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## A Staff Education Program on Managing COVID-19 in a Correctional Setting

Mary Catherine Knight  
*Walden University*

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# Walden University

College of Nursing

This is to certify that the doctoral study by

Mary C. Knight

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.

Review Committee

Dr. Edna Hull, Committee Chairperson, Nursing Faculty  
Dr. Robert McWhirt, Committee Member, Nursing Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2024

Abstract

A Staff Education Program on Managing COVID-19 in a Correctional Setting

by

Mary Catherine Knight

MS, Barry University, 1994

BS, Trenton State College, 1978

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

Walden University

August 2024

## Abstract

The medical departments of many correctional facilities were unprepared to manage the COVID-19 pandemic. The practice problem identified for this doctorate of nursing practice (DNP) project was the lack of knowledge of health staff on managing incarcerated individuals' care during a pandemic. The primary purpose of the project was to develop, implement, and evaluate a staff education program on evidence-based interventions for preventing and managing a pandemic in a correctional facility. This project was guided by David Kolb's experiential learning theory and the analysis, design, development, implementation, and evaluation (ADDIE) model. The practice setting was a local detention center in the southern portion of a Mid-Atlantic state. The educational program's participation rate was 75.76%, with 25 out of 33 invited staff participating. Pretest, posttest, and summative evaluation were used to analyze and synthesize findings generated from the staff education program. With a mean pretest score of 70.4 (SD 12.74) to a post-test score of 91.2 (SD 10.13), the one-sample t test revealed sufficient evidence indicating that the educational intervention improved the knowledge of participants on measures for preventing and managing a pandemic in a correctional facility. Potential implications for positive social change include raising awareness among correctional administrators and staff on how evidence-based practice measures can impact staff competence, leading to effective patient care outcomes.

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## Dedication

I wish to dedicate this to my family. To my parents, who encouraged me in whatever path I chose and never lost faith in my ability to survive, succeed, and walk proudly. To my siblings, who tolerated my moods and my indecisiveness and gifted me with patience and tolerance. To my husband, whose endless patience and support made my life easier as I walked through this latest chapter in my book of life. Finally, I want to thank my daughter, whose constant encouragement and strength I drew from when I felt I had none left to go forth.

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## Table of Contents

List of Tables .....	iii
List of Figures .....	iv
Section 1: Nature of the Project .....	1
Introduction.....	1
Problem Statement .....	2
Purpose Statement.....	4
Nature of the Doctoral Project .....	5
Significance.....	6
Summary .....	8
Section 2: Background and Context .....	9
Introduction.....	9
Concepts, Models, and Theories .....	10
Relevance to Nursing Practice .....	14
Local Background and Context.....	17
Role of the DNP Student.....	18
Summary .....	21
Section 3: Collection and Analysis of Evidence.....	23
Introduction.....	23
Practice-Focused Question(s) .....	24
Sources of Evidence.....	25
Evidence Generated for the Doctoral Project .....	26



Participants.....	26
Procedures.....	26
Protection .....	28
Analysis and Synthesis .....	28
Summary .....	28
Section 4: Findings and Recommendations.....	30
Introduction.....	30
Findings and Implications .....	30
Recommendations.....	35
Strengths and Limitations of the Project.....	36
Section 5: Dissemination Plan .....	39
Analysis of Self.....	41
Summary .....	42
References.....	43
Appendix A: Literature Matrix .....	50
Appendix B: Pretest .....	52
Appendix C: Posttest.....	55
Appendix D: Summative Evaluation .....	58
Appendix E: Staff Educational Program Flyer .....	60

List of Tables

Table 1. Alignment of Kolb’s Learning Cycle with the DNP Project ..... 12

Table 2. Alignment of the ADDIE Model with the DNP Project ..... 14

## List of Figures

Figure 1. Pre/Post Test Answer Comparison .....	32
Figure 2. Percent Change in Correct Answers of Pretest.....	32
Figure 3. SPSS Output for One-Sample T Test .....	34

## Section 1: Nature of the Project

### **Introduction**

In this Doctor of Nursing Practice (DNP) project, I addressed the problem of the lack of knowledge of nurses and staff in providing health care services in a correctional facility during a pandemic. Health care organizations have been in a state of flux since the national emergence of COVID-19. Repercussions to date were due to inadequate or nonexistent pandemic plans (Tanne, 2022). Healthcare organizations faced barriers with a lack of physical and material resources. The primary barrier was the lack of knowledge regarding the pandemic crisis, which found organizations scrambling to understand how to manage and treat the number of patients requiring acute care. More specifically, there were little evidence-based sources or practice models available and even less time to study and communicate to the line staff dealing with the pandemic health crisis thrust upon them. Thus, I conducted this DNP project to raise awareness of the safe and effective measures needed to deliver health care services in a correctional environment during a pandemic crisis.

Over two million individuals are incarcerated in the United States (Arias & Zeller, 2020). The patient population in jails often lack access to health care before incarceration and, thus, is at risk of chronic illnesses due to lifestyle and a high substance abuse history (Schoenly & Knox, 2013). It is essential to understand the medical conditions of the incarcerated population and the impact a pandemic crisis can have on this vulnerable group.

Correctional facilities provide the incarcerated population full-service medical, dental, and mental health care. Any pandemic disease outbreak's unique characteristics and events can strain a correctional facility's healthcare resources. Required staffing levels, equipment, and supplies may be insufficient, making responding effectively to patients' needs challenging. Backup support services may be taxed and inadequate to render support when needed (Park et al., 2021). Social distancing is challenging at best, and the capacity to manage infected inmates varies depending on the jail size, housing units, cell structure, and population (Maruschak et al., 2009). In this DNP project, I addressed the gap in knowledge regarding managing a safe and effective means of delivering health care services during a pandemic crisis in a correctional environment. The resulting improvement in managing healthcare during a pandemic affects the organization, the facility providing the care, and the incarcerated population on the receiving end of health care.

### **Problem Statement**

Many healthcare facilities were unprepared to manage the COVID-19 pandemic. This lack of preparation was particularly true in the medical departments of correctional facilities. Correctional facilities, also known as prisons and jails, house incarcerated individuals. Medical units within correctional facilities provide comprehensive healthcare services to these individuals. The practice problem that I identified in this correctional medical unit was the lack of knowledge by nurses and staff on managing incarcerated individuals' care during a pandemic.

The lack of staff knowledge on managing care during a pandemic led to multiple challenges in this medical unit, including providing personal protective equipment needed by staff, meeting the testing needs of patients and staff, and implementing measures to address social distance protocols. The lack of knowledge found facility nurses and staff scrambling to understand how to manage and treat the number of incarcerated individuals requiring medical care during a pandemic. The observations during the recent pandemic response demonstrated the need for staff education on managing incarcerated individuals' medical care during a pandemic.

With the rise of COVID-19 in prisons and jails across the United States, effective and efficient correctional healthcare services are essential for the incarcerated individual (Park et al., 2021). Recognizing that it is usually the nurse who manages the day-to-day operations of the jail medical department, correctional nurses need to be knowledgeable and competent in managing acute and chronic illnesses and problems associated with a pandemic (American Association of Nurse Practitioners [AANP], 2020). With a reoccurrence rise of the COVID-19 virus and the need for knowledgeable providers who can treat and manage the illness, I designed this DNP project to narrow the gap in practice by meeting the educational needs of correctional nurses and staff working in response to the virus. Therefore, the practice focus question that I used to guide this DNP project was: Using a pretest and posttest design, will a staff education program improve the knowledge of correctional nurses and medical staff on evidence-based interventions used in managing a pandemic?

## **Purpose Statement**

The primary purpose of this DNP project was to develop, implement, and evaluate a staff education program on evidence-based interventions for preventing and managing a pandemic in a correctional facility. Correctional nursing is unique and may occur in any clinical setting, from ambulatory care to an inpatient infirmary or hospital setting.

Correctional nursing is a nurse-driven system. A correctional nurse's practice scope includes direct patient care, substance abuse care, sexual abuse care, mental health care, transitional care, medication management, health promotion screening and teaching, individual and group health education, and patient care advocacy (Arias & Zeller, 2020).

As in most nursing practices, the correctional nurse has many jobs and transitions throughout the day to meet the patient's needs they are caring for at that moment.

Correctional nurses are one part security, one part emergency room (ER) nurse, one part primary care nurse, and if working in a correctional infirmary, one part critical care nurse. Correctional nursing is a highly specialized nursing field involving caring for inmates' medical needs while treating various medical problems, from acute illnesses and chronic diseases to medical emergencies (Schoenly & Knox, 2013).

Correctional nurses need to be knowledgeable about their patient populations' conditions to support patient education, which is essential in managing any illness. Providing education based on identified needs and supportive reinforcement may change patient behaviors, and changing a patient's behavior can make the difference between effectively managing or succumbing to the illness (Nash et al., 2021). Ensuring correctional nurses are informed and competent in current evidence-based practices to

address a potential pandemic is essential. Recognizing these factors, my goal in this project was to increase the knowledge level of correctional nurses working in a jail setting by developing, implementing, and evaluating a staff education program on evidence-based interventions for preventing and managing a pandemic. The practice question that I used to guide this project was: Using a pretest and posttest design, will a staff education program improve the knowledge of correctional nurses and staff on evidence-based interventions used in preventing and managing a pandemic? Health staff will be better equipped to make improved health care decisions through an expanded knowledge level, achieving better outcomes for their patient population.

### **Nature of the Doctoral Project**

Multiple sources of evidence were collected and used to meet the purpose of this DNP project. The project was based on Jeffrey et al.'s (2015) analysis, design, development, implementation, and evaluation (ADDIE) model to design the staff education program. Also, a literature review was conducted on current evidence-based interventions for managing a pandemic in nursing practice settings and correctional health care facilities. The literature review included but was not limited to online databases such as CINAHL, Clinical Key for Nursing, Cochrane Library, EBSCO, EMBASE, JBI EBP Database, Medline, PubMed, and ProQuest. These sources were researched through the Walden University Library and online search engines. A matrix table was developed and used to analyze and synthesize sources of evidence for the project. Findings from the literature review were used to plan, implement, and evaluate a



staff education program on evidence-based measures for addressing a pandemic in a correctional health care setting.

Additionally, I developed a pretest and posttest to evaluate the knowledge of participating nurses and staff on managing a pandemic. Lastly, a post-program summative evaluation was used to assess the effectiveness of the staff education program. The purpose of the staff education program was to increase the correctional nurse and staff's knowledge base in treating their patient population amid a pandemic crisis, thereby creating a facility prepared to address the effects of a pandemic crisis while facilitating uninterrupted healthcare services to a compromised population.

### **Significance**

Several stakeholders were involved in this project; however, the project impacted a core group of stakeholders more than some. The core group was the professional health care staff. Although the training was directed at the professional healthcare staff, it was open to all healthcare staff for informational purposes. Regardless of their position, all staff have a vested interest in any training provided that enhances their knowledge base. Additionally, correctional officers are required to have health training on a biannual basis. One required topic is precautions and procedures concerning infectious and communicable diseases (NCCHC, 2018). It was envisioned that aspects of the nurse training would be transferred into the officer's training curriculum, since the nursing staff provides the most health training for the custody staff. Finally, the incarcerated patient is a stakeholder since they are most impacted by the quality measures resulting from evidence-based practice.

As the COVID pandemic lessens, it is essential to ensure the communicated information regarding managing patient care during a pandemic crisis is evidence-based, current, and appropriate for the correctional health care environment. The actions taken during each phase of the pandemic response must be considered and proactively addressed for future responses and through nursing practice models to ensure resources will meet the demands of another pandemic disaster. Training and knowledge gained from the training will meet the staff's expectations and provide a focus and confidence for current and future practice.

In this project, I focused on training the correctional health staff at a particular county jail. Outcomes from this project can affect the delivery of health services during a pandemic as they are shared with other jails and correctional facilities, facilitating evidence-based nursing practice throughout multiple health care practices.

The resulting outcomes of effectively managing healthcare during a pandemic would lead to positive social change as it will affect the organization, the health staff providing the care, and the incarcerated population on the receiving end of health care. The continuous delivery of safe, effective, efficient, timely, equitable, and patient-centered healthcare services will improve healthcare, resulting in a better quality of life, increased patient satisfaction with the health care delivered, and enhanced human conditions. Therefore, this DNP project had the potential to promote advocacy for the health care needs of a vulnerable population and the needs of the nurses and staff members who serve them. Successful mitigation protects incarcerated individuals, custodial staff, civilians, and medical personnel.

## **Summary**

COVID-19 is unpredictable. Healthcare staff continue to respond to the ever-changing guidelines presented for response to the disease. A solid knowledge base is needed to optimize nursing practice and the scope of practice in the correctional environment. Due to the additional workloads placed on correctional nurses during COVID, the opportunity to obtain the necessary training for managing a pandemic has not always presented itself. In this project, I focused on developing a staff education program specific to the correctional nurse and staff's response to a pandemic event, identifying their level of knowledge before and after the training to determine their level of knowledge.

Section 2 includes additional background information and the context relevant to increasing the correctional health nurse and staff's knowledge base for managing patient care during a pandemic response. Additionally, theories and models guiding the project, the project's relevance, the project's local background, and the DNP student's leadership role are addressed in Section 2.

## Section 2: Background and Context

### **Introduction**

The COVID-19 pandemic revealed that all healthcare settings lacked disaster preparedness. The Centers for Disease Control and Prevention (CDC), the experts that are relied on for responding to health threats, often confused healthcare providers with protocols for managing the pandemic (Tanne, 2022). The volume of information published, seeming to change constantly, was overwhelming to even seasoned professionals. These issues accentuated healthcare deficiencies in response to a pandemic while placing healthcare workers at the most significant risk, initially resulting in a reactive response to the pandemic's rapid spread. Healthcare professionals managed the immediate patient demands of COVID-19 before understanding the disease process and how best to address it clinically.

Healthcare delivery systems based on evidence-based practice may lessen the challenges faced during a pandemic. The task is to identify evidence-based strategies for pandemic healthcare management. Research is being conducted and published that is based on the COVID-19 pandemic. This research is significant to organizations as they amend their pandemic healthcare plans to confer best practices, ensuring positive patient outcomes.

My goal for this project was to increase the knowledge through a staff education program on evidence-based interventions for managing a pandemic and then assess if the education program improved the knowledge base of correctional health staff related to the evidence-based practice strategies presented. Evidence-based practice is useful for

staff to provide professional and effective care, thus ensuring nurses critically assess and apply the best evidence to improve patient outcomes by integrating research and evidence-based practice into their practice model and nursing care delivery systems (White et al., 2021). The specific practice-focus question that I used to guide this project was: Will a staff education program improve the knowledge of correctional nurses and medical staff on evidence-based interventions used in managing a pandemic?

As the pandemic lessens, the actions taken during each phase of the pandemic response must be reflected upon and future responses should be examined to ensure they will meet the demands of another pandemic. Educating all healthcare professionals is essential in promoting the focus of staff and setting meaningful expectations in responding to a pandemic. Nursing leaders and educators must work together to decipher the mounting sources of information to develop evidence-based practices that will best meet the practice needs of the professional healthcare staff (Schwerdtle et al., 2020). While assessing current clinical operations, evidence-based practice, and staff educational needs, nursing leadership must also focus on future needs. In this DNP project, I focused on training correctional nurses in an environment where the decentralized delivery of health care is secondary to safety and security requirements for the current pandemic and future disaster preparedness.

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

I used David Kolb's experiential learning theory for this project (see Kurt, 2020). Kolb's theory is based on knowledge created through experience (Kolb, 1984, as cited in Kurt, 2020). Individuals learn from their experiences, and through the experience, they

learn to adapt and cope (McEwen & Wills, 2019). The four-stage learning cycle results in effective learning as the learner progresses through a cycle of learning. In the initial stage, a learner encounters a concrete experience comparable to the COVID-19 pandemic. Reflective observation is the second stage, where the learner reflects on the experience based on their current knowledge and then encounters new knowledge based on the experience. The third stage consists of abstract conceptualization whereby the learner thinks about the experience and develops new ideas based on the experience, therefore learning from the experience. New knowledge is integrated due to the experience, and practice changes based on the knowledge gained. Active experimentation is the fourth and final stage of Kolb's theory. In this stage, the learner applies the new knowledge and shares it. Effective learning occurs when the learner has completed the four stages of Kolb's learning cycle by transforming experience into knowledge (Kurt, 2020).

Applying Kolb's experiential learning theory to this DNP project (Table 1), professional nurses practicing during the COVID-19 pandemic have processed their experiences through these four stages of learning. Knowledge is gained through the act of actively participating in an experience. Practicing during the pandemic provided correctional nurses with a concrete experience demonstrating alignment with the first cycle of Kolb's theory. Nurses reviewed and revised their practices during the pandemic based on the evolving information from the CDC, correctional resources, and their experiences. Written, verbal, and practical communication provided the opportunity to address their practices, ensuring compliance with the expected standards of practice. This

cycle of knowledge brought new learning experiences for the nurses, demonstrating alignment with the conceptualization cycle of Kolb's theory. The nurses used the knowledge gained during this experience by applying that knowledge to advance evidence-based practice and fine-tune nursing models to meet a pandemic's current and future needs, thus completing Kolb's four stages of learning. (Kurt, 2020).

**Table 1**

*Alignment of Kolb's Learning Cycle with the DNP Project*

Kolb's Learning Cycle	Project Alignment
Concrete Experience	Encountering a new experience - practicing during a worldwide pandemic
Reflective Observation	Reflecting on the experience, asking questions, and discussing the experience
Abstract Conceptualization	Learning from the experience to apply what was learned to new experiences
Experimentation	Applying what has been learned during the experience

*Note.* Adapted from Mcleod (2023)

Additionally, the ADDIE (Table 2) model was used to develop the training for the professional health staff related to evidence-based interventions for managing a pandemic. The ADDIE model is used in identifying a learning need, ensuring that the end objective of meeting that need is attained through a structured approach. Once a learning need has been identified, the means of meeting that need is completed through the training program's design, development, implementation, and evaluation. This model is a simple pathway while providing an integrated approach to meeting the learning objective (Bouchrika, 2023).

Identifying the problem, the target population, and the training needs and goals all fit within the analysis phase of the model. I completed a literature review to ensure the training is current and applicable to the correctional environment (see Fernandes et al., 2020). Pulling the information gathered in the analysis phase provided the opportunity to develop the learning objectives and presentation format for the training as part of the design phase of the model. The PowerPoint educational tool was designed during the development phase and executed during the implementation stage. An evaluation of the education program in meeting the training goal occurs during all phases in the ADDIE model. The continual evaluation during all phases of the ADDIE model provides the opportunity to make adjustments necessary to ensure the learning experience will achieve the desired outcomes.

The evaluation is the final phase of the model. Its purpose is to determine if the training was effective and comprehend why it is or is not meeting the intended goals and objectives (Bouchrika, 2023). When evaluating the program, goals and objectives are revisited to determine if they were met while also considering the training process, its impact, and outcomes. The evaluation is essential to determine if the training addressed what it was intended to and resulted in the planned outcomes identified in the analysis phase. Measuring the improvement of the knowledge base of correctional health staff through the evaluation process provided an opportunity to assess the effectiveness of the training related to evidence-based practice, which will complete the ADDIE Model.



**Table 2***Alignment of the ADDIE Model with the DNP Project*

Phases of ADDIE	Project Alignment
Analysis	Identify the instructional needs, the learners' existing knowledge, and the training needed to achieve desired objectives.
Design	Complete a literature review and develop learning objectives, content, presentation format, and feedback mechanisms.
Development	Develop PowerPoint Oral Presentation, pretest, and posttest.
Implementation	Deliver pretest, PowerPoint Oral Presentation, and posttest.
Evaluation	Formative evaluation during all phases of the ADDIE process and a measure of the effectiveness of the instruction provided through a summative evaluation.

*Note.* Adapted from Wengroff (2019)

### **Relevance to Nursing Practice**

As evidenced by the pandemic health crisis, there remains a need to manage healthcare service delivery regardless of the setting. To date, there has been little current evidence-based research on the pandemic addressing the incarcerated population. Improving evidence-based practice will inevitably increase nursing knowledge and positive patient outcomes.

Most nurses are not trained to deal with disasters like pandemics. The severe acute respiratory syndrome (SARS) and H1N1 (swine flu) outbreaks did not prepare healthcare professionals for the worldwide COVID-19 pandemic crisis. The planning for these prior pandemics did not anticipate the overwhelming surge in infections, deaths, economic crisis, and the need for personal protective equipment and sanitizing solutions (Kirlin, 2020).

Education is crucial to understanding a professional nurse's responsibilities, policies, and procedures for delivering health care services during a pandemic.

Awareness and training for disasters are essential so that nurses can clearly understand their role when the situation presents itself (Jacobs-Wing et al., 2019). Therefore, training is essential to increase the staff's knowledge and preparedness to respond to future pandemics.

It is essential to ensure the communicated information regarding managing patient care during a pandemic is evidence-based, current, and appropriate to the correctional healthcare environment. Nursing leaders and educators must work together to decipher the mounting sources of information to develop evidence-based practices that will best meet the practice needs of the professional health staff (Schwerdtle et al., 2020). Future needs must be considered while assessing current clinical operations, evidence-based practice, and staff educational needs.

A staff education program to improve nursing and staff knowledge of evidence-based interventions to manage a pandemic ensures they are informed and competent in current evidence-based practices to manage their patient population during a pandemic. Nurses will be better equipped to improve healthcare decisions through an expanded knowledge level, achieving better patient outcomes. Outcomes from this project can affect the delivery of health services during a pandemic as they are shared with other jails and correctional facilities, facilitating evidence-based nursing practice throughout multiple healthcare practices.

Jacobs-Wingo et al. (2019) concluded that nurses participating in staff disaster preparedness training demonstrated increased knowledge of disaster preparedness. Therefore, the nursing staff who attend the DNP project training program are expected to demonstrate increased knowledge.

Staff trained and competent in assessing COVID-19 symptoms, treatment modalities, testing, and immunization requirements are anticipated core elements of an education program (Shelton et al., 2018). The challenge faced in implementing evidence-based practices in the current correctional setting is educating and ensuring competency with healthcare staff related to staff vacancies and the ability to measure the projected outcomes of the education program. Education and training in healthcare are fluid, and education delivery varies with the environment, the individual(s) being educated, and the subject. Consistency in training and reinforcement of the training is the key to ensuring the desired practice is met.

Management through evidence-based practice and treatment may minimize a pandemic. The challenge is to locate evidence-based strategies for pandemic healthcare management. Research is being done, and articles on the COVID-19 pandemic are published regularly. The current literature will prove valuable as organizations revise their pandemic health care plans, which will help impart best practice measures while dealing with patient care challenges to ensure positive patient outcomes.

Nurses are in a place to critically appraise and apply the best evidence in daily practice to improve patient outcomes. It is essential to assess the current practice to confirm that the recent best evidence is applied rather than practice based on tradition. As

health care professionals, nurses are accountable for discovering new knowledge to guide practice, dispersing evidence into practice, and collaborating with their teams to develop a process for effective dissemination and adoption of best evidence as part of daily practice in correctional settings.

As the pandemic ends, the need to provide effective patient care services remains ever-present. This necessitates a proactive approach to pandemic healthcare planning, which will undergo continual revisions as anticipated research provides new evidence. This ongoing planning ensures that healthcare providers are always prepared to minimize risks and provide effective care.

### **Local Background and Context**

The practice setting for this DNP project was a local detention center in the southern portion of a Mid-Atlantic state, detaining male and female individuals. The average daily population is approximately 350 incarcerated individuals. The facility has 29 housing areas, including a mental health unit, a medical step-down unit, and an infirmary. Health care services are available 24/7, including nursing coverage, daily physician rounding, weekly psychiatric visits, daily on-site mental health clinicians, dentistry, laboratory, and radiological services.

The jail is a complex system with interdependent, heterogeneous, and dynamic systems interacting within the judicial system confines (Begun & Jiang, 2020). As such, the system adapts in response to the environment. The jail administrator empowered the healthcare administrator to react to the events of COVID-19. This empowerment provided the impetus for a fluid pandemic healthcare plan, allowing for adaptation to the

emerging events related to COVID-19. Organizations that communicate and collaborate effectively are adaptable to external events that affect their internal operation (Begun & Jiang, 2020).

The Centers for Disease Control and Prevention (Centers for Disease Control and Prevention [CDC], 2020) and the World Health Organization (World Health Organization [WHO], 2020) have guidelines for the prevention, management, and control of COVID-19 in correctional facilities. The CDC updates its guidelines as new evidence-based research is presented. Although the jail's health care manager kept abreast of the latest CDC and corporate recommendations to reassess and redesign systems and processes, ensuring patient and health staff safety, there was a lack of congruency in the nursing evidence-based practices. An assessment of the health staff's healthcare delivery system demonstrated a lack of knowledge by nurses and staff on managing incarcerated individuals' care during a pandemic. Thus, the need was identified to provide an educational program to improve the staff's knowledge of evidence-based interventions in managing a pandemic.

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

The American Association of Colleges of Nursing (AACN) released a report recommending the need to increase nursing's contributions to improving the country's health by improving the delivery of healthcare (American Association of Colleges of Nursing [AACN], 2018). "Nursing scholarship informs science, enhances clinical practice, influences policy, and impacts best practices for educating nurses as clinicians, scholars, and leaders" (AACN, 2018, p. 2). This statement supports the professional

nurse's role in nursing scholarship, which substantiates the ability to improve our nation's health and the transition of the current healthcare system through disseminating evidence-based practice.

Doctoral-prepared nurses are leaders in applying evidence-based practice (EBP) application by translating the best evidence substantiated through research into practice. The focus of EBP provides the opportunity to make decisions based on scientific research, resulting in better patient outcomes (White et al., 2021). The challenge lies in finding relevant research related to the problem and applying it to a specific practice area. The DNP-prepared nurse evaluates that practice through quality improvement and assessing healthcare practices. The scholarship of practice takes that knowledge found through research and applies it to practice. This practice is used to improve healthcare systems and patient outcomes. Examples of the doctorate-prepared nurse scholarly role include working with healthcare policy and healthcare transformation.

A necessary component in healthcare transformation is collaborative relationships. To achieve the desired objective of this DNP project, collaboration with the healthcare manager and team was essential so all team members work equitably together for a common goal (Morley & Cashell, 2017). My strength lies in the ability to form professional relationships. Through these relationships, I collaborate with all healthcare team members, allowing me to achieve the desired outcomes in evidence-based practice gained by understanding each healthcare member's roles and responsibilities. This collaborative practice will "drive value and process improvement, innovation, initiative, and performance" (Morley & Cashell, 2017, p. 211). These cumulating factors will result

in an effective and efficient organization by redesigning healthcare practices based on performance evaluation and improvement as a result of improving the evidence-based practice of staff during a pandemic.

My role in this DNP project was to develop, implement, and evaluate an educational program on evidence-based practice for health staff in a correctional environment during a pandemic. As a doctoral student, I shared knowledge. I demonstrated leadership skills in developing and applying evidence-based practice to transform a system to improve the healthcare outcomes of a patient population. Asking, assessing, and determining what needs to be done and then working toward meeting those needs through developing an evidence-based educational program will effectively demonstrate leadership activities to improve patient outcomes. Therefore, demonstrating an evaluation of care delivery approaches in meeting a patient population's needs was based on research consistent with DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking (AACN, 2020).

As the project leader, I was prepared to evaluate care delivery systems to meet the patient population's current needs (American Association of Colleges of Nursing [AACN], 2006). Ensuring programs, policies, and procedures meet the patient population's needs is necessary to provide effective, efficient, positive patient outcomes. Amid the current healthcare need, it is necessary to ensure policies and procedures meet the needs of the patient population and ensure productivity does not suffer or patient safety is compromised. Following this process to improve patient outcomes was the intent of this project.

This project allowed me, as a scholar, educator, and leader, to demonstrate the ability to apply evidence-based research to practice and provide the opportunity to educate and guide professional nurses and staff through the next healthcare crisis using evidence-based research and practice. Evidence-based practice is an organized process that begins with an inquiry about an area of need, concern, or interest (Wyant, 2018). I completed this process by designing, implementing, analyzing, and impacting nursing practice through a program development (AACN, 2006), allowing me to use analytical methods to evaluate and improve healthcare practices while appraising outcomes for meeting desired goals, DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice (AACN 2020).

### **Summary**

Facilities were not prepared during the current COVID-19 crisis. Nurses should have the tools and training to deal with an epidemic or pandemic regardless of their practice environment. The knowledge and tools nurses need to practice safely should be a mandatory core competency regardless of the clinical setting.

The correctional nurse must constantly manage their patient population's healthcare needs while learning to manage staff and resources amid a national pandemic health crisis. Therefore, it is essential to assess and assist in ensuring the specialty practice has the latest research available to fulfill its responsibilities to the patients, staff, and stakeholders during this healthcare crisis.

Section 2 introduced David Kolb's experiential learning theory and the ADDIE model, which will be used to guide this project. The relevance of my role to the AACN



DNP Essentials was also discussed as the leader, scholar, and educator for this project.

The need for an educational program promoting evidence-based practice was reviewed.

Section 3 includes planning, data collection, and analysis of that data in relation to the practice question.

## Section 3: Collection and Analysis of Evidence

### **Introduction**

With emerging and reemerging infectious diseases, it is essential to be prepared to respond to outbreaks, epidemics, and pandemics. Pandemics are unpredictable. There is no way to know the characteristics of a pandemic before it emerges. Broadly speaking, pandemics are rapidly evolving scenarios that require close monitoring of the situation with a fluid response based on emerging scientific and clinical findings (Capurro et al., 2021). Providing appropriate evidence-based care to meet patient care needs during a pandemic is essential. Providing that care is a challenge, yet providing that care in a correctional institution becomes even more challenging. There are unique challenges related to delivering healthcare in a correctional institution independent of dealing with a pandemic.

A correctional environment is wrought with daily exposure to violence, foul language, disrespect, and a complex nurse-patient relationship (Hancock, 2020). Safety and security needs often interrupt, delay, and override nursing priorities. Ensuring correctional health staff are well informed and competent with evidence-based practices to effectively manage the patient population in a correctional environment is fundamental to this underserved community's healthcare demands. Ensuring this can be done during a pandemic is essential. Evidence-based practice (EBP) involves translating the best evidence substantiated through research into practice. EBP is an objective problem-solving approach using current research and the best available data to guide policy and practice decisions to improve patient outcomes (Gray et al., 2017). Yoo et al. stated that

the Institute of Medicine and the American Association of Colleges of Nursing presented EBP as core competencies and elements of professional nursing practice (2019). These competencies strengthen the professional nurses' skills in caring for their patients, resulting in positive patient outcomes and improved patient satisfaction.

The purpose of this DNP project was to increase the knowledge of correctional nurses working in a jail setting, which was accomplished by developing, implementing, and evaluating a staff education program on evidence-based interventions for managing a pandemic. A positive impact on the delivery of patient care will result from an increased knowledge base of evidence-based practice.

Section 3 includes a discussion of the practice-focused question, a description of the evidential sources providing answers to the question, and plans for analyzing and synthesizing collected data.

### **Practice-Focused Question(s)**

The COVID-19 pandemic required healthcare facilities to examine their healthcare delivery systems to ensure safe, effective practice. A pandemic healthcare management plan is critical in minimizing patient care disruption in any healthcare setting. I designed this DNP staff education project to address this gap in practice by meeting the educational needs of correctional nurses and staff working in response to a pandemic.

Correctional health care can be compared to primarily outpatient health care related to chronic disease, substance abuse, infectious disease, and acute or emergent

health needs. Although some facilities provide infirmary care for acute cases, that care is limited to each facility's ability to meet the patient's healthcare needs.

The practice-focused question that I used to guide this DNP project was: Using a pretest and posttest design, will a staff education program improve the knowledge of correctional nurses and medical staff on evidence-based interventions used in managing a pandemic? In this DNP project, I focused on providing an educational program on evidence-based interventions for managing patient care during a pandemic. Once the education was provided, an assessment was conducted to determine if the education program improved the knowledge base of the correctional health staff related to the evidence-based practice presented.

### **Sources of Evidence**

In this DNP project, I focused on providing an educational program on evidence-based interventions for managing patient care during a pandemic. I conducted a literature review by searching multiple databases, including CINAHL, Clinical Key for Nursing, Cochrane Library, EBSCO, EMBASE, JBI EBP Database, Medline, PubMed, and ProQuest. I conducted the literature review on current evidence-based interventions for managing a pandemic in nursing practice settings and correctional healthcare facilities using the keywords correctional nursing, pandemic, endemic, COVID-19, pre- and posttest design, staff education, evidence-based practice environment, and correctional healthcare. Sources of evidence from the literature review were used to plan, implement, and evaluate a staff education program on evidence-based measures for addressing pandemic healthcare practice in correctional health care settings.

In this DNP project, my intention was to increase the knowledge level through the staff education program on evidence-based interventions for managing a pandemic, followed by an assessment of the education program to determine if the educational program was valid in increasing the participants' knowledge base.

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

Evidence generated for this DNP project was presented and discussed under the headings of the participants involved in the project, procedures used to implement a staff education program, and the protection of the participants and the host organization.

#### **Participants**

The participants in the educational program included the current nursing staff of a community jail. The nursing staff numbers have fluctuated since the COVID-19 pandemic. At present, there are registered nurses and licensed practical nurses. A flyer (Appendix E) was distributed to staff announcing the date and time of the staff education program.

#### **Procedures**

I used the Walden University Manual for Staff Education as a guide for this DNP project by the planning, implementation, and evaluation stages outlined in the manual. Multiple sources of evidence related to various teaching methods and the effectiveness of staff education were reviewed, specifically during COVID. Conventional teaching methods, such as lectures, went by the wayside as e-learning became the standard practice from nursery school to university education (see Prasetyo et al., 2021). E-learning provides an avenue for teachers and students alike to connect, day or night,

promoting education with the added benefit of increased technology usage and understanding (Prasetyo et al., 2021). A research study that I reviewed included a pretest and posttest to assess staff knowledge of a new protocol effectively demonstrated simulation training to staff while on duty (see Santos et al., 2021). The facility provided multiple training opportunities to the staff, allowing them to participate while on duty and providing the necessary education on a new protocol specific to COVID-19 patients. Simulation training has been shown to be an effective means of teaching (Santos et al., 2021). Another research study demonstrated the effectiveness of video modules in infection control and COVID-19 training (Singh et al., 2020). The research study demonstrated significant results in the level of knowledge assessed using a pretest and posttest model, determining that video training modules enhanced the knowledge base of the participants in the study. These researchers demonstrated that video modules could enhance the knowledge base in additional areas of healthcare training (Singh et al., 2020).

Based on reviewing these and other studies, I chose a webinar as the educational tool for this project. I used a PowerPoint presentation as the program guide, allowing the health staff to review the training at leisure.

The pretest and posttests were developed based on the training provided to assess if the training enhanced the health staff's knowledge base. The pretest was not to challenge the staff nurses but to assess their knowledge level. The goal was to measure the knowledge base of the nurses before the educational tool was provided. The posttest assessed the nurse's knowledge after the educational program.

**Protection**

The nurses' participation in this project was strictly voluntary, with anonymity guaranteed. Organizational approval along with approval from the Walden University Institutional Review Board was obtained before project implementation.

**Analysis and Synthesis**

The collection of evidence for this DNP project began with a literature review followed by developing a PowerPoint presentation, pretest, posttest, and summative evaluation. Sources of evidence from the literature review were collected, analyzed, and presented in a literature review matrix table (Appendix A). The literature review results were synthesized and then reported in narrative and table format. The pretest (Appendix B) and posttest (Appendix B) scores were analyzed using SPSS version 28. Exam scores were reported in narrative and table format to explain the changes in pretest and posttest scores. Differences between pretest and posttest exams were used to demonstrate knowledge gains from the staff education program.

I anticipated that the posttest scores (Appendix C) would be higher than the pretest (Appendix B) scores, demonstrating knowledge of a positive outcome based on participating in the educational session. A post-program summative evaluation (Appendix D) was provided to assess the effectiveness of the staff education program.

**Summary**

Nurses require knowledge and tools to practice safely regardless of the clinical setting. Promoting evidence-based knowledge when providing care to the incarcerated population during a pandemic requires a review of current sources of evidence to

determine what applies to the environment and the care needed. Sources of evidence addressing pandemic nursing are more readily available, but there is still a lack of evidence applicable to providing care in a correctional institution. With that in mind, the student based the evidence-based practice educational program on the current sources of evidence. This training assures that the correctional nurse and staff that they use the right approach with their patients.

Section 3 included a restatement of the problem, purpose, and the identified gap in nursing practice. This section included discussion of the sources of evidence, the methodology guiding this project, and the statistical analysis used to evaluate the collected data based on the test scores. Section 4 includes discussion of the findings and recommendations after the implementation of the DNP project.



## Section 4: Findings and Recommendations

### **Introduction**

The educational program presented to the correctional health staff was developed to increase their knowledge of evidence-based interventions for preventing and managing a pandemic. Ensuring line staff have the appropriate tools to manage patient care, regardless of their environment or situation, is essential. Health staff require knowledge and tools to practice safely, irrespective of the clinical setting. The continuous delivery of safe, effective, efficient, timely, equitable, and patient-centered healthcare services improves healthcare, resulting in a better quality of life, increased patient satisfaction with the healthcare delivered, and enhanced human conditions (White et al., 2021). Recognizing these factors, the purpose of this DNP project was to increase the knowledge level of correctional health staff working in a jail setting by developing, implementing, and evaluating a staff education program on evidence-based interventions for managing a pandemic. It is important to note that this is not a one-time effort, but a call for continuous evidence-based education to guide nursing practice.

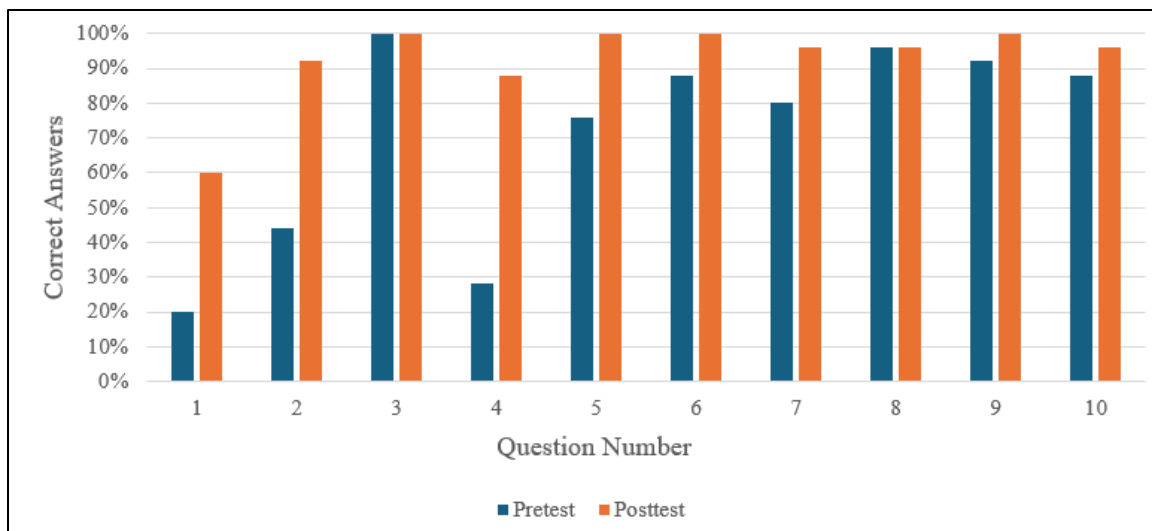
Communicating the findings of the educational program project to the leadership and participants in this project was necessary to ensure the stakeholders understood the need for continued evidence-based education to guide nursing practice.

### **Findings and Implications**

Multiple sources of evidence were collected and used to meet the purpose of this DNP project and to answer the practice-focused question. First, I conducted a literature review on best practice measures for preventing and managing a pandemic. Using a

literature review matrix table (Appendix A), primary and secondary sources of evidence were collected, analyzed and synthesized to identify best practice measures for preventing and managing a pandemic in a correctional healthcare setting. Integrating the Center for Disease Control Guidelines (2020), sources of evidence for preventing and managing a pandemic in a correctional setting include regular symptom screening, isolating symptomatic patients, physical distancing, intensified cleaning, infection control measures, disinfection of high-touch surfaces and masking. Defined as evidence-based measures for managing a pandemic, these sources were integrated into the staff education program and shared with participants through an instructional webinar presentation. These sources also served as major content areas used in developing the program's pretest and posttest exams.

Pretest and posttest exam scores provided additional evidence needed to meet the purpose of the DNP project. Thirty-three participants were invited to participate in the staff education program, with 25 attending, resulting in a participation rate of 75.76%. I entered the pretest and posttest exam scores into an Excel spreadsheet and then transferred to SPSS version 28 for analysis. The scores were first reviewed on a per-question basis, focusing on the percentage of participants who answered each question correctly. Upon review of a graphical analysis, a perceived increase in knowledge was evident as the percentage of participants who answered the questions correctly after completing the education program increased (Figure 1). For several questions, there was a significant percentage change in those who answered the questions accurately after the education program (Figure 2).

**Figure 1***Pre/Post Test Answer Comparison***Figure 2***Percent Change in Correct Answers of Pretest*

Question Number	Pretest	Posttest	Percent Change
1	20%	60%	200%
2	44%	92%	109%
3	100%	100%	<i>N/A</i>
4	28%	88%	214%
5	76%	100%	32%
6	88%	100%	14%
7	80%	96%	20%
8	96%	96%	<i>N/A</i>
9	92%	100%	9%
10	88%	96%	9%

An overall review of participant responses to exam questions indicated the success of the DNP program in enhancing participants' knowledge. More precisely, the increased accuracy of the posttest on a per-question basis indicated significant knowledge gained across the board, concluding that the program was a success.

The program's success was further validated by statistical analysis of the group's pretest/posttest scores. Pretest and posttest exams included 10 multiple choice questions for each exam with each question worth 10 points if answered correctly. This calculation of scoring gave participants an opportunity to earn a maximum score of 100% for each exam. Statistical results included a pretest score of 70.4 (SD 12.74) for the group and an overall posttest score of 91.2 (SD 10.13). Comparing the pretest and posttest mean scores showed a decrease in standard deviation (SD), which implies the posttest scores were more closely grouped around the mean and not as spread out across the range of scores (Polit, 2010). The implementation of anonymity led to pretest and posttest scores that could not be analyzed on a per participant level. This unmatched data was analyzed using a one-sample *t* test. The mean of the pretest scores was used as a "threshold" value, against which each posttest score could then be compared. Using the one sample *t* test, there was a statistically significant difference ( $t = 10.26; p < 0.05$ ) in the pretest and posttest scores (Figure 3). Building on the practice-focused question, using a pretest and posttest design, will a staff education program improve the knowledge of correctional nurses and medical staff on evidence-based interventions used in managing a pandemic, statistical analysis indicates that the staff education program increased the knowledge level of the participants.

**Figure 3***SPSS Output for One-Sample T Test*

→ **T-Test**

<b>One-Sample Statistics</b>				
	N	Mean	Std. Deviation	Std. Error Mean
Posttest	25	91.2000	10.13246	2.02649

<b>One-Sample Test</b>							
Test Value = 70.4							
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Posttest	10.264	24	<.001	<.001	20.80000	16.6175	24.9825

A  $p < 0.05$  standard is used in typical statistical analyses to show statistical significance, but in all accounts is considered arbitrary. Practical significance, or, as used in nursing, clinical significance, is considered to help with professional decision-making where statistical significance may be questioned (York, 2017). That is, if the difference between the pretest and posttest scores is significant enough to justify the resources used in the planning and implementation of the educational program, then the practical significance may outweigh the statistical significance. As a further method to ensure the practical significance of this DNP project, the participants were provided with a summative evaluation of the educational program. Of the 25 participants, all reported the expected learning outcome had been met, the presenter was knowledgeable, the information was both relevant and appropriate, and they would recommend the educational opportunity to other nursing team members. For this project, the perceived knowledge gained was demonstrated to be statistically and practically significant.

Strategies, such as this DNP program, to improve nursing knowledge of preventing and managing a pandemic within a correctional facility would improve healthcare management. The resulting outcomes of effectively managing healthcare during a pandemic would lead to positive social change as it will affect the organization, the health staff providing the care, and the incarcerated population on the receiving end of health care. The continuous delivery of safe, effective, efficient, timely, equitable, and patient-centered healthcare services will improve healthcare, resulting in a better quality of life, increased patient satisfaction with the health care delivered, and enhanced human conditions. Further investigation into effective strategies would help health staff across multiple disciplines identify other areas of concern. Potential implications for positive social change include raising awareness among correctional administrators and staff on how evidence-based practice measures can impact staff competence, leading to effective patient care outcomes.

### **Recommendations**

The completion of this DNP project resulted in several recommendations for future development. The fundamental recommendation is to continue providing evidence-based webinars to correctional health staff, focusing strongly on identified needs. Whether self-reported by the health staff or discerned through a review and assessment of current practices, these needs should be the driving force behind the webinar content. The professional and non-professional staff are integral to this process, and the content should be based on their needs and experiences. To adequately provide all staff with access to training materials, the webinar content should be provided in both a live and pre-recorded

setting. The latter option would allow staff to view the webinar content at their convenience. It would also allow the material to be accessed on an ongoing basis by any incoming or transitioning health staff.

If ongoing testing is part of the educational process, it should be facilitated through a cloud-based survey tool like Survey Monkey. The cloud-based platform would offer a more instantaneous and accessible means of collecting and statistically assessing the data. A platform like this could be distributed electronically and set to provide anonymity, permitting the researcher to match pretest and posttest results to a particular respondent without compromising personal information. An ongoing continuation of this educational program, with increased sample size, will allow for limited rather than total anonymity, in which specific markers can be included, such as professional level or education level.

Instituting electronic tests with the educational program provided is crucial as it is considered the norm for many educational programs. It allows for the continuous monitoring of the programs presented, allowing the collection, interpretation, and analysis of data, ensuring that the curriculum effectively meets the program's objective and, thereby, the needs of the facility and those of the participants.

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

A primary strength of the educational program was its delivery method. A live webinar, which was recorded for future review, allowed staff to replay the program at their convenience, reaching a wider audience. This feature also allowed viewers to pause and rewind the presentation, ensuring a better understanding of the material. Notably,

recording live webinars is straightforward and does not require complex electronic knowledge or setup procedures.

Despite the ease of setup procedures, using a recorded webinar also has the potential for limited audience interaction, which is only possible for those who attend the live session. Those individuals using the recorded webinar to complete the educational program cannot ask clarifying questions, which could potentially result in misinformation. Additionally, the attendees may not be able to maintain focus throughout the recorded webinar due to potential outside interruptions. Often, attendees multitask while viewing a webinar, thus not getting the full benefit of the program they are attending (Parveen & Rijhwani, 2022).

Additionally, the results' reliability and ease of access were limited by not using the recommended electronic method for obtaining the program data. Random identifiers could not be used to identify the pretest and posttest as belonging to a particular participant. This limited the statistical analysis methods available due to unmatched data, preventing an analysis of knowledge gained related to the professional and nonprofessional participants. Therefore, the participants' professional or paraprofessional status was not able to be recorded and analyzed, as doing so with the small number of participants would have questioned anonymity. However, rather than focus on the distribution of perceived knowledge gain across the nursing versus non-nursing health staff, the resulting data was used to analyze the pretest and posttest scores on a per-question basis and an overall score where the mean of the pretest scores was calculated



and compared to the posttest scores. The result of this analysis served as evidence of a perceived knowledge gain.

Lastly, another limitation of this project was using pretest and posttest examinations that had not been assessed for validity and reliability. While the exams were reviewed by a doctorate-prepared nurse, this review provided face validity only. Face validity is a form of validity assessing whether a test measures what it is intended to measure and if it is appropriate for the intended audience (Bhandari, 2022). A review for face validity attests that the test appears to measure what it is supposed to. Until the educational program had been completed, the validity and reliability of exams providing the necessary results could not be quantified.

In summary, the results provided by the statistical analysis of the collected pretest and posttest exam scores indicated a quantifiable gain of knowledge. The education program was strengthened by using a live and subsequently recorded webinar as a delivery method. Although the lack of an electronic method for data collection limited the type of statistical analysis and altered the focus on nursing versus non-nursing health staff, the collected data was still analyzed to show statistical significance and provide an area for future program development.

## Section 5: Dissemination Plan

I conducted this DNP project in a correctional setting. The primary purpose of this project was to increase knowledge through a staff education program on evidence-based interventions for managing a pandemic. Pretest and posttest exams were conducted to assess if the education program improved the knowledge base of correctional health staff related to the evidence-based practice strategies in managing the pandemic. Evidence-based practice allows the staff to provide professional and effective care, thus ensuring nurses critically assess and apply the best evidence to improve patient outcomes by integrating research and evidence-based practice into their practice model and nursing care delivery systems (White et al., 2021).

This project has not only increased knowledge but also achieved a significant milestone. The staff education program on evidence-based interventions for managing a pandemic has been a resounding success. The positive impact on the knowledge base of correctional health staff is a testament to the effectiveness of evidence-based practice. This success is a source of pride for the staff and the leadership team, instilling confidence in the approach and its ability to improve patient outcomes.

The dissemination plan is a crucial part of this DNP project. It ensures that the leadership team is informed and actively involved in the success of the project. The project, in which I focused on developing, implementing, and evaluating a staff education program on evidence-based interventions for preventing and managing a pandemic, was meant to ensure that correctional nurses are well informed and competent in current evidence-based practices. Disseminating the project's findings to the leadership and

participants was crucial in garnering support for evidence-based education in nursing practice.

My initial goal for disseminating the staff education program findings was to share findings with the health services administrator and director of nurses, who are the correctional facility's medical unit's leadership team. Findings from the staff education program were reviewed after the webinars and self-study classes were completed. These results provided the administrator with a basis to initiate additional educational programs related to this subject matter, as was evident in the staff's desire for further information.

Another goal I had for disseminating the staff education program findings was to share the results during the medical department's health staff meeting. It was important for the participants to be aware of the program's impact on their knowledge base. The staff's positive reaction to the findings and confidence in the benefits of continued evidence-based educational programs underscore the project's success.

As a means of disseminating findings from this project, I am submitting the results to the National Commission on Correction Health Care (NCCHC) as a poster presentation for the 2025 Spring Conference. The poster presentation will provide a broader audience with which to share findings from the project. In a poster presentation at a national conference, I will be able to network with my peers and initiate discussions on evidence-based education as an appropriate and effective means of providing education for correctional healthcare staff. This sharing will provide attendees information to learn from, understand, and improve on the educational program presented.

### **Analysis of Self**

I have had many opportunities to self-evaluate during my tenure in the doctoral program. I began the program during the COVID-19 pandemic. My schoolwork provided an avenue to focus on the "I can do" approach regardless of the stress of working during a national healthcare crisis in an already stressful environment. I found the research fascinating and the classwork thought-provoking. I was satisfied with my ability to focus on my professional and school responsibilities. At times, I had challenges obtaining a preceptor, which delayed my coursework, but I persevered. I initially began a different capstone project related to medication-assisted treatment programming for the incarcerated population but was encouraged to look at COVID-19 concerning the correctional environment. Still teetering between choices for the project associated with COVID-19 and the correctional environment, I finally chose to address evidence-based practice related to COVID-19.

As a lifelong educator, formally and informally, I felt the need to provide an educational program for my doctoral capstone project. I became discouraged more than once while completing this project to the point that I considered not finishing it. However, I stood back and felt the need to be heard, to be heard as a doctoral-prepared nurse, and so, after some time, I forged forward.

The key takeaway from this project is the crucial need to encourage professional nurses to continue their path of inquiry and seek the best evidence to guide their practice. This commitment to ongoing learning and improvement is essential for embracing

evidence-based practice and providing quality patient care with positive outcomes for the patient population.

As a scholar, educator, and leader, this doctoral program has empowered me to apply evidence-based research to practice. It has equipped me with the tools to educate and guide professional nurses and staff through future healthcare crises using evidence-based research and practice. The program has honed my skills in designing, implementing, and analyzing programs and using analytical methods to evaluate and enhance healthcare practices.

### **Summary**

In summary, the educational program provided to the correctional facility result in an increase in staff knowledge of evidence-based infectious disease management. Ensuring correctional nurses are informed and competent in current evidence-based practices is essential to manage their patient population effectively. Future evidence-based projects specific to correctional nursing must continually be developed and implemented to provide these specialized nurses with the resources they need to feel confident they are practicing safely and effectively. Last, similar to all doctorate projects, long-term sustainment should be considered. My plans for the sustainment of findings from this project include ensuring the administrators and staff understand the value added as a result of the evidence-based education program while encouraging additional evidence-based educational programs be developed and instituted based on identified needs, whether the needs are self-reported by the health staff or discerned through a review and assessment of current practices, and gaps in nursing practice.

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## Appendix A: Literature Matrix

Author/Date	Source	Theoretical Framework	Main Finding	Level of Evidence
Fernandes, et al./2020	EBSCO	ADDIE	Evidence of successful adoption of the ADDIE model through planning, developing, implementing, and evaluating an educational program.	Level IV Observational cohort
Lehane, et al./2019	ProQuest		Communication is essential when imparting evidence-based education, ensuring integration with clinically appropriate scenarios based on the practice application, and promoting positive patient outcomes.	Level VI Descriptive qualitative
Li, et al./2019	PubMed		Although believed to be valuable, evidence-based practice (EBP) may not be applied due to a lack of knowledge in its application to the work environment. Barriers such as the inability to understand the research related to EBP and lack of education and resources impact nurses' ability to use EBP.	Level V Mixed Methods Systemic Review
Pedroso/2021	ResearchGate		COVID forced teachers to seek alternative teaching methods. Webinars were a positive, valid, practical, and upcoming tool that can be successfully used for teaching and learning.	Level VII Qualitative-narrative
Prasetyo, et al./2021	EBSCO		The study reviewed an integrative approach to e-learning, demonstrating	Level III Quasi-experimental

			not a transference of information but facilitation where the interaction in the learning increases learner satisfaction with the experience and overall learning of the related principles.	
Santos, et al./2021	PubMed		Using in situ training as an effective means of training during work hours increased staff participation and improved the staff knowledge base.	Level V Descriptive Cross-sectional
Shelton, et al./2018	Online Search		Identification of core curriculums for correctional nursing were cited. As a specialty practice, emphasis on education needs to be related to the area of practice.	Level VII Qualitative-narrative
Singh, et al./2020	ProQuest		Using video-assisted training to measure pre and posttest results of infection control training during COVID resulted in an increased knowledge base.	Level III Quasi-experimental
Yoo, et al./2019	EBSCO		Environmental culture toward evidence-based practice affects the delivery of EBP.	Level V Descriptive Cross-sectional

Levels adapted from Gray et al. (2017)

## Appendix B: Pretest

## Pretest

1. What is not a challenge correctional facilities faced during the COVID-19 pandemic?
  - a. Social Distancing
  - b. Quarantine
  - c. Virus Testing
  - d. PPE supplies
2. What strategies have correctional facilities used to address the challenges faced during the COVID-19 pandemic?
  - a. Masking
  - b. Symptom screening
  - c. Decreased direct contact patient services
  - d. Quarantine
3. Centers for Disease Control and Prevention is a primary source of evidence-based practice principles.
  - a. True
  - b. False
4. The Chain of Infection represents a sequence of circumstances that prevent an infection from reaching a susceptible host.
  - a. True
  - b. False

5. What are the modes of transport in the chain of infection?
  - a. Airborne
  - b. Direct contact
  - c. Indirect contact
  - d. B and C
  - e. All of the above
  
6. What is the sequence of the chain of infection?
  - a. Microorganism, reservoir, mode of transport. port of exit, port of entry  
susceptible host
  - b. Reservoir, microorganism, mode of transport. port of exit, port of entry  
susceptible host
  - c. Microorganism, reservoir, port of exit, mode of transport. port of entry,  
susceptible host
  - d. Reservoir, microorganism port of exit, mode of transport. port of entry,  
susceptible host
  
7. Which of these measures is most effective in preventing the spread of an  
infection?
  - a. Chain of Infection
  - b. Blocking port of exit
  - c. Infection Control
  - d. Antibiotic
  
8. Does evidence-based practice back nursing shortcuts?



- a. Yes
  - b. No
9. What is a primary infection control measure used by health care professionals?
- a. Intensified cleaning practices
  - b. Respiratory hygiene/cough etiquette
  - c. Hand washing
  - d. PPE
10. Which is a means of transport for a pathogen?
- a. Inhalation
  - b. Secretion
  - c. Ingestion
  - d. Penetration
  - e. All of the above

## Appendix C: Posttest

## Posttest

1. What is not a challenge correctional facilities have faced during the COVID-19 pandemic?
  - a. Social Distancing
  - b. Quarantine
  - c. Virus Testing
  - d. PPE supplies
  
2. What strategies have correctional facilities used to address the challenges faced during the COVID-19 pandemic?
  - a. Masking
  - b. Symptom screening
  - c. Decreased direct contact patient services
  - d. Quarantine
  - e. All of the above
  
3. Centers for Disease Control and Prevention is a primary source of evidence-based practice principles.
  - a. True
  - b. False
  
4. The Chain of Infection represents a sequence of circumstances that prevent an infection from reaching a susceptible host.
  - a. True

- b. False
5. What are the modes of transport in the chain of infection?
- a. Airborne
  - b. Direct contact
  - c. Indirect contact
  - d. B and C
  - e. All of the above
6. What is the sequence of the chain of infection?
- a. Microorganism, reservoir, mode of transport. port of exit, port of entry  
susceptible host
  - b. Reservoir, microorganism, mode of transport. port of exit, port of entry  
susceptible host
  - c. Microorganism, reservoir, port of exit, mode of transport. port of entry,  
susceptible host
  - d. Reservoir, microorganism port of exit, mode of transport. port of entry,  
susceptible host
7. Which of these measures is most effective in preventing the spread of an infection?
- a. Chain of Infection
  - b. Blocking port of exit
  - c. Infection Control
  - d. Antibiotic

8. Does evidence-based practice back nursing shortcuts?
  - a. Yes
  - b. No
  
9. What is a primary infection control measure used by health care professionals?
  - a. Intensified cleaning practices
  - b. Respiratory hygiene/cough etiquette
  - c. Hand washing
  - d. PPE
  
10. Which is a means of transport for a pathogen?
  - a. Inhalation
  - b. Secretion
  - c. Ingestion
  - d. Penetration
  - e. All of the above

## Appendix D: Summative Evaluation

## Staff Educational Program

1. Was the learning object evident?  
Yes \_\_\_\_ No \_\_\_\_
2. Was the expected learning outcome met?  
Yes \_\_\_\_ No \_\_\_\_
3. Was the presenter knowledgeable about the topic?  
Very \_\_\_\_ Somewhat \_\_\_\_ Not very \_\_\_\_
4. Were you satisfied with the presentation style?  
Very satisfied \_\_\_\_ Satisfied \_\_\_\_ Neither satisfied nor dissatisfied \_\_\_\_
5. Was the information presented relevant to the staff's needs?  
Yes \_\_\_\_ No \_\_\_\_
6. Was the information presented appropriate to correctional health care?  
Yes \_\_\_\_ No \_\_\_\_
7. Would you recommend this educational opportunity to other nursing team members?  
Yes \_\_\_\_ No \_\_\_\_
8. Do you feel this education program will improve your ability to provide evidence-based nursing care?  
Yes \_\_\_\_ No \_\_\_\_
9. Do you feel the staff education program met its goals?  
Yes \_\_\_\_ No \_\_\_\_

10. Would you like to learn more about this topic?

Yes \_\_\_\_\_ No \_\_\_\_\_

## Appendix E: Staff Educational Program Flyer

### EVIDENCE-BASED INTERVENTIONS FOR MANAGING A PANDEMIC

### STAFF EDUCATION PROGRAM

#### WHEN:



Date: July 2, 2024

Session 1: 10:30 am – 11:00 am

Session 2: 10:30 pm – 11:00 pm

#### WHERE:

Staff Conference Room

#### FACILITATOR:

Mari C. Knight, RN, MSN,  
CCHP-RN, CCHP-A

