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# The Effects of Stress Reduction for Healthcare Workers on COVID Units

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# Walden University

College of Nursing

This is to certify that the doctoral study by

Rosita Cynthia McTaggart

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

2022

Abstract

The Effects of Stress Reduction for Healthcare Workers on COVID Units

by

Rosita C McTaggart

MS, Walden University, 2010

Project Submitted in Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Nursing Practice

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August 2022

## Abstract

The rise of the COVID pandemic was a surprise to many. Since Florence Nightingale, society has suffered from various epidemic infectious diseases. This specific educational project was developed because of the stress and the aftereffects experienced by many healthcare workers coping with the working conditions related to COVID. This educational project is important because according to the World Health Organization, a healthy environment is a place for physical, mental, and social well-being, which supports optimal health and safety. Healthcare workers should be provided an educational program to assist them in minimizing stress. Havelock's and Lewin's theory of change was chosen to assist with the project. In addition, an expert panelist which consisted of employees with over 20 years' experience in their field while utilizing the AGREE II score chart was used to evaluate the efficiency of this educational project yielding a means score of 93%. The practice- focused statement for this staff education project was to evaluate and design a staff education program that was accessible for employees. This program was implemented to improve the coping mechanism of the staff, thereby increasing the staff's knowledge, with the goal of reducing stress on the COVID unit. The evidence based on the AGREE II Score experts supports that working in a COVID environment is very stressful and providing a complete education program can reduce the stressors and support a positive social change within this population of healthcare providers.

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## Dedication

I would like to take a moment to acknowledge Dr. McWhirt, who was an amazing and supportive professor at Walden University. He is truly an asset to Walden. Secondly, I would like to thank Mr. Dwain D. Coleman, who has been a friend and a great support system to me as well. I must say that coming from a family where I am the first to achieve a doctorate level of education is a major accomplishment. In addition, as a single mother, I want to say thanks to my four wonderful children who has always looked up to me as a role model: Rosalie, age 29 ; Rochelle, age 24 ; Rosita, age 14 ; and my one and only son Ryan, age 10. Finally, I must not forget my mom who decided not to abort me at the age of 15 but decided to give me life.

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## Section 1: Nature of the Project

### **Introduction**

At the heart of the unparalleled crisis of COVID-19, healthcare workers (HCWs) have faced challenges treating patients with COVID-19: reducing the spread of infection, developing suitable short-term strategies, and formulating long-term plans. The psychological burden and overall wellness of HCWs has received heightened awareness in news and research publications. There have been consistent reports of stress, anxiety, and depressive symptoms in HCWs as a result of COVID-19. The COVID-19 pandemic has resulted in significant burdens globally. Detrimental effects include high rates of infection and death, financial hardships faced by individuals, stress related to known and particularly to unknown information, and fear of the uncertainty regarding continued impact (Elsharkawy & Abdelaziz, 2020). HCWs must also continue to successfully treat non-COVID patients and maintain personal responsibilities, including taking care of their families and themselves. The psychological stress involved in the effort it takes for HCWs to care for COVID patients should be recognized in terms of how it relates to the high rates of burnout, psychological stress, and suicide. It is clear that HCWs experience emotional exhaustion as a result of COVID, which may lead to medical errors, lack of empathy in treating patients, lower productivity, and higher turnover rates. The ability of HCWs to adequately cope with stressors is important for their patients, their families, and themselves.

Coping with stress in healthcare is not a new phenomenon. However, in the year 2019, both healthcare and normal society had to learn new ways of coping with life in the

midst of COVID. Internationally, hospitals and healthcare facilities faced catastrophic staffing and financial challenges related to the COVID-19 pandemic. The American Hospital Association estimated a financial impact of \$202.6 billion in lost revenue for America's hospitals and healthcare systems, or an average of \$50.7 billion per month (as cited in Hall et al., 2020).

The COVID -19 pandemic has overwhelmed healthcare systems around the world, having a causing major effect on the diagnosis and treatment of other diseases (Shaukat et al., 2020). HCWs must continue to learn new ways to balance these existing obstacles to wellness while facing unique challenges of the current pandemic and the ones to come. Everyone possesses various levels of psychological resilience and the ability to positively adapt to adversity, which allows them to protect themselves from stress.

### **Problem Statement**

After the emergence of COVID in 2019, the healthcare industry had to adjust to the new normal of healthcare. In today's healthcare system, 95% of HCWs have experienced the stress of working during the pandemic. Many HCWs went to work not because they wanted to, but because they did not have a choice (Kackin, 2020).

Providing care during COVID-19 pandemic has led to stress, anxiety, fear of the unknown as well as fear of death (Swain et al., 2021). It is important that healthcare leaders recognize the cause and effect of both physical and psychological stressors as they relate to ineffective coping mechanisms. The lack of coping mechanisms can lead to burnout and posttraumatic stress syndrome (PTSD; Swain et al. 2021).

In addition, stress can lead to conditions such as depression, ethyl alcohol /drug dependency, and burnout, which can ultimately lead to absenteeism and create a nursing shortage (Zagorski, 2020). Causes of stress could be a result of lack of personal protective equipment, lack of support from management as well as a fear for personal safety and that of their family. The COVID-19 pandemic has made it critical for HCWs to recognize stress and take the initiative to seek help. Pandemics and epidemics are public health emergencies that can result in substantial deaths and socioeconomic disruption (Lacey et al., 2020).

It is important to remember that COVID-19 is a global concern. The dangerous Delta variant of COVID did not make it easier to control the spread of the disease. Moreover, economic factors are being evaluated in terms of their effect on certain socioeconomic classes receiving the COVID vaccine. It has been suggested that Black people are dying at twice the rate of White people. Authorities have also seen significant disparities in vaccination rates from zip code to zip code within communities, often reflecting economic and social inequities in those same populations. As COVID-19 attacks poor communities in the United States and globally, it also exhibits catastrophic growth in countries with large concentrations of urban poverty or with the most fragile health systems (Aslam, 2020). Factors such as socioeconomic status, poor countries, underserved areas, or any improper medical system can make a difference in life or death of an individual. Therefore, HCWs must keep in mind that risk increases based on the location of work.

Nurses play a vital role in the public health response to such crises, delivering direct patient care and reducing the risk of exposure to the infectious disease. The experience of providing nursing care in this context has the potential to have significant short- and long-term consequences for individual nurses, society, and the nursing profession (Fernandez et al., 2020). This educational project provides ways of assisting HCWs to recognize and cope with stress in the workplace, which can minimize stress throughout the healthcare industry.

### **Purpose Statement**

The purpose of this project was to develop an educational program that can assist healthcare/frontline workers to cope with stress while having to work during a pandemic to provide for their loved ones. Going to work during the COVID-19 pandemic has placed frontline workers under immense and unprecedented pressures, putting their physical, mental, and social well-being at risk. Staff under excessive or prolonged stress become more prone to frequent absences from work or reduced productivity while at work, accidents, and mistakes ("COVID -19 Effect on Mental Health," 2020). In the COVID-19 pandemic, this may mean compromised quality and safety of care, breach of protocols and guidelines, increased risk of infections, and compromised capacity of the health system and emergency response teams to cope effectively with the pandemic. While frontline workers have the responsibility of caring for themselves and verbalizing their needs and concerns, many of the efforts to prevent and reduce stress and care for mental health of frontline workers must be made by organizations, managers, and health

administrators. Therefore, this educational program can assist in coping with the stress related to the pandemic.

The data collection method used for this project was a mixed method. I took into consideration the healthcare employees' coping skills, which were affected by working in the COVID environment. The conceptual framework chosen was Lewin's theory of change. I also used a correlational design because there was an increasingly vulnerable healthcare population who worked on COVID units suffering from higher levels of anxiety, depression, substance abuse, eating disorders, and PTSD compared to the general population. The WHO and public health authorities around the world have been acting to contain the COVID-19 outbreak. Overall, the COVID pandemic has created a major crisis, resulting in stress throughout the population worldwide. Socially, it is imperative to support the mental and psychosocial well-being of the various target groups/population affected by the outbreaks. The geographic location for the study was large university magnet hospital, which consisted of a 733-bed facility in located in the heart of Atlanta.

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

The nature of the project involved detailed research of peer- reviewed articles on the statistical data of the number of HCWs affected by COVID- 19. It is important to consider the emotional and psychological effects caused by the pandemic. More specifically, I considered how HCWs are affected on a daily basis by the deaths and the compassion that they have to cope with. The project involved anonymous surveys that assessed the emotional state of HCWs who were able to voice their opinions on how they



felt about working with COVID patients. By administering the survey, the nursing administration at the study site can better assess the stress level of their employees and implement stress management programs to assist their employees to better cope with daily stressors.

### **Significance**

The COVID-19 pandemic and the resulting economic recession have negatively affected many people's mental health and have created new barriers for people already suffering from mental illness and substance use disorders. During the pandemic, about four in 10 adults in the United States have reported symptoms of anxiety or depressive disorder, a share that has been largely consistent, up from one in 10 adults who reported these symptoms from January to June 2019. A KFF Health Tracking Poll from July 2020 also found that many adults have reported specific negative impacts on their mental health and well-being, such as difficulty sleeping (36%) or eating (32%), increases in alcohol consumption or substance use (12%), and worsening chronic conditions (12%), due to worry and stress over the coronavirus. As the pandemic continues, ongoing and necessary public health measures expose many people to experiencing situations linked to poor mental health outcomes, such as isolation and job loss. Stress can be negatively linked to several factors in the workplace. Factors such as burnout can lead to decreased productivity and a higher level of employee turnover. These various aspects of staff education application in this project could potentially impact stakeholders (registered nurses, physicians, chief of medicine services, and infection control services) through locally addressing nurses' knowledge deficits and clinical outcomes, as well as improving

staffing. This project can significantly contribute to a positive social change by strengthening nurses' coping skills because stress can have a significant impact on individual nurses and their ability to accomplish tasks such as taking care of their patients.

### **Summary**

For some of the population, the COVID-19 pandemic appears to be somewhat under control in terms of outbreaks. However, the situation is different for HCWs and how they felt starting back in 2019 when they first learned about the deadly COVID 19. Behind the scenes and escalating policies, health workers have been working tirelessly on the front lines since the first cases emerged. Now more than ever, healthcare professionals are facing increasing rates of infection and endure back-to-back overtime shifts as they work to detect, treat, and prevent COVID -19 infection and illness, as well as managing other diseases and chronic conditions. In addition to physical and mental exhaustion, frontline health workers are also being targeted and harassed as a result of misinformation and mass fear of the virus (Bumanlog, 2020).

## Section 2: Background and Context

### **Introduction**

To address a change in healthcare, the Doctor of Nursing Practice (DNP) position calls for transformational change in scientific knowledge that is important in the outcome of quality patient care delivery (White, 2016). The main objective is that in today's health care delivery systems, it is important to realize a new norm of working together, delivering care amid a global pandemic, and educating the next generation of health care providers. Specifically, the effects of the pandemic on the clinical learning environment have national and global implications.

In the midst of the pandemic COVID -19, healthcare systems all over the world as well as daily lives have changed. Research on the psychological and behavioral consequences of the perceived threat of infectious diseases is still in early stages. The perceived threat of the coronavirus is very stressful. Nurses as well as other HCWs are being faced with psychological anxiety from dealing with COVID-19. The turnover rate among nurses as a result of psychological anxiety has led to decrease in nurse retention. Research has shown that the perceived threat of COVID-19 enhances psychological anxiety and turnover intention among nurses (Irshad et al., 2020). The high rate of nurse turnover not only affects the hospital staffing but also bears a negative effect on the quality of patient care. Evolving internal issues may include setting, budget, and staffing shortages. The coronavirus pandemic continues to stress healthcare organizations and communities in ways unparalleled in modern history.

Leaders across the spectrum are dealing with multiple crises every minute of every day. Moreover, they have done so in the face of intense volatility, uncertainty, and complexity (Lacey et al., 2020). Nurse turnover is a recurring problem for health care organizations. Nurse retention focuses on preventing nurse turnover and keeping nurses employed in an organization. However, decisions about nurse turnover and retention are often made without the support of full and complete knowledge of their associated costs and benefits. For example, at the organizational level, few studies have examined how company practices affect employee well-being. Given the added risks and the relatively low pay for full-time, college-educated registered nurses.

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

The conceptual model or framework used in this study was based on the change theory. A possible change process could be beneficial to the hospital setting. Management has identified that the inability to retain nurses has been an obvious as well as a systemic issue. Lewin's theory of change was applied to assist with the adaptation of the new educational program by the staff. Lewin's theory has been around for many years. However, it is one of the most distinctive models used for clarification of the change management. Lewin's three- stage model of change was developed in the 1940s. Lewin's change model has been used widely as the theoretical foundation for modern change models, including Schein's planned change theory (Hoffart et al., 2021). To begin any successful change process, it is necessary to understand why the change must take place. As Lewin explained, "Motivation for change must be generated before change can occur. One must be helped to re-examine many cherished assumptions about oneself and

one's relations to others.” This is the unfreezing stage, from which implementing the change is not always easily accepted because people fear the unknown. Uncertainty that comes with new change raises negative emotions such as anger and anxiety. It takes a time and a great leader to convince one to accept the change (Chowthi-Williams & Davis, 2022).

Another theoretical framework that was used in this educational project was Havelock’s change theory. The framework that was applied was Havelock's theoretical framework that has of planned change. This theory can be used in the change process and is a modification of Lewin's theory of change, which consists of six stages (White, 2016). Addressing issues of complexity and tailoring interventions to context is something researchers have studied over a number of years in the process of developing, evaluating, and refining a framework to guide knowledge translation (Harvey & Kitson , 2015). The steps involved in the application process of Havelock's theoretical framework are as follows:

Care: Attention to the need for change (referred to as stage zero). Concern for change occurs in this stage.

Relate: Building a relationship

Examine: Diagnosing the problem

Acquire: Acquiring the relevant sources

Try: Choosing the solution

Extend: Disseminating, diffusing, and gaining acceptance

Renew: Stabilizing and sustaining capacity

The third model used was the appraisal of guidelines research and evaluation (AGREE) II. This is a checklist that provided the structure used to guide the development of clinical practice guidelines. The AGREE II consisted of six domains (Yao et al., 2019):

- Domain 1: Scope and purpose
- Domain 2: Stakeholder involvement
- Domain 3: Rigor of development
- Domain 4: Clarity of presentation
- Domain 5: Applicability
- Domain 6: Editorial independence

### **Recommendations of the Agree II Score**

The consensus of all three experts who were involved in the completion of the Agree II score agreed that the project was viable. Moreover, the final overall score of all three experts was a 95% rating for recommending the guidelines. None of the three experts requested modifications. However, one of the disadvantages of the panelists was that they did not specifically address the stress related to the COVID-19 pandemic. Every tool or guideline has its own advantages as well as disadvantages (Lai et al., 2022).

### **Internal Change and Leadership**

It is important to have effective leadership when implementing a change process. In today's healthcare system, HCWs are faced with more critically ill patients as well as the issue of nursing shortage. Moreover, the effects of the COVID pandemic have magnified the nursing shortage because many of the experienced older nurses are leaving the field of nursing. Thus, it was necessary to look at the evidence-based research and

use it to guide and implement change processes. Many healthcare facilities already have policies in place. However, those policies need to be evaluated and potentially updated based on evidence-based research related to the COVID pandemic. Sometimes, staff education is the key to education on a change process. This takes continuous reevaluation and reeducating. It is critical that healthcare facilities focus on the scientific rationale for the change process.

### **Relevance to Nursing Practice**

The issue of developing an educational program to assist HCWs in coping with the stress of COVID is critical because this problem could lead to a major nursing shortage. The impact of my findings on nurse retention suggest that this specific issue could negatively affect the organization financial status. As previously discussed, issues such as nursing shortages, challenging work environments, and a lack of professional development contribute to high nurse turnover rates. High turnover adversely impacts the quality of patient care and is costly to organizations. The cost of nurse turnover can have a large impact on a hospital's profit margin. Nurse turnover is a critical issue facing workforce planners across the globe, particularly in light of protracted and continuing workforce shortages. Improving the nurse work environment could result in increased nurse retention and better patient outcomes. Nurse turnover and the costs to replace nurses in the United States continue to present a significant challenge for health care system administrators. Fiscal costs for one nurse leaving a position ranges from \$10,090 to \$88,000, according to a review of studies spanning 1990 to 2010. The costs of nurse turnover also include lost productivity from the loss of intellectual capital through

experienced nurses (Li & Jones, 2013). Turnover in the nursing profession is troubling because nurses represent the largest health care profession of over 3 million (American Association of Colleges of Nursing, 2015) and hold a collective influence to create better patient outcomes (Smith, 2018). The Bureau of Labor Statistics currently estimates a deficit of nearly 1 million nurses by the year 2022. Nursing shortages are not new, but this one is different from some of its predecessors.

### **Possible Causes of Current Nursing Shortage**

There are many reasons why a major pandemic could lead to nursing shortage. Based on my interviews with the younger generations of nursing students, 50 % had mixed feelings as to whether they would choose nursing because of what they have witnessed during the pandemic. The key is to find the rationale as to why there is such a high turnover rate. Thus, organizational leaders should come together to create a solution to the problem.

In addition, it is important for managers to understand how staff nurses perceive their work environment as these perceptions may affect nurses' intention to leave the organization. Few researchers have examined the perceptions of nurses compared with nurse managers/directors regarding the organizational influences on intention to leave (Çaylak & Altuntaş, 2017). Often, managers and staff nurses are not on the same page in perceptions of work environment. Nurse Managers need to understand the organizational influences that may affect nurses' intention to leave. Factors such as organizational financial deficit or the healthcare worker experiencing fear of the unknown of contracting COVID, burnout, or anxiety can all lead to staffing issues. Strategies to improve the work



environment are necessary to meet the needs of the staff nurse. Improving the nurse work environment could result in increased nurse retention and better patient outcomes. Nurse turnover and the costs to replace nurses in the United States continue to present a significant challenge for health care system administrators.

### **Local Background and Context**

The setting for this study was a liver, kidney, and pancreatic transplant unit in a large teaching hospital with over 700 beds in the state of Georgia. Statistics have shown that the COVID pandemic has caused a major change in the healthcare sector. Nurses around the world have been called on to care for hospitalized COVID-19 patients. Nurses and other HCWs are putting themselves at risk. This project was feasible because according to the World Health Organization, a healthy environment is a place for physical, mental, and social well-being that supports optimal health and safety. Nurses as well as other HCWs have the right to a work environment where they can provide quality healthcare with as minimal stress as possible. This educational project can improve staff nursing skills, which in turn can provide better work environment and increase staff productivity. The project will be implemented on one specific floor and, if successful, will then be implemented on other units.

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

This project is important to me because I have lived the experience of being a frontline worker in the early stages of the COVID pandemic. As a single mother of two young children, age 9 and 12, I was forced to work on a COVID unit so that I could provide for my family. I was initially hired for a medical surgical unit. However, when

COVID began, my unit was converted to a COVID unit. None of the employees were given a choice. I suffered from anxiety and lack of sleep the nights prior to my shifts. I was fortunate to escape continuing to work on that unit after contracting COVID, and my primary care physician deemed me high risk because of my history of chronic asthma.

As a DNP graduate, I plan to use my research skills to contribute to nursing science by evaluating, translating, and disseminating research into practice. I am now equipped with the necessary knowledge to provide quality improvement and systematic leadership in whatever areas I plan to research. This essential emphasis of the DNP graduate's role is focused on assimilating nursing science and practice with the complex needs of humankind (AACN, 2006). In terms of healthcare policy, I plan to use my knowledge and research to assist in improving health outcomes as well as to promote quality of patient care through policy changes in the United States. Healthcare organizations could benefit from creating new rules and policies in order to support HCWs in terms of minimizing stress both psychologically and physically.

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

The first step is for management to acknowledge that there is a problem with their employees coping with stress related to working with COVID patients. Secondly, in order to manage and implement a successful educational plan to resolve the problem, effective management is the key to success. After careful research, it was established that transformational nursing leadership within any organization possess the ability to translate evidence-based research into practice. Leadership is increasingly required to articulate the rationale consistently and clearly for decisions based on evidence and to

build systems that support practicing nurses as they develop the skills and critical-thinking strategies required to discipline practice with sound evidence (White, 2016). In addition, without that leadership to ensure the impact of evidence-based practices and pushing through those systems, the value of the Doctor of Nursing.

### **Summary**

Although addressing the needs of frontline HCWs to respond to the COVID-19 pandemic is a high priority, there is a lack of data to inform such efforts because no one knows how long the COVID pandemic will last. Therefore, it is crucial to do everything possible to keep frontline workers safe and at the bedside. Consequently, as the death tolls rises and the new COVID strain of the Delta variant lingers, frontline workers continue to risk their lives to save others. However, it is necessary to focus on the mental health of the nation's HCWs, or there may be a major nursing shortage.

### Section 3: Collection and Analysis of Evidence

#### **Introduction**

During the implementation and evaluation process, an expert panel evaluated the data collected to give feedback, which assisted in improving the education project. In addition, an anonymous survey was used to gather both objective and subjective information regarding how staff felt about working on the COVID unit. The main reason for obtaining the evaluation of the educational materials were to improve the outcome of the educational program for stress reduction of HCWs on COVID units.

#### **Project Design/Methods**

An expert panel was used in this DNP project. The expert panel consisted of a doctorate level intensive care unit (ICU) nurse manager who was involved in a COVID study, an experienced charge nurse, and an experience radiologist personnel, all of whom had over 10 years' experience in the hospital setting. The expert panel provided their written feedback based on the Agree score II (See Figure E). The main objective was to evaluate and address the best approach to develop the most appropriate educational tool for decreasing stress in the workplace, especially on COVID units. The educational tool consisted of a PowerPoint presentation to aid in the education process. The major objectives of this educational project were evaluated and approved by an expert panel who was familiar with working on a COVID unit and who could be objective with their expert opinions.

### **Population and Sampling**

The expert validators were made up of a doctorate level ICU nurse manager who was involved in a COVID study, an experienced charge nurse, and an experienced radiologist personnel, all of whom had over 10 years' experience in the hospital setting. The med-surgical unit is a 60-bed unit within a 700-bed private hospital in the United States. The targeted population was HCWs on the COVID unit. These health care providers included physicians, a nursing director, nurse managers, and PCAs.

### **Data Collection**

The educational material was evaluated by the expert panel, and as a result they provided criticisms utilizing the Agree II scale chart. A PowerPoint presentation was also provided to the expert panel to improve the effectiveness of the educational project. The expert panel was also informed that their questions and feedback were welcome for further changes. I collected the data using an Agree II chart sheet. The evaluation from three experts was reviewed and applied to the educational project.

### **Data Analysis**

The data analysis consisted of descriptive statistics, which were used as a guideline to evaluate the data collected from the Agree score chart in addition to the expert panel's input. By implementing this educational project, HCWs will have increased knowledge regarding resources that are available to them; this can lead to decrease the stress level of employees on a COVID unit. It is imperative that the evaluation process is monitored and reevaluated 3 to 4 times per year at 3-month

intervals. By reevaluating, the need for further adjustment to the educational project can be determined.

### **Conclusion**

The formative evaluation process usually begins in the assessment phase (Serratt, 2022). The expert panel feedback in combination with the Agree score II assisted me with the tools required to finalize the most appropriate educational program for the employees on the COVID unit. The main goal was for the expert panel to evaluate the educational material and to give input on the factors that could increase the success of the selected educational program to decrease stress levels on the COVID units.

### **Practice-Focused Question**

The practice- focused question for this staff education project was as follows:  
Will a staff education program on applying stress coping mechanism increase the staff's knowledge towards the ultimate goal of reducing stress load on the COVID unit? Prior to the pandemic, most facilities offered employee assistance services via phone. However, it may be necessary for healthcare employees to have on call personnel. This educational program focuses on minimizing stress among HCWs on a COVID unit with over 100 employees. The program accommodates a licensed therapist/counselor/ chaplain who will is qualified to assist everyone with their specific stressors. Therefore, the facility will be better equipped to have confidential meetings with employees.

The nursing profession is currently experiencing a major shortage of nurses because of the pandemic. Nurses who are faced with the inability to cope with stressors in

the workplace may leave the facility or even the healthcare field to cope (Irshad et al., 2020). This nursing shortage adversely affects quality patient care.

### **Sources of Evidence**

Stress in the workplace adversely affect patient care. A positive and supportive nurse work environment could result in increased nurse retention and better patient outcomes. Nurse turnover, whether a result of stress, burnout, or fear of the unknown, is a significant challenge for healthcare system administrators. The fiscal cost for one nurse leaving a position ranges from \$10,090 to \$88,000, according to a review of studies. The costs of nurse turnover also include loss of productivity (Li & Jones, 2013). Healthcare organizations must educate the staff in order to strengthen them through these unexpected times. Losing HCWs because of inability to cope is problematic because nurses represent the largest health care professional of over 3 million and hold a collective influence to create better patient outcomes (American Association of Colleges of Nursing, 2015). Sources of evidence included interviews of randomly selected staff, such as staff nurses, per diem float nurses, and contract nurses. In addition, peer- reviewed research was used to substantiate evidence that an educational approach was necessary to address this current issue.

### **Analysis and Synthesis**

The project comprised of the DNP Essentials I, II, III, and VIII. Essential I promote exploration of the behaviors that affect current practices by guiding and translation of the new healthcare system into incorporating new healthcare laws wherever necessary. Change in healthcare exists both at the social and organizational level.

Essential II aligns with the implementation of education through initiating quality improvement to create a positive effect on improving health care and promotes public for professional education on AACN (2020). Essential III addresses the implementation of guidelines to improve the practice environment. Essential VIII promotes the development of therapeutic relationships in the nursing profession (AACN, 2020). Effective leaders are inclined to assess uncivil behaviors that create unhealthy consequences. The AACN task force examines trends in practice, focusing on the doctoral education, and makes recommendations. They are the driving force for innovation and excellence in implementing those standards that influence the nursing profession in order to improve health care, and they promote public support for professional nursing education, research, and practice (AACN, 2020). The DNP position calls for transformational change in scientific knowledge, which is important in the outcome of quality patient care delivery (White, 2016). DNP graduates possess knowledge of working with complex organizational structures. Such knowledge is intended to guide nursing practice, particularly when ethical issues arise because of rapidly advancing technologies and new scientific findings (Pritham et al., 2016). The main objective is to face a new norm of collaboration, deliver care during a global pandemic, and educate the next generation of health care providers. Specifically, the effects of the pandemic on the clinical learning environment have had national and global implications. Secondly, in working with the change process. Therefore, it is important to develop a clear vision of the change that is relatively easy to communicate and appeals to customers, stockholders, and employees.



### Summary

The evidence is clear that decreased mental health is a result of the COVID-19 pandemic. Based on research of 29 studies, with a total sample size of 22,380, 21 papers have reported the prevalence of depression, 23 have reported the prevalence of anxiety, and nine have reported the prevalence of stress. The prevalence of depression is 24.3% (18% CI 18.2–31.6%), the prevalence of anxiety is 25.8% (95% CI 20.5–31.9%), and the prevalence of stress is 45% (95% CI 24.3–67.5%) among the hospital staff caring for the COVID-19 patients. According to the results of meta-regression analysis, with increasing the sample size, the prevalence of depression and anxiety decreased, and this was statistically significant ( $p < 0.05$ ); however, the prevalence of stress increased with increasing the sample size, yet this was not statistically significant ( $p = 0.829$ ; Salari et al., 2020).

The major goal of this staff education program is to use my knowledge as a DNP practitioner in order to improve the quality of healthcare by reducing the incidence of stress in the workplace related to COVID. The knowledge and input of the stakeholders and fellow nurses were vital part to implementing the change project. Until nurse leaders understand the importance of the relationship between the stresses of COVID in relationship to the current nursing shortage, the healthcare system will be at a major disadvantage. Moreover, all the above ties into one simple factor: providing staff with the proper mental health support, which can in turn lead to improving the quality of patient care and increase nurse retention during this pandemic.

## Section 4: Findings and Recommendations

### **Introduction**

This educational project used an expert panelist of whom all three experts possessed more than 20 years' experience in their field. The panelist included a doctorate level ICU nurse manager, an experienced charge nurse, and an experienced radiologist. The ICU nurse manager had more than 25 years' experience in management in addition to his critical care experience. A PowerPoint presentation was provided for the HCWs in order to inform them of the dangers of COVID. The expert panel, which consisted of medical professionals in addition to nursing administration, agreed that this educational program was needed on the unit in order to create a positive change. A written summative evaluation was completed by the panelists, which provided written feedback using the AGREE II to provide a guide that I used for the development of clinical practice. This model consisted of six domains: 1 = scope and purpose, 2 = stakeholder involvement, 3 = rigor of development, 4 = clarity of presentation, 5 = applicability, and 6 = editorial independence (Trepanier et al., 2022).

### **Summary and Evaluation of Findings**

The Agree tool questionnaire consisted of 23 categories (Figure 8). The first question referred to the overall objective of the educational program. The population and guidelines were specifically addressed as per the expert panelist. In Question 5, it was also noted that the target stakeholders were the healthcare employees who provided direct contact to COVID patients. Questions 10 and 11 discussed the methods that were formulated and their benefits and risk to the stakeholders. Question 12 confirmed that

there was a distinct link between the recommendations and the supporting evidence. Question 15 verified whether the recommendations were ambiguous. Overall, the scores were directly related to the monitoring and auditing criteria. The total score had a range of 1 being *poorly agree* to 7 being *strongly agree*, with the median number being 4. All three expert panelists rated the educational program between 6 and 7. Therefore, the feedback of the program review was positive. None of the three validators requested any additional research. Moreover, they all felt that the program would contribute to a positive change.

### **Discussion of Findings Based on Literature and Framework**

The selected change theory for this DNP project was Lewin's theory of change and Havelock's theory. The nature of the project was to determine the rational for the stressors on the COVID unit and to determine if there was a correlation between the psychological stressors and mental illness or substance abuse. The major goal was to promote change in terms of the stressors and anxiety faced by health care workers who worked directly with COVID -19 patients

### **Findings and Implications Using the Guidelines and Evaluation II (AGREE)**

The AGREE II was used to provide a guide for the development of clinical practice. This model consisted of six domains: 1= scope and purpose, 2 = stakeholder involvement, 3 = rigor of development, 4 = clarity of presentation, 5 = applicability, and 6 = editorial independence (Trepanier et al., 2022). The experts who were involved in rating the CPG using the AGREE II included a doctorate level ICU nurse manager, an experienced charge nurse, and an experience radiologist. These experts were fully

qualified and were all directly affected both physically and psychologically by the COVID pandemic. The expert panelists analyzed and approved the guideline for clinical practice. The data indicated that based on the scores, of all three expert reviewers of the Agree Scores content, I was able to identify and develop a teaching plan for HCWs dealing with the stress of COVID. The results specifically indicated my areas of strengths and weakness. This further prompted me to reanalyze my data. The combined scores among the reviewers ranged from 86% to 100% across the six different domains, with an overall average of 93%. One weakness of the AGREE II instrument tool is that it does not pinpoint or give specifics on the reasons why the composite scores may require reevaluation. Based on the data provided by the experts, it was determined that the stakeholder would benefit from a regular educational intervention. Domain 5 needed to be re assessed and rectified. Therefore, the guideline was revised based on the content expert panel feedback. The results of this study can be used to making a positive social change that could positively affect HCWs dealing with the stress of COVID. Figure 1 indicates the result of expert evaluation based on the Agree II chart for the educational program.

**Figure 1:** *AGREE II Expert Panel Results*

Criteria	Expert 1	Expert 2	Expert 3	Comments
1. The overall objectives of the guidelines were specifically described	7	7	6	Develop educational programs to help healthcare workers cope with the stress of COVID
2. Health questions and the guidelines of research are specific	7	7	6	Accurate regarding to evidence base as to anxiety and depressions
3. The population to whom the guideline is meant to apply is specifically described	7	7	6	Healthcare workers working with COVID
4. The guideline development group includes individuals from all relevant professional GROUPS	7	7	6	
5. The views and preferences of the target population have been sought	6	7	6	Healthcare workers seek support from their management team
6. The target users of guidelines are clearly defined	7	6	6	Healthcare workers that provide direct care to covid patients
7. Systemic methods were used to search the evidence	7	6	7	Yes
8. The criteria for selecting evidence are clearly described	7	6	6	Yes
9. The strength and limitations of the body of evidence is clearly described	7	6	6	Research proves that a decrease in stress improve patient outcomes
10. The method used for formulating the recommendations are clearly described	7	6	6	

11. The health benefits, side effect and risks have been considered in formulating the recommendations	7	6	6	COVID units were identified as high-risk areas for healthcare workers who worked with COVID Patients.  Mental health was also an additional risk
12. There is an explicit link between	7	6	6	Stress related to drug, ETOH Abuse, and PTSD
13. The guidelines have been externally ongoing and reviewed by the experts prior to publications.	7	7	6	Yes, the process is ongoing
14. A procedure for updating the guideline is provided.	7	6	6	Yes, using the hospital expert panel taken from various healthcare department for objectivity.
15. The recommendations are specific and has unique unambiguous history	7	7	6	Yes, COVID has a unique history that has been proven to lead to high levels of stress, burnout, depression, and high level of anxiety
16. The different options for management of the condition or health issues are clearly presented	7	6	6	Educational programs and management involvement in reducing stress on the COVID units
17. Key Recommendations are easily identifiable	7	7	6	Yes, recommendations are specific to COVID units
18. The guidelines described facilitators and followed in barriers to its application.	7	7	6	Guideline followed in terms of cognitive factors involved program development.

19. The guidelines provide advice and/or tools on how the recommendations can be put into practice	7	6	6	Yes. The Employee Assistance Program (EAP) is one tool that is confidential for staff.
20. The potential resource implications for applying recommendations have been considered.	7	6	6	There is ample educational intervention that are specific to high risk COVID areas for healthcare workers.
21. The guideline scores were present monitoring and/or auditing criteria	6	7	6	Scores were directly related to the auditing.
22. The views of the funding body have not influenced the content of the guidelines.	7	7	6	
23. Competing interest of guideline development group members have been recorded and addressed	7	7	6	Yes
<b>Overall Client Assessment</b>	7	6	6	The stakeholders will definitely benefit from a new social change with the intervention of an educational program.

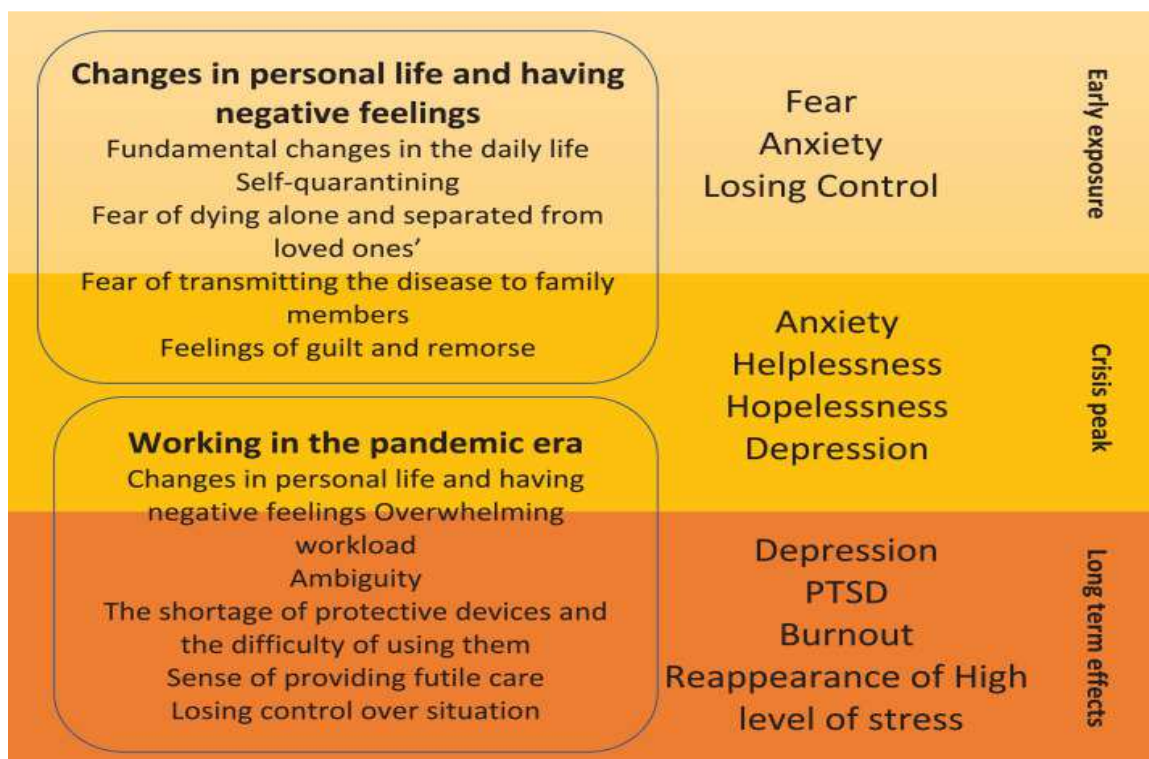
### **Recommendations**

The recommendations suggested are to address the rationale for the stress on the COVID unit. The AGREE II was used to provide a guide the development of clinical practice. Based on the data provided by the expert, it was determined that stakeholders would benefit from a regular educational intervention. Therefore, the program will provide awareness of the resources available. As a result, frontline workers can use their community resources and the healthcare facilities can develop new educational program. Ninety percent of the participants voiced that their management was somewhat

insensitive to their emotional needs. Based on the evaluation of the Agree II score chart, Questions 10 and 11 discussed the methods that were formulated and their benefits and risk to the stakeholders. Question 12 confirmed that there was a distinct link between the recommendations and the supporting evidence. As evidenced by Figure 4, the resolution for the stressors caused by the pandemic will require changes in personal life. The educational program can help HCWs cope with the real fear of dying if they were to contract the disease. The education can also help prevent any psychological issues such as depression.

**Figure 2**

*Interpersonal Factors Affected by COVID-19*





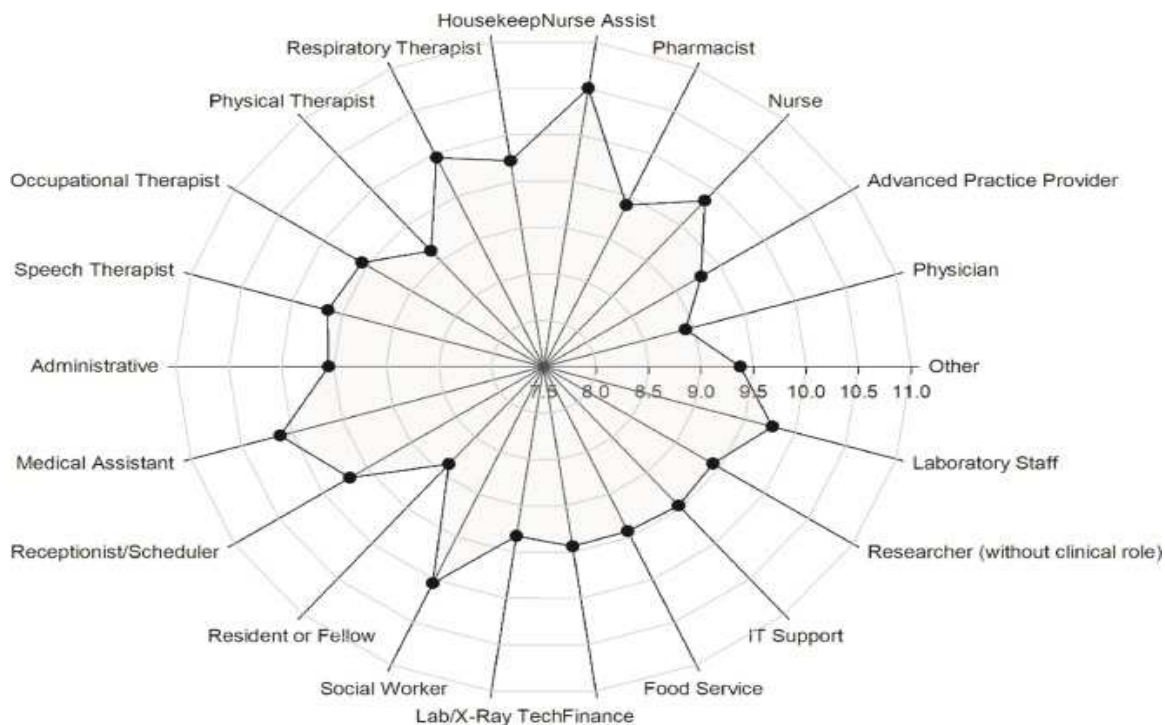
*Note.* This figure indicates the interpersonal factors affected by COVID-19. This diagram also shows the separation and self-quarantining that healthcare workers experienced.

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

The project presented many strengths and limitations. Discovering the strength and limitations of this project was dependent on the findings of the evidence, which states that during a crisis such as the COVID-19 pandemic, it is common for everyone to experience increased levels of distress and anxiety. As per Figures 4 and 5, numerous HCWs have suffered from social isolation in addition to isolation from families to minimize spreading the infection. COVID-19 has affected healthcare professionals in the health industry in all walks of life and all over the world (Hussain et al., 2022). Physicians and other frontline health care professionals are particularly vulnerable to negative mental health effects as they strive to balance the duty of caring for patients with concerns about their own well-being and that of their family and friends (Satyanarayana et al., 2022). It is important to facilitate additional training for frontline staff as time and resources permit; frontline workers should have training on basic psychosocial care principles and psychological first aid (Kackin et al., 2020). Online training may be used if it is not possible to train staff in person due to remote or distributed work, limited time and/or concern about the risk of infection. Securing the strength of the developed staff education program will provide the foundation for the implementation in the future.

**Figure 3**

*Number of Healthcare Workers Affected by the Stress of COVID*



### **Challenges Faced by HCWs during COVID-19 Pandemic**

Many HCWs faced physical, medical and emotional challenges that can be stressful and overwhelming. These stressors can cause strong emotional long-term effects. Public health actions, such as social distancing, are necessary to reduce the spread of COVID-19, but they can make us feel isolated, lonely and can cause us increase stress and anxiety.

On the Job practice that could assist HCWs how to effectively cope with stress involves; trying to obtain adequate rest; making time to eat healthy; taking breaks during the shift to rest, stretch, or check in with supportive colleagues, coworkers, friends, and family. In addition, one of our transplant physicians created a group therapy by bringing

in large coloring book artwork which gave employees a few minutes to distress by taking turns to color. Occasionally, two employees colored simultaneously.

Assumptions and limitations could involve factors that could limit this educational program involved the stakeholders not being willing to accept change. Secondly, the limitations caused by the pandemic such as social distancing and isolation. The Coronavirus Disease 2019 (COVID-19) pandemic has caused an unprecedented disruption in medical education and healthcare systems worldwide. The disease can cause life-threatening conditions, and it presents challenges for education in the healthcare settings, as nurse educators must deliver lectures safely, while ensuring the integrity and continuity of the medical education process. It is most important to consider the usability of online learning methods since this method offers social distancing. However, in some cases, this may not be feasible.

## Section 5: Dissemination Plan

The dissemination process involved using the results of the panelist reviews and feedback in addition to the result of the anonymous survey to develop an appropriate educational program to assist the employees who are directly involved in patient care. The program will be initiated on a COVID unit as a pilot program and, if successful, it will then be integrated throughout the hospital.

### **Analysis of Self**

Overall, this topic is dear to my heart because I have lived this specific experience. I can certainly say that I am proud that I am an experienced nurse with over 25 years of experience in my field who has known no other field outside of nursing. However, the COVID-19 pandemic had brought me to a psychological and emotional state that was quite troublesome to me. I have lived and experience the terrors of COVID-19. It all started while I was working in a small nonprofit organization and was hired on as a full-time medical surgical nurse. When the COVID pandemic hit, the facility was forced to convert some of our floors to COVID units. My floor was one of the selected units. The lack of emotional and psychological support that I experienced during those perilous months of COVID led me to research in order to advocate for my fellow healthcare personnel. As a single parent, I had to provide for my two children. There were many days when I wanted to quit and experienced anxiety the nights prior to my shift that prevented me from sleeping. Therefore, as a DNP practitioner, my job is to have the ability to assess the need for change and develop evidence- based solutions to the

resolve the problem. As an experienced nurse practitioner, my job is to be able to be a significant part of social change.

### **Strengths and Limitations of the Study**

Toward the end of the project, there was some difficulties. The stigmas and the fears of employees losing their own lives due to the coronavirus pandemic created various issues that made it almost impossible to focus on my own survival. As a result, this placed some challenges on gaining access to approximately 50% of the nursing staff to deliver the education program as was expected. There were also challenges with my own work-life balance because I personally experience anxiety and fear before and after I contracted COVID. The pandemic caused my employer to shift the educational platform from face-to-face to virtual learning. Overall, COVID-19 has affected the life and health of millions of people across the world. This pandemic has overwhelmed many countries' healthcare systems and everyday lives, and, of course, affects healthcare providers such as nurses who are fighting on the front lines to safeguard the lives of everyone affected (O'Connor, 2021). It has been a fulfilling experience for me to explore the issues that nurses like myself have faced during the battle of COVID- 19. By doing so, I can be a part of the greater good who will help support and develop protocols and plans to improve their preparedness for future pandemics or epidemics.

### **Summary**

The major goal of this staff education program is to utilize my knowledge as a DNP practitioner to improve the quality of healthcare by reducing the incidence of stress in the workplace related to COVID through the development of the staff education

program. The use of a summative evaluation with an expert panel was employed. The panel used the AGREE II tool to assist in validating and improving the effectiveness of the educational program. The knowledge and input of the stakeholders and fellow nurses were vital part to implementing the change project. It is imperative that the nurse leaders understand the importance of the relationship between the stresses of COVID in relationship to the current nursing shortage. Moreover, all the above ties into one simple factor: providing staff with the proper mental health support that can in turn lead to improving the quality of patient care and increase nurse retention during this pandemic. Overall, I was honored to be a nurse educator during such an emotional time. Based on the development of an educational program validated by a panel of experts, it was evident that educational material was required in order to decrease stress levels of employees on the COVID units. By doing so, healthcare facilities can improve patient outcomes and reduce the cost of rehires.

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## Appendix A: Anonymous Survey

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Walden University DNP Capstone Project

Date \_\_\_\_\_

**INSTRUCTIONS**

Please circle your response to the items using a scale of 1 to 5 scale:

1 =STRONGLY AGREE

2 =DISAGREE

3 =NEUTRAL

4 =AGREE

5 =STRONGLY AGREE

**THANKS IN ADVANCE FOR YOUR PARTICIPATION**

1	How do you feel about working the Covid Unit(s)?	1	2	3	4	5
2	Do you feel like your management are sensitive to your needs in terms of stress?	1	2	3	4	5
3	Do you feel like your management are sensitive to your needs in terms of stress?	1	2	3	4	5
4	Do you feel as if though you are properly compensated for being on the frontline with Covid patients?	1	2	3	4	5
5	Do you feel as if though you are properly compensated for being on the frontline with Covid patients?	1	2	3	4	5
6	Are you experiencing anxiety or insomnia the night prior to your scheduled day for work?	1	2	3	4	5
7	Are you having one too many drinks after working your shift? Or taking over the counter meds for sleep?	1	2	3	4	5
8	Are you sleeping more hours than you normally would? Possible sign of depression.	1	2	3	4	5
9	Do you feel that you have access to resources in order to assist in minimizing stress?	1	2	3	4	5



## Appendix B: Emotional Responses Scale

**S1 File 1: Emotional Responses Scale: Do you feel more emotionally stressed when working with COVID patients?**

**Guidance:** Please answer according to your own true feelings in the past weeks during the COVID-19. 1= "Not at all", 2= "A little", 3= "Fair", 4= "Strong", 5= "Very strong".

Scale	1= "Not at all", 2= "A little", 3= "Fair", 4= "Strong", 5= "Very strong"
1	Anxious
2	Fear
3	Sadness
4	Anger