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Maternal Health Crisis: Implicit Bias/Cultural Humility Education for Perinatal Nurses

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Abstract

Today, perinatal nurses are challenged to provide equitable care for a very diverse and high-risk pregnant/postpartum patient population. Pregnant women of color are mistrustful of the health care system and concerned about their care and risks when admitted to the hospital for fear that they are not listened to or treated with the same respect and intent as their white patient counterparts. Reverend Martin Luther King, Jr., in a 1966 speech, made in connection with the Medical Committee for Human rights stated, "Of all the forms of inequality, injustice in health is the most shocking and inhumane." Nurses play a significant role in active listening and effective communication with their patients that promotes trust and security. This quality improvement Doctor of Nursing Practice (DNP) education project for inpatient perinatal registered nurses staff and management in Maternal-Child Services focuses on increasing awareness and understanding of how implicit bias impacts quality care for pregnant/postpartum women of color. Utilizing both quantitative and qualitative data a pre/post education Implicit Association Test (IAT) was taken, demographic data collected on the RNs, and a 5-point Likert scale was completed on their experience post implicit bias education. A qualitative Implicit Bias and Cultural Humility Perinatal Questionnaire was completed online, and additional field study notes were gathered through impromptu one-on-one and small group discussions. Cultural Humility education was infused with techniques to decrease implicit bias and promote understanding of racism and the social determinants of health as contributing factors. Due to lack of participation and inadequate sample size of the post-test IAT as compared to the pre-test IAT it was impossible to statistically analyze the IAT data. However, the qualitative data was very informative identifying seven themes and three subthemes.

Keywords: DNP Project, Pregnancy, Equity, Racism, Awareness

Executive Summary

Project Title: Maternal Health Crisis: Implicit Bias/Cultural Humility Education for Perinatal Registered Nurses

Problem: According to the Centers for Disease Control (CDC, 2019) report on racial and ethnic disparities Black and Indigenous birthing persons are 2-3 times more likely to die from pregnancy-related causes than White women. Unintentional bias on the part of health care providers can influence the way patients are treated from different racial and ethnic groups and can unknowingly contribute to inequities in health care delivery. The PICO question is "Does implementing implicit (unconscious) bias and cultural humility education in perinatal nursing practice demonstrate increased awareness and understanding of the impact of implicit bias and racial disparity when providing care to pregnant/postpartum birthing persons of color as evidenced by a change in the Implicit Association Test (IAT)?

Purpose: To present an evidence-based Perinatal Education Quality Improvement (QI) initiative to a Maternal-Child hospital inpatient management and nursing staff on the impact of implicit bias and racism, its influences on perinatal nursing practice, and strategies to mitigate.

Goals: 1. Promote health equity and provide the skills and training necessary to improve clinical practice that increases understanding and awareness of one's own implicit biases and 2. Emphasize the critical role perinatal nurses play in effectively addressing disproportionate adverse pregnancy outcomes experienced by birthing people of color.

Objectives: Through education 1. Explore perinatal nurse perceptions that acknowledge one's own implicit biases, 2. Gain understanding and promote increased awareness of the impact implicit bias and racism has on perinatal nursing practice, 3. Incorporate cultural humility strategies to promote self-awareness, introspection, and sensitivity to other races and cultures.

Plan: Received approval from the hospital system Evidence-Based Practice Project Review Committee. Provided 9 virtual synchronous online presentations, an education folder with instructions and pertinent research articles, and self-directed read and sign education articles in Labor & Delivery, Couplet Care, and Neonatal Intensive Care units. Study design was mixed methods both quantitative and qualitative with a pre and post education Implicit Association Test (IAT) for race and skin tone, Demographic tool, Likert 5-point scale evaluation tool, semi-structured qualitative questionnaire and impromptu field study interviews were obtained. Sample size was 38 RNs. Timeline: December 1, 2023 - March 31, 2024.

Outcomes and Results: Due to the few participants taking the post-test IAT compared to the pre-test the project was unable to prove statistical significance and quantify the results. Through the qualitative data the project was able to demonstrate increased understanding and awareness of implicit bias and racism on perinatal nursing practice with seven themes and three subthemes developed. RN feedback on the IAT and implicit bias was assessed using the Likert 5-point scale and acknowledgement incorporating cultural humility strategies through learned awareness of implicit bias and its impact on care.

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Maternal Health Crisis - Implicit Bias/Cultural Humility Education for Perinatal Nurses

Inequitable healthcare, especially in pregnancy and postpartum is significant as women are dying from maternal-related causes at a higher rate in the U.S.A. than any other developed country and ranks worse in maternal mortality (Tikkanen, Fitzgerald & Zephyrin, 2020). According to the Centers for Disease Control (CDC, 2019) report on racial and ethnic disparities, Black, American Indian/Alaskan Native (AI/AN) women are 2-3 times more likely to die from pregnancy-related causes than white women. Racial, ethnic, and geographic inequities in maternal mortalities are substantial and persistent, especially for Black and Native American persons at a 3-4X increase than the rest of the population (Admon et al., 2018). Research suggests and has demonstrated that implicit bias against Black, Hispanic, and dark-skinned individuals are present among many health care providers in various specialties, levels of training, experience, and has influences on health care outcomes (Hall et al., 2015). According to The Joint Commission Sentinel Event Alert (2023, p.1) "High pregnancy-related mortality and morbidity Rates for people of color demonstrate how racial and ethnic disparities are quality and patient safety issues." Health care inequities and disparity continue to be at the forefront and National League for Nursing, Future of Nursing, and The Joint Commission has "advocated for the inclusion of skills and training necessary to teach practice in our society where the intersectionality of bias, systemic and structural racism, and social determinants of health are the underlying factors that contribute to health care inequities" (Reed et al., 2022, p. 2). Social determinants of health (SDOH) are the social and economic conditions that affect health status and outcomes. These determinants include housing and food insecurity, lack of access to quality care, insurance, transportation, low-income, violence, substance use, unhealthy environment, lack of quality education and racism (TJC, 2023). It is important for nurses and other healthcare

professionals to be aware of implicit (unconscious) bias and stereotypes that can negatively influence the quality of care and patient outcomes and to practice cultural humility that integrates treating all patients with care and dignity, respecting the patient's autonomy and expertise in their own culture (Moran, Burson, and Conrad, 2020). Doctor of Nursing Practice (DNP) nursing leaders are well positioned to address and mitigate the negative influence of implicit (unconscious) bias, promote equity, and decrease systemic racism in childbirth.

Problem Recognition and Definition

Project Purpose

The aim of this perinatal education quality improvement project was to help perinatal RN nursing staff and management understand and become more aware of the impact implicit bias and racism has on perinatal nursing practice that can impact patient outcomes. The project explored perinatal RNs perceptions of implicit bias that presents opportunities for improvement in practice and a desire to improve skills such as patient listening, communication through education, knowledge and understanding. Educating staff on the existing health disparities, understanding causation of social determinants of health and recognizing our own biases helps to give all patients a better opportunity for health equity focusing on providing patient-centered care. Through evidence-based nursing education we can promote and support perinatal nursing practice with a focus on diversity, equity, and inclusion to mitigate the negative influence of implicit bias. In California, until January 2020 there was no requirement to include implicit bias content in nursing education when *SB464 Dignity in Pregnancy and Childbirth* legislation became law that required implicit bias education for perinatal healthcare providers every two years. Incorporating content in nursing education and increasing acknowledgment and awareness of one's own implicit biases can be helpful in promoting improved clinical outcomes (Gatewood,

Broholm, Herman, & Yingling, 2020).

Definition of Implicit Bias (IB) and Racism

Implicit bias is a form of bias that occurs automatically and unintentionally due to prejudices and stereotypes that affects judgments, decisions, perceptions, and behaviors without an individual knowing it (National Institute of Health (NIH), 2020). It is the unconscious that one may feel about a certain person, group or thing that is involuntary and can affect attitudes, actions, understanding, perceptions, and decisions without an individual being aware of it (NIH, 2020). In healthcare, implicit bias can shape the way providers interact with patients, affecting communication, relationships and outcomes. An analogy would be if we were looking at the part of an iceberg, that is below the water that we do not see. Implicit biases are developed over time and a consequence of our lived experience and socialization (Gonzalez et al (2021).

Racism is behavior, attitudes, and actions that reflect the belief that racial differences produce an inherent superiority of a particular race as well as systemic oppression of a racial group shaping the cultural beliefs and values that support those racists policies and practices (NIH, n.d.). It is racism, not race that drives health inequities and leads to adverse health outcomes.

Project Question and PICO Statement

By gaining knowledge and understanding and acknowledging our own biases “the nurse can practice with compassion and respect for the inherent dignity, worth, and unique attributes of every person” (American Nurses Association, 2015, p.1). The proposed PICO question for this scholarly project is: Does implementing implicit (unconscious) bias and cultural humility education in perinatal nursing practice demonstrate increased awareness and understanding of the impact of implicit bias and racial disparity when providing care for pregnant/postpartum

women and birthing persons of color as evidenced by the change in the post IAT results. This project employed a Population-Intervention-Comparative-Outcome (PICO) format.

Population (P): Maternal-Child health hospital inpatient RN management and staff

Intervention (I): Education via several modalities

Comparison (C): Pre and post education (IAT) testing results for race and skin tone (unable to correlate), demographic data, Likert 5-question scale, Qualitative questionnaire, anecdotal field study notes

Outcome (O): Changes in nurses' knowledge, awareness, attitudes

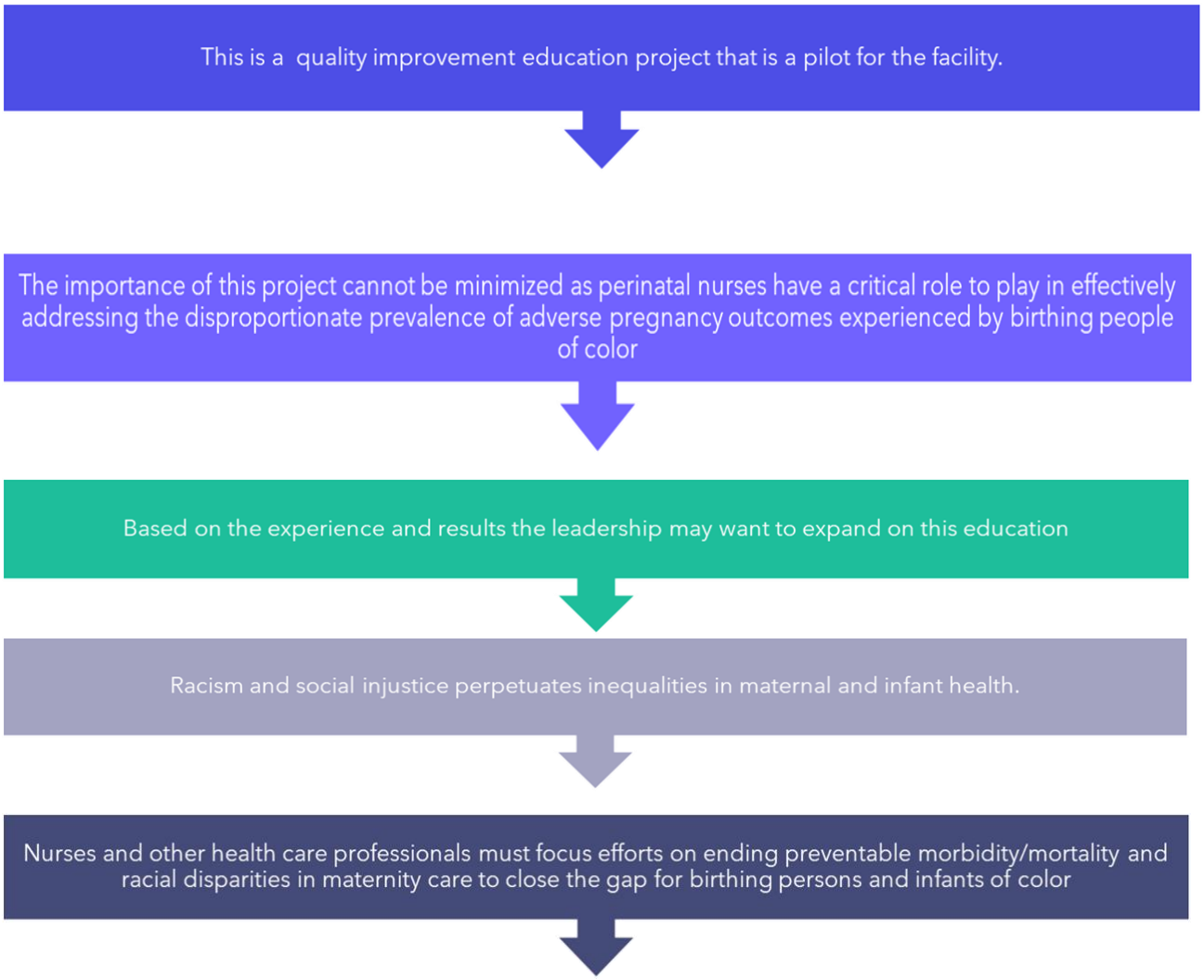
Initially a pre and post education Implicit Association Study Tool (IAT) was employed but due to the very small post-test sample size was unable to quantify the results to assess changes on the Implicit Association Test (IAT). The analysis then focused more on the data results based on the qualitative methods.

Project Significance, Scope, and Rationale

"The purpose of practice-focused doctoral programs are to prepare experts in specialized advance practice roles and to focus heavily on innovative and evidence-based practice reflecting the application of credible research findings" (American Association of Colleges of Nursing (AACN), 2006, p. 14). The two AACN DNP essentials related to this project are Essential II: Organizational Systems Leadership for QI and Systems Thinking, and Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes. As an educator the goal is to facilitate learning and function as a change agent leader to pursue process and quality improvement. As an advocate for and to establish a sense of urgency the focus is to communicate the vision, empower employees, and generate short-term wins. The DNP impacts

policies and procedures to improve the practice of others (Zaccagnini & Pechacek, 2021).

Table 1: Summary of Project Scope and Significance



The paper presents the theoretical foundation, literature review, project plan and evaluation, logic model, proposed methodology, data analysis, project findings and results, limitations, recommendations, implications for changes, references and appendices.

Theoretical Foundation for Project and Change

A nursing theoretical framework is essential to understanding decision making processes and to promote quality patient care. It offers a way to explain and interpret phenomena and provides

the framework for evidence-based scholarly projects. Three theories were utilized to support the DNP project: Leininger's Cultural Care Diversity and Universality, Meleis Theory of Transition and Faronda's Cultural Humility.

Theory 1 - Leininger's Cultural Care Diversity and Universality Theory (Leininger & Mcfarland, 2014).

Leininger believes that to truly understand the client's and family view of health and illness the nurse must recognize and understand the importance of cultures, diversity, language, perceptions, beliefs, cultural care difference and incorporating these into care. This theory is necessary to understanding the diverse patient population and cultures that give attention to a much broader perspective of nursing education. It guides nursing practice by correcting false assumptions, impressions, or stereotypes nurses may have about their patient and family and replaces them with more accurate information. It also helps provide a better understanding of the various aspects of the patient's culture and background.

Theory 2 – Meleis Theory of Transition Nursing Model (Meleis, 2007).

Meleis's theory can be applied to the numerous transitions and changes that a woman experiences especially during pregnancy, childbirth, postpartum, and hospital discharge. The changes experienced during the first year as the birthing person transitions to motherhood and relationships with husband/partner and other family members are many. These transitions require the patient to incorporate new knowledge, to alter her behavior, change the definition of self within a new social context and environment according to (Meleis, 2020). The RN is the advocate and champion to assist in the many new roles and responsibilities and a caring and trusting relationship is the key to success. This theory examines these periods of transition to environment, client, and the health and well-being of the mother-infant dyad. The model includes

promotion, prevention, and intervention as nursing therapeutics assist with the various transitions of emotional and physical well-being, expectations, skill, environment, and planning.

Theory 3 – Faronda Theory of Cultural Humility (Faronda, 2020).

Faronda's grand theory focuses on the importance of recognizing diversity, our commitment to understanding, developing care practices, and functioning as clinical advocates for the nurse-patient relationship on behalf of diverse patient populations. It can assist the nurse in achieving increased awareness and an openness and sensitivity to another culture. This can be of benefit when caring for perinatal patients of diverse race and ethnicity and can provide clarity of concepts, influences, and outcomes experienced due to unconscious bias and discrimination. Cultural humility focuses on our self-reflection and putting the other person as a priority and not on ourselves to gain a better understanding of their needs, perspectives, culture, values and autonomy. The goal is to listen and hear our patients, communicate more effectively and not to dismiss their concerns.

Review of Evidence

Literature Selection

A systematic review of the literature was completed to support the PICO. Data bases searched included CINAHL, MEDLINE, PubMed, and Google Scholar. Inclusion criteria included pertinent professional journals, professional practice statements such as Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), American College of Nurse Midwives (ACNM), The American College of Obstetricians and Gynecologists (ACOG), Society for Maternal-Fetal Medicine (SMFM), health care organizations like The Joint Commission (TJC), government agencies like Health and Human Services (HHS), Center for Medicare & Medicaid (CMS), Centers for Disease Control and Prevention (CDC) and systematic

reviews. In addition to the CDC and National Center for Health Statistics, the California Maternal Mortality Surveillance System 2014-2016 Report released on September 2021 provided stratified data per race and ethnicity demonstrating Black women's mortality ratios 4-6X greater than all other racial/ethnic groups. Regis University librarians were helpful with recommendation of search terms and phrases to obtain additional studies and references. Other inclusion criteria were peer reviewed in English though there were studies from other countries. Most of the articles were published from 2018-2023 with a few from 2015-2017 if they were important research providing the basis for subsequent studies or describing an original publication of nursing theory. Articles older than five years were excluded except for two important seminal articles by Hall, 2015 and Fitzgerald, 2017. Exclusion criteria were articles only focused on physician practice, non-English, lack of maternal-child focus or perinatal health care articles, or focus on explicit bias instead of implicit bias.

Keywords and Phrases

Some of the keywords and phrases used to search were implicit bias, racism in obstetrics, maternal/child health, women's health, cultural humility, nurse bias, perinatal nursing practice, nursing educators, nursing faculty, healthcare providers attitudes, historical influence, healthcare disparity gap, patient-centered care, unconscious bias, vulnerable populations, marginalized, discrimination, pregnancy, postpartum, perinatal, systemic/institutional racism, communication in clinical practice, stereotype, diversity, equity, inclusion, self-reflection, social determinants of health (SDOH), culturally competent care, racial/ethnic diversity, cesarean section, breastfeeding, maternal mortality, preterm birth, and disparity in Black women's healthcare. Implicit Association Test (IAT), Culturally and Linguistically Appropriate Services (CLAS), Visual Analog Scale (VAS), validity and reliability in testing were keywords to search study

tools appropriate to the project.

Background of the Problem

Racism in nursing education has been prevalent since its beginning with roots in white supremacy (ANA, 2021). Research shows that unintentional bias on the part of health care providers can influence the way they treat patients from different racial/ethnic groups. “Research on implicit bias suggests that people can act on the basis of prejudice and stereotypes without intending to do so.” (Brownstein, 2019). Most of us in healthcare have good intentions but even if we don’t believe we have biases it is important to increase our awareness that unconscious bias can influence nursing care and bedside manner. Through evidence-based nursing education we can promote and support changes in perinatal nursing practice with a focus on inclusion and diversity. The need to focus on health disparity and implicit bias awareness is determined by national statistics, legislation, regulatory, clinical professional practices overall such as the increase in maternal mortality. Looking at the increased maternal mortality rates in the U.S. especially during COVID set Healthy People 2030 target to “Eliminate health disparities and achieve health equity…” as well as The Joint Commission new Health Equity Standard LD.04.04.08 (July 2023) set this as a quality safety priority elevated to NPSG 16.01.01 to advocate for the inclusion of education, skills and training to decrease health disparity and promote health equity. Legislation such as CA SB 65-Black Momnibus Act (2021) and as previously stated the CA SB464 Dignity in Pregnancy and Childbirth Act (2020) focuses on the promotion of decreasing health care disparity and supporting health equity for Black birthing persons and other ethnicities to decrease maternal morbidity and mortality. Hospitals in California can access their own stratified data from the California Maternal Quality Care Collaborative (CMQCC) Maternal Data Center for measures such as C/section rates, Severe

Maternal Morbidity rates, Preterm Birth rates and Exclusive Breastfeeding rates among others. The CDC (2022) states that > 80% of maternal deaths are preventable. There is a public outcry demonstrated through numerous newspaper articles of famous Black women such as Serena Williams, Allyson Felix with severe morbidity and Torie Bowie and Shalon Irving who both died prior to delivery and postpartum. These are healthy women of Olympic status and Shalon Irving, PhD, epidemiologist working at the CDC. These stories and many more have propelled a public outcry of especially Black women who feel unsafe, delivering in a hospital for fear of bias treatment and racism stating they do not feel listened to and feel mistrustful of the healthcare system due to systemic racism (Martin et al, 2017). A conceptual framework of contributing factors to inequities includes historical content, structural societal factors, SDOH, limited access to OB health care, and lack of awareness of biases. These contribute to the individual factors of trauma and stress as a Black person in society as well as Adverse Childhood Experiences (ACES) and more. History matters – "Those who cannot remember the past are condemned to repeat it." (ANA National Commission to Address Racism in Nursing, 2022).

Systematic Review of the Literature by Theme

From the systematic review of the literature five major themes emerged. These themes focused on 1. healthcare providers lack of implicit bias awareness in their practice, 2. inequities in maternal/infant health, nursing leaders need to confront, 3. nursing leadership to confront and address implicit bias as a barrier to care, 4. the importance of integrating implicit bias in student nursing education and faculty developing competence in addressing bias from a historical lens, and 5. transitioning from cultural competence to cultural humility in making a stronger impact when caring for a diverse patient population.

Healthcare Providers Lack of Implicit Bias Awareness in Practice

Fitzgerald (2017) showed almost all studies found evidence of implicit bias among MDs/RNs. Looking at racial/ethnic disparities research using the IAT application, focused on provider patient communication. Findings showed implicit bias and healthcare disparities among provider to patient communication negatively impacting minority patient's health status, trust, and compliance (Nao et al., 2020).

Inequities in Maternal/Infant Health: How Biases Contribute to Healthcare Disparities

Russel (2021) discussed inequities in maternal/infant care and how biases contribute to the gap in health care disparities experienced by minorities leading to unequal treatment of patients/clients. Black women are at greater risk for maternal mortality due to the impact of racism and stresses the need of providers to be cognizant of personal feelings toward people of diverse backgrounds to ensure care does not negatively impact the patient due to biases.

An older prospective study by Haider et al., (2015) among 245 surgical RNs who were presented with clinical vignettes displayed implicit preferences towards the white race on the IAT Race assessment. Another study found the likelihood of increased poorer outcomes was associated with provider implicit bias and nursing implicit bias that may demonstrate less compassion for certain patients and less time spent with the provider (Narayan, 2019). It is clear we need to invest in more research to better understand the relationship between bias and racism and clinical outcomes.

Nursing Leadership to Confront and Address Implicit Bias as a Barrier to Care

Stamps (2021) looked at multiple studies focused on racial/ethnic bias for the purposes of raising awareness and recognition of implicit bias with nursing leadership; leaders call to action to recognize the impact on nursing practice and make a commitment to change and

accountability. Wei et al., (2023). Utilized Watson's Human Caring and Chin's Peace and Power theory as a framework to study the current state of nurses' implicit bias in the U.S. and foreign countries. The study assessed implicit bias as being pervasive and causing harm in healthcare with the need for more research. It also called for a more nurturing, caring, and respectful environment to mitigate bias and raise more awareness in nursing practice through self-reflection, knowledge, and competency. Maina et al (2017) examined numerous studies on the association between implicit bias and healthcare outcomes using clinical vignettes or simulated patients. Eight studies found no statistically significant association between implicit bias and patient care while six studies found that higher implicit bias was associated with disparities in treatment recommendations, expectations of therapeutic bonds, pain management, and empathy. All seven studies that examined the impact of implicit provider bias on real-world patient-provider interaction found that providers with stronger implicit bias demonstrated poorer patient-provider communication. There is a need for more research exploring implicit bias in real-world patient care and confounders of the effect of implicit bias on care, and strategies aimed at reducing implicit bias and improving patient-provider communication.

Importance of Integrating Implicit Bias in Nursing Student Education and Faculty Comfort

There is a need for nursing faculty to develop comfort and competence in addressing/teaching nursing students about bias and racism using a historical lens according to (Bennet et al., (2019). The challenges present with teaching racial inequality in nursing practice using the historical lens. This is deeply entrenched in racism and a lack of belief that prejudices and biases occur. It is a focus for faculty to get support and training to address care issues as the population becomes more diverse and to promote awareness (Crandelmire, 2020). Quantitative and qualitative studies on unconscious bias in healthcare and nursing providing strategies for clinical

instructors to promote awareness and provide education through various techniques.

Transitioning from Cultural Competence to Cultural Humility

Making a stronger impact on caring for the diverse patient population Hughes et al., (2019) demonstrates the need for strategies to promote cultural humility with vulnerable ethnic minorities. There is a need to train and promote health equity, provide opportunity to explore biases, increase awareness, and be better prepared to care for diverse populations. This requires lifelong practices of introspection, humility, and skill development. Cultural humility is the highest attainment of competency to recognize diversity, equity and improving health outcomes. It requires lifelong practice. It is achieved after cultural awareness, cultural knowledge and cultural skills. It is never mastered but an ongoing process developed by every encounter one has with every person (Abualhaija, 2021). Lekas et al., (2020) states cultural competence may undermine provider recognition that potentially shapes their beliefs where cultural humility focuses on an openness where the provider learns from their patient and shifts the focus that benefits both provider and patient.

Raising awareness in nursing practice and acknowledging the existence of implicit bias can decrease some of the barriers to caring for a diverse perinatal patient population. It can create a safer environment to bring forward concerns, identify triggers, and invest in education and training on bias, racism, and cultural humility. Combating racism and social injustice that perpetuates a cycle of inequities in maternal and infant health can help to decrease and close this gap. The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) position statement on Racism and Bias in Maternity Care Settings (2021, p. 1) "maintains that perinatal providers should be aware of the effect of possible implicit bias and racism on their language and actions and to commit to reflective practice, self-development, and life-long learning to

identify and mitigate the causes and outcomes of structural racism." To make a significant change in perinatal nursing practice nurses need to be better educated and trained, applying evidence-based practice, given a theoretical framework to understand the effects of implicit bias and racism and acknowledge how the current healthcare system allows this to continue in practices and policies that can harm women of color (AWHONN, 2021). Opening ourselves up to knowledge and scholarship curricula for healthcare providers and increased awareness of bias in practice will help focus on decreasing the health care disparity gap and fostering effective communication, building trusting relationships between provider and patients and foster a therapeutic construct according to (Faronda, 2020). During this project several interventions were taught to mitigate implicit bias such as counter stereotyping, emotional regulation, habit replacement, individuation, mindfulness, perspective taking and stereotype replacement that were part of the education. Health care providers must also consider social determinants of health (SDOH) and patient's beliefs, knowledge, and perceptions of health and the trust or lack thereof with health care providers (The Joint Commission Standard on Healthcare Disparity, 2023). An overarching theme for nursing practice is the increased likelihood of poorer outcomes with provider bias. It is evident that more investment in nursing education needs to be conducted to understand bias in nursing practice and the impact on care and patient outcomes, especially focused in the maternal/neonatal specialty area.

Scope and Quality of Evidence

The Melnyk-Fineout-Overholt Level of Evidence (2015) was used to evaluate and guide research journal choices. Over 400 articles were returned with the search terms. The search was narrowed to 60 articles reviewed and eventually 30 were chosen as significant. The elimination process to obtain the final 30 was articles focused on nursing practice, perinatal care, nursing

education concentrated on implicit bias and cultural humility that could support the DNP project PICO. The evidence table was a guide looking for consensus to support the PICO and better understand where there was conflict or greater need to do more research on the topic. The evidence tool allows for performing critical appraisal on the research and determine if it answers the DNP scholarly project providing the needed evidence. Through the evaluation of literature review it becomes clearer that both quantitative and qualitative research are needed to obtain comprehensive and quality data to answer the problem. Reviewing the levels of evidence, most of the articles to date fell in Level V Systematic Review of Qualitative or Descriptive Studies (10), Level III Controlled Trial without Randomization (6), Level I Systematic Review or Meta Analysis (5), Level VII Opinion or Consensus (5), Level VI Qualitative or Descriptive Study (3), one at Level II Randomized Controlled Trial, and none at Level IV (refer to Table 2).

Table 2

Scope of Evidence Table (Melynk & Fineout-Overholt, 2015)

Level of Evidence	Number of Articles	Authors and Dates
I Systematic Review or Metanalysis	5	Howell (2019), AWHONN with contributions from additional authors (2021), Ahadinezhad (2021), Wei (2023), Saluja (2021), Wei (2023, Saluja (2021).
II Randomized, Controlled Trial	1	Russel (2021)
III Controlled Trial without Randomization	6	Abdul-Raheem (2018), Bennett & Rochani (2019), Zeidan et al., (2019), Gatewood et al., (2019), Arlington (2021), Saraswathi (2019)
IV Case-control or Cohort Study	0	
V Systematic Review of Qualitative or Descriptive Studies	10	Hall (2015), Narayan (2019), Fitzgerald (2017), Stamps (2020), Crandlemire (2020), Hardeman (2020), Gonzalez (2022), Abualhaija (2021), Groves (2021), Nao (2020)
VI Qualitative or Descriptive Study	3	Office of Minority Health DHHS (2021), Altman (2020), Reed (2022)
VII Opinion or Consensus	5	Hughes (2020), Lekas (2020), Bursell (2020), Nardi (2020), Russell (2021)

Project Plan and Evaluation

Market/Risk Analysis

A SWOT analysis was conducted to help assess internal and external factors that may affect the project's strengths, weaknesses, opportunities, and threats. It is a helpful tool that is useful in the planning process, informed decision making and, in the analysis, and evaluation of the project as shown in Table 3.

Table 3

SWOT Analysis

Strengths (internal)
• New MCH leadership committed to quality improvement promoting equity • Support from administration and healthcare system • Resources from greater healthcare system – mission driven to promote equity • Hospital DEI department/Corporate Cherished Futures • DNP student expertise in perinatal nursing
Weaknesses (external)
• Decrease birth rate impacting birth census • New regulatory requirements needing to be met on health disparity from TJC • Women of color fear morbidity and mortality in hospital delivery
Opportunities (external)
• Change practice culture within system • Integrate current evidence on implicit bias into nursing practice • Healthy People 2030 initiative to decrease health equity gaps • Strive for attainment TJC Perinatal Certification • Decrease health disparity – sharing stratified data by race/ethnicity, benchmarking
Threats (internal)
• Competing priorities within facility & corporate education mandates • Staff sensitivity, beliefs about the nature of implicit bias and racism - personal • Lack of budget and designated space for education project • Inadequate preparation to care for high-risk conditions through simulation drills, Team STEPPS

Strengths

The university program nursing leadership, faculty advisor and associated faculty was the backbone to promote student success. The healthcare system, hospital senior leadership, Director and Managers of Maternal-Child Services as well as the clinical mentor was the facility support behind the DNP student project. Being a faith-based, mission driven facility with a commitment to welcome, promote, and care for the diverse population it serves is demonstrated throughout the organization. This made it possible to align personal and professional mission and values to implement the project along with the clinical expertise of the project leader.

Weaknesses

The current decrease in birth rates contributed to a decrease in hospital birth census creating inconsistency month to month. Staffing was variable as a result, with more constraints placed on budget and educational opportunities. Additional regulatory, legislation and system-wide requirements placed competing education priorities on the department staff. In addition, with the high rate of maternal morbidity and focused news on risks of hospital births, especially for birthing persons of color, the community has increased mistrust in the safety of giving birth.

Opportunities

With the external focus from professional practices, regulatory and government agencies on health equity and decreasing the health disparity gap, especially around women's and perinatal healthcare provides great opportunity to focus on educating perinatal staff. Eliminating racial and ethnic disparities causing mortality and morbidity in pregnant and postpartum patients and focusing on equity not equality individualizes patient centered care. Increasing ones knowledge, evidence-based practice, and awareness of the impact of implicit bias and racism in perinatal care can address the many causes of high-risk health conditions and the opportunity to create

safer and quality health care and patient outcomes. The increased awareness of bias and racism in perinatal care creates opportunities to better meet the needs and expectations of birthing persons and promote shared decision making. Racial and ethnic disparities exist in maternal and perinatal outcomes and these disparities are especially evident for birthing persons of color. We have opportunities to integrate principles of just culture, safety culture and best practices by developing actionable changes to improve equity in maternal outcomes (Howell, et al, 2018).

Threats

Lack of attentive listening skills and focused communication can be a significant threat in perinatal high-risk care**.** Lack of staff sensitivity, awareness of the impact of implicit bias and racism on practice increases the threat to patients, especially of color**.** Preparation for example on hemorrhage, severe anemia, and severe hypertensive conditions of pregnancy can yield decreased morbidity and mortality especially for women of color. Having the knowledge and skills, practice simulation drills focused on a highly reliable team, assessing for risk and prompt response can decrease the threats in perinatal care.

Driving and Restraining Forces

There are several forces that drive the importance of this project. The primary force is the continued increasing rates of maternal mortality and neonatal preterm births, especially for Black and Native American/Alaskan Native birthing persons (National Health Statistics, 2022). The rates of preterm birth are 1.5 times greater for Black babies than white babies according to the (March of Dimes, 2023) report card. Comparing maternal mortality rates among developed countries, the United States continues to rise with the highest rates (WHO, 2020). Increasing complexity of obstetrical patients due to chronic health conditions, advanced maternal age, hemorrhage, severe hypertensive disorders, perinatal mood and anxiety disorders to name a few

and the continuous increase in health care disparity and poorer outcomes for birthing persons of color drive these rates (CMQCC, 2023). Administrative support and commitment are an important driving force without which this project would not have been initiated and completed.

Restraining Forces for this project were initially changes in MCH leadership and competing educational/training priorities for the organization and system. The Health System has its own diversity and implicit bias requirements and other education requirements overall as well as implementation of increasing regulatory requirements. Staffing was a restraining force depending on patient census. Space and time were limiting as there was no designated space on the unit or time carved out to have staff meetings or schedule the virtual synchronous online presentations within their working shift. The virtual synchronous online education presentations were only attended by the management team and the information was shared via hard copies placed in folders on the unit to read and sign. Economics placed restrictions as there was very limited financial support to implement the project and had to fit within the participants' workday. Increasing regulatory standards related to maternal-child health disparity was a priority that created limited time for staff to participate in this project and feeling overwhelmed with too much information on the subject matter of implicit bias.

Needs, Resources, and Sustainability

The need for the project was to bring increased awareness of how implicit bias and racism impact perinatal patient care especially for birthing persons of color. By doing so RNs can incorporate effective listening and communication skills to foster a trusting relationship between the provider, patient and the healthcare system. Time and space were the greatest needs – not enough additional time for staff to take both the pre and post IAT tests and read materials on the

units or time for group discussions. It was not ideal as the education was infused during the work shift in between patient care and break time. Project lead rounding on each unit included both day and night shifts. It was hit or miss in trying to engage staff in discussion, especially when patient care was the priority and so much of the impromptu discussions were spontaneous and interrupted. There were multiple staff who engaged in dialog after reading the materials and wanted to share their thoughts and ideas providing feedback that was captured in the field notes. The willingness of the staff to engage, provide honesty and transparency was greatly appreciated. Continuous commitment of the unit Director, managers, perinatal safety officer and charge nurses were the greatest resource and integral in continuing to encourage staff to participate and engage in learning and activities related to the education. The faculty advisor was an important resource to provide direction, feedback, suggestions and support to the DNP project lead along with the DNP clinical mentor. Resources were the availability of the Education Department which housed the computer lab where the staff were able to access the IATs as well as on their personal cell phones. The challenge in using the cell phone was the inability to print out the results. There were weeks where the computers were in use during hospital orientation so timing the pre and posttest on weeks when the lab is not in use was a challenge. Another resource was the use of unit copying machines if additional duplications were needed when additional articles and education materials were added. Sustainability exists at several levels. Commitment from senior leadership will continue to drive and expand this project along with benchmarking stratified data on quality measures to demonstrate systemic changes. The project will require designated dollars in the operating budget to continue to move forward. Expanding stakeholders to include all MCH department staff such as e.g. LVN, Medical assistant, unit secretary, OB techs, and other healthcare physician providers, and pertinent ancillary staff such as respiratory

practitioners, nutritionists and social workers. Mandated legislation such as California SB464 Dignity in Pregnancy and Childbirth Act, The Joint Commission new standard LD.04.04.03 (2023) that addresses health disparity as a quality and safety priority elevated to a new National Patient Safety Goal 16.01.01, new CMS requirements, Healthy People 2030 Federal targets to eliminate health disparities and achieve health equity to improve the health and well-being of all. Continuing to focus on increasing awareness, obtaining new knowledge through evidence-based research and understanding, assessing annual competency is the base from which policy, practice, patient engagement and feedback, patient satisfaction, staff satisfaction will solidify the goal of equity. Partnership with the organizations Diversity, Equity and Inclusion (DEI) department will drive further commitment and sustainability.

Feasibility/Risks/Unintended Consequences

The project was designed for feasibility within the guidelines set from the facility in advance and due to the healthcare system, facility and department commitment/leadership to address the issues of implicit bias and systemic/institutional racism through the education project. Expanding and identifying key stakeholders, with a vision forward can assist in developing transformative strategies and find solutions to drive and achieve health equity. The financial commitment to support the program and continue is necessary and without will not achieve sustainability. The risk for the project was in the participants not having an in-person orientation before commencing the project. Another risk was the difficulty of staff to engage in completing all the reading of education materials and/or completing both pre and post IATs for race and skin tone. This placed added stress on the daily workload during the duration of the project. The sensitive nature and strong response to the subject matter and the unwillingness of some to confront provider/institutional implicit bias and racism directly was an unintended consequence identified

during the implementation of the project. Staff reaction and response as to potential harm was a concern and to be prepared to address and support the staff. Assistance from Human Resources and a member of Diversity, Equity, and Inclusion team was a resource to offer expert advice and interventions that was beneficial to the process.

Stakeholders and Project Team

There were several layers of stakeholders involved with this project. The DNP student project lead was responsible for the project's oversight and day-to-day activities over a 4-month period. Guidance, encouragement, and leadership was provided by the university faculty advisor, onsite clinical DNP mentor and the Vice President/Chief Nursing Executive at the facility who approved the project and implementation. Other project members were the Director of the Office of Research Integrity and Quality for the health system and System Director, Evidence-Based Clinical Practice Project Review Committee who approved the project as an evidence-based practice project. Stakeholders at the Maternal-Child Department included the Director, Managers, Perinatal Safety Officer and RN staff from Labor & Delivery, Couplet Care/Mother-Baby and Neonatal Intensive Care units. Patients and family members who receive care provided by the staff are the ultimate stakeholders that will benefit from the positive changes in perinatal care. A few additional resources if needed was Human Resources should there be some staff concerns in response to the sensitive and difficult nature of the content.

Cost-Benefit Analysis

Going forward developing a budget for this education project is necessary to maximize the benefits. The primary costs associated with this project are in staff education hours. The average RN hourly rate of pay in the Maternal-Child department is $71-72/hr., night shift differential is $4.00/hr., and charge positions rate is $76.20/hr. The project lead's salary is approximately $80 -

$100/hr. If staff hours can be coded education hours that will decrease patient care hours and shift the costs. The goal is to incur minimum or no overtime. Education supplies are approximately $1,000 to include items such as folders, paper, pens, and note pads. Duplication/copying costs are $0.14/sheet. The use of tablets or computers on wheels are on-site and does not incur extra costs. Classroom/office space is needed for viewing power point presentations, Q & A, small group or one-on-on discussions, and to provide privacy as needed. Additional costs were for snacks/treats to thank staff for their participation. The education department provided the computers for the staff to use when taking the IAT. There was no cost to utilize the IAT tool. The current DNP project incurred minimum costs for extra duplication as needed on the units. All other costs were in-kind provided by the project lead as there was no existing budget to cover costs for this project per the direction of the CNE and agreed upon in advance by all parties. This made the implementation very challenging.

The short-term benefits of the education project are in promoting equity to an ethnically/racially diverse maternity/neonatal patients and to see perinatal staff and leadership demonstrate increased awareness of personal implicit bias, process improvement in nursing practice that promotes listening and effective communication with valuable quantitative and qualitative data. Long-term goals hope to ultimately see improvement in safety, quality, patient outcomes, increase patient satisfaction and census where the facility can demonstrate these by building trust in the community for birthing persons. Comparing total mean/patient costs of care for birthing persons with and without severe maternal morbidity (SMM) was $26,513 and $9,652 respectively in the Medicaid population and $50,212 and $23,795 respectively in the Commercial population (Black et al, 2021). The overarching benefit is the application of knowledge, greater understanding of the influence of implicit bias and racism on quality care,

and the ability to understand and incorporate cultural humility strategies into their nursing practice. Having members of leadership encourage staff to participate and demonstrate commitment to the work makes a difference.

Mission/Vision/Goals

The **mission and vision** of this DNP scholarly project is to provide education to perinatal nursing staff and management; to gain knowledge, understanding, and increased awareness of the impact implicit bias has on nursing practice measured by a pre and posttest Implicit Association Test (IAT) for race and skin tone. Research on implicit bias suggests that people can act based on prejudice and stereotypes without intending to do so (Brownstein, 2019). Awareness is the first step and perinatal nurses have a critical role to play in effectively addressing the prevalence of adverse pregnancy outcomes experienced by birthing persons of color. Exploring nurse perceptions presents both challenges and opportunities in the discussion and incorporating cultural humility in clinical practice is implemented to improve quality of care and decrease implicit bias. The **values** are compassion, equity, kindness, active listening, and effective communication. “Listen with our hearts and minds and remember the more different someone is from us the harder we must listen.” (Dr. Williams, CMQCC, 2024).

The **goal** is to promote equity and evaluate the effectiveness of education through data analysis from the quantitative and qualitative data.

Process/Outcomes Objectives

Nursing Outcome Measures

The nursing outcomes for this project was focused on changes in attitude toward patients of color through recognition and increased awareness of implicit (unconscious) bias and cultural humility and the application to nursing practice. Confidential small group discussion sessions

with management in a private office and individual/group discussions with staff at the nurses' station or breakroom provided opportunity for feedback, sharing of thoughts, concerns and questions about the subject matter, encouraged listening skills and communication, self-reflection and transparency. Data was to be analyzed to see if it demonstrated changes in attitude toward patients of color through increased awareness of implicit/unconscious bias as evidenced by improved Implicit Assessment Test (IAT) post education and training. Nursing staff were encouraged to share how they would incorporate cultural humility and self-awareness respecting patient autonomy in their nursing practice. Staff and management had the opportunity to provide feedback on the value of the education and strategies provided via a confidential evaluation survey.

The DNP project was to explore perinatal nurses' perceptions that present both challenges and opportunities of implicit bias and cultural humility education and improve quality of care by nursing healthcare providers in maternal/child health services. Through education the focus was on providing the knowledge and skills that acknowledge one's own biases and to emphasize the critical role perinatal nurses play in effectively addressing the disproportionate adverse pregnancy outcomes experienced by birthing persons of color. Potential barriers can be lack of administrative support, budget constraints where the number of hours to provide the education can be limited. Mandatory legislation and practice requirements focused on decreasing healthcare disparity and maternal morbidity and mortality in maternal/child health became effective as of July 1, 2023, with The Joint Commission Health Care Equity Standard (NPSG).16.01.01 elevated to a National Patient Safety Goal. The education for this project was made mandatory (TJC, 2023) per the Maternal-Child Nursing Director. The pre and post testing

with the IAT is voluntary as ethically participants cannot be coerced into participating in the testing.

Logic Model

While California, as well as Los Angeles County, has made progress to reduce maternal mortality and severe maternal morbidity health care disparity among race/ethnicity still exists (CMQCC, 2022). Targeted hospital quality improvement needs to be done to narrow racial/ethnic/disparity. This requires transformational change and a commitment through education of perinatal nursing staff and other health care providers on implicit bias, and an understanding of cultural humility that involves introspection. The focus of this project is through education and discussion nurses can become more aware of the impact of discrimination and racism as evidence-based factors for poorer health outcomes that influence the inequities of perinatal care and encourage nurses to recognize this when caring for pregnant/postpartum birthing persons of color. The conceptual model using the Logic Model "provides a visual way to present and share understanding of relationships among resources…" (Zaccagnini & Pachacek, 2021, p. 378). The logic model for this DNP project incorporates nursing and social theories of Leininger's Cultural Care Diversity and Universality, Meleis Theory of Transition Nursing Model and Faronda's Theory of Cultural Humility (refer to Appendix A for Logic Model - Resources/Inputs – Activities – Outputs –Outcomes – Impacts).

Population Sampling – Type and Size

Participants were RNs only, both staff and management from Maternal-Child Health Services working in units Labor & Delivery (L&D), Couplet Care/Mother/Baby and Neonatal Intensive Care (NICU). The minimum age was 18 years or older. The total department RN population was 85 and the sample size was N = 38. All RNs were invited to participate in the data collection and

taking of the pre and posttest IATs for race and skin tone. Ideally, it would have been beneficial to have a larger quantitative sample size, but if the size of the population is less than 100 it is recommended to not sample but rather to include the whole population of nurses (Terry, 2018, p.122) who will participate from all three units. According to (Levitt et al., 2017, cited in APA Manual, 2020, p.100) "there is no minimum number of participants required in a qualitative study." The nursing director determined the education was mandatory for all RN staff other than those on workers comp, medical leave, or on vacation. All perinatal nurses were invited to participate in the data collection portion of project. Population sampling results:

- N = 38 completed demographic tool
- N = 27 virtual synchronous online presentations
- N = 25 completed pre-education IATs
- N = 2 completed post-education IATs
- N = 20 participants attended the virtual online presentations
- N = 25 completed Likert scale survey
- N = 7 completed Qualitative Questionnaire
- N = 8 participated in additional Field Study notes

Setting for Evidence-Based Project (EBP)

The setting for this evidence-based QI education project was located within a busy, cosmopolitan hospital's Maternal-Child Health inpatient services located in Southern California that serves a large ethnically diverse patient and staff population. The hospital is part of a larger, faith-based system that is mission driven with a focus on inclusion and diversity. The patient population is 46.8% Hispanic U.S. born, 34.5% Hispanic Non-U.S. born, 3.4% White, 6.7% Black, 5.2% Asian, 0.5% Pacific Islander, 0.1% Native American, 1.6% Multiracial and 1.2% Unknown (CMQCC, 2022).

Proposed Methodology

Clinical vignettes demonstrating implicit bias from real cases obtained from YouTube

originating from the March of Dimes and Dignity Science that is an evidence-based approach to equity and inclusion offers examples of women and couples who have experienced implicit bias and racism during their pregnancy. Each participant is given an education folder containing materials to enhance and support learning. An introduction/overview document explaining the project in detail for the participants was in the center of the folder. In the left pocket was detailed information on the IAT and step-by-step instructions on how to access the IAT web site, the two tests - race and skin color, the choice of a 4-digit code with no other identifying information and the process of placing the IAT results in a labeled manilla envelope that will be placed in a locked cabinet in the Director's office. The right pocket had educational information on implicit bias and important aspects of cultural humility and its impact on the provision of nursing care as well as a demographic survey that the participants would fill out on age, race/ethnicity, level of nursing education, years worked as an RN, and unit worked. (See Appendix C). Three education modules were provided in-person on Labor and Delivery, Postpartum and NICU and incorporated the concepts and terms and other related definitions such as stereotype, prejudice, equity, equality, institutional racism, microaggression, privilege, racial justice, and structural/systemic racism providing knowledge and evidence-based research from the literature search. Strategies such as counterstereotype imaging, practice perspective talking, mindfulness and improved decision making were incorporated into the learning. An outline of each presentation was listed in the center of the Education folder (See Appendix G). Each virtual synchronous online presentation was approximately 30-40 minutes in length. Participation in small group discussions was encouraged to enhance the learning and give the study participants additional time to ask questions, share thoughts and ideas in a respectful, confidential, safe space. Semi-structured questions were asked as well as unstructured open-ended questions. Due to the

delicate and sensitive nature of this topic confidentiality and privacy was reinforced to protect the participants and aid in comfort and respect encouraging the participants to speak up and engage in stimulating honest conversations. A separate in-person session was held for management and leadership. Each session was 60 minutes in total.

Study Design

The study design was a mixed methods both quantitative and qualitative to obtain rich data. A triangular design is used to obtain different data from both methods that can be complementary and further validate or clarify results and both methods have equal weight (Terry, 2018, p.104). The quantitative data was the results of the participants' demographics to include age, sex, race/ethnicity, level of nursing education and years of experience in maternal/child nursing. According to Rennemeyer (2019) some of the data is discrete data such as the number of class participants via online virtual presentations, number of participants who did a read and sign for the printed presentations placed in folders on each unit, average age of the participants, number of onsite visits, and years of experience in nursing. A Likert 5-point scale evaluation tool was taken to assess and evaluate the participants' learning outcomes and IAT experience.

The qualitative data was personal and subjective data obtained from impromptu group and individual interviews on the units. Qualitative data was also obtained through the confidential online Implicit Bias/Cultural Humility questionnaire utilizing four semi-open-ended questions. Small group discussions with management in a private office and individual sessions with staff at the nurse's station or break room provided opportunity for feedback on the value of the education and testing strategies, sharing thoughts, concerns, asking questions and providing feedback. Additional field study notes focused on participants' experiences, opinions, reactions

to education discussions, and the IAT study tool. Nursing staff were encouraged to share how they will incorporate cultural humility and self-awareness respecting patient autonomy in their nursing practice.

Protection of Human Rights

The DNP student completed the Collaborative Institutional Training Initiative (CITI) for Social Behavioral Research before initiating the project. This project was intended to improve a clinical practice within an institution. The clinical site and healthcare system Evidence-Based Practice Committee determined the project was a process improvement/QI initiative. The project was not designed to expand knowledge of a scientific discipline or scholarly field of study. All activities were best practices and current standards of practice required by TJC, CMS and professional practice groups at the facility. The project was considered a benign, low risk project with possible mild emotional discomfort due to the somewhat difficult nature of the content for some. Human Resources was available should there be a need for participant support. Participant data remained anonymous as no personal identifiable information was collected in the testing or surveys. Participants chose a 4-digit code which only they knew to input on both the pre and post-test to pair their data. No identifiers were collected on pre and post intervention surveys. De-identified data is another way to protect privacy and confidentiality and disconnecting any links between the participants and the data about them (Hicks, 2023). De-identified demographic tool data and IAT results were placed in a confidential manilla envelope for each document and submitted to the manager or director and placed in a locked file in their offices. Qualitative questionnaire data was completed online by the individual and confidentially sent through Google docs and the project lead was notified through email that a questionnaire was completed with no identification of the participants. Field notes had no identifiers. At the

conclusion of the project all project data documents were shredded and destroyed by the project lead.

Study Variables

The independent variable were the education interventions provided on implicit bias and cultural humility. Dependent variables were the identified outcomes comparing provider bias before and after education with the hope of demonstrating increased awareness of implicit bias, racism, and its impact on the provision of nursing care.

Primary Outcomes

With knowledge and awareness comes the possibility of overcoming biases so nurses can consistently adhere to the Code of Ethics principle "The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person" (Narayan, 2019, p.36). Nurse satisfaction will be assessed post education using a Likert-5 point scale and a qualitative narrative report will be produced post small group discussion from provided feedback from the staff and management.

Expected Extraneous Variables

Extraneous variables are those that are unexpected or unanticipated but can influence the result of the study and affect the outcomes. It can influence the data making it inaccurate and can introduce bias into the study. The extraneous variables were if a participant drops out of the study, refused to answer some of the portions of the demographic tool by checking "I choose not to answer", doesn't complete the post IAT tests or the correct posttests and experiences stress with the subject matter or the test taking. A participant may experience anxiety taking the IAT for fear of being labeled a "racist" or "prejudice". The IAT is not a definitive test for bias but makes associations according to (Implicit Association Test, 2023). This is explained in the

education folder. Other variables are if the readings weren't completed or not all charge nurses attended the virtual synchronous online presentations.

Study Tool

The Harvard Implicit Association Test (IAT) is a computerized test that requires an individual to rapidly pair two items. It enables measurement of attitudes and beliefs such as implicit bias via test of automatic associations between concepts. A respondent is presented with an image or word and asked to assign it to one of two categories using keys on the right and left side of the keyboard. The system times how long it takes to pair concepts measuring the time from when the image or word is displayed to when it is categorized (Harvard Implicit Association Test, 2023). The IAT was originally developed in 1995 by Greenwald and Banaji and is designed to measure unconscious or implicit preferences of individuals. There are numerous IATs and for this study we looked at implicit bias through race and skin tone IATs. In the case of the Race IAT the goal is to measure preference for one race over another (Morin 2023). The participant quickly sorts words into categories that are on the left- and right- hand side of the computer screen by pressing the "e" key if the word belongs to the category on the left and pressing the "i" key if the word belongs to the category on the right (Project Implicit, 2023). There are five parts to the test: 1. sorts words relating to the concepts, 2. sorts words relating to the evaluation e.g., good or bad, 3. categories are combined, and participants are asked to sort both concept and evaluation words, 4. placement of the concepts switches and categories are on the opposite side from before and the number of trials is increased to minimize the effects of practice, and 5. in the final part the categories are combined in a way that is opposite from what they were before. The computerized scoring is based on how long it takes a person, on average, to sort the words in the third part of the IAT versus the fifth part of the IAT (Project Implicit, 2023). To score

responses a “D” score is calculated. A zero score indicates no bias, and positive scores indicate a preference for White people over people of color and negative scores indicate preference for people of color over White people (Hall et al., (2015). The range goes from positive 0.65 to a negative 0.65. The IAT is not a “racism test” but produces an indirect measure of subconscious racial preferences that a person might be unaware of about themself (Morin, 2015). This data is grouped into three categories of results having a “slight” association to bias, “moderate” association of bias or “strong” association of bias (Morin, 2015). The IAT’s will be given prior to the education and as posttest after the completion of the education interventions. According to Terry (2018, p. 81) “taking a pretest may improve the subject’s score on the posttest, and the result of the differences between the pre and posttest scores may not be an outcome of the application of an intervention, but instead may be the result of the experience gained through the testing process.” The paper addresses the plan for analyzing data and includes specific statistical tests for both the level of data that will be collected and the type of statistics to answer the PICO question.

Validity and Reliability

The Implicit Association Test (IAT) validates implicit bias measures and has greater reliability and benefit when using several implicit measures. According to Hagiwara et al (2020) many healthcare disparities studies use the IAT to assess bias and its use has enabled researchers to reliably document as association between provider implicit prejudice and provider-to-patient communication behaviors and patient reactions to them. Axe (2018) states the IAT has been publicized and prominently featured in widespread media and is becoming more familiar especially to those working in social psychology studying implicit bias. Few studies specifically focused on implicit bias and nursing practice or included large numbers of nurses

among study participants (Narayan, 2019). A suggestion to incorporate explicit measures not just implicit measures may be a better predictor of behaviors and complement each other and strengthen the reliability and validity of the IATs (Hagiwara et al, 2020). After the IAT is completed the participant receives a printout of their results. There will be two results – one for the race IAT and one for the skin-color IAT. The participants will make a copy of the results, place a 4-digit number of their choosing at the top and submit to the unit Director to be placed in a sealed envelope, in a locked drawer in the Director's office. According to (Narayan, 2019, p.41) "the IATs are reliable and valid research instruments, the developers of the IAT state that these tests should not be used to diagnose but rather as educational tools." Reliability is the consistency of a measure and will give the same results when repeated and validity is the ability of a study to measure what it intends to measure (Terry, 2018, p.130). The IAT captures an immediate response, a subconscious reaction. In psychology the measure is considered reliable if it has a test-retest reliability of at least 0.7. Studies have found that racial bias IAT studies have a test-retest reliability of around 0.5. The Harvard IAT states a reliability of .50, based on test-retest correlations according to Lopez, (2017). Many studies have stated varied opinions on the reliability and validity of the IAT and yet it is used in all subject areas. Studies such as Greenwald et al., (1998, 2002) one of the original authors stated that regarding race specifically, the web samples all paired more positive terms with White than Black social-category-related stimuli. A study by Gonzalez et al., (2021) highlighted multiple authors such as (Gatewood et al., 2019; Johnson & Richard-Eaglin, 2020; Marion et al., 2018; Geller & Watkins, 2018; Motzkus et al., 2019, and Zeidan et al. 2019) to name a few utilized the IAT as a tool to raise awareness of implicit bias in learners and facilitate further discussion and for self-reflection. "Regardless of participant race, effect sizes favoring Whites were large (overall d=.77), a pattern shown by 68%

of all respondents while only 14% showed Black Favoritism" (Fiske & North, 2015, p.27). Test-retest reliability has a median of .56 (Nosek et al., 2005 cited in Fiske & North 2015, p. 28). "The IAT framework suggests modest correlations with explicit measures, higher in less controversial domains" (Fiske & North, 2015, p. 28). Fisk and North (2015) believed that overall, the IAT has particular use for racial attitudes that people do not often report.

Threats to Reliability and Validity

Some threats to reliability and validity are in differentiating between internal and external validity in the study (Terry, 2018). Testing can be a threat to interval validity if subjects are sensitized to the IAT test, however if the time elapsed is far enough apart such as a minimum of 4-four weeks then this diminishes sensitivity. Switching of the various parts of the testing also makes it difficult to become sensitized. Manual dexterity has been an issue raised (Gatewood et al., 2019) believing that a measure of dexterity rather than bias is the case, but this has been refuted in the research by (Greenwald, et al., (2015) in the mid 1990's when the IAT was developed. It is important to adequately frame the IAT assessment – objective, goals, outcome measures to the participants prior to testing (Gatewood, et al., 2019). Honesty in performing the IAT is tantamount to accurate results for the reliability and validity of the data. Participants may be concerned about answering honestly as to the level of bias, but due to the nature of the IAT there should be minimum dishonesty as it tests the immediate response and the testing platform measures in milliseconds the reaction time to pair the concepts and words (Gatewood et al, 2019). Another factor may be if age of the subjects influences the reaction time?

Other challenges may be if the sample size is not large enough to avoid Type II error (Cullen, 2023). Threats to the analysis of outcomes may occur if the data is incomplete, allowing for those who may only compete the pretest and not the posttest, and more staff choosing not to

participate that will decrease the sample size.

Data Analysis

Quantitative Data

The demographic data was nominal data that included age, gender, race/ethnicity, years of experience as a registered nurse, level of nursing education and nursing unit worked. The race/ethnicity results were 1/3 Hispanic, 1/3 White and 1/3 Asian at 23.7% for each. This was followed by Black/African American at 13.1%. 15.8% of the registered nurses chose not to answer. These results demonstrated the diversity of the RN population. When comparing to the diversity of the patient population cared for 81.3% was Hispanic with 46.8% being U.S. born and 34.5% being non-U.S. born. The total White patient population was 3.4% compared to the White RN population of 23.7% and the Black/AA patient population was greater than the White patient population at 6.7% with the Black/AA RN staff comprising 13.1% that could better help identify and address health disparities that may exist especially for the Black/AA birthing person and facilitate improved listening and communication skills building trust. The Asian population was 5.2% with 23.7% Asian RN population contributed to the diversity of the RN population. Having a diverse RN staff population and a diverse birthing population demonstrates that the group of women giving birth and the group of nurses providing care come from a wide range of backgrounds and cultural experiences that effectively mirror the broader population they serve. This diversity allows for more cultural sensitivity and the ability to personalize care for each patient (see Table 4.0). When RNs come from diverse backgrounds they can better relate to the experiences of a wider range of patients and are more likely to be aware and sensitive to cultural nuances and beliefs that can enhance patient care and address

specific needs based on culture.

When looking at the data on age and experience the RN population was older with 39% between 55-64 years of age followed by 26% ages 45-54 and 37% having 20-29 years of experience followed by 28.9% with 10-19 years of experience and 21% with >30 years of experience. No RNs were between 18-24 years of age and zero had <one year experience with one RN having 1-3 years' experience reinforcing a more senior and experienced RN staff (see Tables 4.2 and 4.4). Gender was 95% female with 5% refusing to answer (see Table 4.1). Almost ¾ of the RN staff had their bachelor's degree at 73.7% and 10.5% had their master's degree demonstrating an educated nursing staff. 15.8% had their associates degree and there were no diploma level RNs (see Table 4.3). Of the participants most of the RN staff were from the Couple Care/postpartum/Mother/Baby unit at 47.3% followed by Labor & Delivery staff at 39.5% and 13.2% from the NICU (see Table 4.5).

The IAT study tool used for both pre-test and post-test education was completed online for race and skin-tone. Completion of the demographic tool and taking the IAT tests was voluntary to ensure no coercion to protect the participants rights. Quantitative data would have allowed the study to establish correlational relationships between the variables and strength of the association of the IATs and the data according to (Alston, 2021), if a greater sample size of parti0cipants had completed the post-test IATs. The pretest IAT results (N = 25) was to be compared to posttest IAT results (N = 2) after education and interventions were completed but, in the end, the project lead was unable to quantify data or provide adequate statistical analysis due to the lack of posttest IAT participation. Data results from the IAT pre and posttest on race and skin tone were rated as none, slight, moderate or strong depending on the score (Moran, 2023). When analyzing the pretest IAT results for race 10% of the participants scored Zero, 35%

scored Slight, 47% Moderate and 8% Strong. When analyzing the results for the pretest IAT for skin-tone 5% scored Zero, 26% scored Slight, 57% scored Moderate and 12% scored Strong (see Table 5). According to the (IAT, 2023) when a score shows a preference, that doesn't mean one is prejudiced. The word "prejudiced" usually describes someone who reports negative attitudes about a group or groups of people. The IAT is designed to measure the hidden preferences you may not know you have, and which may run counter to your conscious beliefs. Automatic preferences can influence our behavior and judgments (IAT, 2023). Acknowledging these implicit biases are the first step to learning how to control them, so we can overcome them in our decision-making.

A post evaluation survey to assess participant satisfaction along with feedback on the IAT was completed using a Likert 5-point scale. The results from the Likert scale was coded using 5 for extremely, 4 for very, 3 for moderately, 2 for slightly and 1 for not at all. Unfortunately, a paired t-test could not be run due to the insufficient small sample size of post IAT tests completed. Data from the Likert scale was analyzed to see if it demonstrated changes in attitude toward patients of color through increased awareness of implicit/unconscious bias. Overall the education overall was helpful to the participants understanding of the project though it was overwhelming with too much information and not enough time to read all the materials and synthesize. 40% of the participants felt they became more aware of their own implicit bias and strategies to manage the effects in their nursing care. An equal response to the IAT as to if it benefits taking the tests with 48% did not feel it benefited them at all to 48% feeling it extremely benefited them though again data could not be compared pre and posttest IAT so this was an overall impression of the value of the IAT tests. Interestingly, the participants did feel overwhelmingly 68% that the score they received did change their view of themselves and

brought about increased self-awareness by taking the IAT (refer to Project Findings and Results section). The qualitative data resulted in providing more in-depth information and strong responses to the IAT. Refer to section on Qualitative data analysis and resulting themes.

Project Findings and Results

Demographic Data N = 38

Table 4.0

	Race/Ethnicity		%
Choose NA	6		15.8
White	9		23.7
Hispanic	9		23.7
Black/AA	5		13.1
Asian	9		23.7
Indigenous	0		0
Multi ethnic	0		0
Total	**38**		**100**

Table 4.1

	Gender	%
Choose NA	2	5
Female	36	95
Male	0	0
Gender variant	0	0
Total	**38**	**100**

Table 4.2

	Age Group	%
Choose NA	3	8
18-24	0	0
25-34	5	13
35-44	4	11
45-54	10	26
55-64	15	39
65+	1	3
Total	**38**	**100**

Table 4.3

	Education	%
Diploma	0	0
Associate	6	15.8
Bachelors	28	73.7
Masters	4	10.5
DNP/PhD	0	0
Other	0	0
Total	**38**	**100**

Table 4.4

	Yrs. Exp.	%
< 1 yr.	0	0
1-3 yrs.	1	2.6
4-9 yrs.	4	10.5
10-19 yrs.	11	28.9
20-29 yrs.	14	37
> 30 yrs.	8	21
Total	**38**	**100**

Table 4.5

	Unit	%
Antepartum	0	0
L&D	15	39.5
PP/CC	18	47.3
Nursery	0	0
NICU	5	13.2
Total	**38**	**100**

Table 5: Summary of Pre-test IAT Results for Race and Skin Tone

	Race	%

Zero	2	10
Slight	9	35
Moderate	12	47
Severe	2	8
Total	**25**	**100**

	Skin-Tone	**%**
Zero	1	5
Slight	7	26
Moderate	14	57
Severe	3	12
Total	**25**	**100**

Table 6: Likert Results for Participants Evaluation N = 25

Participants evaluation of the Implicit Bias (IB)/Cultural Humility Education/Implicit Association Test (IAT)

Not at all	**Slightly**	**Moderately**	**Very**	**Extremely**
Education folder was helpful to my understanding of the project.				
0	**3 (12%)**	**16 (64%)**	**6 (24%)**	**0**
Module power points and readings enhanced my knowledge.				
8 (32%)	**14 (56%)**	**3 (12%)**	**0**	**0**
Based on the activities I am more aware of my implicit bias and strategies to manage the effects in my nursing care.				
2 (8%)	**1 (4%)**	**0**	**2 (8%)**	**10 (40%)**
To what extent did you benefit from taking the IAT tests?				
12 (48%)	**1 (4%)**	**0**	**0**	**12 (48%)**
Did the IAT scores you received change your view of yourself?				
7(28%)	**1 (4%)**	**0**	**0**	**17 (68%)**

Qualitative Data

Looking at the qualitative data it is subjective, comes from a personal voice, uses inductive

processes is unstructured, accurate and reliable through verification and can help develop a theory (Park and Park, 2016). It is data that explores and provides deeper insights into real issues as in implicit bias and racism. Qualitative data was obtained from the individual and group discussions that were documented while taking notes during the sessions and results from the confidential online Implicit Bias/Cultural Humility Questionnaire. Qualitative data is non-numerical data. Responses were obtained from open-ended questions during the participant interviews with responses to the questionnaire asking 'what', 'how', and 'why' questions. This data looks at the stories shared and required time and effort to gain a deep understanding of the participants' experience and emotions (Dechalent, 2024). The qualitative data better enabled the project lead to look at and explain patterns of behavior that can be difficult to quantify. There were several challenges and steps in collecting the qualitative data such as time and effort in gathering all the data and reviewing all the notes taken. Another challenge is in being objective while interpreting the data ensuring conclusions are rooted in the data itself (Dechalent, 2024). In addition, qualitative data also required analyzing the data, creating codes, reviewing and revising codes, combining into themes and organizing themes in a cohesive manner. One exciting part of qualitative data was finding the unexpected and retrieving surprises in the subjective data itself revealing ideas and perspectives not anticipated. Experiences, attitudes, behaviors, thoughts, feelings, opinions and perspectives of the participants were obtained through qualitative data that is difficult to obtain from quantitative data. The project lead found this to be true. Seven themes and three subthemes were developed from the qualitative data presented in the next section.

Themes from Qualitative Data

Theme #1: *Equality* –

"I treat everyone equal." "I treat everyone the same." "I treat all patients the same."

Theme #2*: *Strong response

The education was taken very personally. "Offended by the study because it is saying that the increase maternal death rate is from racism of the nurse and the nurses are racists…" "But where we live is so multicultural and so mixed and more of an issue in the South." "Education was created to polarize people." "Stop bringing race into everything."

Theme #3*: *Made more aware of biases/acknowledge bias/ more self-aware

"I really try and listen and care." "Try to be aware of preconceived biases." "More understanding between equality and equity – can see the difference." "More aware of biases and impact on nursing practice." "Pointed out certain racial generalizations."

Theme #4*: *Focus on patient-centered care

RNs spoke about the need to look at their own practices to see how to make changes to improve in relation to bias. More focus on individual needs of the patient. "Project has increased my awareness of the importance of listening with intent." "Will utilize mindful practice." "Making a change in my own nursing practice." "Put other races above my own." Address individual needs of my patients.

Theme #5 Cultural Humility

Brought about an increased focus on listening and greater understanding of the difference between cultural competency and cultural humility. "Enables me to stop and think before I respond." Practice actual listening. "More aware of differences between cultural humility and cultural competency." "Great information on implicit bias and cultural humility." "Putting the

patient first as the focus as to their needs.

Theme #6 – Difficulty and frustration with taking IAT

Strong reactions to taking the IAT as well as the results. Misinterpretation of the results as being labeled a racist. Some staff did not want to take the post-test IAT. "IAT was difficult to take." "Did not understand it." "Stopped taking it." "Time consuming." It was frustrating to take." "Did not like taking the IAT as I am not biased or a racist."

Theme #7 Value, importance, impact (from field notes)

"There was value and lots of good information that was shared." "Important to use this knowledge and share with all staff." "Wasn't aware of degree of implicit bias in MCH as we are in California, and it is so diverse that do not think about it." "Was not aware of the impact until education presented on the issues."

Subthemes:

1. politics/political correctness,
2. pulse oximeter accuracy changes with people of

color due to the melanin in the skin that increases absorption of light,

3. staffing concerns – tight budgets and not enough staff to provide the level of care that requires more time in communicating with the patient and to have the budget for more education.

Analysis

Applying the project results to the objectives of exploring perinatal nurses' perceptions that presented both challenges and opportunities of implicit bias and cultural humility education was achieved based on the qualitative data and Likert evaluation tool. The project was able to demonstrate an increased understanding and awareness of the impact implicit bias and racism

has on perinatal nursing practice by the qualitative themes, but not by comparing pre-test and post-test education results of the Implicit Association Test (IAT) due to insufficient participation in the post-test compared to the pre-test. The participants did acknowledge incorporating cultural humility strategies - self-awareness, introspection in nursing practice and some were able to verbalize the patient centered changes they wanted to incorporate in practice through learned awareness of implicit bias and its impact on quality care and patient outcomes.

Limitations, Recommendations, Implications for Change

Limitations of the project was due to a small sample size. There was much dissatisfaction with taking the IAT such as difficulty in printing out test results, feeling it was limited in scope, would have liked to see encompassing all races not just black and white, and an overall strong negative response. Due to lack of an education/project budget there was no designated education time, overtime approved, designated room to meet, orientation face-to-face to the project, time for a classroom group discussion and one-on-one discussions were impromptu, hit or miss. Discussions for qualitative data depended on patient census on the unit and staffing. Staff voiced their dissatisfaction with no initial in-person orientation between the project lead and RN staff to fully understand the project and stimulate engagement. Communication got lost in translation when project lead was not on the unit or by telephone. Only the charge nurses were invited to attend virtual synchronous online presentations during charge nurse meetings. RN staff stated they were overwhelmed with competing mandatory requirements from organization and system that made it stressful. The participants felt there was “Too much education materials”, “No time to read all of it.”, “I don’t have time for that”, “Would like a more condensed version.”

Based on group themes staff did find value in education and were more patient focused in the application of knowledge to improve communication and active listening. Though many were still focused on treating everyone the same *equally*, some did understand the difference between equality and equity that was a major focus of the education and how they can apply cultural humility techniques to be more sensitive to the diversity of culture, race, and ethnicity and place more focus on the patient and not the RN.

Developing a budget for Implicit Bias education is necessary to provide for success and meaningful, impactful education. Providing an in-person orientation on the project is helpful for staff to ask questions, understand the purpose, goals, and objectives and meet and become familiar with the project lead. A pre-intervention assessment of readiness of staff awareness of IB and impact on health outcomes would provide initial data and awareness of staff understanding of IB and cultural humility. Showing a video on the IAT – how to take, FAQs, framing the IAT so staff has better understanding vs. instruction on paper to improve readiness and decreasing discomfort with taking the test is very important based on the feedback given. Allowing time in staff meetings/huddles for Q&A and reinforcement on the project objectives would be beneficial. Expanding participation to include all staff – RNs, OB techs, MDs, would provide more robust data, increase population and sample size, expand important qualitative data, suggestions from the participants and increase overall awareness and application of knowledge for the whole department. Recommend incorporating and practicing some of the techniques for decreasing implicit bias and cultural humility and add implicit bias as part of the overall hospital and unit orientation and annual skills competency. With a continued focus on the

impact of implicit bias and racism on nursing practice considering the historical framework more research needs to focus on nursing practice, faculty education and comfort on the topic. Looking towards the future, incorporating stratified data for race and ethnicity to benchmark internally and externally the gaps for quality measures such as cesarean section, severe maternal morbidity, preterm birth, and exclusive breastfeeding is important. Making a culture shift by addressing policy and practice changes to decrease the health disparity gap is needed to promote equity and ultimately decrease the rate of maternal morbidity and mortality.

Conclusion

The focus of this evidence-based quality improvement project was to positively impact the provision of perinatal healthcare that treats maternity patients of racial/ethnic diversity with increased awareness and knowledge that racism and implicit bias are factors that contribute to poorer health outcomes. Through education, strategic interventions, small group discussions, questionnaires, testing and surveys this project explored perinatal nursing perceptions of implicit bias that presents both challenges and opportunities to improve awareness and attitudes on implicit bias demonstrating more compassion utilizing cultural humility interventions that improves perinatal care without bias or prejudice. It is the hope that through this scholarly DNP project the perinatal nursing staff and leadership gained a desire to improve skills such as active patient listening and communication that helps close the healthcare disparity gap for pregnant/postpartum birthing persons of color. We must actively work to shift our perspective, build relationships and learn from and about people in other groups. This can go a long way toward ensuring that our behavior to assist others reflects our true values, goals and mission.

Collectively, the mission is to end preventable morbidity/mortality and racial disparities in maternal/newborn care and close the healthcare disparity gap (CMQCC, 2023).

As defined by Dr. Crear-Perry (2022), birth equity is “The assurance of the conditions of optimal births for all people with a willingness to address racial and social inequities in a sustained effort.” The stories we tell about our history frame how we think about ourselves now and the possibilities we can imagine for our future. Looking to the future providing birth equity and decreasing systemic racism in perinatal healthcare is the overarching goal.

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Appendix A Logic Model

Resources/Inputs	Activities	Outputs	Outcomes	Impacts

Administration/MCH Department approval and buy-in support Evidence-Practice Nursing QI Committee Approval Online Learning platform Participants – Staff RNs and management working in Maternal-Child Services at a cosmopolitan hospital in Southern California with a diverse perinatal patient population. Department of Education to align strategies with hospital practice and provide computers for testing and printing results Costs – supplies, duplication/copying Space for small group discussion and zoom meetings. Constraints: Due to many budget constraints these days, there are less hours devoted to education. In addition, there may be some obstacles with the use of hospital intranet and the process and policy to utilize. Communication will be key with staff and not all staff are given a hospital email address Providing safe space for staff to engage in confidential individual/small group discussions	Leininger's Cultural Care Diversity and Universality Theory, Melis Theory of Transition Nursing Model and Faronda's Theory of Cultural Humility incorporated into the education and training. Pre and Post education Implicit Association Test (IAT) taken for Race and Skin-tone Distribution of Education Folder with information on the project, directions to take the IATs, articles on implicit bias and cultural humility and demographic tool to complete IAT participation and completion of Demographic tool is voluntary 4-digit identifier created by participants for pre and post test results Education power points via zoom – three zoom presentations per nursing unit for L&D, CC, NICU	All management and at least 25% of total RN staff to participate in education and IAT testing Timeline to be completed between December 2023 – April 2024 All participants to complete the Qualitative semi-structured confidential questionnaire and Likert 5-point survey Participants to engage in individual or small group discussions to provide feedback to project lead	Participants to complete the education, testing and demonstrate increased awareness of personal implicit bias, stereotyping Can articulate awareness and changes in attitude toward perinatal patients of color and diverse ethnicity – verbalize patient focus with renewed listening and communication skills Incorporating cultural humility/self-awareness in nursing practice Recognition Long term outcome is transformational change demonstrated through nursing leadership/systemic changes utilizing evidence-based practice and scholarship as demonstrated by improved patient satisfaction scores and improved stratified Maternal quality rates focused on racial/ethnic diverse patient population, most vulnerable; Feedback on value of education	Deliver comprehensive, evidence-based education on Implicit Bias/Cultural Humility Program provided for all new novice RNs to the MCH department and as well as experienced, more senior nurses. Future education includes ALL MCH staff and physicians, advanced practice nurses Qualitative Semi-structure questionnaire N = 8; additional field study participants - 5 Changes that are hardwired throughout the organization in maternal/child health and throughout all departments to decrease health disparity with implicit bias/cultural humility and fulfilling requirements of Dignity in Pregnancy legislation required every two years

Appendix B

Demographic Data Tool

Select all ethnic identities that apply.

□ I choose not to answer

□ White/Caucasian

□ Hispanic/Latinx

□ African American/Black

□ Asian – Chinese/Pacific Islander/Japanese/Korean/Vietnamese/Cambodian/Philippine/Indian

□ Indigenous Peoples

□ Multi ethnicity

Select which gender identity you most identify?

□ I choose not to answer.

□ Female

□ Male

□ Gender Variant/Non Conforming/Non Binary

Select your Age Group

□ I choose not to answer.

□ 18-24

□ 25-34

□ 35-44

□ 45-54

□ 55-64

□ 65+

Select your highest completed Education Level.

□ Diploma/Certificate

□ Associate's

□ Bachelor's

□ Master's – MSN/MS

□ DNP/PhD □ Other

Select Years of Nursing Experience

□ Less than one year

□ 1-3 years

□ 4-9 years

□ 10-19 years

□ 20-29 years

□ >30 years

Select the Maternal/Neonatal Unit you work

□ Antepartum

□ Labor & Delivery

□ Postpartum/Couplet Care

□ Nursery

□ NICU

Appendix C

Implicit Association Test (IAT) Measurement Tool Results

Participant # _ _ _ _

Instructions: If you are unable to print out your IAT results please use this form and check one of the boxes below that results in your score for **each** IAT test. When completed submit results to your director, or clinical manager. Please do not place any other identifying information other than your 4-digit identification number. Thank you for your participation.

Implicit Association Test – Race

Results: Zero_____, Slight_____, Moderate_____, Strong_____

Implicit Association Test – Skin-Tone

Results: Zero_____, Slight_____, Moderate_____, Strong_____

Appendix D

Implicit Bias and Cultural Humility Perinatal Questionnaire

1. What is one take away from this education project that you will implement to improve your perinatal nursing practice when caring for birthing persons of color?

2. Did the education provided change your self-perception or shift your perspective of implicit bias and its influence on your nursing practice? If so, explain how and if not, why?

3. How can cultural humility improve your listening skills and communication with your patients?

4. Did you benefit from this education? Please explain how? If not, why?

https://docs.google.com/forms

Appendix E

Project Timeframe

SROL completed July 2022	PICO Finalized September 2022	Lit Review write-up December 2022	Written Project Proposal February 2023	Defend Proposal September 2023	Implement Project December 1, 2023 - April 10, 2024.
Site Approval Letter pending	Submit to Regis/IRB Research Council - pending meeting with system research quality director	Project Starts - pending. Hopefully by the end of October/ or early November 2023	Project approvals - System-Facility-EB Practice Committee for QI Practice site change to another hospital within the system July 2023 Project implementation - November 2023 - April 2024	Present power point project to faculty for approval on September 22, 2023 November 1, 2023 received approval from Hospital System Evidence-Based Practice Committee	Complete data collection April 2024 Analyze data from March 31, 2024 - April14, 2024 Prepare for oral defense April 17, 2024 Complete project write-up and final submission by May 10, 2024

Appendix F

Budget and Resources

Personal Costs:

Original printing of documents + paper

- Purchase of 100 folders and 100 pens = $250.00
- Toner for personal copying machine = $ 85.00
- Travel gas = $443.00
- Parking fees = $ 36.00
- Snacks for the staff = $114.00
- No cost for IAT study test

Total costs for project = $928.00 *

* All costs were in-kind provided by project lead as the hospital CNE stated “no costs to the department in the implementation of this project.”

- No budget for perinatal education project or overtime
- All presentations were virtual synchronous online

Appendix G Education Modules

Outline of Education Models

Module 1 – Implicit Bias (IB)

- Purpose/Goals/Objectives for Education
- Study Tool
- Definitions
- Background and Historical lens
- Recognition/Awareness of IB
- Consequences of IB in maternity care
- Rooting out racism
- Role of the nurse
- Addressing IB – strategies
- Legislation and Regulatory Requirements
- Cultural Data on Maternal mortality/neonatal preterm birth –
  CA/ Region/Facility
- Clinical Vignettes – real life experiences

Module 2 – Addressing IB

- Utilizing CLAS from Office of Minority Health, H&HS
- Excerpts from Dignity in Pregnancy Childbirth Course
- National Partnership for Women & Families – "Listening to Black Mothers"
- Excerpts from *Battling Over Birth* – Birthing Justice
- Discussing key terms and meanings – ANA Racism in Nursing
  Strategies – counter-stereotypic imaging, practice perspective talking, improve decision making,
  individuation, replace the stereotype
- Integrating in nursing care

Module 3 – Cultural Humility

- Definitions – sensitivity, awareness, competence, humility
- Theory of Cultural Humility
- Strategies to obtain humility – self-reflection, mindfulness, meditation
- Improving listening skills
- Practice steps to engage in cultural humility
- Addressing differences of cultural humility, cultural sensitivity, cultural awareness, cultural competence
- Resources for staff

- Application to nursing practice and actionable steps to narrow disparity