewed educational intervention, the pretest and the posttest, and establish the content validity for each item using the Item-Content Validity (I-CVI) and Scale-Content Validity (S-CVI) (Polit & Beck, 2006). Additionally, the team assisted in encouraging all the other nurses to participate in the educational intervention. Once the project was completed, the DNP team received an executive summary detailing the results and recommendations of the educational intervention.

## **Summary**

As demonstrated by this literature review, HTN is a cause for concern in today's healthcare environment. The role of nurses is a key factor as nurses have the knowledge to educate patients in HTN management. This DNP project advances nursing practice by focusing on whether an educational intervention increases knowledge and awareness among nurses working with a culturally diverse population. To further understand the use of educational interventions in hypertensive care, this section discussed theories needed to increase the treatment gaps by addressing disproportionate access to efficacious care.

## Section Three: Systematic Analysis and Collection of Evidence

### **Introduction**

Nurses play a critical role in the clinical management of hypertension (HTN). As a result, it is imperative that nurses have a strong working knowledge of HTN in order to educate patients diagnosed with HTN about their disease. The local organization serves 300 patients whose demographics include 41% non-Hispanic white: 38% non-Hispanic black, 15% Hispanic, and 6% non-Hispanic Asian. The leadership of the organization has recognized that HTN is one of the primary diagnoses of patients served by the organization. Given the diversity of the patient population, understanding HTN and culturally sensitive HTN management practices is necessary among nurses working in this organization. Thus, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population.

### **Practice-Focused Question**

According to the Centers for Disease Control and Prevention (CDC), approximately 116 million (47%) adults in the US currently are diagnosed with HTN (CDC, 2022). Further, in 2020, HTN was the primary or contributing cause of over 670,000 deaths in the US (CDC, 2022). Heidenreich et al. (2011) estimated that the prevalence of HTN will increase by more than 10% by 2030. In the local organization, the leadership of the organization had identified that HTN was one of the primary diagnoses of patients served by the organization. Given the diversity of the patient population, understanding HTN and culturally sensitive HTN management practices was

necessary among nurses working in this organization given that nurses were primarily responsible for patient education. Thus, the practice-focused question for this DNP was: Does an educational intervention for nurses focused on HTN and culturally sensitive HTN management practices increase knowledge and awareness among nursing professionals working with a culturally diverse patient population?

### **Definitions of Terms**

The following operational definitions were used for this doctoral project.

**Diastolic and Systolic Blood Pressure:** Systolic blood pressure is the initial number, which determines the pressure in the coronary arteries in the cardiovascular system. Diastolic blood pressure gauges the pressure in the arteries amid heartbeats (Chobufo et al., 2020).

**Educational Intervention:** Refers to a set of instructional materials to prepare individuals to acquire understanding and skills of a specific topic or content.

**Hypertension:** Blood pressure is the force of blood pushing against the blood vessel walls and is measured in millimeters of mercury (mmHg). HTN defined as blood pressure that is constantly higher than normal (AHA, 2021).

### **Sources of Evidence**

To address the practice-focused question, a comprehensive literature review was conducted to establish a solid understanding of the current state of the science, the significance of the problem, evidenced-based interventions to address the problem and evidenced-based approaches to evaluate the proposed problem. Key databases such as Google Scholar, CINAHL, and PubMed were used to identify the articles. Keywords included “*educational intervention*”, “*hypertension*”, “*cultural sensitivity hypertension*”



*management*”, “*cultural competence*” and / or “*cultural sensitivity hypertension patient education*”. The identified articles were organized into a summary that was presented to the DNP stakeholders and recommendations collected regarding the creation of the educational intervention used for the DNP project. From the educational intervention, a pretest and a posttest was then created to test the practice-focused question of the DNP project: “Does an educational intervention focused on HTN and culturally sensitive HTN management practices increase knowledge and awareness among nurses working with a culturally diverse patient population?”

### **Evidence Generated for the Doctoral Project**

Prior to the implementation of the DNP project, a DNP stakeholder team was created. Members of the DNP team included the nursing director of the cardiac care unit, the nurse manager of the cardiac care unit, and one cardiac care nurse. These individuals provided guidance regarding the development and execution of my DNP project. To provide historical context, the team received information about the purpose of my DNP project and their contribution to the team. The team guided the development and creation of the educational intervention, pretest, and posttest, as well as determined the content validity for each component using the Item-Content Validity (I-CVI) and Scale-Content Validity (S-CVI) (Polit & Beck, 2006).

### **Participants**

The participants for this DNP project were recruited from a convenience sample of RNs who work on the cardiac care unit in the local organization located in the northeast portion of the United States. The participants were recruited using flyers that were posted in areas on the unit visible to the nurses. The flyers advertised the

opportunity to participate in an educational intervention focused on HTN and culturally sensitive HTN management practices. The participants were free to decline participation in the project and withdraw from the project at any time without consequence. The participants did not receive any type of compensation for their participation in the project.

### **Procedures**

Following approval for the DNP project, I identified three stakeholders to be part of my DNP team that guided and supported my project. Using the current literature, I developed an educational intervention, pretest, and posttest to meet the purpose of the DNP project. Once completed, the DNP team reviewed each component and established the Individual-Content Validity Index (I-CVI) and Scale-Content Validity Index (S-CVI) (Polit and Beck, 2006). Once content validity was established, flyers to participate in the educational intervention were posted in the common areas of the unit to recruit participants. The educational intervention was offered on multiple days and times to promote attendance to the intervention.

Prior to the start of the educational intervention, participants created a unique identifier only known to them to identify their pretest. The pretest consisted of 5 demographic questions that described the participants; 10 true/false questions regarding knowledge of HTN and HTN and culturally sensitive HTN management practices; and two Likert-scale questions that evaluated the awareness of HTN and HTN and culturally sensitive HTN management practices. Following the staff education intervention, participants completed the posttest, which consisted of 10 true/false questions regarding knowledge of HTN and HTN and culturally sensitive HTN management practices and

two Likert-scale questions to evaluate awareness of HTN and HTN and culturally sensitive HTN management practices.

### **Protection**

This DNP project posed minimal risk to the participants. Walden University reviewed this DNP project prior to the start of the project. No identifying information regarding the participants was requested, collected, or recorded. All participants were asked to create and use a unique identifier only known to them to link the pretest to the posttest. All data reported from this project was reported in the aggregate.

### **Analysis and Synthesis**

Each pretest was matched to its posttest using the participant's unique identifier. Each pretest and posttest were reviewed and the total number of questions answered correctly to create a pretest score and a posttest score. Demographic data along with the pretest and posttest scores were entered into an Excel spreadsheet and uploaded into SPSS for analysis. Descriptive statistics were used to describe the sample and inferential statistics were used to determine if there was a difference in pretest and posttest scores regarding knowledge and awareness. All statistical data was reported in the aggregate.

### **Summary**

HTN is a cause for concern as it affects a significant portion of the US adult population. Despite improvements in hypertension diagnosis, treatment, and control, only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018). In the local organization, 32% of the patients were diagnosed with HTN and through various reports and patient outcomes measures, the leadership team has recognized the need to improve HTN control among its patients. As a result, the purpose

of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population. In this section, the plan for development, implementation, and evaluation for the DNP project was presented. Section Four included the project findings and recommendations.

## Section 4: Findings and Recommendations

### **Introduction**

Hypertension (HTN) affects nearly half of the United States (US) population and despite improvements in hypertension diagnosis, treatment, and control, only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018). Further, there are significant differences in HTN prevalence and control rates based on race and ethnicity (Lackland, 2014). It has been identified that the local organization provides care to a culturally diverse population where 32% of the patients are diagnosed with HTN and through various reports and patient outcomes measures, the leadership team has recognized the need to improve HTN control among its patients. As a result, the purpose of this DNP project was to determine if an educational intervention focused on HTN and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population.

### **Results of the Project**

#### **Content Validity**

Using the current literature, an educational intervention (Appendix A) was developed to specifically address the proposed project question. Along with the educational program, a pretest (Appendix B) and posttest (Appendix C) were created to match the educational intervention. Once the materials were developed, the identified stakeholders reviewed them and established the Individual-Content Validity Index (I-CVI) and Scale-Content Validity Index (S-CVI) (Polit and Beck, 2006) for each component (educational intervention content, pretest, and posttest) using a 4-point scale of 1 to 4, with 1 = *content not relevant* and 4 = *content highly relevant*. The I-CVI and S-

CVI universal agreement were rated at 0.90 for the educational intervention, pretest, and posttest, meeting the standard acceptable content validity rating of 0.90 for both item-level and scale-level content validity (Polit & Beck, 2006).

Following the establishment of content validity, the educational intervention was scheduled and held on-site. Notification regarding the educational intervention was disseminated via emails, flyers, and postings. The intervention was scheduled for multiple days and times to facilitate attendance. Thirty (30) nurses were invited and 25 nurses participated in the project, capturing 83.3% of the target population.

### **DNP Findings**

A total of 25 individuals agreed to participate in the educational intervention. The average age of the participants was 35.44 ( $SD = 10.85$ ) with a range of 21 to 60 years. Sixty-four percent ( $n = 16$ ) were female, and nine individuals (36%) identified themselves as male. Ten ( $n = 10$ ; 40%) participants identified themselves as Non-Hispanic White; seven ( $n = 7$ ; 28%) identified themselves as Non-Hispanic Blacks; four ( $n = 4$ ; 16%) identified themselves as Hispanic; three ( $n = 3$ ; 12%) individuals identified themselves as Asian; and one ( $n = 1$ ; 4%) identified themselves as “Other”. Two ( $n = 2$ ; 8%) of the participants were advanced practice nurse practitioners (APRNs); thirteen ( $n = 13$ ; 52%) of the participants were registered nurses (RNs); and ten ( $n = 10$ ; 40%) participants were licensed practical nurses (LPNs). (Table 1).

**Table 1**  
*Sample Descriptive Statistics (N = 25)*

	<i>n</i>	%	Mean ( <i>SD</i> )	Range
<b>Gender</b>				
Male	9	36%		
Female	16	64%		
<b>Race</b>				
		40%		
Non-Hispanic White	10	28%		
Non-Hispanic Black	7	16%		
Hispanic	4	12%		
Non-Hispanic Asian	3	4%		
Other	1			
<b>Position</b>				
Licensed Practice Nurse (LPN)	10	40%		
Registered Nurse (RN)	13	52%		
Advanced Practice Registered Nurse	2	8%		
<b>Age</b>			35.44 (10.85)	21 to 60

### Knowledge

The mean pretest score for knowledge was 5.96 ( $SD = 1.08$ ) with a range of scores between 4 and 8. The mean posttest score for knowledge was 9.88 ( $SD = 0.33$ ) with a range of scores between 9 and 10. Using a Wilcoxon signed rank test to analyze the data, there was a statistically significant difference between pretest and posttest scores, indicating an increase in knowledge among the participants ( $z = -4.31, p < 0.001$ ).

### Awareness

The participants were asked to assess their awareness for the need of culturally sensitive HTN care using a Likert-scale of 1 to 5 with 1 = *no awareness at all* and 5 = *fully aware*. The mean pretest score for awareness of the need for culturally sensitive HTN care was 2.67 ( $SD = 0.56$ ) with a range of 1 to 3. The mean posttest score for awareness of the need for culturally sensitive HTN care was 3.80 ( $SD = 1.04$ ) with a range of scores between 2 and 5. Using a Wilcoxon signed rank test to analyze the data,

there was a statistically significant difference between pretest and posttest scores, indicating an increase in awareness for the need of culturally sensitive HTN care among the participants ( $z = -3.27$ ,  $p < 0.001$ ).

Additionally, the participants were asked to assess their awareness of culturally sensitive HTN care positively impacting patient outcomes using the same Likert scale of 1 to 5 with 1 = *no awareness at all* and 5 = *fully aware*. The mean pretest score for awareness of culturally sensitive HTN care positively impacting patient outcomes was 1.16 ( $SD = 0.55$ ) with a range of 1 to 3. The mean posttest score for awareness of culturally sensitive HTN care positively impacting patient outcomes was 4.64 ( $SD = 0.64$ ) with a range of 3 to 5. Using a Wilcoxon Signed Rank test to analyze the data, there was a statistically significant difference between pretest and posttest scores, indicating an increase in awareness of culturally sensitive HTN care positively impacting patient outcomes ( $z = -4.52$ ,  $p < 0.001$ ). (Table 2).

**Table 2**  
*Knowledge and Awareness (N = 25)*

	Mean (SD)	Range
<b>Knowledge*</b>		
Pretest	5.96 (1.08)	4 to 8
Posttest	9.88 (0.33)	9 to 10
<b>Awareness of the Need for Culturally Sensitive Care*</b>		
Pretest	2.67 (0.65)	1 to 3
Posttest	3.80 (1.04)	2 to 5
<b>Awareness of Improved Patient Outcomes*</b>		
Pretest	1.169 (0.55)	1 to 3
Posttest	4.64 (0.64)	3 to 5

Note. \*Significant at  $p < 0.001$ .



## **Implications**

As demonstrated by the findings, the educational intervention increased the nurses' knowledge and awareness of HTN and culturally sensitive HTN management practices. These findings correlate with the literature that education among nurses can translate into practice and enhance patient, provider, and organizational outcomes (Kavanagh & Sharpnack, 2021). Thus, the use of educational interventions to enhance nurses' knowledge demonstrates the ability of education among practicing nurses as a strategy to reduce the identified gap-in-practice. The increased knowledge and awareness may then be translated into practice and result in positive patient, provider, and organizational outcomes (Kavanagh & Sharpnack, 2021).

This DNP project has three implications for nursing practice. First, it is important to understand the value of education among nurses and how education may influence care delivery at the bedside (Dempsey & Assi, 2018). When nurses and patients are educated on and aware of HTN and culturally sensitive HTN management practices, the knowledge may then be translated into practice, which may result in positive patient outcomes. Research has demonstrated that by enhancing a nurse's knowledge and practice, the patient's quality of care in treating HTN may be improved (Yohannes et al., 2022). Through effective education, nurses can practice at the highest levels of their profession.

Second, through education of nurses, nurses may become aware of their responsibility to educate the patient and the family on HTN and culturally sensitive HTN management practices, so that upon discharge, the patient and family are prepared to care for the patient as they transition from one care setting to another. According to DeSai et

al. (2021), patients who are not empowered with proper discharge instructions have a decreased compliance rate for treatment, increased risk for safety concerns, and greater chance of returning to the hospital or emergency department. Patient education is a critical component of nursing care in helping patients to meet their treatment goals regarding HTN. Nurses should consider the patient's and family's literacy level to ensure that the education and instructions are understood.

Last, the results of this project demonstrate the need for regular education regarding HTN and culturally sensitive HTN management practices to maintain nurses' knowledge and awareness levels. HTN and HTN management is an essential competence for nurses as nurses play a pivotal role in HTN education and management. Continuing education can enhance nursing knowledge, which can maximize and improve patient care. The results of the project support a comprehensive HTN training program for all units through ongoing education for improved patient outcomes and positive social change.

### **Recommendations**

Given the results of this DNP project, there are three recommendations that the organization may consider. First, it is recommended that HTN and culturally sensitive HTN management practices be included as part of the continuing education for all nurses so that current information may be shared with nurses as a mechanism for enhancing nursing practice. Given that HTN affects nearly half of the US population and only 54.4% of those diagnosed with HTN have their HTN under control (Kirkland et al., 2018), this educational intervention would benefit all nurses in the organization. By extending this educational intervention to other units and departments, this project may

help close the gaps between knowledge and guidelines while improving patient care throughout the organization.

Second, this information should be included in new nurse orientation. Lack of knowledge may be a plausible reason only 54.4% of patients with HTN have their HTN under control, thus, by including this information in the new nurse orientation allows the information to reach the nurses so they can implement the knowledge across the organization. Further, this recommendation is grounded in Benner's theory because knowledge is one strategy to assist nurses in moving from novice to expert.

Last, this information should be shared with the education coordinator in the organization so that the information provided in this educational intervention will remain current and be shared with other departments and organizations outside the local organization. The nurse educator's role is to help nursing staff develop and maintain competencies, advance their professional nursing practice, and facilitate their achievement of academic and career goals. Through sharing of this educational intervention with the nurse educator, they may be able to share the information with other nurses and organizations that may benefit from this knowledge.

### **Contribution of the Doctoral Project Team**

The DNP project consisted of the hospital's executive committee, specifically the director of nursing and the nurse manager of the cardiac care unit, who approved and supported the project. Moreover, this team provided guidance for the educational intervention project and assisted with establishing the educational program's content validity, pretest, and posttest. Further, the DNP team was instrumental in promoting the

attendance of the educational intervention. As a result, the team was extremely valuable and invested in the success of my DNP project.

### **Strengths and Limitations of the Project**

The project's major strength was the enthusiasm and zeal of the nurses who participated in the educational intervention. Additionally, the high response rate of 83.3% added to the validity of the project. Further, the dedicated support from the organization's leadership team and stakeholders to develop and implement the project was an additional strength.

Despite these strengths, there were some limitations to the project. First, the nurses who were targeted for the project were recruited from a convenience sample of nurses working on one unit in a local organization; therefore, the results may not be generalizable to other professional nurses or nursing units. Additionally, the analysis was completed using the average pretest score and the average posttest score. Although one can conclude that the intervention may be responsible for the improvement in scores, there may be other explanations for why the posttest scores may have changed. Last, the scheduling of the educational intervention may have been challenging for some of the nurses who chose not to participate in the project. It is recommended that this project be replicated with a larger sample, perhaps across multiple hospital organizations, to validate results.

### **Summary**

This section provided the findings, implications, strengths, limitations, and recommendations for the DNP project. The section provided a response to the practice-focused question and addressed the gap in practiced. Further, recommendations for

project replication and additional interventions were identified. Section 5 addresses the dissemination plan and self-assessment.

## Section 5: Dissemination Plan

### **Introduction**

The purpose of this DNP project was to determine whether an educational intervention focused on hypertension (HTN) and culturally sensitive HTN management practices increased knowledge and awareness among nurses working with a culturally diverse patient population. The literature supports the importance of education for nurses as education provides an essential part of the nurses' clinical competence and promotes their ability to fully practice maximizing patient and organizational outcomes (Hooper, 1999; Mlambo et al., 2021). As demonstrated by this DNP project, educational interventions are one plausible strategy in reaching this goal.

### **Dissemination**

As with any project, it is critical that the results of the project be disseminated to stakeholders of the organization. First, the findings of this DNP project will be shared with the DNP project team, who were instrumental in the success of this project. Next, the project will be presented to the unit where it took place. Given that the nurses who participated in the project were anonymous, it is important that the unit receive this valuable information. Other plans for dissemination include other units in the organization and sister organizations. Possible dissemination may be to local and national conferences and a publication in a nursing journal.

### **Analysis of Self**

#### **As a Practitioner**

As an experienced nurse, I have always been interested in identifying ways of improving the health and wellbeing of patients. Based on observation, I realized that

many of the patients I was caring for lacked the ability to manage their HTN. This was compounded by the fact that many of the nurses caring for the patients had limited working knowledge of HTN, the factors that affect HTN, and how culturally sensitive management practices can promote patient outcomes for those diagnosed with HTN. Once this gap-in-practice was identified, it was my responsibility to identify a solution for this gap in order to promote not only patient outcomes, but nurse outcomes as well. Moving forward, I will always look for novel interventions to manage HTN and disseminate that knowledge to nurses with the hope that the knowledge will be translated into practice.

### **As a Scholar**

My tenure as a Doctor of Nursing Practice student was a learning curve that required resilience, tact, excellent communication skills, extensive analytical skills, concentration, and a genuine interest in the project. As a scholar, this project has shaped me into a doctoral-prepared nurse that can think critically, reflect, assess, apply evidence and disseminate information to address clinical issues. Overall, the skills I have acquired during the DNP process are invaluable and will continue helping me on my professional journey.

### **As a Project Manager**

This DNP project was demanding undertaking and it required adequate preparation. I acquired time management skills, teamwork abilities, a semblance of formality, and it was also essential to have a strategy. Although exhaustive, it was a fulfilling exercise, which brought out admirable qualities such as resilience in me.

### **Completion of Project**

Completing this project is the best feeling I have had in a long time. I approached the project with an administrative mindset, which was initially working until I realized the importance of assessing the organization to identify a problem that reflected the needs of the unit. As a result, I went through a series of possible topic options and was able to identify a critical gap-in-practice. Based on my experiences with nurses handling HTN patients, I felt it was important to integrate a cultural angle to the project as it would meet the diverse needs of nurses and the patients they serve.

### **Summary**

Nursing education in any department is critical for positive patient, provider, and organizational outcomes. This DNP project demonstrated that an educational intervention focused on HTN and culturally sensitive HTN management practices can increase knowledge and awareness among nurses working in a local organization. It is hoped that the knowledge gained through this educational intervention will be translated into practice that will result in positive patient, provider, and organizational outcomes.



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## **Appendix A: Outline of Educational Intervention**

1. Introduction
2. What is Hypertension?
3. Treatment of Hypertension
  - a. Treatment with Medication
  - b. Lifestyle Changes
  - c. Use of Technology
4. Factors that Affect Hypertension
  - a. Internal Factors
  - b. External Factors
5. Impact of culture on Hypertension
6. Culturally sensitive treatment modalities
7. Conclusion

## Appendix B: Pretest Questionnaire

We appreciate your intent to take part in this educational intervention. Please create a unique identity that is known only to you and cannot be shared with or identified by anyone else. This unique identifier will be used to compare your pretest and posttest results. Please do not offer any information beyond what is requested in the questions. All data are anonymous and will only be reported as an overall total. Again, thank you for agreeing to take part in this educational intervention.

**Participant's Unique Identity:** \_\_\_\_\_

**Age (in years):** \_\_\_\_\_

**Gender:**

\_\_\_\_\_ Male

\_\_\_\_\_ Female

\_\_\_\_\_ Non-Binary

\_\_\_\_\_ Prefer not to answer.

**Race**

\_\_\_\_\_ Non-Hispanic White

\_\_\_\_\_ Non-Hispanic Black

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Asian

\_\_\_\_\_ Other

**Role at Organization**

\_\_\_\_\_ Licensed Practical Nurse (LPN)

\_\_\_\_\_ Registered Nurse (RN)



\_\_\_\_\_ Advanced Practice Registered Nurse (APRN)

### **Pretest Questions**

Please read each of the statements carefully and indicate whether the statement is true or false by circling TRUE (if true) or FALSE (if False).

1. I am familiar with hypertension.

True                  False

2. I am conversant with the causes of hypertension.

True                  False

3. There are various interventions for hypertension management.

True                  False

4. Culture has an impact on hypertension management.

True                  False

5. It is not important for healthcare providers to be aware of cultural implications when treating hypertension.

True                  False

6. All patients require culturally sensitive care when being treated for hypertension.

True                  False

7. Nurses are not responsible to educate patients about the influence of culture as part of their plan of care for hypertension.

True                  False

8. Including the patient's culture in their plan of care can promote positive patient outcomes.

True                  False

9. It is not necessary to accommodate patients based on culture when treating them for hypertension.

True                  False

10. Nurses should focus on the patient's culture when providing care.

True                  False

On a scale of one to seven, with 1 = “*no awareness*” and 5 = “*full awareness*”, please indicate your awareness of:

	1	2	3	4	5
The need for culturally sensitive HTN care among HTN patients.					
Culturally sensitive HTN care positively impacting patient outcomes.					

### Appendix C: Posttest

We appreciate your intent to take part in this educational intervention. Please use the unique identifier that you created for your pretest for this posttest. Your unique identifier will be used to match your posttest to your pretest. Please do not offer any information beyond what is requested in the questions. All data are anonymous and will only be reported as an overall total. Again, thank you for agreeing to take part in this educational intervention.

**Participant's Unique Identity:** \_\_\_\_\_

#### Posttest Questions

Please read each of the statements carefully and indicate whether the statement is true or false by circling TRUE (if true) or FALSE (if False).

1. I am familiar with hypertension.

True                  False

2. I am conversant with the causes of hypertension.

True                  False

3. There are various interventions for hypertension management.

True                  False

4. Culture has an impact on hypertension management.

True                  False

5. It is not important for healthcare providers to be aware of cultural implications when treating hypertension.

True                  False

6. All patients require culturally sensitive care when being treated for hypertension.

True                  False

7. Nurses are not responsible to educate patients about the influence of culture as part of their plan of care for hypertension.

True                  False

8. Including the patient's culture in their plan of care can promote positive patient outcomes.

True                  False

9. It is not necessary to accommodate patients based on culture when treating them for hypertension.

True                  False

10. Nurses should focus on the patient's culture when providing care.

True                  False

On a scale of one to seven, with 1 = "no awareness" and 5 = "full awareness", please indicate your awareness of:

	1	2	3	4	5
The need for culturally sensitive HTN care among HTN patients.					
Culturally sensitive HTN care positively impacting patient outcomes.					