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# BLIND SPOT: IMPLICIT BIAS IN HEALTH CARE AND ITS AWARENESS AMONG NURSING STUDENTS AT THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Debora Skaliks

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by

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A Doctoral Project
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# ABSTRACT

While prejudice and bias are eminent topics in our society, implicit bias or unconscious bias is not as easily detected. Even though implicit bias may be a familiar concept to many, numerous healthcare workers frequently do not recognize the extent of harm such biases can impose on patients' health and outcomes. The *Blind Spot* DNP project exposed in this research paper explores the relentless question of the correlation between implicit bias awareness, implicit bias education, and its impact on health care. This Doctor of Nursing Project (DNP) project aimed to analyze whether implicit bias education and testing could increase unconscious bias awareness and provide strategies to reduce such biases among nursing students at The University of Southern Mississippi (USM) within two weeks.

For two weeks, nursing students at The University of Southern Mississippi (USM) were allowed to participate in an educational video that portrayed implicit bias and its impact on health care and patient outcomes. A pre and post-survey allowed for the assessment of the effectiveness of the educational training. The following DNP project describes how increasing implicit bias awareness and providing strategies to reduce implicit bias among nursing students ultimately leads to improved decision-making strategies for patient care, improving patient outcomes, and helping decrease healthcare disparities in the community.

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# DEDICATION

"Trust in the Lord with all your heart, and do not lean on your own understanding. In all your ways acknowledge Him, and He shall direct your paths" - Proverbs 3:5-6

As I write this dedication, I know the only reason I am here is because of my Lord and savior. He opened the way repeatedly and continuously taught me to trust Him in all things. He surrounded me with extraordinary people who supported me all the way.

To My husband, Christian Skaliks, who always had words of encouragement and was by my side many sleepless nights. Thank you for being so supportive. Thank you for continuously helping me with everything, reminding me of why I was back in school, and pushing me to be better. To my mom, Isabel Guerreiro, you are my inspiration who has taught me to keep my faith and not to give up (I am so proud of you for completing your bachelor's degree and graduating a week apart from me). To my dad, Antonio Rodrigues, for always supporting my decision and being my fan. You are part of the reason I am here today. Finally, I also dedicate this project to my sister, Michelle Venceslau, who has always been my biggest cheerleader. Thank you for keeping me motivated, reminding me of God's purpose, and always being available to help me with anything I needed. God surrounded me with His love through all of you. I could not have completed this process without His faithful promises.

"For My thoughts are not your thoughts, and your ways are not My ways," says the Lord. "For as the heavens are higher than the earth, so are My ways higher than your ways, and My thoughts than your thoughts" - Isaiah 55:8-9

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LIST OF ABBREVIATIONS

| | |
|---|---|
| *AACN* | American Association of Colleges of Nursing |
| *AAMC* | Association of American Medical Colleges |
| *ACC* | American College of Cardiology |
| *AHRQ* | Agency for Healthcare Research and Quality |
| *CDC* | Centers for Disease Control and Prevention |
| *CHR* | County Health Rankings |
| *CMS* | Centers for Medicare and Medicaid Services |
| *DNP* | Doctor of Nursing Project |
| *IAT* | Implicit Association Test |
| *IOM* | Institute of Medicine |
| *MDH* | Mississippi State Department of Health |
| *SDH* | Social Determinants of Health |
| *USM* | The University of Southern Mississippi |

# CHAPTER I - INTRODUCTION

Research has shown that the acknowledgment of implicit bias grows as more people become aware of previously unconscious behaviors. Scientists have long sought to understand the complexity of the human mind through better comprehension of individuals' actions and reactions. Implicit bias, also known as unconscious or hidden bias, includes attitudes and beliefs that surpass conscious awareness and can influence actions without necessarily aligning with self-reported attitudes or explicit bias (Tsai & Michelson, 2020). No one is exempt from possessing nor acting upon implicit biases, and these biases influence healthcare providers of all specialties equally, impacting their behavior and, ultimately, patient care (Tsai & Michelson, 2020). Unconscious bias affects judgment and can manifest as subtle nonverbal behaviors such as the physical proximity of patient and provider or the frequency of eye contact (FitzGerald & Hurst, 2017). These behaviors interfere with patient care and outcome, as the patient-provider relationship is directly affected. Therefore, institutions and organizations must carefully discuss and consider the meaning and impact of implicit bias in health care and introduce strategies to reduce unconscious bias in the workplace. This DNP project aims to recognize the existence of implicit bias in health care, bring awareness, reflect on its impact on patient outcomes, and provide strategies to reduce the prevalence of implicit bias in health care by educating nursing students at The University of Southern Mississippi (USM). Therefore, further assisting in the overall reduction of health disparities and improving health equity in the community.

## Background

The world has recognized the existence of prejudice for centuries; however, it was not until much more recently that open discussions on prejudiced behavior occurred, and individuals have discussed different facets of discriminatory behaviors. In 1986, psychologists Samuel Gaertner and John Dovidio introduced the theory of Aversive Racism, presenting an aspect of bias not previously seen. This theory claims that individuals can consider themselves prejudice-free, hold egalitarian beliefs, and still send subtle signs of prejudice and rationalize discriminatory behaviors through attitudes or body language without their awareness (Dovidio & Gaertner, 2000). These individuals disapprove of prejudice; however, they fail to recognize that they are biased. Psychologists have continued to research human behavior over time and have found that not all social behaviors are under conscious control. A hypothesis developed in 1995 by Anthony Greenwald and M.R. Benaji explains that much of a person's social behavior is motivated by previously learned stereotypes that occur automatically (The Joint Commission, n.d.). Therefore, individuals are not aware that they are displaying certain behaviors. This theory introduced the topic of implicit or unconscious bias, which is a type of discrimination that is unintentional. To this day, researchers continue to study implicit bias and how it impacts society.

Implicit bias can interfere with communication, and since communication is at the core of quality health care, it is a highly relevant topic for health professionals in all fields. Communication is the foundation of any relationship. When people interact, verbal and nonverbal communication occurs, and individuals build perceptions upon the interaction and communication between two or more individuals. In health care, effective

patient-doctor communication is the center for high-quality care delivery, creating a healthy interpersonal relationship, including patients in decision-making, and facilitating the exchange of information (Ha & Longnecker, 2010). Communication is a very complex process due to the blend of verbal and nonverbal cues of both the sender and receiver. Its complexity exponentially increases when adding implicit bias because those unconscious beliefs can interfere with the two types of communication.

While discussing this topic with other healthcare providers, the continued prevalence of implicit bias was evident. Implicit bias is not limited to adult care nor defined by race. Therefore, awareness of its existence is necessary to address a problem created unconsciously and unintentionally. Nonetheless, independent of unintentional motives, research, institutions, and organizations recognize a direct impact on patient care. The Joint Commission (n.d.) addresses this topic in its newsletter by saying that implicit bias can lead to a difference in treatment, communication, and clinical decision-making, which can cause the failure of patient-centered care and ultimately cause patient harm. Other national institutions and organizations are starting to address implicit bias in health care, aiming to decrease health disparities in the United States. The *Healthy People 2030* initiative aims to obtain health and well-being by providing health equity and eliminating health disparity in the nation (Healthy People, n.d.). In order to promote higher quality care and achieve health equity, a healthy patient-provider relationship is essential. Therefore, implicit and explicit biases cannot exist in a healthy patient-provider relationship.

In 2019, a report from the U. S. Census Bureau (2020) estimated that about 19.6% of people in Mississippi live in poverty, becoming the state with the highest poverty rate

in the country . Mississippi currently "ranks last, or close to last, in almost every leading health outcome" (Mississippi State Department of Health [MDH], 2019, para.1). Health outcomes represent the health of a county or state (County Health Rankings [CHR], n.d.). Much of Mississippi's misfortunes in health equity and continuous health disparities are due to Social Determinants of Health (SDH). The *Healthy People* (2020) organization defines *disparity* as observing greater or lesser health outcomes between populations. They also define *health equity* as the ability to attain the highest level of health for all people. They continue by informing us that most health disparities are among minority groups, and SDH impacts the health outcomes of specific populations (*Healthy People,* 2020). The Mississippi government understands the need for health equity and the importance of cultural competence training in agencies and organizations due to the growing disparities and diversity in Mississippi (MDH, 2019). This DNP project goes beyond cultural competence—it brings to the surface some of the detrimental impacts of implicit bias in health care by educating nursing students at USM.

The problem of health disparities and lack of health equity is evident in the statistics seen in Mississippi. Therefore, this project intends to evaluate USM nursing students' implicit bias awareness and the effectiveness of unconscious bias education on the relationship between implicit bias in health care and patient outcomes indirectly impacting health disparities. This project aims to reduce health disparities in the community by addressing unconscious bias and introducing strategies to reduce those biases in the healthcare setting. Also, this project provides valuable information on the benefits of instituting an educational course on implicit bias and health care at USM, aspiring to increase health equity in the city of Hattiesburg.

## Significance

Part of the goal of the U.S. government is to address health disparities in the nation. For decades, organizations such as *Healthy People* have added health disparities as one of the national objectives to improve health and wellness. Disparities are not limited to race; they encompass sex, age, disability, sexual orientation, ethnicity, geographical location, and socioeconomic status (*Healthy People,* 2020). Any time different populations have disproportionate health outcomes, disparities are happening. SDH also impacts health disparities by factoring in external and environmental influences impacting the health of a population or an individual. Hence, health equity does not exist where disparities live.

Since 2003, the Agency for Healthcare Research and Quality (AHRQ) has reported on health disparity yearly. Some of the reports addressing socioeconomic disparities display low and high-income populations, where they found a relative difference of 163.4 in hospital admissions for long-term complications of diabetes for every 100,000 adult population. The report also shows a 206.5 relative difference in hospital admissions for chronic obstructive pulmonary disease or asthma in adults over 40 years of age per 100,000 population (Agency for Healthcare Research and Quality [AHRQ], 2020). The data mentioned above exemplifies measurements for different socioeconomic classes. The report *Poor People Worse Than High-Income People* portrays the significant disproportionate disparities between social class status in health care.

Implicit bias can play a prominent role in health inequality, leading to societal disparities. Implicit bias can impact a healthcare provider on how a patient is perceived

and treated. It can further influence the patient's plan of care, courses of action, as well as a provider's final decisions for a patient. When addressing implicit bias with nursing students, there is an automatic improvement in effective communication, coordination of care, treatment of chronic conditions, and promotion of disease prevention (Centers for Medicare and Medicaid Services [CMS], 2021). These improvements originate from the implicit bias educational intervention encompassing strategies to reduce unconscious bias in the workplace and scenarios of interactions where implicit bias occurs. The development of unconscious bias awareness improves communication, creating a stronger bond between patient and provider, as well as increasing the participation of the patient and the patient's support group in their care. This healthy relationship can also promote the best practices of healthy living and engage the community in participating in such practices (CMS, 2021).

Establishing a safer environment and improved care delivery is the result of this relationship. Reducing hospital readmission and improving self-care management occur indirectly because of the stronger patient-provider relationship, contributing to more affordable health care (CMS, 2021). To address health disparity and reach health equity, healthcare students must be aware of implicit bias's existence, its place in the healthcare system, and its enormous impact on patient outcomes. The goal is to help future healthcare providers perceive their implicit biases and act to reduce this unconscious behavior, thus improving overall patient care and outcomes.

*Problem Statement*

A particular focus and concern on the impact of unconscious bias in health care are surfacing as health disparities widen between specific population groups in the United

States. Different research observes the correlation between implicit bias, healthcare disparities, and its impact on different subjects. For instance, the authors of the article *Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities* refer to a qualitative study that found that physicians' implicit pro-White views detected on an IAT test corresponded with a Black patient's perception of lower-quality care and poor patient-provider communication, therefore perpetuating health disparities (Chapman et al., 2013). Universities provide the best environment to introduce the subject of implicit bias in health care because these organizations establish health professional education, which is the foundation of future health care. The publication of only a few articles refers to the intervention or impact of implicit bias in nursing (Gatewood et al., 2019). A research article published in *The Journal of Nursing Education* was completed in a graduate nursing program addressing implicit bias through innovative teaching strategies. After the completion of the study, the authors advocate for consistent exposure to implicit bias education in academic curricula at all levels of nursing education (Schultz & Baker, 2017). Many Universities are committed to teaching diversity and cultural awareness; however, there is little effort in teaching implicit bias and its impact on health care. It is time to bridge this gap by increasing awareness of unconscious bias in health care and using universities as the primary setting to engage in this discussion. Therefore, the PICO question for this DNP project is: Among nursing students at The University of Southern Mississippi, how does education and testing on implicit bias improve awareness and provide strategies to reduce unconscious bias, compared to before implicit bias education and testing during a two weeks period?

## Available Knowledge

The *Association of American Medical Colleges (AAMC)* addresses patient care disparities and has linked implicit bias to such inequality. In their newsletter, the AAMC highlights findings related to pain management and the medical staff's perception of pain (Sabin, 2020). The author examines one research completed in 2016 on racial bias and pain management. The study found that almost half of the white medical students and residents from the study population held false ideas about biological differences between blacks and whites (Hoffman et al., 2016). Some of these beliefs included that black people's blood coagulates faster and that black people have thicker skin, thicker skulls, and less sensitive nervous systems than whites (Hoffman et al., 2016). All these findings can be associated with the disparity in pain management between races. The author of AAMC news also mentions that blacks/African Americans are about 22 percent less likely to receive pain medications (Sabin, 2020). In addition, a Meta-analysis and systematic review research further found that African Americans are 34 percent less likely than whites to be prescribed opioids for conditions such as backache, abdominal pain, and migraines (Meghani et al., 2012).

Unconscious biases are not limited to race. In early 2020, the *American College of Cardiology (ACC)* published in their magazine an article on implicit bias related to quality care and diversity in medicine. There, the author not only talks about how Blacks and Hispanics are less likely to receive pain medications regardless of enduring acute injuries but encompasses other populations that need attention (Ross, 2020). In the article, the author also addresses women and the elderly population. The authors discuss how women are less likely to be diagnosed with COPD or be referred for total knee

replacement surgery (Ross, 2020). *Harvard Health Publishing* discussed how women are more likely to receive sedatives than pain medication. Women who received coronary bypass surgery were half as likely to get pain medications compared to men who had undergone the same procedure, and women waited an average of 65 minutes compared to 49 minutes to receive analgesics for acute abdominal pain in the E.R. in the U.S. (Kiesel, 2017).

Additionally, the ACC magazine mentioned how physicians were less likely to treat suicidal ideations in the elderly even though this population is among the highest suicidal rate age group (Ross, 2020). Other populations vulnerable to such biases are immigrants, sexual minorities, children, neonates, the poor, the overweight, the disabled, the mentally ill, and those with low health literacy. The examples above are a few illustrations of how implicit bias currently impacts patient care and outcomes

In a systematic review completed in 2017, the authors determined that healthcare professionals have the same level of implicit bias as the wider population (FitzGerald & Hurst, 2017). Although there is a need for more research on this subject, these authors presented a correlation between implicit bias and its influence on diagnosing and treating patients. After reviewing all publications, the authors highlighted the need for healthcare education on the role of implicit bias in healthcare disparities. They encouraged awareness of implicit and explicit biases since they produce conflicting actions to treat all patients equally (FitzGerald & Hurst, 2017).

## Needs Assessment

Implicit bias exists in everyone. Those biases can be positive or negative and result from automatic associations the mind creates through categorizing familiar versus

unfamiliar, same versus different, them versus us, likes versus dislikes, etcetera. These categorizations are inevitable and not necessarily harmful, and they are an essential aspect of life because they influence every individual's decision-making process. Therefore, it is the responsibility of each individual to recognize whether biases are negatively influencing their decisions, consequently making an effort to correct their actions.

The prevalence of health disparities in the United States indicates a need for change. Research continues to show that levels of explicit biases among clinicians are low, leading many authors in the field to believe that implicit bias between patient and provider is the actual link to healthcare disparities in the nation (Blair et al., 2013). Today, healthcare disparities such as maternal mortality rate and access to health care for those with COVID-19 have heightened the problems with implicit bias in health care, increasing the need for action. For instance, in the United States, data show that maternal and perinatal mortality is the highest among developed countries. Of those fatalities, the article *Income Inequality and Racial Disparities in Pregnancy-Related Mortality in the U.S.* observes a persistent increase in the mortality gap between non-Hispanic blacks and all other women (Vilda et al., 2019). Black women are three to four times at greater risk of maternal mortality than their White counterparts (Gopal et al., 2021).

A more recent example surrounds the COVID-19 pandemic, as there was a considerable disparity between races and social-economic groups and access to health care. As of April 23, 2021, the national COVID-19 mortality rate for American Indians or Alaska Natives, and Hispanics or Latinos was almost 2.5 times higher than for Whites (Centers for Disease Control and Prevention [CDC], 2021). The hospitalization rates for

American Indians or Alaska Natives were 3.5 times higher than Whites, and Hispanics or Latinos were three times more likely to be hospitalized than Whites. Not too far behind, the mortality rate for Blacks was approximately two times higher than for Whites, and hospitalization rates were 2.8 times higher than for Whites (CDC, 2021). SDH contributes to people's health status and is part of the reason health disparities exist today. However, biases are undeniable factors that are at the basis of health equity.

The statistics above prove that implicit bias is a current issue in health care today. There is a need to create a safe, non-judgmental environment where healthcare providers can explore challenging and sensitive topics such as unconscious bias. As creators of prospective healthcare providers, it falls upon universities to begin this process and address the impact of unconscious bias in the workplace while addressing its lasting effect on patient outcomes, providing strategies to manage these unconscious behaviors.

## Synthesis of Evidence

### *Search Strategy*

A set of searches from CINHAL determined the importance of this project. To understand the current issue, the author searched for the population of interest by searching the terms *nursing students* or *medical students* or *students in medicine* or *healthcare students* or *students of nursing* or *student nurse* or *health science students* or *graduate nursing students* or *nursing school* or *nursing residency programs* or *post-graduate education* or *postgraduate education* or *residency* or *residency program* or *fellowship* or *medical school* or *medical education* which yielded 129,011 articles. There was limited research on implicit bias and nursing education; therefore, using terms

related to medical education allowed for an adequate number of articles related to this project.

Then a search on the implementation methods using the terms *implicit bias education* or *implicit bias test* or *implicit bias training* or *implicit bias training in school* or *implicit bias teaching* or *unconscious bias education* or *unconscious bias training* or *unconscious bias teaching* or *hidden bias instruction* or *hidden bias test* or *unconscious bias test* or *implicit association test* or *IAT* was performed yielding 1,043 articles.

Another search was completed with keywords for the desired outcome using the terms *awareness* or *knowledge* or *understanding* or *reduce bias* or *decrease bias* or *minimize bias* or *strategies to reduce bias* or *strategies to decrease bias* or s*trategies to minimize bias* or *strategies reducing bias* or *strategies decreasing bias* or *strategies preventing bias* or *bias strategies* or *counter bias* or *interrupt bias* or *overcome bias* or *challenge bias* or *aware* or *recognize bias* or *bias conscious* or *methods reduce bias* or *methods decrease bias* or *methods minimize bias* or *methods prevent bias* or *technique prevent bias* or *technique minimize bias* or *technique reduce bias* yielding 549,937 articles.

To refine the search, the word *and* was used to combine all the keywords, resulting in 25 articles relevant to the project since 2009. The author filtered the search by the 2015 publication date, generating 21 articles. These articles were further analyzed, and a selection of 16 articles was chosen based on their relevance to this project. All articles contained implicit bias education at the university level. The DNP project investigator found only one article on nursing students' education; all other articles reflected medical schools and students.

*Implicit Bias, the Decision-Making Progress, and Health Disparities*

The dual process decision-making theory emphasizes the two systems that aid individuals in making decisions (Gopal et al., 2021). One system is responsible for rational cognitive decisions, which are carefully thought through, controlled, and slow in action, while the other system helps with automatic, fast, effortless, and associative decision-making processes (Schnierle et al., 2019). Social psychology research shows that stereotypes and prejudices become invisible over time, and the automatic categorization of individuals as members of certain social groups can trigger unconscious thoughts and feelings associated with the generalized group (Stone & Moskowitz, 2011). Instant cognitive processes are commonly triggered in high-stress situations when efficient decision-making is required, frequently occurring in medicine (Sherman et al., 2019). Implicit bias can be the result of an individual's reliance on mental shortcuts that facilitate making decisions in fast-paced environments that are demanding and encourage rapid, automatic decision-making (Schnierle et al., 2019). The explicit denial and rejection of these feelings (prejudices) and thoughts (stereotypes) can imply that implicit negative attitudes and stereotypes can influence the evaluation and interaction of healthcare providers with patients of minority groups (Stone & Moskowitz, 2011). Therefore, through the decision-making and communication of health professionals, implicit bias contributes to and influences health disparities, and education on implicit bias is a continuous focus for health professions (Gonzalez et al., 2021).

Attitudes and stereotypes are automatic and unconscious and are an important cause of biased judgments and behaviors (Byrne & Tanesini, 2015). Research has conflicting findings regarding the influence of unconscious bias in patient-provider

communication and clinical decision-making (Hernandez, 2018). Also, mixed evidence is present on the impact of a physician's implicit bias and patient medical treatment care plans (Gatewood et al., 2019). Few studies investigate the impact of implicit bias on health outcomes; however, substantial evidence proposes that implicit bias affects nonverbal communication, overall decision-making, and treatment recommendation (Schnierle et al., 2019).

Furthermore, research shows significant evidence of the impact of interpersonal interactions and patient perception of the healthcare provider encounter (Gatewood et al., 2019). Even though healthcare practitioners strive to be altruistic and aim to provide impartial care, unconscious bias from subtle and subconscious factors can lead practitioners to make clinical decision choices differently depending on the patient's sex, race, or ethnicity (Devine et al., 2012). Some research suggests that practitioners' implicit bias can harm patient-provider relationships (Hernandez, 2018). Research has also found differences in practitioner care provided to patients of different racial backgrounds with diabetes and renal transplantation (Devine et al., 2012). Therefore, health practitioners should concern themselves with how unconscious bias can negatively impact clinical assessment and judgment (Schnierle et al., 2019). Implicit bias adversely affects patient-provider relationships, which could lead to adverse patient outcomes; thus, training and education on implicit bias among nurses and other healthcare providers are essential (Gatewood et al., 2019).

Physician implicit bias can potentially impact communication with patients negatively and, therefore, patient outcome, as implicit bias is unconscious stereotyped assumptions about patients (Hernandez, 2018). In Schnierle et al. (2019) study, the

authors address how an analysis combined the data between project Implicit Association Test and U.S. Natality Files and found that prejudice leads to adverse health outcomes through structural discrimination in the healthcare system, ineffective coping strategies, increase in emotional and psychological stress, and interpersonal interactions that are hostile. The *Institute of Medicine (IOM)* (2003) wrote a report titled *Unequal Treatment: Confronting Racial and Ethics Disparities in Health Care,* where they highlighted healthcare providers' biases as a contributing factor to racial disparities. As health disparities continue to persist, healthcare providers and healthcare organizations continue to play a role in perpetuating health disparities seen in socioeconomic status, gender, sexual orientation, age, race, and ethnicity (Sherman et al., 2019). Improved implicit bias shows better nonverbal communication and increased patient satisfaction leading to better patient-provider relationships, respectful communication, and more patient-centered care, which in turn, patient experience and outcomes can also improve (Phelan et al., 2015).

*Implicit Bias and Healthcare Institution Education*

It is essential to take individual initiatives to tackle biases; however, healthcare institutions and system leaders need to take ownership and integrate implicit bias training in medical education and prioritize the increase in the diversity of the medical workforce (Schnierle et al., 2019). The IOM recognizes implicit bias as a problem and recommends education as one of the most critical tools to eliminate healthcare disparities (Devine et al., 2012). Even though diversity and cultural competency are at the forefront of the curricular Essentials set forth by the *American Association of Colleges of Nursing*, the effective teaching of these competencies is a continuous challenge (Gatewood et al., 2019). In medical education, there is no standard curriculum addressing implicit biases to

either instruct on how to recognize them or how to overcome them (Devine et al., 2012). Also, there are currently no requirements in nursing education to educate and train nurses on implicit bias (Gatewood et al., 2019). The curriculum for health professionals needs to go beyond recognizing implicit bias through self-reflection. Curriculums should provide insight on how these biases can perpetuate institutional inequalities, possibly aggravating structural racism, and empower healthcare professionals by giving skills to manage racism and other implicit bias encountered in their professional lives (Sherman et al., 2019). Sherman et al. (2019) discuss the need to encourage learning communities to have open dialogue on complex and challenging topics such as implicit bias.

Medical students' attitudes on humanism and ethical principles negatively shift as clinical years progress. Although the education of physicians at all stages of training can significantly reduce health disparities, education efforts in medical schools are especially beneficial when students are still at the earlier stages of their professional progress due to the shift in attitude (Devine et al., 2012). Gatewood et al. (2019) take a similar stance and advocate for the inclusion of implicit bias training across all levels of nursing education. Once individuals recognize specific biases, several strategies that are recommended help individuals act upon these biases, which include perspective-talking, individuating, and habit of mind (Sherman et al., 2019). Sherman et al. (2019) indicate that the use of self-assessment, technical skills, and opportunities for self-reflection to improve awareness of cultural differences are approaches that emphasize awareness and action on an individual level rather than a systemic level and emphasize the need for systemic change. A factor that significantly influences systemic change is the impact of educators on students. For instance, research on weight bias showed that faculty staff and educators who

demonstrated disrespect, poor treatment, prejudice, or low expectations of obese patients established negative attitudes hindering students' attitudes toward these patients (Phelan et al., 2015). The opposite can occur when students are exposed to role models demonstrating positive attitudes toward a group of patients. The poor role modeling of faculty negatively influences professional identity formation and may increase implicit bias (Gonzalez et al., 2021).

Some researchers used the educational curriculum and Implicit Association Test (IAT) as an intervention method for their studies. A few researchers focused on implementing a comprehensive curriculum dedicated to LGBTQ health. Ufomata et al. (2018) reveal the successful implementation of a pilot curriculum which increased the knowledge and confidence of residents to provide care for LGBT in primary care settings. Another research using the eQuality curriculum showed a reduction in implicit preference for *straight* people, and due to this result, researchers want to use the model for other disparate populations (Leslie et al., 2018). In a different research, individual participants of unconscious bias training voiced an increase in awareness and a commitment to address racial bias, sharing their appreciation for the training (Sherman et al., 2019). Most emergency medicine residents who participated in IAT testing as part of their curriculum also verbalized that the education program increased implicit bias awareness and influenced their way of practice with pain management (Siegelman et al., 2016). A research project completed with nursing students revealed an increase in bias awareness, the improved ability to manage nursing care, and the ability of the activity to help identify strategies to manage implicit biases (Gatewood et al., 2019). Overall,

research shows positive influences of implicit bias training at all levels of the healthcare educational curriculum.

The appropriate time to add implicit bias training in the curriculum is still to be determined (Gatewood et al., 2019). However, teaching bias recognition cannot be done in a single session. No single method can prompt the regulation of implicit bias other than self-regulatory efforts translating their own bias to chronic awareness (Devine et al., 2012). The nature of implicit bias indicates that increased awareness does not lessen biases, and only through repeated conscious practice can awareness be achieved (Byrne & Tanesini, 2015). Increased awareness is the first step in acknowledging the existence of implicit bias. Many educators describe bias solely as a lack of awareness, so they believe raising awareness is sufficient to solve the bias problem. However, implicit biases are composed of unconscious and automatic thoughts and behaviors that will not mitigate their effect on behavior by cultural competence training and awareness raising alone (Byrne & Tanesini, 2015). Byrne and Tanesini explore the difference between awareness and habit. They emphasize that the way to deliver bias-free health care is to develop new habits through continuous practice, feedback, and reflection. Therefore, chronic exposure to such topics needs to occur over time. Gatewood et al. study agrees with the information from Byrne and Tanesini (2019) through the feedback of nursing students who suggest incorporating activities of implicit bias awareness throughout their course of study. Approaches such as the eQuality curriculum incorporating 50.5 hours of implicit bias training in the required curriculum in the first two years of medical school are successful examples. Integrating unconscious bias content into existing curricular time not only prevented resistance from faculty concerning the reduction of basic science

hours, but students who received the modified curriculum were proud of the gained knowledge obtained. In contrast, the students who did not participate in the pilot program conveyed disappointment in not having the same experience (Holthouser et al., 2017).

Striving to manage biases and their constant awareness can produce psychological distress (Gonzalez et al., 2021). Therefore, Byrne and Tanesini (2015) recommend implementing small interventions throughout regular, frequent intervals at every stage of the curriculum instead of a one-time training session. Shifting the focus of existing clinical encounters during all stages of the curriculum and combining education with anti-bias strategies, feedback, and the opportunity for self-reflection rather than making significant changes and additions to the existing curricula seems to be the most effective approach (Byrne & Tanesini, 2015).

*Interventions and Strategies to Reduce Implicit Bias*

Project Implicit is a non-profit organization founded by three scientists in 1998 with the goal of educating the public about bias while collecting research data to help the existing knowledge about discrimination and disparities (Project Implicit, n.d.). The Implicit Association Test (IAT) test is the most used intervention to bring implicit bias awareness (Schnierle et al., 2019). The IAT is an initiative from Project Implicit hosted by Harvard University that investigates implicit social cognition (Leslie et al., 2018). This tool measures unconscious bias that individuals may be unwilling or unable to report and helps its participants reflect on their attitudes and behaviors (Siegelman et al., 2016). Gatewood et al. (2019) expand on IAT information by providing topics of testing, which include race, weight, age, sexuality, and skin tone. The authors also address that the first step to tackling the negative impact of implicit bias is recognizing its existence and

attesting that IAT alone is not enough (Gatewood et al., 2019). Because of this notion, researchers use the IAT as one of the tools to address implicit bias and encourage other methods to engage in discussion. One research added a 90-minute session focusing on how physician implicit bias contributes to health disparities (Gonzalez et al., 2021). Byrne and Tanesini (2015) engaged in a small group discussion on the nature of implicit bias after students took the IAT test. Other researchers divided the interventions into steps. For example, the research completed by Gatewood et al. (2019) had students watch a video on implicit bias, read a peer-reviewed article on the presence, consequence, and strategies to reduce unconscious biases, complete IAT testing, and complete a reflective discussion on the activity.

Using implicit bias awareness as the only strategy for this problem can result in unintended behavioral consequences, such as avoiding those who belong to members of social groups for whom they are biased (Gonzalez et al., 2021). In the same study, Gonzalez et al. (2021) reveal that students struggled to identify strategies to mitigate biases despite acknowledging and accepting their implicit biases and desiring to provide unbiased care. Another study revealed that participants desired to have strategies to neutralize implicit bias along with the IAT and implicit bias exercise, and the researchers discussed the standardization of such materials to accelerate the adoption of those strategies (Kallianos et al., 2019). Strategies must be available in the curriculum to minimize the stress and struggles from implicit bias awareness. For example, students not only need to define egalitarianism and how it can relate to healthcare activities, but they can change the way patients are categorized. Taking the perspective of the minority group patient by empathizing with the injustice that specific group experiences as a strategy to

change their biased views (Stone & Moskowitz, 2011). Other strategies include the replacement of stereotypical responses with non-stereotypical responses, imagining a counter-stereotypic group in detail, individuation or obtaining specific information about group members instead of generalized group attitudes, and finding opportunities to meet and engage in positive interactions with different group members (Devine et al., 2012). Slowing decision-making by avoiding tiredness and stress is a prominent strategy to avoid implicit bias (Byrne & Tanesini, 2015).

## Theoretical Framework and Evidence-Based Practice Model

Implicit bias is becoming more recognized among health professional institutions; however, only a few implicit bias-informed educational approaches are available, and these are difficult to evaluate using existing tools (Sukhera, 2018). Similarly, nursing models and theories available do not encompass implicit bias to its full extent. Conceptual models for transcultural nursing are the most compatible theories for this subject and project. These models contain theories on cultural competency, and as previously discussed, many implicit biases have their foundation in cultural influences and the growing-up environment. Campinha-Bacote's Model of the Process of Cultural Competence in the Delivery of Healthcare Services focuses on the belief that cultural competence is an ongoing process rather than an event (Campinha-Bacote, 2002). The author further proposes a direct correlation between the level of competence of a healthcare provider and their aptness to provide culturally responsive healthcare services (Campinha-Bacote, 2002). As a result, Campinha-Bacote suggests that achieving cultural competence needs five principal concepts: cultural awareness, cultural skills, cultural knowledge, cultural encounters, and cultural desire (Campinha-Bacote, 2002). The

healthcare professional must strive for cultural competence continuously, even though individuals frequently resist improving cultural self-awareness.

Creating an environment that promotes implicit bias and cultural competence is a goal that the department of education and schools should strive to achieve. A framework discussed in the *Journal of the Association of American Medical Colleges* presents six key features needed to integrate implicit bias awareness in the education of health professionals. These factors consist of creating a safe and nonthreatening learning environment, increasing overall knowledge surrounding the science of unconscious bias, emphasizing the influence of implicit bias on patient behavior and outcomes, increasing self-awareness of existing individual biases, improving conscious efforts to overcome unconscious bias, and increasing awareness on the influence of implicit bias on others (Sukhera & Watling, 2018). The utilization of this framework is fundamental to educating nursing students on implicit bias, and its use is significant throughout the implementation of this project.

Another framework the project uses is the logic model developed by W. K. Kellogg Foundation. The logic model is a graphical representation of a project that aids with the development and sharing of the author's understanding of the relationship between inputs, activities, outputs, outcomes, and impact of the desired program (Eldridge, 2021). Applying the logic model to this project guided the developer to visualize the aspects necessary to implement the project. (See Appendix A).

## Specific Aims

The objective of this project is an ambitious one. First, the *Blind Spot* DNP project aims to engage nursing students in gaining knowledge on implicit bias in health

care and its impact on patient outcomes. Through implicit bias awareness, the investigator strives to help future healthcare providers recognize their own implicit biases and determine how these biases can influence and interfere with clinical decision-making. As USM nursing students become more aware of unconscious biases in health care and their consequences on patients' health, the goal is to provide strategies to reduce these biases in the workplace, thus improving overall patient care and outcomes. However, implicit bias awareness may be stressful to maintain and may not be lasting. Therefore, this project also proposes to The University of Southern Mississippi the inclusion of implicit bias education throughout the curricula, helping not only to improve implicit bias awareness but also to create the practice of inclusion and equality. The all-encompassing goal is to create better healthcare environments, reduce health disparities, and improve community health equity.

## Doctor of Nursing Practice Essentials

The *Blind Spot* DNP project met all eight DNP essentials defined by the American Association of Colleges of Nursing (AACN). The DNP project author met *Essential I: Scientific Underpinnings for Practice* through synthesizing evidence and evaluating nursing theories (American Association of Colleges of Nursing [AACN], 2006). The development and evaluation of an educational video on implicit bias at The University of Southern Mississippi. *Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking* was achieved by developing, leading, and evaluating the effectiveness of educational training on the ethical dilemma of implicit bias (AACN, 2006). Providing the opportunity for the nursing department at USM to promote excellence in practice further and help bridge the gap in health

disparities. *Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice* (AACN, 2006). The investigator met this essential through the use of Evidence-Based Practice research that guided the dissemination of implicit bias awareness and knowledge which ultimately leads to better patient outcomes, increasing health equity, and reducing health disparities in the community. The use of virtual educational training and the design and use of computer-based surveys to improve patient-provider relationships meets *Essential IV: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care. Essential V: Health Care Policy for Advocacy in Health Care* was met and can contribute to changing the policy of USM by incorporating implicit bias education in their curriculum (AACN, 2006). Future studies can help achieve *Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes* by disseminating implicit bias education to other health disciplines across the university (AACN, 2006). Although this project focused on undergraduate and graduate nurses, this educational intervention is relevant and valuable in all departments desired by the university, including the nutrition and kinesiology departments. *Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health* is used throughout this project by increasing implicit bias awareness in nursing students and providing strategies to reduce these biases, improving patient-provider relationships, and ultimately improving health outcomes and reducing disparities (AACN, 2006). Lastly, using advanced practice leadership skills, the investigator meets *Essential VIII: Advanced Nursing Practice* by educating and guiding students through the complex issue of health disparities influenced by implicit biases (AACN, 2006). By bringing awareness of such

bias, patient-provider relationships, patient satisfaction, and health disparities are improved, optimizing health care, promoting health equity, and improving health outcomes.

## Summary

Implicit bias lives in everyone, and its existence continues to contribute to health disparities in the United States. Part of nursing ethics is to do no harm and treat all equally. Educating nursing students on implicit bias and its effect on health outcomes is essential while providing tools to reduce such biases. No single approach can eradicate implicit bias (Sherman et al., 2019). Like habits, unconscious processes are often contextualized and cannot be managed effectively without repeated interventions (Byrne & Tanesini, 2015). Literature on implicit bias informs that individuals are more prone to biased decisions in stressful situations, when tired, and when quick decisions are needed (Byrne & Tanesini, 2015). Medicine is subject to time constraints, fatigue, and information overload, which makes healthcare providers dependent on mental shortcuts, increasing the reliance on stereotypes (Schnierle et al., 2019). Therefore, implicit biases can negatively impact decision-making. Implicit bias is an underestimated factor contributing to health disparities and worse health outcomes that are predominantly present in minority populations (Schnierle et al., 2019).

An increasing number of research on implicit bias among physicians and medical students is surfacing; however, there is little published on the effect of intervention and training on nursing students and implicit bias (Gatewood et al., 2019). The emphasis on implicit bias training by the healthcare system leadership for students and medical staff can improve workforce diversity as a debiasing strategy (Schnierle et al., 2019). Training

students on unconscious bias at the school level will also reduce bias in new practitioners. Implicit bias training and education are essential for future healthcare providers, including nurses (Gatewood et al., 2019). The need for implicit bias awareness is essential; however, awareness must become habits to deliver bias-free health care (Byrne & Tanesini, 2015). For habits to develop, there needs to be a curriculum available involving small interventions throughout all stages of education and where interventions occur over time, providing strategies to mitigate implicit biases. A prominent strategy to prevent implicit bias is to avoid tiredness and stress by engaging in controlled processes and slowing down decision-making (Byrne & Tanesini, 2015). This DNP project proposes implementing an educational intervention with nursing students to increase nurses' awareness of implicit bias. This project aims to allow nursing students to be better prepared to treat patients of minority groups and improve future patient-provider relationships, communication, and health outcomes. Thus, ultimately reducing health disparities and reaching health equity in the community.

# CHAPTER II – METHODOLOGY

## Introduction

The educational training on implicit bias was composed of evidence-based practice research, and its implementation took place at The University of Southern Mississippi. An introduction to implicit bias training consisting of videos, case scenarios portraying implicit bias and patient outcomes, the opportunity to complete IAT tests, and strategies to reduce unconscious bias was offered to undergraduate and graduate nursing students who wished to participate in this project. This project is the first implementation of the effects of implicit bias in health care at this university in approaching students in the health field.

## Intervention

The *Blind Spot* DNP project was executed and completed at The University of Southern Mississippi, where nursing students who consented and belonged to the inclusion criterion previously set by the DNP project investigator could participate in an educational intervention. First, the student completed a baseline survey encompassing demographic information and a few questions related to implicit bias to indicate to the investigator how much previous knowledge the student had on unconscious bias before the educational intervention. Then, the student had access to a video created by the DNP project researcher that showed a variety of material on implicit bias and how it can influence decision-making and impact health care during the hour-long video. In this video, the educator defined implicit bias and how it can impact patient outcomes through *YouTube* videos and real-life stories. The educator also talked about the ability to complete as many IAT tests as desired and gave students the link to test themselves on

whatever topic available at their convenience. Part of the education intervention also contained strategies to reduce implicit bias and encourage students to use those tools in the clinical environment. Lastly, students who completed the educational video were encouraged to complete a post-intervention survey where more in-depth questions on implicit bias were available, guiding the investigator in the effectiveness of the intervention.

*Population and Setting*

The population of focus for this project was current/future nurses presently accepted and enrolled by The University of Southern Mississippi as nursing students in either the undergraduate or graduate nursing program. The sample included any participant who was part of the inclusion criterion of being an active USM student in the nursing department.

*Instrument of Measure*

The development and use of multiple-choice and Likert-scale question surveys were the instruments to measure this outcome. After the pre-survey consisting of multiple-choice answers, nursing students began watching the educational video addressing implicit bias in health care and its influence on patient outcomes, including strategies to reduce unconscious bias in the workplace. Subsequently, a post-survey measured the effectiveness of the intervention and nursing students' implicit bias awareness perception through Likert-scale and multiple-choice questions.

The evaluation of the educational training in providing implicit bias awareness was through a pre and post-questionnaire. This survey evaluated the knowledge gained by participating in this project on the impact of implicit bias and health outcomes,

bringing implicit bias awareness, and providing strategies to reduce unconscious bias. Measurement tools such as the Likert scale were the foundation of the questions found in the post-survey. The investigator incorporated two free-text questions into the post-education questionnaire allowing participants to express their thoughts on the project and their beliefs on teaching implicit bias at the university level. These questions provided a qualitative measure for this project, and all surveys were collected electronically through *Qualtrics*. To quantify, measure responses, and keep participants' information anonymous, the investigator used *Qualtrics*, a software that creates and distributes internet-based surveys. Using *Qualtrics* provided statistical analysis and insight into the effectiveness of the educational intervention.

*Data Analysis*

The investigator created both pre and post-surveys using *Qualtrics* Software. This software has built-in data analysis intelligence designed to highlight patterns and trends among the survey respondents. The data collected originated from all eligible nursing students participating in this project. Therefore, *Qualtrics* automatically collected the data provided by the responders. The software calculated the mean scores of individual questions once the data was collected, which allowed the investigator to explore the relationship found in the data between the students' experience with educational training and implicit bias awareness

*Ethical Considerations*

The University of Southern Mississippi Institutional Review Board (IRB) (Protocol #21-278) approved this project to be completed at The School of Leadership and Advanced Nursing Practice in the College of Nursing and Health Professions. Each

participant signed an electronic consent before the beginning of the project and was assured anonymity. *Qualtrics* ensured anonymity, and all data collected was saved in the same software requiring password-protected access only accessible to the investigator. All videos included in the educational training were public domains easily accessible through *YouTube*, and the case scenarios provided contained information on patients whose reports were public.

## Summary

As health disparities continue to exist in Mississippi and the United States, researchers have inquired about the presence of implicit bias as a contributing factor to such inequalities. The DNP project investigator completed this research using pre and post-surveys to evaluate whether educating nursing students at USM increases implicit bias awareness. The *Blind Spot* DNP project addressed this topic by providing an educational training video on implicit bias. Contingent on the results, the investigator proposes the introduction of implicit bias training as an effective method to bring implicit bias awareness to nursing students at USM. The goal is to detect an increase in knowledge of implicit bias, recognize the benefit of implicit bias awareness, its impact on health care and patient outcomes, and acquire strategies to reduce these biases.

# CHAPTER III - RESULTS

## Introduction

The *Blind Spot* DNP project was a four-step assignment aiming to address implicit bias and bring awareness among nursing students at USM. A detail of the four-step intervention completed for this project follows in Table 1. To deter participants from personal partiality toward the project, the investigator intentionally selected a neutral title for the project - *Blind Spot*. The data collected from pre- and post-intervention surveys determined the effectiveness of the educational training in bringing implicit bias awareness to nursing students at USM. The researcher contacted the student services director of the nursing department to disseminate the project to all undergraduate and graduate nursing students at USM and further maintain the anonymity of each participant.

Table 1

*Implicit Bias Intervention*

| | |
|---|---|
| **Step 1** | **Pre-intervention survey** |
| | • Demographics questionnaire<br>• Baseline knowledge of implicit bias<br>• Belief in implicit bias existence<br>• Correlation between implicit bias and health disparities |
| **Step 2** | **1-hour educational video** |
| | • How the unconscious brain works<br>• Overview of implicit bias<br>• Ways to measure unconscious bias – introducing IAT tests<br>• Relevance of implicit bias in health care<br>• Impact of implicit bias and patient outcomes<br>• Ways to reduce and manage implicit biases |
| **Step 3** | **IAT test** |
| | • Ability to take any IAT tests |

Table 1 (continued).

| | |
|---|---|
| **Step 4** | **Post-intervention survey** |
| | • Evaluation of the effectiveness of educational video<br>• Implicit bias awareness<br>• Implicit bias education at the university level<br>• Recognition of implicit bias |

Note: This table demonstrates the steps necessary to complete the DNP project in its entirety.

During the first step, students completed a pre-survey with demographic questions and a few questions on their knowledge and belief of implicit bias and the correlation between unconscious bias and health disparities. In this step, the student services director sent an email to a total of 530 nursing students with a link to the survey along with IRB approval. All emailed students had the opportunity to participate in this DNP project and automatically consented by clicking on the link provided in the email. The link provided directed participating students to a *Qualtrics* survey link where they began their pre-survey questions.

After completing the pre-survey, students automatically proceeded to step two of the intervention. In this step, participants were redirected to a *YouTube* webpage through an embedded hyperlink following the pre-survey in *Qualtrics*. On the *YouTube* webpage, participants had access to watch the one-hour-long educational video previously created by the investigator. Students who watched the educational video and completed both pre and post-surveys were eligible to earn one CEU credit toward nursing education.

Following the hour-long educational video, participants had the option to complete step three by clicking on a different hyperlink redirecting students to the Harvard-based research website on implicit bias education, where students could participate in taking IAT tests on their own. Step three was optional, so students could skip this step and move to the last stage, step four, to complete the post-intervention

survey. Once completing all four steps, the investigator provided information for USM Counseling Services, giving participants a resource to utilize in case they experienced distress from the content exposed during the project presentation.

## Results

The DNP project researcher sent an email invitation to 530 nursing students to participate in this research. Participants had two weeks to complete the pre-survey, watch the educational video and complete the post-survey. A total of 30 nursing students (7 undergraduate and 23 graduate nursing students at USM) consented and completed the pre-survey part of the project. Of the 30 initiating participants, 18 completed both pre and post-intervention surveys. As presented in Table 2, the analysis of the demographics showed that participants were primarily female, between the ages of 25-44 years, and of the White race. Of all participants, 63% of nursing students had already started clinical rotations, and 20% had never worked in any nursing capacity before this project.

Table 2

*Demographics Information*

| | | |
|---|---|---|
| **Racial/ Ethnicity** | • White<br>• Black of African American<br>• Asian or Asian American<br>• Middle Eastern or Northern African | 68% (n=21)<br>26% (n=8)<br>3% (n=1)<br>3% (n=1) |
| **Age Group** | • 18-24<br>• 25-34<br>• 35-44<br>• 45-54<br>• ≥ 65 | 17% (n=5)<br>30% (n=9)<br>30% (n=9)<br>7% (n=2)<br>3% (n=1) |

Table 2 (continued).

| | | |
|---|---|---|
| **Gender** | • Male<br>• Female<br>• Other | 17% (n =5)<br>83% (n=25)<br>- |
| **Nursing Program** | • Undergraduate<br>• Graduate | 23% (n=7)<br>77% (n=23) |
| **Clinical Rotation Started?** | • Yes<br>• No | 63% (n=19)<br>37% (n=11) |
| **Currently Working or Ever Worked in Any Nursing Capacity?** | • Yes<br>• No | 80% (n=24)<br>20% (n=6) |

Note: This table displays the demographic questions asked during the pre-intervention survey.

Additionally to the demographics, the researcher collected data regarding participants' rudimentary knowledge of unconscious bias. As found in Table 3, multiple choice and Likert scale questions used in the pre-survey guided the investigator in understanding how much prior knowledge students had on unconscious bias. The questionnaire revealed that most participants were familiar with implicit bias (approximately 50% considered themselves *very* or *extremely familiar* with the topic), and only 7% reported total unfamiliarity with the subject. Participants were also very confident in the belief that unconscious bias exists in health care (50% of students answered they *definitely* believed implicit bias exists in health care, and 47% believed implicit bias *probably* exists in health care).

Table 3

*Student Base Knowledge of Implicit Bias*

| *Have you ever heard of implicit bias before today?* | **Yes** | **No** | | | |
|---|---|---|---|---|---|
| | 87% (n=26) | 13% (n=4) | | | |
| | **Extremely familiar** | **Very familiar** | **Moderately familiar** | **Slightly familiar** | **Not familiar at all** |
| *How familiar are you with implicit/unconscious bias?* | 17% (n=5) | 33% (n=10) | 27% (n=8) | 17% (n=5) | 7% (n=2) |
| | **Definitely yes** | **Probably yes** | **Might or might not** | **Probably not** | **Definitely not** |
| *Do you believe implicit bias exists in health care?* | 50% (n=15) | 47% (n=14) | 3% (n=1) | - | - |
| ***How much do you agree with the statements below?*** | **Strongly agree** | **Somewhat agree** | **Neither agree nor disagree** | **Somewhat disagree** | **Strongly disagree** |
| *Implicit bias exists.* | 70% (n=21) | 23% (n=7) | 7% (n=2) | - | - |
| *A healthcare provider's implicit bias can influence patient care and patient outcomes.* | 60% (n=18) | 33% (n=10) | 7% (n=2) | - | - |
| *Health disparities exist in the United States.* | 37% (n=11) | 7% (n=2) | - | 3% (n=1) | 53% (n=16) |

Note: The table above displays the questions asked on the pre-intervention survey to evaluate nursing students' basic knowledge of implicit bias.
Due to rounding, rows may not add to 100%.
N = 30 responses.

To further analyze implicit bias awareness among nursing students at USM, the investigator used a different set of Likert scale questions (*strongly agree* to *strongly disagree*) to measure how much participants agreed with certain statements. While 23% of participants responded that they *somewhat agreed* with the statement that implicit bias exists, most students *strongly agreed* (70%) with the same statement. Similar statistics reported participants' views on the statement that a healthcare provider's implicit bias

influences patient care and outcomes. However, fewer students *strongly agreed* with the statement above (33% *somewhat agreed* and 60% *strongly agreed*). Surprisingly, when asked about the existence of health disparities in the United States, most students *strongly disagreed* with the statement (37% *strongly agreed* and 53% *strongly disagreed*). The investigator asked this question to see if participants found a correlation between implicit bias and health disparities.

Once the educational video was complete, participants returned to the survey platform and finished a post-intervention survey. Once again, questions ranging from *strongly agreed* to *strongly disagreed* in a Likert scale questionnaire were used to answer ten questions provided. The intention behind these questions was to measure implicit bias awareness, students' increased knowledge of methods to reduce implicit bias, and participants' opinions on the need for training at the university level. As shown in Table 4, most students found the assigned video to help increase unconscious bias awareness (88% *agreed* or *strongly agreed*). Of all participants, 83% of students *agreed* or *strongly agreed* that the intervention helped identify strategies to manage implicit bias, 72% *agreed* or *strongly agreed* that the activity provided allowed participants the ability to manage their implicit biases better, and 94% of participants also *agreed* or *strongly agreed* implicit bias education is vital at the academic level. Most students also understood that recognizing their implicit personal biases helped manage the effects of implicit bias in nursing care (94% *agreed* or *strongly agreed*).

Table 4

*Student Evaluation of Educational Video Activity*

| | **somewhat disagree** | **neither agree nor disagree** | **somewhat agree** | **agree** | **strongly agree** |
|---|---|---|---|---|---|
| *My knowledge of implicit bias increased from this educational training.* | - | 6% (n=1) | 6% (n=1) | 33% (n=6) | 56% (n=10) |
| *Implicit bias education is important at the University level.* | - | - | 6% (n=1) | 6% (n=1) | 89% (n=16) |
| *It is important to recognize implicit bias in health care* | - | - | 6% (n=1) | - | 94% (n=17) |
| *I am confident I can recognize implicit bias in health care* | - | - | 6% (n=1) | 44% (n=8) | 50% (n=9) |
| *I am confident in the knowledge I gained from this training.* | - | - | 11% (n=2) | 33% (n=6) | 56% (n=10) |
| *The educational training received through the Blind Spot Project was helpful in increasing implicit bias awareness* | - | 6% (n=1) | 6% (n=1) | 35% (n=6) | 53% (n=9) |
| *Recognizing my personal implicit biases are helpful in managing the effects of implicit bias in my nursing care* | - | - | 6% (n=1) | 17% (n=3) | 78% (n=14) |
| *Based on this activity, I am better able to manage my implicit biases* | 6% (n=1) | 11% (n=2) | 11% (n=2) | 22% (n=4) | 50% (n=9) |
| *Based on this activity I am more aware of my implicit biases* | - | 11% (n=2) | 6% (n=1) | 28% (n=5) | 56% (n=10) |
| *The Blind Spot Project on implicit bias was helpful in identifying strategies to manage the effects of implicit bias in my nursing care* | - | 6% (n=1) | 11% (n=2) | 28% (n=5) | 56% (n=10) |

Note: The table above indicates the questions asked on the post-intervention survey to evaluate nursing students' awareness (Gatewood et al., 2019). The investigator omitted columns category *disagree* and *strongly disagree* due to both columns having no participants, therefore yielding zero answers. Due to rounding, rows may not add to 100%. n = 18 responses.

Students could take IAT tests through a link provided by the investigator. Table 5 shows that 78% of participants took the IAT test and completed an average of 1.6 tests. When asked about the participants' perception of their IAT test results, most students reported that their results were slightly surprising and slightly different than expected. This self-evaluation can benefit future studies in understanding the correlation between implicit and explicit biases. Also, the results of the IAT test can help participants manage their biases more effectively as they are now more aware of the most biased categories.

Table 5

*IAT Testing and Implicit Bias Knowledge Perception*

| | **Extremely knowledgeable** | **Very knowledgeable** | **Moderately knowledgeable** | **Slightly knowledgeable** | **Not knowledgeable at all** |
|---|---|---|---|---|---|
| *How much prior knowledge did you have on implicit bias?* | 17% (n=3) | 28% (n=5) | 50% (n=9) | 6% (n=1) | - |

| ***IAT test (Optional)*** | **Yes** | **No** | | | |
|---|---|---|---|---|---|
| *Did you have an opportunity to take the IAT test?* | 78% (n=14) | 22% (n=4) | | | |
| *How many IAT tests did you complete prior to completing this survey?* | **1** | **2** | **3** | **4** | **≥ 5** |
| | 63% (n=10) | 13% (n=2) | 25% (n=4) | - | - |
| ***Regarding your individual results on the IAT:*** | | | | | |
| *I was surprised by my results on the IAT—they were quite different from what I would have expected.* | 11% (n=2) | | | | |
| *My individual results on the IAT were only slightly surprising—they were only slightly different from what I would have expected.* | 39% (n=7) | | | | |

Table 5 (continued).

| | |
|---|---|
| *My individual results on the IAT were not surprising at all—they were exactly what I would have expected.* | *17% (n=3)* |
| *N/A* | 28% (n=5) |
| *I prefer not to answer* | 6% (n=1) |

Note: The table above specifies the questions asked on the post-intervention survey to evaluate nursing students' change in knowledge of implicit bias and gather information on IAT testing.
Due to rounding, rows may not add to 100%.
n = 18 responses.

To further evaluate the DNP project, students were encouraged to write narratives of their thoughts on the educational training and their views on implicit bias training at the academic level. As displayed in Table 6, these qualitative measure questions allowed for in-depth insight into how each participant felt about the intervention and the need for institutional recognition of the necessity to address implicit bias in the classroom.

Table 6

*Qualitative Analysis of Participants*

| **What are your thoughts over this project?** |
|---|
| I think this is important to be aware of in yourself to prevent unconscious bias against people, especially when practicing nursing. |
| Implicit bias subtlety influences our interactions and the way we view/treat others. Without awareness of it and strategies to manage it, we will blindly favor only those who are similar to us, leading to unfair treatment of others and lost opportunities for future relationships. |
| I think it's a good project because this type of training can save lives. |
| I believe that this project is great bringing more awareness to this topic especially in healthcare. |
| Valuable and very informative. |
| This was an excellent presentation, and I would like to use it with my nursing students if I may. |
| I enjoyed it. It was an interesting project that brought my own implicit bias to my attention. Thank you. |

Table 6 (continued).

| |
|---|
| It is obvious that the author put in a great amount of preparation and thought while developing this project. I believe the project is very applicable in today's society and delivers effective tools the participant can use in their everyday life when dealing with other genders, races, and cultures.<br><br>This project and the research done to support this project were well organized and executed. The thoughts and information behind it were enlightening and relevant to medical and nursing professions.<br><br>Excellent, well thought out and presented well.<br><br>I feel as though this a needed topic and education for healthcare workers.<br><br>People are not aware of their own implicit biases so a project like this outlines it for you so you're aware!<br><br>I think this project is necessary to show to nursing students because I do believe that there are a lot of implicit biases in the healthcare industry, and this is a great way to show how we should learn more about implicit bias. |
| **What is your opinion on teaching implicit bias at the university level?** |
| I think it's important. I teach at a community college, but I plan to include this in my legal ethical class.<br><br>Every college student should have to watch this video or an equivalent prior to graduation. The world would be better and more forgiving if so.<br><br>It is important to teach it so we know what to look for.<br><br>I believe that this should be taught at the university level.<br><br>This should be a part of the school requirements orientation.<br><br>Necessary component.<br><br>It is a must!<br><br>I believe it is very important for future professionals to learn this information and the university level is an appropriate place to do so.<br><br>I think it is important and should be shared with all individuals, as it impacts everyone.<br><br>I think it should be implemented in order to make the topic more aware to students.<br><br>I believe it is important that students are aware that implicit bias exists and the resources available to assist them if they find themselves in that particular situation.<br><br>It is HIGHLY important and should be emphasized to all levels of university medical and nursing training, as well as other generalized studies. |

Table 6 (continued).

| |
|---|
| Very important and should be taught in academic schools, and those who take political and supervisor roles. |
| It would be helpful for new providers and a good CE activity to promote awareness. |
| I think it should be taught in every GEC curriculum because it's seen everywhere not just health care. |
| I think we should be more aware about this because I think many people are unconsciously favoring certain types of people based off of stereotypes. |

Note: The table above specifies participant's narrative of their thoughts on the *Blind Spot* DNP project and on implicit bias education at the Academic level

## Summary

The question evaluated in this project was: among nursing students at The University of Southern Mississippi, how does education and testing on implicit bias improve awareness and provide strategies to reduce unconscious bias compared to before implicit bias education and testing during two weeks? The results of this project portray a positive correlation between education and testing on implicit bias with an increase in awareness, as revealed by 88% of participating students. Participants also reported the educational activity and testing to help identify strategies to address implicit bias (83% *agree* or *strongly agree*) and revealed it allowed participants to better manage their implicit biases (72% *agree* or *strongly agree*). Furthermore, students expressed the need for implicit bias education at the academic level (94% *agree* or *strongly agree*). Lastly, students further verbalized through text their perception of the activity, its effectiveness, and their thoughts on academic education on implicit bias, as fully displayed in Appendix A Table A6. This DNP project research proves that education is critical in reducing implicit bias in health care, consequently promoting overall health and decreasing health disparities.

# CHAPTER IV – DISCUSSION

## Introduction

The following discussion addresses relevant findings, discusses the education of implicit bias, increased student awareness of those biases, and their potential influence on health disparities. This chapter will also address limitations found in the research and future practice implications. The *Blind Spot* DNP project intended to bring implicit bias awareness to nursing students at The University of Southern Mississippi, in Hattiesburg, Mississippi, by introducing an educational video on implicit bias. The intervention was completed throughout two weeks with a before and after survey to measure its effectiveness. After completing the educational video, most participating nursing students verbalized and agreed on the benefit of the intervention towards an increase in implicit bias awareness. The indirect goal of the investigator is to provide unconscious bias awareness in health care to help decrease health disparities.

## Relevant Findings

The *Blind Spot* DNP project demonstrates the need for implicit bias education to bring awareness to healthcare providers starting at the academic level. It is vital to address unconscious bias in health care and its impact on patient outcomes throughout the academic curricula. As previously mentioned, 63% of nursing students had already started clinical rotations, and 20% had never worked in any nursing capacity before this project. Those individuals with previous nursing experience or who have worked in the field are subject to remediate and corrective education as they most likely have preconceived ideas of different patient populations. Students who have never worked in any nursing capacity may only need training and guidance to model and be aware of

behaviors before developing preconceived thoughts about a group. Education among this group of people likely has a higher probability of success since students will be more aware of the issue before consolidating beliefs about specific patient groups.

The article *Instilling New Habits: Addressing Implicit Bias in Healthcare Professionals* addresses how implicit bias awareness alone cannot directly mitigate bias. They believe only continuous conscious practice can effectively change behavior (Byrne & Tanesini, 2015). Implicit bias awareness and behavior change towards biased groups are improbable with limited exposure to the subject. Only repeated unconscious bias and behavior education can promote habitual changes in individual conduct. Researchers suggest that implementing implicit bias education throughout the academic or clinical curricula provides the means to create such habit-forming behaviors.

Additionally, the project highlighted the further need to research individuals' perceptions of the prevalence of health disparities in the United States. The DNP project on implicit bias revealed that most participating students did not recognize the existence of health disparities in the U.S. Furthermore, it revealed that almost half of the participants were not confident in the existence of implicit bias in health care. If health disparities go unrecognized, it is impossible to establish a connection between implicit bias and health disparities. However, various research provides evidence strongly suggesting that unconscious bias among healthcare providers contributes to disparities in health care. Implicit bias contributes to health disparities by shaping healthcare provider behaviors and influencing medical treatment among susceptible groups (Chapman et al., 2013). As previously discussed, subtle verbal or nonverbal unconscious behavior can influence a provider's decision and directly impact patient care and outcome. These

entwined subjects are essential to determine the need for further education. Recognizing the existence of unconscious bias, the prevalence of implicit bias in health care, and the existence of health disparities in this nation is of ultimate relevance.

Therefore, the benefit of education on implicit bias at the academic level is apparent when analyzing the data. Most universities focus their educational curriculum on health disparities and cultural diversity. At the same time, this DNP project challenges Academies to teach beyond cultural competence and provide education on biases not limited to racial discrimination. Also, the DNP project invites faculty to ponder on the inclusion and illustration of the impact of implicit bias in health care and to teach health disparities along with implicit bias as one of the methods health disparities continue to propagate.

*Limitations*

The investigator contemplated some limitations found throughout the *Blind Spot* DNP project and will address them here. In this DNP project, limitations included the small number of participants, the time-consuming nature of the DNP project, the short time frame of two weeks to complete the project, and the complex platform used for the intervention process.

Initially, the investigator sent an invitation to a total of 530 nursing students in the undergraduate and graduate schools of nursing at USM to participate in the survey. Students had two weeks to complete the activity, and those who chose to participate were eligible to receive one continuing education unit toward their license renewal. Of those students, 30 participated in the pre-intervention survey, while only 18 completed both pre

and post-surveys. The number of participants was statistically insignificant as less than four percent of nursing students fully participated in this project.

A factor that may have discouraged participation in the project was the length it took to complete it. The intervention portion of the project was one hour long; however, participants also needed to complete the pre and post-survey and had the option to complete IAT tests. Therefore, participants could have easily spent several hours partaking in the DNP project. Also, the time frame of two weeks from the time the DNP project was open for participation added another limitation. This short window of time could have deterred participants depending on each individual's current curriculum schedule. Students would likely prioritize their course curriculum assignment due dates compared to volunteer participation in a DNP project. A busy academic calendar schedule and a short time frame to complete the educational intervention could have discouraged interested participants from participating in the *Blind Spot* DNP project.

Lastly, another limiting factor was the complex platform used to complete the project. The investigator could not embed the educational intervention video inside the *Qualtrics* platform. Instead, the investigator had to embed a link to *YouTube* for participants to watch the intervention, changing the webpage multiple times to complete the post-survey. These steps could confuse those unfamiliar with technology and limit the participation of students. Overall, participants needed basic to moderate knowledge of information technology to participate in the *Blind Spot* DNP project, which already limited the number of participants in the DNP project.

*Future Considerations*

Future considerations include using a more user-friendly platform for participants. Using a platform that can include all parts of the research in the same location could encourage participants to complete all project sections, allowing more participants who are not as familiar with computers. The investigator also considers using a non-computer-based survey and intervention as a possible added method to distribute for future studies. The researcher considers allowing students more time to participate in the project instead of limiting it to two weeks. Another future consideration is to implement a second part of the project where a group meeting can be completed either in the classroom or via zoom. In this round table-like discussion, interested participants can discuss implicit bias as perceived in the educational video and the IAT tests in a neutral environment. Such interaction can further improve implicit bias awareness, better understand its impact on health care and disparities, and allow innovative ways to recognize and improve individual implicit biases.

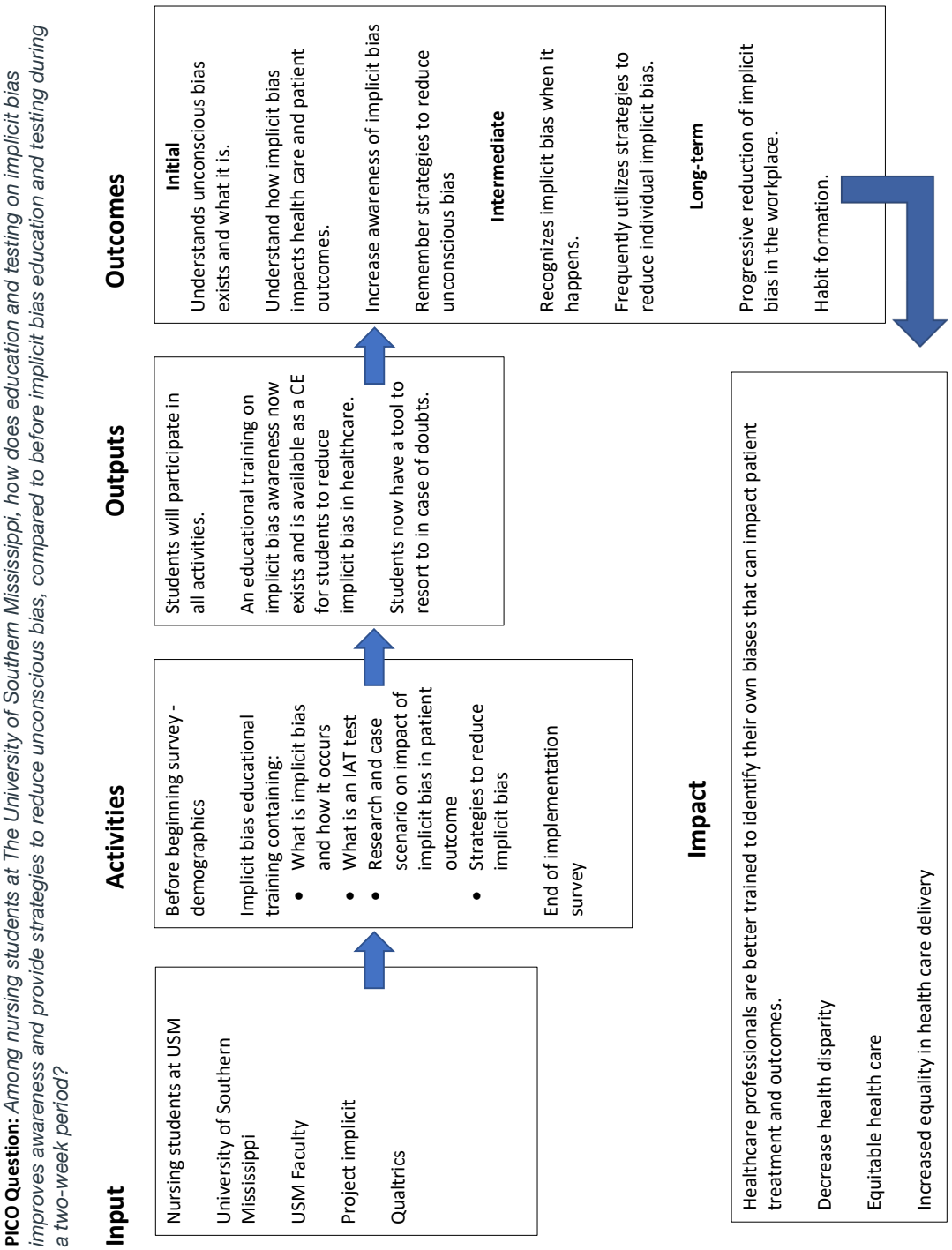
Another future consideration is implementing implicit bias training throughout the academic curriculum. This DNP project has proved that implicit bias can negatively affect patient care and outcomes and that implicit bias education among nursing students increases awareness of personal biases. This article also describes how the awareness of implicit bias cannot be complete in a single event; instead, it needs constant education to create a habit. Therefore tackling implicit bias in health care is best performed in the academic setting. Constructing a nursing education curriculum that includes implicit bias awareness throughout the program would benefit students once clinical rotations begin.

Every semester, students would acquire knowledge that would help build an awareness of unconscious bias and help close the health disparities gap.

## Conclusion

In conclusion, the *Blind Spot* DNP project evaluated the use of education and testing on implicit bias among nursing students at USM to improve implicit bias awareness and provide strategies to reduce unconscious bias, compared to before implicit bias education and testing for two weeks. After completing the project, the investigator concludes that education on implicit bias is essential to help improve healthcare disparities and provide ongoing strategies to reduce individual implicit biases and the possible impact on patient outcomes. There is a need to better educate nursing students on the presence of health disparities in the United States and to show the correlation between health disparities, implicit bias, and patient outcomes. As healthcare providers, we must ensure that every patient has access to equal care and treatment. Nurses are responsible for doing no harm and being open to recognizing the possible behaviors that go against the core beliefs of nursing. This research further concludes the need for nursing students to have implicit bias education exposure throughout the academic curricula as a method of behavioral change. Research shows that early exposure to implicit bias in the classroom influences implicit bias in health care. Nursing schools have an opportunity to bring implicit bias awareness by integrating implicit bias education in their curriculum, therefore providing a more significant impact on health disparities and patient outcomes. The constant guidance of the mind is the foundation for beginning new habits.

# APPENDIX A Logic Model



ATTACHMENT 9B - Educational Planning Table – Live/Enduring Material

APPROVED PROVIDER'S NAME _____

**Title of Activity:** __Blind Spot: Evaluating Implicit Bias Awarness in USM Nursing Students____

**Identified Gap(s):** The gap found is the existance of implicit biases in healthcare.

**Description of current state:** __Nurses may be unaware of their implicit biases and how it is influencing care, equal treatment and impacting patient outcome _____

**Description of desired/achievable state:** _The project desires to bring implicit bias awareness to nursing students at USM and reflect on the impacts implicit bias has on patient outcome._____

**Gap to be addressed by this activity:** x **Knowledge** _____ **Skills** _____ **Practice** _____ **Other: Describe**_____

**Learning Outcome (s)** __Participants will understand what is implicit bias and how it occurs. Have knowledge of the IAT test. Participants will understand how implicit bias impacts health care and patient outcomes. Participants will be familiar with strategies to reduce implicit bias.

_____

**Select all that apply:** ☒ **Nursing Professional Development** ☒ **Patient Outcome** ☐ **Other: Describe** _____

| **CONTENT (Topics)** | **TIME FRAME (if live)** | **PRESENTER/ AUTHOR** | **TEACHING METHODS/LEARNER ENGAGEMENT STRATEGIES** |
|---|---|---|---|
| Provide an outline of the content | Approximate time required for content | List the Author | List the learner engagement strategies to be used by Faculty, Presenters, Authors |
| There will be a small survey to complete before an educational video is presented by the author listed here. This educational video consists of a pre-recorded video of a PowerPoint presentation that include activities to show the existence of implicit biases and thought-provoking YouTube videos that show how implicit biases can impact patient outcomes. | 1 hour | Debora Skaliks | The video contains different activities and YouTube videos to help engage the learner. |
| | | | |
| | | | |
| List the evidence-based references used for developing this educational activity: | | | |

**If Live:**

**Note: Time spent evaluating the learning activity may be included in the total time when calculating contact hours.**

ATTACHMENT 9B - Educational Planning Table – Live/Enduring Material

APPROVED PROVIDER'S NAME _____

**Total Minutes _56__divided by 60=__0.9333__contact hour(s)**

**If Enduring:**

**Method of calculating contact hours:**

**_____ Pilot Study _____ Historical Data _____ Complexity of Content _____ Other: Describe: The educational video is pre-recorded and consists of 56 minutes total._____**

**Estimated Number of Contact Hours to be awarded: ___1_____**

**_____Debora Skaliks, BSN RN_____ ___01/24/2022_____**

**Completed By: Name and Credentials** **Date**

# APPENDIX C – Statement of Consent and Confidentiality

Dear Prospective Participant,

My name is Debora Skaliks, I am a graduate student at the University of Southern Mississippi (USM). I am conducting an anonymous study called the *Blind Spot Project,* which investigates implicit bias awareness. Participants must be undergraduate or graduate nursing students currently enrolled at USM.

If you meet the criterion specified above, I invite you to participate in this study by clicking the link below. Participation will involve an educational video, as well as pre-and post-video surveys. Participants will also be eligible to receive 1 CEU credit hour approved by USM.

All information contained in this study will be anonymous, private, and used for research purposes only. This study has been approved by the Institutional Review Board (IRB) at the University of Southern Mississippi, under protocol number (IRB – 21-278). When there is no longer a need for the data gathered, it will be deleted. Your participation should take about one hour.

This project and its content will be available for a period of two weeks. During this period **(Feb 16 – Mar 2**) the participant may access the material freely at their convenience.
Please answer the questions to your comfort level.

First, click the link below to be redirected to the study site. By clicking on the link below, you consent to participate in *The Blind Spot Project*.

https://usmuw.co1.qualtrics.com/jfe/form/SV_40ovvBH7si7XV9Y

Once the educational video and post-video surveys are complete, click the link below to evaluate the investigator and receive the CEU. The investigator will not have access to the below survey responses. Only Dr. Baskin will have access to the data and keep it secure. Furthermore, the investigator has no conflicts of interest to declare.

https://docs.google.com/forms/d/e/1FAIpQLScvzeFuFUk7GPP2809SuFZZLofUKkzlByxHfW4_FqzSprRgdQ/viewform

Thank you for participating,

Debora Skaliks, BSN, DNP Student
School of Nursing
University of Southern Mississippi

APPENDIX D – Conflict of Interest Letter

# MISSISSIPPI NURSES FOUNDATION
## ATTACHMENT A4 - Conflict of Interest Form

Title of Educational Activity: Blind Spot: Evaluating Implicit Bias Awarness in USM Nursing Students

Education Activity Date: 02/04-02/18

Role in Educational Activity: Leader Name: Debora Skalik

Phone Numb [redacted] Email Address: Debora.skaliks@usm.edu

Current Employer and Position/Title: BSN, RN

### Conflict of Interest

The potential for conflicts of interest exists when an individual has the ability to control or influence the content of an educational activity **and** has a financial relationship with a *commercial interest*,* the products or services of which are pertinent to the content of the educational activity. Relevant relationships must be disclosed to the learners during the time when the relationship is in effect and for 12 months afterward. **All information disclosed must be shared with the participants/learners prior to the start of the educational activity.** ***Relevant relationships***, as defined by ANCC, are relationships with a commercial interest if the products or services of the commercial interest are related to the content of the educational activity.

Is there an actual, potential or perceived conflict of interest for yourself or spouse/partner?

_____ Yes x No

**If yes, complete the following table for all actual, potential or perceived conflicts of interest****

| Check all that apply | Category | Description |
|---|---|---|
| | Salary | |
| | Royalty | |
| | Stock | |
| | Speakers Bureau | |
| | Consultant | |
| | Other | |

** **All conflicts of interest, including potential ones, must be resolved prior to the planning, implementation, or evaluation of the continuing nursing education activity.**

### Statement of Understanding

Completion of the line below serves as the electronic signature of the individual completing this Biographical/Conflict of Interest Form and attests to the accuracy of the information given above.

**Debora Skaliks, BSN, RN** **01/31/2022**

**Typed or Electronic Signature: Name and Credentials (Required)** **Date**

# APPENDIX E – IRB Approval Letter

Office *of*
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI

**NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION**

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

| | |
|---|---|
| PROTOCOL NUMBER: | 21-278 |
| PROJECT TITLE: | Blind Spot: Evaluating Implicit Bias Awareness in USM Nursing Students |
| SCHOOL/PROGRAM | Leadership & Advanced Nursing |
| RESEARCHERS: | PI: Debora Skaliks<br>Investigators: Skaliks, Debora~Morgan, Lisa~ |
| IRB COMMITTEE ACTION: | Approved |
| CATEGORY: | Expedited Category |
| PERIOD OF APPROVAL: | 20-Jan-2022 to 19-Jan-2023 |

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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