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Implementation of Implicit Bias Training in a Doctor of Nurse Practitioner Program

MacDana Selecon
University of San Francisco, macdana.selecon@gmail.com

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Committee Chair: Dr. Trinette Radasa

Committee Member: Dr. Erica Hooper

Acknowledgements

There is one thing I know for sure; the resilience of an individual is merely a reflection of their community. Reaching this incredible DNP milestone, required far more than personal grit and perseverance. It was made possible by my amazing and dynamic community. Thank you to my committee chair, Dr. Trinette Radasa, for your "yes" followed by thoughtful mentorship and unyielding support. Thank you, Dr. Erica Hooper, for making time to help me find my voice and path. Without one of our many meetings, I would still be walking in a circle overwhelmed with ideas yet void of direction. Thank you to my classmates who listened and commented with helpful advice semester after semester. A special thank you to Kylie Timmerman for being excited about this project and making a memorable introduction. This DNP project is a product of phenomenal guidance.

Thank you to my beautiful community who saw beyond my insecurities and focused on my potential. To my mother who held firm to her vision for me despite numerous detours, it brings me great joy to say, "Mothers do know best." I would give anything to wrap my arms around you one more time as I let you know how proud I am to be the daughter of Marie Monique Vengine.

Halfway through this program, I prayed for a project that would bring positive change to nursing. Shortly thereafter my classmates and I reviewed a case study about an African American boy who was misdiagnosed with ADHD. Most of our class agreed with the diagnosis and treatment, and I walked away with a determination to address implicit bias in nursing. Thank you most Holy Father for answering my prayer and sustaining me throughout. Lastly, to the child in the case study, I see you; I hear you, and I care.

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Abstract

Background: Implicit bias in healthcare delivery refers to the unconscious mental associations healthcare providers make about patients from various social groups. Numerous studies suggest implicit bias contributes to health disparities primarily amongst marginalized groups. Furthermore, patients report a lower quality of communication from healthcare providers with higher implicit racial bias. In 2021, Assembly Bill 1407 (Nurses: Implicit Bias Courses Act) was passed to address the negative impact of bias on patient outcomes and requires California nursing schools to provide implicit bias training for nursing students.

Problem: All graduate nursing programs do not provide implicit bias (IB) training. As a result, graduate nursing students cannot manage IB during clinical rotations and, thus, are at risk for contributing to culturally insensitive care and adverse patient outcomes.

Context: The academic institution is located in an urban setting in northern California. The school's mission is established in the Jesuit tradition of justice and diversity. They offer graduate and undergraduate nursing programs ranging from Bachelor of Science in Nursing (BSN) to Doctor of Nurse Practice (DNP). The school receives a large grant from the US Human Resources and Services Administration (HRSA) to financially support clinical training for the doctoral education of advanced practice nursing students to work in the California Central Valley and Northern California areas, treating marginalized patient groups. The grant aims to increase diversity in healthcare and the number of healthcare professionals working in medically underserved areas.

Intervention: Doctor of Nurse Practice (DNP) students received a two-hour IB training to increase awareness of IB in healthcare delivery and to enhance comfort in managing personal and institutional bias.

Measures: The outcome measures for DNP students to achieve were (a) to increase knowledge of implicit bias by 80%, (b) to increase comfortability managing bias by 80%, and (c) to provide a toolkit to reduce bias. The live IB training was evaluated with pre and post-surveys to detect if there was a relationship between DNP students' knowledge of IB and comfortability managing bias and the provided IB training.

Results: Student's knowledge scores increased by 89.9% after the implicit bias training intervention. Most students felt less confident managing or discussing bias after the training.

Conclusion: Implicit bias training must be sensitive to the learner's needs considering that previous research indicates that the training can cause defensiveness. Use of evidence-based IB training in nursing education can be used to promote health equity. Implementing practical IB training was an effective intervention with associated cost avoidance to decrease unconscious bias held by advanced practice registered nursing (APRN) students.

Keywords: Implicit bias training, nursing education, unconscious bias, diversity, equity, inclusivity

Implementation of Implicit Bias Training in a Doctor of Nurse Practitioner Program

Background

The burden of health inequities has financial implications for our nation. Current estimates from a study funded by the National Institutes of Health (NIH) revealed that 2018 racial health disparities cost the US economy $451 billion, a 41% increase from 2014 (LaVeist et al., 2023). Most of the economic burden was attributed to excess medical care costs and premature death. Per person the burden of health disparities in California was $3,152.

Preventable healthcare disparities have been linked to healthcare provider bias. (Saluja & Bryant, 2021). In a study completed by the Urban Institute, it was discovered that Black patients treated at the same hospital as White patients were at an increased risk for infections, surgery-related problems, and critical bleeding (Gangopadhyay, 2021). In addition, studies from 2011 to 2015 discovered that White women experienced fewer pregnancy-related deaths than Black women: 13.0 deaths per 100,000 births compared to 42.8 deaths per 100,000 births respectively (Saluja & Bryant, 2021). The studies above discussed implicit bias as a likely contributing factor to these health disparities. Research suggests implicit bias against Latinx, Black, and dark-skinned individuals exist among healthcare providers of different training backgrounds, specialties, and experience levels (Hall et al., 2015). In addition, nationwide there is increase in minority populations, furthering the need for nursing workforce to diversify to provide culturally competent care. With the low numbers of diverse nurses in addition to all the challenges with minority populations successfully completing nursing programs furthermore suggest importance of implicit bias trainings for all students. Currently, there is movement to increase health inequity awareness to advance health equity that is Nationwide across various sectors and disciplines.

Problem Description

In 2021, implicit bias (IB) training became a pre-graduation requirement in California nursing schools per Assembly Bill 1407 (Nurses: Implicit Bias Courses Act, 2021). Assembly Bill 1407 (AB 1407) requires California nursing schools to mandate the completion of a one-hour IB training which covers internal bias identification, barriers to inclusion, corrective measures, effects of IB, cultural identity, effective cross-cultural communication, power dynamics, IB and maternal and infant health outcomes, community issues, and reproductive injustice (Nurses: Implicit Bias Courses Act, 2021). This legislation supports the American Association of Colleges of Nursing position, which states that nursing education must ensure both entry and advanced-level nursing education provide graduates with the ability to understand the social determinants of healthcare inequities and structural racism with a call to action for change through advocacy and preparation (Essentials et al., 2021).

Several states have passed similar legislation as critical stakeholders, including healthcare organizations (HCOs), community members and leaders, and healthcare providers, become more aware of health inequities resulting from implicit bias. Similar to the state of California; Washington, Maryland, Minnesota, and Michigan have decided to implement change at the universal entry-point for all healthcare providers (Cooper et al., 2022). Educators are using various approaches to cover sensitive and crucial topics. For example, the implicit-association test (IAT), introduced in 1995 to assess conceptual associations, stereotypes, and judgments, is often used to provoke reflection during training (Ungvarsky, 2021). However, the learner's responses to the IAT scores ranged from defensiveness to acceptance (Gonzalez et al., 2021). Researchers also report that diversity training can backfire by strengthening previously held beliefs and stereotypes (Bezrukova et al., 2016).

According to Bezrukova et al. (2016), implicit bias training, also called diversity training, needs to be standardized. Training can be focused on groups, meaning they target one or multiple groups, demonstrating bias. Others are inclusive groups that focus on organizational culture, which shows bias. These researchers also found variation in the duration of the training, with some training lasting 30 minutes to several years. Instruction methods also vary. They can be lecture-based training, simulations, dramatization, or video, with some training incorporating a combination of methods. Training objectives can be to raise awareness, change behaviors, or both. The numerous training methods increase the risk of ineffective IB training, which does not prepare providers to implement bias reduction strategies to improve health equity.

The Doctor of Nurse Practice (DNP) program prepares students to improve patient and system outcomes by implementing quality improvement projects (Graves et al., 2021). According to Provision 8.3 in the Code of Ethics for nurses, nurses must reduce disparities; recognize that healthcare is provided to culturally diverse populations; and collaborate to create practice settings sensitive to various cultural values (American Nurse Association, 2015). For future nurse practitioners (NPs) to provide culturally competent care, they must be trained to identify and undo structural and personal biases that promote health inequality. Students must consider how future change projects can improve health outcomes from a diversity, equity, and inclusivity (DEI) perspective. A literature review was completed to collect the best evidence from healthcare provider students and educators to implement evidence-based training that integrates student and educator preferences to inform the design and implementation of an educational quality improvement project.

The chosen educational institution does not provide IB training to DNP students to equip them to provide culturally competent care, nor tools to identify and mitigate bias. Advanced

Practice Registered Nursing (APRN) students must be aware of personal biases and how they impact equitable healthcare since specific IB training is not incorporated into the NP curricula. Implementing IB training to increase NP students' awareness of bias with tools to decrease bias in healthcare is expected to improve patient health outcomes, enrich patient-provider relationships, raise awareness of IB, and decrease health disparities related to IB.

Setting

The implementation of this project was at a large academic institution. The academic institution is a private university in a diverse metropolitan city in northern California. The school's mission aligns with the Jesuit values which include service and diversity traditions. Many of their graduates are health professionals prepared to advocate for health equity in quality, access, and delivery. This institution offers graduate and undergraduate nursing programs ranging from Bachelor of Science in Nursing (BSN) to Doctor of Nurse Practice (DNP). The school receives a grant from the US Human Resources and Services Administration (HRSA) to financially support students through their nursing degrees. The grant aims to increase diversity in healthcare and the number of healthcare professionals working in medically underserved areas. There are approximately 928 faculty members and 9,688 students. Approximately 1,475 of the student population is in nursing and healthcare professions.

Specific Aim

This quality improvement project aimed to increase knowledge of implicit bias, comfortability managing bias and provide bias reduction tools to DNP students through implicit bias training. The target audience was DNP students in the family nurse practitioner (FNP) program and psychiatric mental health nurse practitioner PMHNP program. These students provide care to diverse patient groups during their clinical rotations. The aim was to increase

knowledge of personal and institutional biases by 80%, to help students identify personal biases, and to increase comfortability managing bias by 80% at the end of June 2023. The overarching goal of this project was to design, implement, and evaluate an evidence based IB training for DNP students to promote bias awareness and provide concrete tools to reduce bias in healthcare delivery.

Available Knowledge

PICO(T) Question

Two PICOT (population, intervention, comparison, outcome, time) questions were developed to search the literature for best practices when implementing practical IB training for NP students. In nurse practitioner students how will the implementation of implicit bias training compared to current practice increase students' awareness of how implicit bias impacts equitable patient care? The second question was how do students in graduate-level healthcare provider programs perceive receiving IB training during their coursework?

Search Methodology

A literature search was performed to gather quantitative and qualitative data about IB training within graduate school programs for healthcare providers. Furthermore, the literature was reviewed for experiential data exploring how to implement effective IB or DEI training. Searches were completed on the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Fusion, PubMed, Google Scholar, and Cochrane Database of Systematic Reviews. The following search terms were used: “implicit bias,” “diversity, equity and inclusivity” “nursing school,” “graduate school,” “curriculum,” “patient-centered care,” “unconscious bias,” “training,” “students,” and “healthcare providers” for the search of the database. Peer-reviewed research articles published in English between 2010 and 2022 were eligible for inclusion.

Inclusion criteria were narrowed to include articles on implicit bias training or diversity, equity, and inclusivity training for graduate healthcare provider students. The search was limited to articles available electronically. The search generated 98 results. Selected studies emphasized implicit bias training for graduate students. A backward citation search was completed for all included articles. Based on the criteria mentioned above, six articles were selected. Articles whose interventions included implicit bias training, cultural competency training, or DEI training for graduate students in healthcare programs. Articles with a heterogenous student population represented by degree tracks, race, and age. Design methods for the included articles were mixed-method, qualitative, and meta-analysis. The Johns Hopkins Nursing Evidence-Based Practice Evidence Level and Quality Guide Tool selected and evaluated six articles. The complete analysis is available in Appendix A.

Integrated Review of the Literature

Bias mitigation strategies. Skills to actively decrease bias is often expected during IB training (Gonzalez et al., 2021). The objectives for diversity training can exclude providing bias mitigation strategies. Unlike explicit bias, implicit bias resides in the subconscious mind, meaning the educator is tasked to teach the learner how to change their belief systems, hidden judgments, and stereotypes (Fitzgerald & Hurst, 2017). Furthermore, the discussion of IB can challenge the learner's self-perception, thus resulting in defensiveness, which can be a learning barrier (Gatewood et al., 2019). Three studies collected qualitative data regarding learners' bias mitigation strategies (Gatewood et al., 2019; Gonzalez et al., 2021; Schultz & Baker, 2017). Gatewood et al. (2019) implemented an IB activity at four institutions in the United States. Multiple levels of nursing education were included in this qualitative study with 110 students (13 BSN, 33 MSN, 64 DNP). During step 3 of the IB activity, students were asked to identify actions

to mitigate the effects of IB during nursing care in a group discussion. Their responses were separated into the following themes, awareness/mindfulness, pausing, and exposure to different cultures. Students reported mixed responses to whether the discussion helped identify strategies to manage IB (25% strongly agree; 45% agree; 25% neutral; 4% disagree; 1% strongly disagree). Gatewood et al. (2019) concluded that future studies should evaluate change in bias awareness because their study did not measure the effect of the activity on bias awareness and the impact of IB on health outcomes.

Bias-reduction strategies post-IB training have also been examined in medical students. Gonzalez et al. (2021) completed a qualitative analysis of 180 written reflections of medical students. The essay prompted each student to write about their reactions to their IAT for race results and how the results might influence their work as physicians. Students accepted IAT results but provided vague plans to decrease bias. Several students requested concrete steps to reduce bias. Among students who provided clear bias reduction strategies were subsequent reflections that explained the limitations of any single strategy. Gonzalez et al. (2021) concluded that the students desired to provide unbiased care but needed more ability to strategize ways to manage their biases despite completing IB training.

Shultz and Baker (2017) evaluated the effect of teaching strategies seeking to increase graduate-nursing students' management and acceptance of IB. The researchers exposed a convenience sample of 75 graduate nursing students to a seven-part IB educational intervention. Bias management strategies were categorized as acceptance-level, adaptation-level, and integration-level. Seventy percent of the students selected acceptance-level, 20% selected adaptation-level strategies, and 6% chose integration-level strategies. Integration-level strategies focus on relational awareness, insight, empathy, and controlling bias -- four percent of the

students selected to mitigate bias via suppression of thoughts and feelings. The researchers concluded that teaching strategies should incorporate categorized management strategies.

Creative IB training methods. Literature suggests IB training can be uncomfortable for learners as it is often perceived as an attack on one's identity due to learning that one's beliefs and actions are biased (Staats & Patton, 2013). Defensiveness or backlash from IB training can be reduced using creative training methods. In a qualitative analysis, Vandermause et al. (2021) evaluated responses to a dramatization exercise among 136 advanced practice nursing students in the Midwestern United States. The students were predominantly female (95.6%) and non-Hispanic white (67.6%). A trained counselor from a regional theatre company facilitated the dramatization teaching intervention. The students were divided into small groups where they told stories associated with cultural tension through a series of frozen pictures. Each group presented to the class to interpret and identify unconscious bias in verbal and non-verbal communication (Vandermause et al., 2021). The students had positive feedback, including sharing stories in small groups, which was impactful and increased awareness of non-verbal bias. The researchers explored students' sense of safety during the small group discussions. The comments surmised that students felt comfortable expressing feelings in a safe environment.

Simulation learning is another form of active learning that engages students in higher-order thinking (Thomas et al., 2014). Tiffany and Hoglund (2016) examined virtual role-play simulation on cultural awareness, inclusivity, and diversity topics. The researchers randomly assigned 15 nurse educator students to a customized avatar. Each avatar represented a marginalized person (i.e., a paraplegic male, a Somalian male refugee, an overweight mother, and a homeless veteran). The learning requirements included a final discussion paper about their simulation experience. The researchers identified three main concepts: microaggression,

recognizing bias, and projective identity. Projective identity is unique to the virtual world. It is when the player projects their own feelings, biases, and personal experiences into their virtual persona. Results indicated that 10 out of 15 students identified stereotypes and biases after being introduced to their avatars. Finally, the researchers concluded: "All students reported an immediate positive impact on their interactions with patients in their own practice settings" (Tiffany & Hoglund, 2016, p. 119).

Timing of IB training. California Assembly 1407 requires a one-hour training on IB, including direct participation (AB 1407). However, all of the studies reviewed had significantly longer training times. Another factor to consider is when is the best time to implement IB training in a graduate nursing curriculum. Tiffany & Hoglund's (2016) study was assigned to a graduate course titled Inclusivity in Nursing Education. It required 10 hours of virtual interaction and two written assignments. Several reading assignments on teaching and learning about cultural awareness and inclusivity were included during the preparatory.

Gonzalez et al. (2021) applied their three-part intervention during the third year of a four-year program. The interventions consisted of a 90-minute session and two writing assignments. Gatewood et al. (2019) IB training was administered to students in four nursing schools. Students were in first-year studies to final-year studies. The authors discussed that offering IB training before clinical experience may increase awareness of IB in clinical settings (Gatewood et al., 2019). Notably, participating faculty members in this study noticed that finishing students were distracted. Feedback from both students and faculty suggested dividing the training into sections and administering it over time (Gatewood et al., 2019).

Vandermause et al. (2021) kept the length of time of the dramatization exercise private. However, based on the sample size of 136 students and details of their intervention (i.e., small

groups presenting dramatization for discussions), it is assumed that the training required more than one hour. In addition, the exercise was administered during the second year of the DNP program. In like manner, Schultz and Baker (2017) omitted the specific length of time of their educational intervention. However, they described pre-class and post-class assignments alongside a four-part in-class intervention. Schultz and Baker (2017) also suggested dividing unconscious bias training into three sections: (a) introduction to IB and its impact on patient care to be taught during the first year; (b) IAT tests with debriefings to be administered during clinical rotations; and (c) mitigation strategies and awareness to be taught in the final year (Schultz & Baker, 2017).

Motivation to learn. Numerous healthcare organizations are implementing diversity training in new-hire orientation and annual training. Researchers continue questioning effective learning based on learning and motivation theories (Bezrukova et al., 2016). DEI training in the organizational setting may be perceived by faculty as forced or inconvenient, thereby, negatively impacting an individual's willingness to learn. Bezrukova et al. (2016) provided a meta-analysis of 260 studies to assess the effects of diversity training on four training outcomes. Some of their research evaluated diversity training contexts in settings (i.e., educational versus organizational). Bezrukova et al. (2016) hypothesized the following:

> Diversity training will have stronger effects on all learning outcomes when the training context provides more motivation to learn (e.g., educational settings, integrated, and mandatory) than when it does not (e.g., organizational settings, standalone, and voluntary). (p. 1230)

Results revealed that training in educational settings might be preferred over organizational settings, as evidenced by larger effect sizes for reactions in educational settings (g = .80) than in organizational settings (g =.28) (Bezrukova et al., 2016).

Instructors providing grades to learners for completing assignments strongly motivates learning. Tiffany & Hoglund's (2016) study incorporated an IB training intervention into the training objectives. Like Tiffany & Hoglund's, (2016) study, Gonzalez and colleagues' interventions were part of the course requirements (Gonzalez et al., 2021). Gatewood et al. (2019) IB training was incorporated into four courses in the student nursing program. Shultz and Baker (2017) included a post-class assignment which was scored with feedback from the instructor. Furthermore, Bezrukova et al. (2016) demonstrated that mandatory training had larger effect sizes for behavioral learning than for voluntary training studies.

Use of IAT in training. In 1995, two American social psychologists, Greenwald and Banaji introduced the implicit association test (IAT) (Ungvarsky, 2021). The IAT assesses the strength of conceptual associations, judgments, and stereotypes through a series of questions (Ungvarsky, 2021). This tool is often used in implicit bias education to engage learners in discussion and reflection (Gonzalez et al., 2021). The IAT is not recommended as a definitive measure of bias (Gonzalez et al., 2021). Furthermore, according to several researchers, IAT results can trigger negative emotions, preventing IB training objectives (Gatewood et al., 2019; Gonzalez et al., 2021; Schultz & Baker, 2017).

Gonzalez et al. (2021) conducted a qualitative study to explore medical students' perspectives after taking the IAT. Initially, participants expressed deep emotional adverse reactions to IAT results. Some participants questioned the negative implications biases might have on their future physician-patient relationships; others were dismissive of the IAT. In the

same study, an African-American student discussed that their IAT results showed implicit racial preference. This student was concerned that this preference may lead to possible adverse outcomes. Gonzalez et al. (2021) incorporated the Race-IAT in their intervention as a post-session assignment, compared to Gatewood et al. (2019) and Schultz and Baker (2017), who included IAT in the pre-session portion of their interventions. Gonzalez and colleagues decided to remove the IAT from the pre-session portion of their intervention due to previous resistance to IAT before any instructions (Gonzalez et al., 2021). However, participants with initial adverse reactions to IAT results eventually progressed towards a reframing mindset, including gratitude and opportunity for change (Gonzalez et al., 2021).

The IAT was designed to measure response times to images and words (Ungvarsky, 2021). Among test takers, test validity is frequently questioned. Schultz and Baker (2017) performed a qualitative study to evaluate IB teaching strategies to increase nursing graduate students' management and acceptance of IB. Schultz and Baker presented an IB module to 75 Master of Science in Nursing (MSN) students. The students completed the IAT as a pre-assignment. Afterward, during a guided debriefing, the students were informed that their IAT results were not indicators of racism, inequitable motives, or prejudice. Initially, 74% of students questioned the validity of the IAT. Schultz and Baker (2017) assigned a second IAT for the post-class activity, revealing that only 15% of students questioned validity. Schultz and Baker suggested providing future learners with information about IAT and its implications before test taking.

Gatewood et al. (2019) explored awareness of IB and its influence on 110 nursing students in four schools. The students were in the following nursing programs: family nurse practitioner (FNP) at both the Master of Science in Nursing (MSN) level and Doctor of Nurse

Practice (DNP) level, and Bachelor of Science in Nursing (BSN). The IAT was assigned after students watched a video and read an article covering the IAT's history and implications. This assignment was to be completed outside of class before self-assessment via the IAT. The students were allowed to choose one IAT from the following group: Asian IAT, Skin-tone IAT, Native IAT, Race IAT, or Arab-Muslin IAT. In the post-evaluation assignment, the students questioned the validity of IAT as some felt it measured motor movement rather than bias. Several students stated that despite their IAT results, which detected bias, they would not make any changes and did not feel they judged patients (Gatewood et al., 2019). Notably, Gatewood et al. (2019) highlighted the importance of adequately framing IAT before administering it to students. Despite efforts to introduce the IAT to participants with two pre-assignments, the researchers could not verify if all participants completed the pre-assignments prior to taking the IAT (Gatewood et al., 2019). Thus, the recommendation is that IAT preparatory assignments be completed in class. On the other hand, 86%-89% of students agree or strongly agree that IAT preparatory assignments were helpful (Gatewood et al., 2019).

Summary/Synthesis of the Evidence

Research supports strategic planning when implementing IB training for graduate healthcare provider students to ensure training objectives are met. The articles evaluated in this literature review reveal vital components in an implicit bias education program for DNP students to successfully increase their knowledge base of IB and acquire bias reduction skills for future practice. Establishing an evidence-based IB training program is crucial to preparing DNP graduates to provide culturally sensitive and bias-free care. To reduce negative associations with IB training while facilitating learners to find meaning, educators must create safe learning environments through virtual reality, simulations, group discussions, and dramatization (Tiffany

& Hoglund, 2016; Vandermause et al., 2021). If using the IAT to stimulate self-reflection or as a metric for pre/post evaluations, educators must ensure students understand the implications of the IAT (i.e., scores do not mean you are a racist). IAT has the potential to deter or distract learners who question the IAT's validity; therefore, a thorough explanation of the IAT's purpose can decrease a learner's resistance based on IAT scores (Gatewood et al., 2019; Gonzalez et al., 2021; Schultz & Baker, 2017). On the other hand, it is a valuable tool to provoke introspection and discussion (Gatewood et al., 2019; Gonzalez et al., 2021; Schultz & Baker, 2017).

Educational settings can incorporate IB training into curriculums. For example, educators can assign deliverables that receive a grade upon completion. This reward system can increase motivation to participate in IB training (Bezrukova et al., 2016 Tiffany & Hoglund, 2016; Gonzalez et al., 2021; Schultz & Baker, 2017). Lastly, learners may have difficulty formulating concrete bias mitigation strategies and accepting more abstract strategies like mindfulness and awareness (Gatewood et al., 2019; Gonzalez et al., 2021; Schultz & Baker, 2017). Educators should equip learners with precise bias mitigation tools and strategies to prevent and manage unconscious bias. Research suggests the optimal time to implement IB training is to divide it into sections and present it throughout the program versus all at once (Schultz & Baker, 2017; Gatewood et al., 2019). This strategy allocates more time for learners to first understand what bias is, followed by identifying bias in their everyday lives and during clinical rotations, and lastly, deeper reflection combined with personal strategies to reduce bias.

Rationale

The Design Thinking framework was selected to develop, implement and evaluate the project. Implicit bias training has been found to elicit mixed reactions amongst learners including increased bias or defensiveness, thus resulting in ineffective training (Gonzalez et al., 2021).

According to Vitriol and Moskowitz (2021), they are learning that one's actions and beliefs are biased and challenges the person's personally held values. This can motivate people to rationalize or defend threats to their self-image. Altman et al. (2018) state that Design Thinking approaches implementing new interventions by prioritizing the learner's experience and needs. It is a solution-based approach to solving problems that accounts for human needs and fallibility.

Appendix B describes the five stages of the Design Thinking framework (empathy, define, ideate, prototype, and test). Research to determine the learner's needs must be completed in the empathy stage. In the define stage, the learner's needs and problems are detailed. Its non-linear, iterative process promotes an understanding of the human needs involved in the prototyping and testing of an intervention. The open format allows for modifications and adaptations during the ideate, prototype and test stages.

Zeidan et al. (2019) implemented an implicit bias training intervention in an emergency medicine residency program. They used a design thinking framework to develop an implicit bias educational intervention. The authors held formal and informal meetings with residents during the development process to define the problem. In addition, during the ideation phase, several experts were consulted, and with their feedback, a prototype design was created. After the intervention, participants' awareness of their implicit biases improved by 33.3%. Implicit bias training is sensitive for learners; with a design thinking framework, the learner's experience drives the design process to ensure a positive outcome for the learner. Design thinking has been explicitly recommended for "users in service of reducing health disparities" (Altman et al., 2018, Discussion section).

For this project the project leader met with DNP students, the associate dean for graduate nursing, and the director of nurse practitioner programs to define the problem around bias in

nursing. It was decided that implicit bias contributed to poor patient care and patient-provider communication, and students would benefit from early bias education and reduction skills. During the ideation phase, several meetings occurred with critical stakeholders, and with their feedback, a prototype training was designed. The protype training was presented to a small group of students, the associate dean for graduate nursing and the director of nurse practitioner programs. The received feedback was used to improve the training before presenting it to the target group.

Section III: Methods

Context

The project scope of the IB training was to increase DNP students' awareness of unconscious bias in healthcare delivery and to provide tools to mitigate bias. Preferred participants were DNP students in the PMHNP and FNP tracks. This activity was implemented during the spring semester of 2023 at a private, faith-based nursing school located in Northern California. The IB training was incorporated into the transition to practice FNP course. The training assessed DNP students' IB knowledge and comfortability managing bias. The project deliverables were: (a) increase knowledge of bias by 80%, (b) increase comfortability addressing bias by 80%, and (c) provide an IB toolkit.

Stakeholder analysis. The key stakeholders involved with this project were the DNP candidate (project leader and training facilitator), the associate dean for graduate nursing, the director of nurse practitioner programs, faculty members, the California Board of Registered Nursing (BRN), California State Legislature, a DNP candidate (influencer), and DNP students participating in the training. These key stakeholders agreed that implicit bias training was needed in the curriculum to improve patient care and decrease health inequities in the community.

California State Legislator and the California BRN collaborated to delineate implicit bias training objectives and uphold the law. The DNP candidate conducted research, designed, implemented, facilitated training, and collected and evaluated data related to the training. The candidate has previous experience as a keynote motivational speaker and trainor who covered topics including the long-lasting effects of childhood trauma, implicit bias training and reducing nursing burnout during the COVID-19 pandemic. The DNP candidate (influencer) provided input throughout the five phases of the design thinking framework to ensure the training was centered around the learner's optimal experience. Faculty members assisted with arranging times for students to participate in the training. Communication and support from all stakeholders were essential in designing an appropriate IB training program reflective of evidence-based practice (EBP) strategies to improve bias awareness and provide bias reduction skills. The associate dean for graduate nursing and the director of NP programs assisted with setting up training times with faculty and students, obtaining continuing education credits for training, coordinating school logistics, and ensuring training met legislative requirements. The associate dean for graduate nursing and the director of nurse practitioner programs strongly endorsed providing resources for implicit bias training to encourage successful implementation and design.

Faculty members collaborated to coordinate times and dates for students to receive training. Furthermore, faculty will be trained to incorporate IB education post-project implementation. To determine how to engage with stakeholders, a power/interest grid for stakeholder prioritization was created (see Appendix C).

Interventions

The training was titled Redefining Equitable Care (REC) Workshop to decrease apprehension related to implicit bias training among students. The training was designed with

modules from the Implicit Bias Module Series from the Kirwan Institute for the Study of Race and Ethnicity, healthcare simulations from the California Simulation Alliance, and Think Cultural Health Videos (The Ohio State University, 2018; California Simulation Alliance, 2023; and Think Cultural Health, 2019). It was presented live on Zoom for two hours. The training was divided into two parts: part A and part B. A PowerPoint was created to engage students visually with images and quotes that promote diversity, equity and inclusivity. Part A of the training defined implicit bias and stereotypes. Several interactive activities demonstrating bias were completed in a group setting. Students were educated about the IAT and given time to complete the Race IAT. An anonymous word cloud activity was completed to allow students to share their feelings after taking the IAT. A presentation about mitigating bias strategies was delivered.

Part B introduced several frameworks, followed by simulations, which allowed students to use frameworks. Each simulation included group discussions and concrete bias reduction skills practiced during the training. One of the simulations included dramatization to show microaggression. Lastly, a reflection exercise concluded the session. Throughout the presentation the DNP candidate demonstrated vulnerability through personal storytelling about the origin of her own biases and their effects.

A toolkit was designed on the school's Canvas platform to further meet the objectives of AB 1407. Included in the toolkit were links to videos and articles about bias in healthcare. Local articles about bias in healthcare and community improvement efforts were included. A link to the Harvard IAT, the Kirwan Institute, and Think Cultural health videos was included. Each framework introduced in the training was included, and several frameworks were incorporated into two fun printable designs for personal or office use.

The training and toolkit were presented to the associate dean for graduate nursing and the director of nurse practitioner programs and approved. Pre- and post-surveys were used to assess the DNP student's level of IB knowledge and comfortability managing bias pre- and post-intervention. The pre- and post-evaluation included four multiple choice questions and four questions using a 5-point Likert scale (strongly agree-strongly disagree). In addition, the post-evaluation also included three questions to provide free-text feedback about the training.

The evaluated training was incorporated into the diagnosis and management of acute and common conditions course that was currently being taken by family nurse practitioner (FNP) students (DNP Level). The course was part of the student's required program of study.

Gap Analysis

There is a need for DNP students and faculty/nursing leadership to improve their knowledge regarding the role of IB in healthcare equity. Moreover, it is equally important for future healthcare providers to be able to reduce personal biases and institutional biases. Providers with high implicit racial bias have been linked with lower quality of communication with Black patients (FitzGerald & Hurst, 2017). In addition, Black patients report less confidence in recommendations from providers with high implicit bias (FitzGerald & Hurst, 2017). Few DNP programs in the United States provide curriculum content on the impact of bias or bias mitigation strategies. Implicit bias research demonstrating a strong correlation between healthcare providers' unconscious biases about stigmatized groups and negative healthcare and health outcomes is relatively new. Nursing programs are well positioned to intervene to reduce bias in emerging generations of nurse practitioners and have a responsibility to develop students well equipped to deliver the highest quality care. Furthermore, all 50 states in the US do not require nursing programs and healthcare organizations to provide IB training.

A gap analysis was performed for the IB training (see Appendix D). Currently, the academic center does not provide DNP students with IB training, thus resulting in students who are incapable of managing biases that negatively impact healthcare delivery. In addition, the academic center does not meet pre-graduation requirements according to AB 1407 (Nurses: Implicit Bias Courses Act, 2021). To rectify the abovementioned points, the IB training was designed based on an extensive literature review to determine best practices. The training design also sought to meet the objectives of AB 1407. The training was implemented and evaluated to determine effectiveness.

Gantt Chart

The Gantt chart for the IB training project is presented in Appendix E. Activities included stakeholder meetings to discuss training goals and objectives before training design. Several weeks were allocated to design the training and the toolkit. To terminate the design phase, stakeholders met to review and approve the training, and to schedule training dates with students and faculty members. The training was delivered twice to two different groups. Data from the second group was analyzed and included in the final results.

Work Breakdown Structure

The project's primary objective was implementing evidence-based IB training for DNP students. A work breakdown structure (WBS) and dictionary were prepared (see Appendix F) to identify the necessary tasks to implement the IB training. This was divided into the four following phases: (a) assessment, (b) development, (c) implementation, and (d) evaluation. Each phase was divided into smaller tasks and detailed in the dictionary. Furthermore, the design thinking framework was embedded into the work breakdown structure and described in the Work Breakdown Structure Dictionary. A PICO question was developed in the assessment phase to

guide the literature search. Based on the results of the search, best practice in delivering IB training to graduate students pursuing healthcare careers was determined. An aim statement was developed according to the Institute for Healthcare Improvement (IHI) framework (Institute for Healthcare Improvement, 2023). Key stakeholders were identified during the data collection phase, and students were informally interviewed about IB training. The assessment phase was terminated after approval to present the training was obtained.

The training, toolkit and surveys were designed during the development phase. A budget was prepared and presented to key stakeholders. Target training dates were discussed. In the implementation phase, the training dates were coordinated with faculty members, and students were notified via email. The training was delivered. In the final evaluation phase, the training was analyzed and interpreted.

Responsibility/Communication Plan

A responsibility/communication plan was created to describe the roles and responsibilities of key stakeholders to ensure the successful implementation of the training (see Appendix I). The four roles were the DNP candidate who functioned as the project leader. The DNP candidate scheduled all meetings and championed the training. All meetings were conducted on Zoom. Correspondence between each member was via email. The associate dean and director assisted in guiding the project to ensure the training met legislative requirements. Participating DNP students provided feedback about the training to improve future training.

SWOT Analysis

A SWOT (strengths, weaknesses, opportunities, and threats) analysis was completed to assess the organization's position and to convert it into a unique strategy (see Appendix G). Information was pulled from internal and external forces impacting the organization to achieve

this analysis. Direct input from critical stakeholders is weighted heavily. The listed opportunities discussed support the implementation of the proposed project.

Strengths. This SWOT tool pulled the organization's strengths from its mission and value statements. The chosen DNP practicum site has strong Jesuit values that include serving poor communities and marginalized groups. They also value creating and maintaining an environment that promotes diversity and cultural competence. Their nursing school is committed to service, justice, academic excellence, and preparing nurses to lead in efforts supporting health equity and reducing health disparities. In addition, the school has several faculty champions who have been working hard to diversify school and promote culture of inclusion. Recently, the school received a large grant to diversify the Bachelor's of Science nursing student population.

Opportunities. A timely opportunity to meet current pre-graduation regulations (AB 1407), which requires nursing students to complete a one-hour IB training, was identified. Governor Newsom approved this bill on October 1, 2021. This proposed project only targets DNP students. However, this training can be modified and offered to nursing students at all levels. In 2020 the practicum site received $2,462,647 from the Health Resources and Services Administration (HRSA) to fund clinical training for nursing professionals to provide care in the California Central Valley and Northern California areas. The Nurse Practitioner and Communities Together (NPCT) HRSA Award was given to DNP and PMHNP (psychiatric mental health nurse practitioner) students dedicated to providing equal access to behavioral and medical care among rural and medically underserved communities. The academic institution has an opportunity to prepare these students with IB reduction skills to enhance their clinical experience and improve patient interaction.

Currently, all nursing schools are not providing implicit bias training to students. This academic institution has an opportunity to be recognized as a leader for including implicit bias training in its nursing curricula. This offering can be used as a marketing tool for future students (i.e., students will be prepared to address biases in healthcare delivery during their clinical rotations and into their careers.) This nursing program has an opportunity to be a leading program in educating future providers about IB in healthcare delivery in alignment with their efforts to provide equal access to competent and compassionate healthcare across all communities for the greatest good of all.

Weaknesses. Research supports that unconscious biases held by DNP students and faculty may lead to health disparities through poor provider communication, and patients can perceive providers negatively (Shultz & Baker, 2017; Edwards-Maddox et al., 2022). Education about personal and managing biases is essential as it may improve DNP students' comfort. Furthermore, specific clinical rotations, especially those completed by HRSA grant recipients who mainly serve underserved and marginalized patients, would benefit from IB training. Research shows that historically, these groups encountered negative biases held by patient providers.

Threats. A major external threat to the nursing department is non-compliance with AB-1407. Furthermore, AB 1407 will require specific healthcare organizations to implement an IB program for new nursing program graduates. As more healthcare organizations strive to reduce bias in healthcare, they may require the DNP practicum site to provide IB training to their students as a pre-requisite for clinical rotations. Other threats include the risk of students demonstrating personal biases during clinical rotations, loss of HRSA grant due to poor patient experience, and compromised relationships with clinical sites due to bias demonstrated by

students. Faculty and student pushback also pose a threat due to institutional racism or lack of student enthusiasm for training. Faculty may also feel that other content should have priority in the curriculum due to lack of diversity in the faculty and the long history of racism in nursing education (Moore & Drake, 2021).

Comprehensive Financial Analysis

The significance of health inequities has poor financial implications for our nation. Current estimates from a study funded by the National Institutes of Health (NIH) revealed that 2018 racial health disparities cost the US economy $451 billion, a 41% increase from 2014 (LaVeist et al., 2023). Most of the economic burden was attributed to excess medical care costs and premature death. Per person the burden of health disparities in California was $3,152.

Beginning in 2021, implicit bias training became a mandatory pre-graduation requirement in California nursing schools. Assembly Bill 1407 stipulates ten topics that must be included in implicit bias training in nursing schools. An evidence-based implicit bias training designed with a live hands-on portion paired with assignments that could be taught by faculty throughout the student's coursework. In 2023, California Governor Gavin Newson recently threatened to fine the Temecula Valley Unified School District $1.5 million for nonadherence to a curriculum change designed to increase diversity, equity, and inclusivity (KCAL News, 2023). Considering the similar curriculum aspects of this case, the Governor could seek $1.5 million in penalties for non-compliance with curriculum changes mandated by the state. The potential cost of not including implicit bias training in the nursing program is $1.5 million. Using the penalty payout cost of $1.5 million divided by the project cost of $6360. The significant financial benefit from this training will be avoiding penalties and fines.

The budget estimate for the IB training program is summarized in Appendix H. The program budget accounts for personnel expenses during the development phase, which accounts for meetings with faculty members. In the implementation phase, a facilitator fee was added for future training but excluded from this project because the DNP candidate facilitated the IB training. Education expenses included miscellaneous expenses such as Zoom and Adobe. The student's is listed to show the cost of time spent researching and developing the training. The initial budget estimated for the IB training program is $760, which includes $560 for meetings with faculty, and $200 for education expenses. The subsequent training budget will be $5800 including a facilitator fee for two sessions for $5000 and education expenses for two sessions for $800.

In conclusion, this program provides financial savings through cost avoidance by helping the academic center avoid unnecessary expenses relating to fines and penalties. An evidence based IB training is an innovative way to provide IB reduction skills to students. Effective IB training can improve patient outcomes and contribute to health equity for all. The significance of health inequities has had great financial implications on our nation. Moreover, effective IB training has the potential to improve patient outcomes and contribute to health equity for all patients.

Study of the Interventions

Atewologun et al. (2018) found that IB training designed with use of the IAT, simulations with debriefing time are effective for raising awareness and likely to contribute to decreased bias. To design the training the author decided to make the training fun to decrease any learner's apprehension toward IB training. It was named The Redefining Equitable Care (REC) Workshop and branded with bright colors and fun fonts. The PowerPoint presentation also included quotes,

and high-quality images supporting diversity, equity and inclusivity. An icebreaker was used in the introduction to help students feel more comfortable during the training. The trainer used real-life personal stories and analogies to define bias and it's origin. Throughout the training students were encouraged to identify any discomfort.

During the presentation students were given time to complete the Race IAT followed by a word cloud activity to describe how their feelings after completing the IAT. Numerous bias reduction skills were presented including, mindfulness, reflection, motivational interviewing, standardize procedures, and meaningful intergroup contact. During the simulation portion, student's adopted a coach mindset which promotes understanding and personal growth. First a framework was introduced followed by a video or skit which the students were able to discuss and strategize how to decrease bias with the related framework. To end the live presentation a reflection practice was completed.

Participating students were given access to the REC workshop toolkit on Canvas. The toolkit included several articles and videos to meet the objectives of AB 1407 (Nurses: Implicit Bias Courses Act, 2021). In addition, the author designed printable office material with IB reduction techniques, links to the Harvard IAT, and additional simulation videos were provided. A discussion room was created to promote continued discussion surrounding current events related to IB.

Based on extensive research the training was curated and designed with the learner's experience at the center. A live session was conducted to ensure group participation and reflection. A pre-survey was used to assess knowledge of bias and comfortability managing bias. The post-survey was also used to determine training effectiveness and feedback to improve training. To assess effectiveness of the training on general knowledge of implicit bias, four

multiple choice questions were used. The mean scores were compared using a paired t-test. To assess effectiveness of the training on comfortability managing bias, a 5-point Likert scale was used to measure learner's attitudes by asking the extent to which they agree or disagree with four statements regarding comfortability managing bias.

Outcome Measures

To measure the effectiveness of the training, two learner outcomes were determined. The primary outcome was increased knowledge of implicit bias, and the secondary outcome was increased comfortability in managing bias. Process measurement included learner's engagement and satisfaction. Measuring learner outcomes and process provided a well-rounded view of the training's effectiveness.

Based on numerous studies that healthcare providers lack knowledge about implicit bias and its impact on equitable care, an implicit bias education was developed from rigorous research regarding effective IB training for graduate students pursuing a career in healthcare. A baseline survey was performed prior to the intervention to assess the DNP student's current knowledge of implicit bias and comfortability managing biases.

The live training session was provided to the DNP students via Zoom in April 2023. The post-survey evaluated the effectiveness of the IB training intervention by utilizing the same questions from the pre-survey to determine level of increase in knowledge of IB and comfort managing IB. The post survey also collected feedback about the overall training and facilitator.

CQI Method and/or Data Collection Tools

A Qualtrics survey was used pre- and post-training to assess the students IB knowledge and comfortability managing bias. The survey consisted of multiple choice and true or false questions. A five-point Likert scale portion of the survey was used to obtain students perceptions

of their comfortability managing bias. Researchers such as Bishop and Herron (2015) stated that Likert scales are commonly used to quantify people's opinions and perceived efficacy of an intervention. The pre survey had four demographic multiple-choice questions, four multiple choice questions, two of which were true or false questions about knowledge of bias and five statements using the Likert scale to determine student's comfortability managing IB. The post survey omitted the demographic questions and added three free text questions about the overall training.

Analysis

This DNP project was aimed to implement and evaluate the effect of implicit bias training on students' knowledge of bias and comfortability managing bias. A total of 6 students completed pre- and post-intervention surveys. The knowledge section of the pre- and post-surveys were analyzed with a paired sample t-test. The mean pre-survey score was 41.67, with a standard deviation of 25.820. The mean post-survey score was 79.17 with a standard deviation of 10.206. A paired-sample t-test was conducted to compare the means of the two groups. The t-statistic was -3.503, with df=5 ($p<.05$). On average, the mean knowledge scores were 37.6 (95% CI: 9.98, 65) points higher after the intervention. There is significant evidence that knowledge of implicit bias increased from pre-intervention to post-intervention. A comprehensive results table is found in Table 1.

Second, the comfortability section of the surveys Likert type items scored on a five- point scale (strongly agree - strongly disagree) was accessed. The Likert scores calculated from the completed surveys were used to infer between changes in comfortability managing bias due to the training. The results were entered into Microsoft Excel, and frequencies were computed. The pre and-post scores were graphed to demonstrate change in the student's perceptions of their

level of comfort to manage bias after participating in the training. Lastly, the short answers were analyzed qualitatively to seek perspective that contributes to positive change in future training.

Ethical Considerations

According to the University of San Francisco Statement of Non-Research Determination questionnaire, this DNP project was an evidence-based practice training (see Appendix J). Institutional Review Board approval from the academic center was optional, as no patient contact was involved with this project. The project was designed solely for quality improvement and evaluation of training.

Jesuit Values

Since 1855, the University of San Francisco has committed to promoting justice and equality by addressing inequities through innovation. The USF mission and vision statements pull from strong Jesuit values prioritizing service and justice for all humankind (Jesuits, 2023). Jesuit-educated DNP students have the knowledge and skills to provide culturally competent care and are empowered to lead with scientific evidence. This DNP project will provide students and faculty with research-based information that promotes awareness of personal biases to reduce adverse health outcomes for all groups. Aligning the values of openness to growth, implicit bias training supports personal growth. A key value in Jesuit higher education is *cura personalis,* a Latin phrase meaning care for the whole person through personal development (Jesuits, 2023). This supports work dedicated to challenging stereotypes and beliefs, preventing future healthcare providers and leaders from delivering fair and equal care to those in need, such as poor and marginalized groups. Implicit bias training strives for health equity for all persons.

ANA Code of Ethics

Nurse practitioner students must provide culturally informed and quality patient care while upholding ethical standards (American Nurses Association, 2015). Nursing schools hold an efficient space to educate students about reducing and eliminating biases contributing to health disparities. Nurse educators must ensure that unconscious biases are not overlooked in nursing education by becoming trained to effectively teach training. Educators who assist students in identifying their implicit biases support the ethical principles of justice, veracity, beneficence, nonmaleficence, and autonomy (Edwards-Maddox et al., 2022).

The 2015 ANA Code of Ethics guides NP students in their future practice and care of patients from various backgrounds (2015). Provision 1 of the ANA code of ethics, states that the nurse practices with compassion and respect for every person's inherent dignity, worth, and unique attributes. Increasing awareness of IB in NP students is necessary to mature nurses who are conscious of discriminatory practices and prepared to change them. Justice requires that all patients are treated equally without prejudice or social discrimination. Patients with similar health problems should have similar health outcomes. This DNP project will train students to treat all patients fairly despite their demographical or cultural differences.

The ethical principle of nonmaleficence imposes the duty of a healthcare provider to cause no intentional harm to a patient. Unconscious bias in healthcare leads to patient harm, resulting in pain and deprivation of optimal health. Albeit implicit bias occurs in the unconscious mind, healthcare providers are responsible for participating in training and equipping themselves with tools to reduce negative biases. Provision 5 charges the nurse with continuous personal and professional growth, supporting implicit bias training that provides nurses with tools to reduce bias (ANA, 2015). In addition, Provision 8 aligns with the principal objective of IB training, which is to promote health diplomacy and reduce health disparities (ANA, 2015). Research

demonstrates that racial/ethnic minorities experience poorer healthcare delivery and outcomes despite physical attempts to reduce such disparities. This DNP project strived to make unconscious bias conscious through simulations, group discussions, and reflections. In addition, we aimed to improve patient outcomes and deliver culturally appropriate care through IB training for NP students.

Section IV: Results

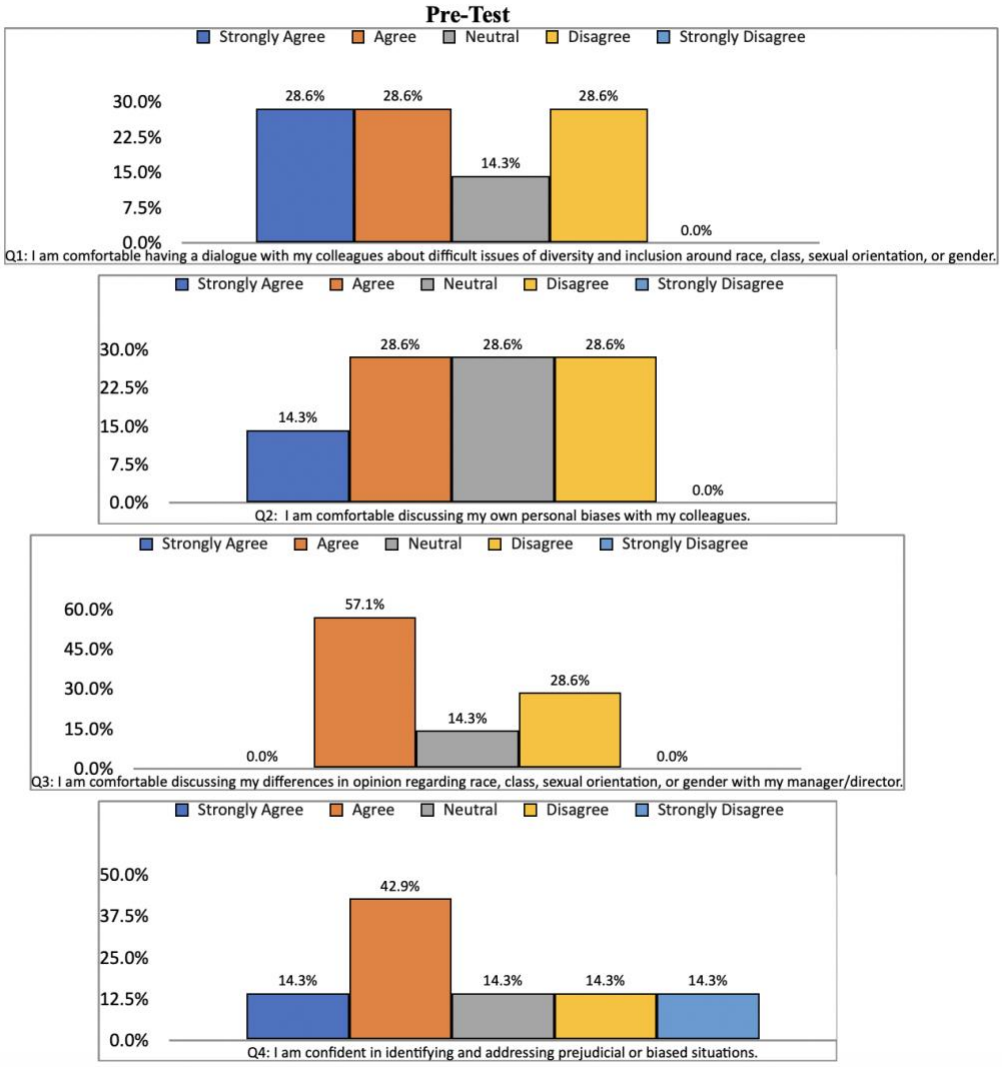
To implement the Redefining Equitable Care Workshop, we decided to schedule a live Zoom session for students during their prescheduled class time. Two faculty members agreed to have the presentation delivered during their class. Prior to the presentation students were sent the pre-survey to complete and given permission to access the toolkit via the schools Canvas dashboard. We prepared a two-part presentation that included preparatory learning on IB, opportunity to take the Race IAT, and simulations with group discussions. During the first presentation several videos were used to cover the preparatory learning. Students appeared to be less engaged and the training time exceeded the allotted time. For the second session, the videos were removed from the preparatory learning and replaced with interactive slides and a live presentation. Student's engagement improved significantly and there was more time for group discussions during the simulations. Afterwards the students were emailed a certificate of completion with a link to the post-survey.

There were 21 completed pre-surveys and 7 completed post-surveys. Only 6 pre- and post-surveys were eligible for evaluation. Participants were 83% female, 66% Asian, and 33% Caucasian. According to the pre-survey, half of the students felt comfortable conversing with their colleagues about complex issues of diversity and inclusion around race, class, sexual orientation, or gender (50% strongly agree or agree). Half the students felt comfortable

discussing their own biases with their colleagues (50% strongly agree or agree). Half the students felt comfortable discussing their opinions regarding race, class, sexual orientation, or gender with their manager/director (50% agree). Half the students felt confident identifying and addressing prejudicial or biased situations (50% strongly agree or agree) (See Table 2: Pre-training Survey Results).

Table 2.

Pre-training Survey Results

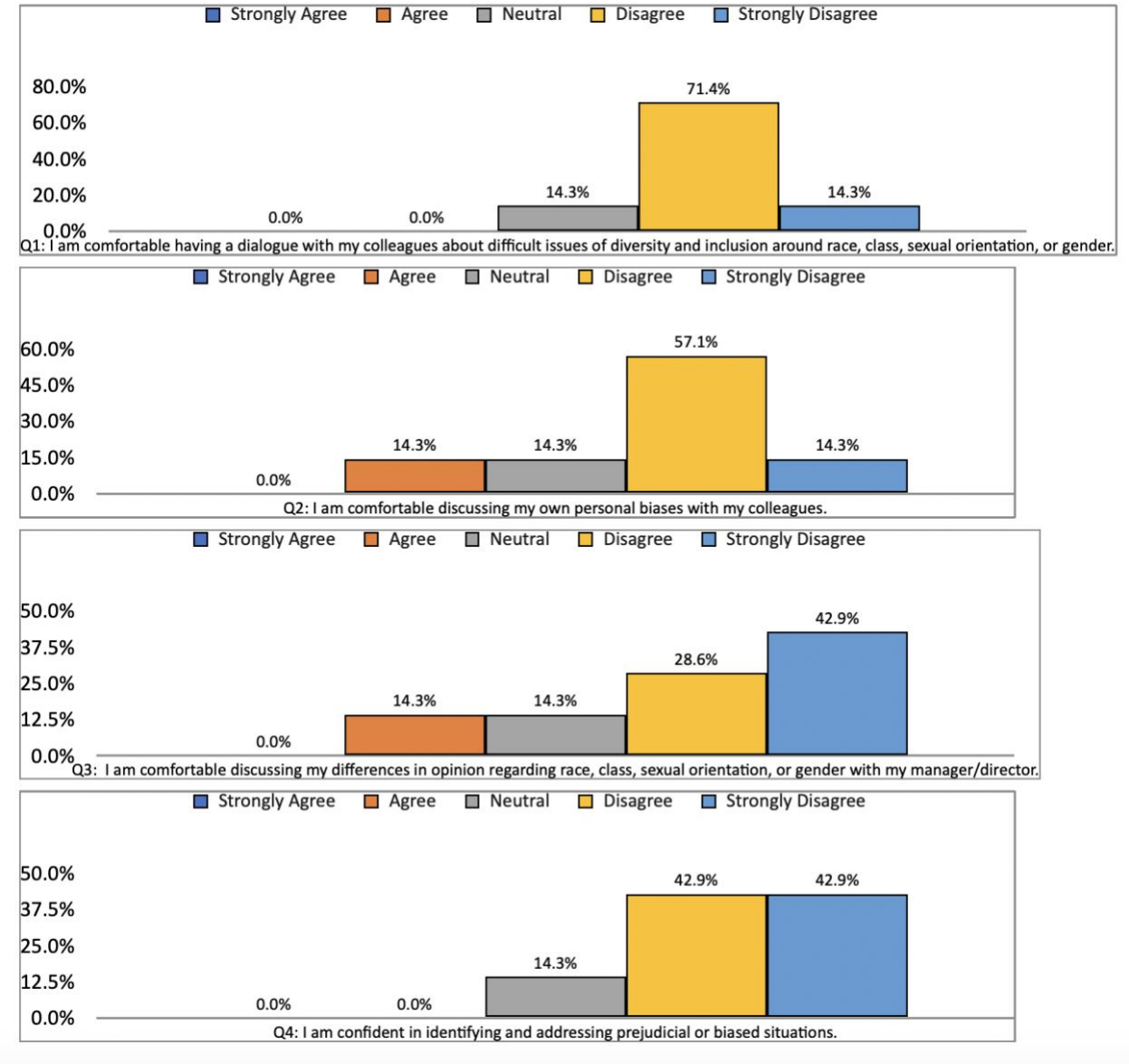


According to the post-survey most students did not feel comfortable having a dialogue with their colleagues about complex issues of diversity and inclusion around race, class, sexual orientation, or gender (83.3% disagree). Most of students felt uncomfortable discussing their biases with their colleagues (66.7% disagree). More than half of the students felt uncomfortable discussing their opinions regarding race, class, sexual orientation, or gender with their manager/director (66.6% agree). Lastly, most students did not feel confident identifying and addressing prejudicial or biased situations (83.3% strongly disagree or disagree) (See Table 3: Post-training Survey Results).

In the post-survey students were asked for suggestions to improve the training. Two themes emerged: request for more training time to discuss personal biases, request for equal opportunities to participate during live session, and overall high satisfaction with the training content and presentation.

Table 3.

Post-training Survey Results



In contrast, student's knowledge scores showed increased in knowledge of bias after the training. The mean pre-survey score was 41.67, with a standard deviation of 25.820. The mean post-survey score was 79.17 with a standard deviation of 10.206. On average the mean knowledge scores were 37.6 (95% CI: 9.98, 65) points higher after the intervention. See Appendix J. There is significant evidence that knowledge of implicit bias increased from pre-intervention to post-intervention.

Section V: Discussion

Summary

The project did achieve the primary aim of increasing student's knowledge of implicit bias by 80%. More specifically, the results showed an increase of 89.9% in knowledge of bias after the training. The second objective was to increase student's comfortability managing bias by 80%. Prior to receiving the training half of the students perceived themselves to feel comfortable managing or discussing bias. After the training, majority of the students felt less comfortable and confident. Consistent with previous research, implicit bias training may lead to profound emotional reactions (Vandermause et al., 2021). Before the training students may have believed themselves to have little to no bias without proper education of bias. Thereby, resulting in perceived increased comfortability managing bias prior to receiving the training followed by decreased comfortability after the training. Future studies must design surveys that account for overconfidence bias related to IB. A third presentation was done for faculty without a formal evaluation and opportunity to complete the Race IAT during the training. We found that the faculty overwhelmingly approved the training and reported that the experience and information were practical and memorable. Faculty members who participated in the training all agreed it is a much-needed addition to the nursing curricula at all levels.

Interpretation

The results that we have discussed so far indicate that the delivery of IB training to advanced practice nursing students must be well-designed to support the learner's experience. The Design Thinking framework was utilized to design, implement, and evaluate the training. It placed emphasis on the importance of not just delivering the information but delivering it effectively and tactfully.

Students gave overly confident responses when rating their comfortability to manage their biases or witnessed biases prior to the training. However, after the training students rated themselves as less confident. Learning about one's own IB for the first time can be shocking for many learners and requires time to process the new information before feeling comfortable addressing bias-related scenarios. Future research should ask participants to rate levels of awareness versus confidence levels.

Introduction to implicit bias and how it impacts delivery of equitable patient care is essential in early nursing education. Nursing schools can foster an environment for students to self-evaluate with the IAT, discover management strategies, learn reflective practice and become equipped with skills to decrease bias in healthcare. However, mixed research findings about implicit bias training not always meeting its primary objective highlights the important role nurse educators hold when preparing IB training. According to AB 1407 there are ten objectives IB training must meet. This can be done by dividing the objectives amongst faculty to present in their courses via readings, videos or online discussions. To meet the hands-on requirement of the legislature a live session that demonstrates and defines bias in real-time with dedicated simulations paired with group discussions is paramount.

Limitations

Limitations of this process improvement project include a small participant response rate. The six DNP student participants who completed the pre- and post-surveys barely supplied enough data for a robust analysis. Faculty feedback about the activity was not formally collected. In addition, during the development phase of the training, faculty who would implement the training were not included in the design process. It is paramount to build relationships with faculty allies/champions to advance the work forward in overburdened curriculum with limited

faculty interest within nursing profession impacted by systemic racism. In addition, due to time constraints, a train the trainer model was not prepared for the training. Although nursing students at all levels would greatly benefit from IB training, the focus on DNP students was explored. Another limitation is that this project was completed at a single academic center, therefore limiting its generalizability. The knowledge portion of the survey consisted of only four questions which were unable to fully determine the level of IB knowledge among the students. Future research to incorporate IB training within nursing school curricula should involve faculty members who support the training and include all nursing levels.

Conclusions

Implicit bias research indicates that unconscious prejudices about groups and individuals held in the minds of healthcare providers contribute to racial health disparities and health inequity. The implementation of IB education into the DNP curricula will provide future providers with tools to identify and reduce personal and institutional biases, thus increasing the practice of culturally sensitive care. This training can be modified to fit the learning needs of nursing students at all academic levels. Training objectives can be divided into various classes as graded assignments. Teaching implicit bias reduction in nursing schools is essential to prepare students with self-awareness and patient advocacy skills. The best evidence indicates that the implementation of hands-on multi-modal training, including simulations, small group discussions, and the use of the IAT will provide students with tools to be change agents for health equity. In addition, using a framework such as the Design Thinking approach offers a way to prioritize learner's needs with a focus on delivering trainings that are practical and effective. (Altman et al., 2018).

Section VI: Other Information

Funding

This project received no specific grant from any funding agency in the public, commercial, or not for profit sectors.

Section VII: References

Agency for Healthcare Research and Quality. (2021). *National healthcare quality and disparities report* (AHRQ Publication No. 21(22)-0054-EF). https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrdr/2021qdr.pdf

Altman, M., Huang, T. T., Breland, J. Y. (2018). Design thinking in health care. *Preventing Chronic Disease,* 15. http://dx.doi.org/10.5888/pcd15.180128

American Nurses Association. (2015). Code of ethics for nurses with interpretive statements. https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/code-of-ethics-for-nurses/coe-view-only/

Atewologun, D., Cornish, T., & Tresh, F. (2018). *How effective is unconscious bias training? An assessment of the evidence.* Equality and Human Rights Commission. https://www.equalityhumanrights.com/sites/default/files/research-report-113-unconcious-bais-training-an-assessment-of-the-evidence-for-effectiveness-pdf.pdf

Bezrukova, K., Spell, C. S., Perry, J. L., & Jehn, K. A. (2016). A meta-analytical integration of over 40 years of research on diversity training evaluation. *Psychological Bulletin, 142*(11), 1227-1274. http://dx.doi.org/10.1037/bu10000067

Bishop, P. A., & Herron, R. L. (2015). Use and misuse of the Likert item responses and other ordinal measures. *International Journal of Exercise Science, 8*(3), 297-302.

Blair, I. V., Steiner, J. F., & Havranek, E. P. (2011). Unconscious (implicit) bias and health disparities: Where do we go from here? *The Permanente Journal*, *15*(2), 71–78. https://doi.org/10.7812/TPP/11.979

California Simulation Alliance. (2023). Implicit bias. https://www.californiasimulationalliance.org/implicit-bias/

Centers for Disease Control and Prevention. (2022). *What is Health Equity?* https://www.cdc.gov/healthequity/whatis/index.html

Cooper, L. A., Saha, S., & van Ryn, M. (2022). Mandated implicit bias training for health professionals—A step toward equity in health care. *JAMA Health Forum*, *3*(8), e223250. https://doi.org/10.1001/jamahealthforum.2022.3250

Edwards-Maddox, S., Reid, A., & Quintana, D. M. (2022). Ethical implications of implicit bias in nursing education. *Teaching and Learning in Nursing*, *17*(4), 441-445. https://doi.org/10.1016/j.teln.2022.04.003

Essentials Task Force. (2021). *The essentials: Core competencies for professional nursing education.* American Association of Colleges of Nursing. https://www.aacnnursing.org/Portals/42/AcademicNursing/pdf/Essentials-2021.pdf

FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC medical ethics*, *18*(1), 19. https://doi.org/10.1186/s12910-017-0179-8

Gangopadhyaya, A. (2021). *RESEARCH REPORT: Do Black and White Patients Experience Similar Rates of Adverse Safety Events at the Same Hospital?* https://www.urban.org/sites/default/files/publication/104559/do-black-and-white-patients-experience-similar-rates-of-adverse-safety-events-at-the-same-hospital_0.pdf

Gatewood, E., Broholm, C., Herman, J., & Yingling, C. (2019). Making the invisible visible: Implementing an implicit bias activity in nursing education. *Journal of Professional Nursing*, *35*(6), 447-451. https://doi.org/https://doi.org/10.1016/j.profnurs.2019.03.004

Gonzalez, C. M., Noah, Y. S., Correa, N., Archer-Dyer, H., Weingarten-Arams, J., & Sukhera, J. (2021). Qualitative analysis of medical student reflections on the implicit association test. *Medical Education*, *55*(6), 741-748. 10.1111/medu.14468

Graves, L. Y., Tamez, P., Wallen, G. R., & Saligan, L. N. (2021). Defining the role of individuals prepared as a doctor of nurse practice in symptoms science research. *Nursing Outlook, 69*(4), 542–549. https://doi.org/10.1016/j.outlook.2021.01.013

Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A Systematic Review. *American Journal of Public Health, 105*(12), e60–e76. https://doi.org/10.2105/AJPH.2015.302903

Hoyert, D. L. (2022). *Maternal mortality rates in the United States, 2020.* (National Center for Health Statistics Health E-Stats). Centers for Disease Control and Prevention. https://dx.doi.org/10.15620/cdc:113967

Institute for Healthcare Improvement. (2023). *How to improve.* https://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementSettingAims.aspx

James, L. (2018). The stability of implicit racial bias in police officers. *Police Quarterly, 21*(1), 30–52. https://doi.org/10.1177/1098611117732974

Jesuits. (2023, May 1). *Our work.* https://www.jesuits.org/our-work/what-we-do/

KCAL News. (2023, July 20). *Gov. Newsom fines Temecula Valley school district $1.5 million for rejecting curriculum* [Video]. https://www.youtube.com/watch?v=wlirZ1svVjA&t=1s

Kidd, V. D., Spisak, J. M., Vanderlinden, S., & Kayingo, G. (2022). A survey of implicit bias training in physician assistant and nurse practitioner postgraduate fellowship/residency programs. BMC Medical Education. https://doi.org/10.1186/s12909-022-03664-5

Kirwan Institute for the Study of Race and Ethnicity. (2018). *Implicit bias module series* [Video]. Ohio State University. https://kirwaninstitute.osu.edu/implicit-bias-training

LaVeist, T. A., Perez-Stable, E. J., Richard, P., Anderson, A., Isaac, L. A., Santiago, R., Okoh, C., Breen, N., Farhat, T., Assenov, A., Gaskin, D. J. (2023). The economic burden of racial, ethnic, and educational health inequities in the US. *JAMA Network, 329*(19), 1682-1692. http://doi:10.1001/jama.2023.5965

Moore, S. S., & Drake, D. (2021). We are the solution to our problem: A brief review of the history of racism and nursing. *Women's Healthcare,* 34-39. https://www.npwomenshealthcare.com/wp-content/uploads/2021/08/2021_WH-August_History.pdf

New state law tackles implicit bias in nursing education. (2021). *National Nurse, 117*(4), 11. https://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=cul&AN=154745183&authtype=shib&site=ehost-live&scope=site&custid=s3818721

Nurses: Implicit Bias Courses Act, Ca. Stat. § 1407 (2021). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1407

Phelan, S. M., Puhl, R. M., Burke, S. E., Hardeman, R., Dovidio, J. F., Nelson, D. B., Przedworski, J., Burgess, D. J., Perry, S., Yeazel, M. W., & Ryn, M. (2015). The mixed impact of medical school on medical students' implicit and explicit weight bias. *Medical Education, 49*(10), 983–992. https://doi.org/10.1111/medu.12770

Saluja, B., & Bryant, Z. (2021). How implicit bias contributes to racial disparities in maternal morbidity and mortality in the United States. *Journal of Women's Health (15409996), 30*(2), 270–273. https://doi.org/10.1089/jwh.2020.8874

Schultz, P. L., & Baker, J. (2017). Teaching strategies to increase nursing student acceptance and management of unconscious bias. *Journal of Nursing Education, 56*(11). https://doi.org/10.3928/01484834-20171020-11

Smiley, R. A., Ruttinger, C., Oliveira, C. M., Hudson, L. R., Allgeyer, R., Reneau, K. A., Silvestre, J. H., & Alexander, M. (2021). The 2020 national nursing workforce survey. *Journal of Nursing Regulation*, *12*(1), S1-S96. https://doi.org/10.1016/S2155-8256(21)00027-2

Smolkowski, K., Girvan, E. J., McIntosh, K., & Horner, R. (2016). Vulnerable decision points for disproportionate office discipline referrals: Comparisons of discipline for African American and White elementary school students. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2753698

Staats, C., & Patton, C. (2013). *State of the science: Implicit bias review 2013.* Kirwan Institute for the Study of Race and Ethnicity. https://kirwaninstitute.osu.edu/sites/default/files/2019-06//SOTS-Implicit_Bias.pdf

The Joint Commission. (2022). Quick safety 23: Implicit bias in health care. https://www.jointcommission.org/resources/news-and-multimedia/newsletters/newsletters/quick-safety/quick-safety-issue-23-implicit-bias-in-health-care/implicit-bias-in-health-care/#.Y1Njr-zMJhE

Think Cultural Health. (2019, February 22). https://www.youtube.com/@thinkculturalhealth6741/about

Tiffany, J. M., & Hoglund, B. A. (2016). Using virtual simulation to teach inclusivity: A case study. *Clinical Simulation in Nursing*, *12*(4), 112-122. https://doi.org/10.1016/j.ecns.2015.11.003

University of San Francisco. (2023, May 1). University of San Francisco: Our Mission and Values. https://www.usfca.edu/who-we-are/reinventing-education/our-mission-andvalues

Vandermause, R., Fish, A. F., Bender, A., Kuensting, L., Murphy, N., & Lavin, R. (2021). The "seeing place": Teaching nurse practitioners about cultural difference through dramatization. *Nurse Education Today, 97,* 104689. https://doi.org/10.1016/j.nedt.2020.104689

Zeidan, A. J., Khatri, U. G., Aysola, J., Shofer, F. S., Mamtani, M., Scott, K. R., Conlon, L. W., & Lopez, B. L. (2019). Implicit bias education and emergency medicine training: Step one? Awareness. *AEM Education and Training*, *3*(1), 81–85. https://doi.org/10.1002/aet2.10124

Appendix A

Evidence Evaluation Table

Citation	Purpose of Study	Design/Method	Sample/Setting	Study Findings	Appraisal Rating
Gatewood et al. (2019)	Raise awareness of IB and its influence on health outcomes and support a discussion on ways to mitigate the impact of IB.	Quality improvement initiative/exempt educational activity, Mixed method	Four nursing schools across the US. One-hundred ten students (BSN, MSN, DNP).	Eval of learning Activity: positive, increased awareness of personal IB, found discussion helpful, increased ability to manage IB, **Narratives: (1) Ways to change approach to pt care** awareness/mindfulness, pausing, deliberate exposure to people of diff backgrounds (2) **reactions to IAT**: surprise with a need to work on it, disbelief with decision to not change, and does not believe they judge,	Level V: Good Quality

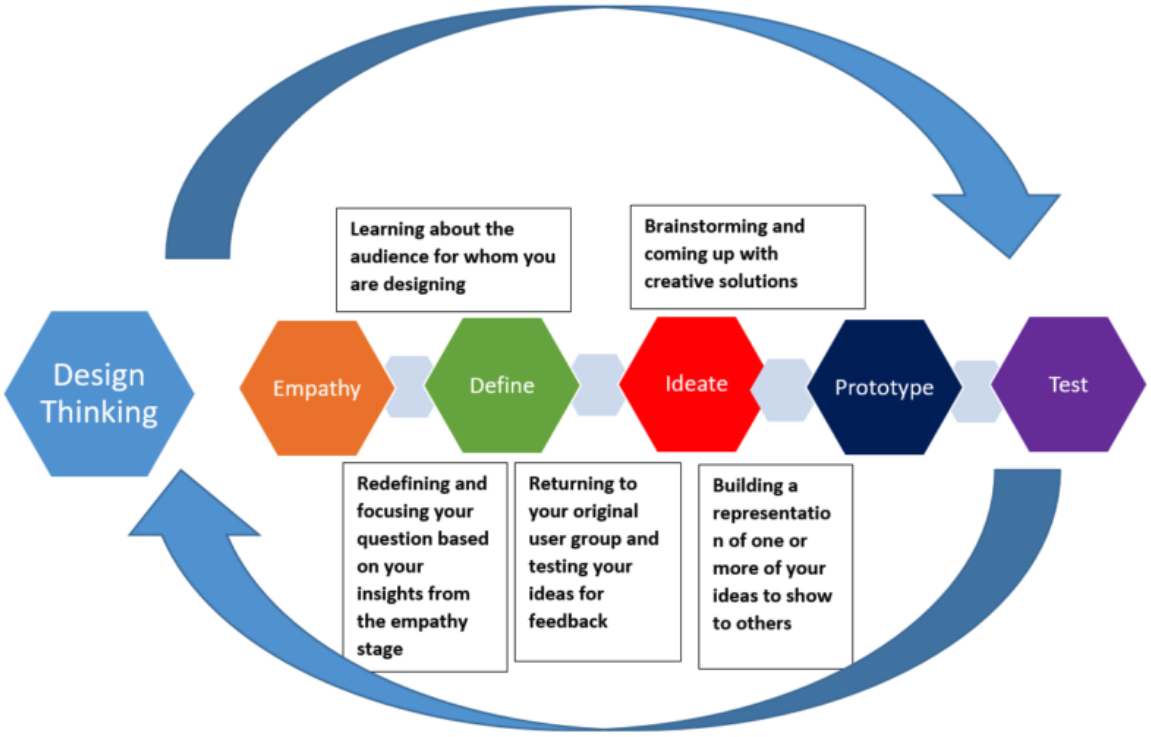
Citation	Purpose of Study	Design/Method	Sample/Setting	Study Findings	Appraisal Rating
Gonzalez et al. (2021)	Explore perspectives of medical students during the clinical portion of their training to the experience of taking the IAT and the resulting feedback	Qualitative thematic analysis	180 written deidentified essays of medical students. Bronx, NY.	**Themes**: (1) *reactions to IAT* included emotional r/t professional identity, overall acceptance of bias in oneself, reframing to gratitude post initial adverse reaction, racial preference was noted in African American student; (2) *Accepting bias yet struggling to identify strategies* r/t fear of making biased clinical decisions, broad and generalized statements to mitigate bias, wanting to develop strategies (3) *Self-Identifying a Range of Strategies: self-awareness w/limitations as a sole strategy, real-time reflection before or after the encounter, consideration if treatment would differ for another race, residency programs that facilitate team reflection on bias, chart reviews prior to pt encounter and identification of race with a pre-determined plan of action based on condition, use of checklist and protocols to enhance objectivity. Paradigm shifts*	Level V: High Quality

Citation	Purpose of Study	Design/Method	Sample/Setting	Study Findings	Appraisal Rating
Schulltz & Baker (2017)	Describe teaching strategies implemented in a graduate setting to increase nursing learners' acceptance and management of unconscious bias.	Mixed methods	75 MSN students. Midwest, US.	95% of IAT, positive for bias, 74% doubted test validity, and 51% felt unconcerned about test results; in a post-class survey, 15% doubted test validity, Management strategies: 70% selected focus on recognizing bias (awareness) and (20%) reducing bias, 6% integration with humanism (insight, empathy, and relational awareness)	Level V: Good Quality
Vandermause et al. (2021)	Present a qualitative analysis of data regarding doctoral nursing student's responses to a new dramatic exercise as part of a funded project to facilitate cultural learning in a diversity-enhanced curriculum	Qualitative analysis	136 DNP students (Adult-Gerontology et al.'s health)). (130 female, six male, 34 African-American, 11 Asian, three mixed-race, 92 Non-Hispanic White, one Hispanic/Latinx participants). Midwest, US	**Intervention:** favorable rating (2.68-2.90/3), awareness of how bias is communicated through body language and facial expressions, The most beneficial aspects, according to students are story sharing, small group discussions of workplace scenarios and becoming familiar with non-verbal, bias and feelings. Hesitancy to participate in unfamiliar activities creates tension that leads to new thinking and safety is a foundational aspect of learning sensitive issues: students were uncomfortable at first but later felt comfortable sharing and open-up	Level V: Good Quality

Citation	Purpose of Study	Design/Method	Sample/Setting	Study Findings	Appraisal Rating
Tiffany & Hoglund (2016)	Demonstrate that valuable learning regarding complex topics can occur in the virtual world.	Qualitative analysis, case study	Fifteen graduate nurse educators students.	Projective identity, macroaggressions, recognizing bias, and higher-order thinking skills gave new meaning to the lesson.	Level V: Good Quality
Bezrukova et al (2016)	Assess the effects of diversity training on four training outcomes over time and across characteristics of training context, design, and participants.	Meta-analysis	Studies (N=260) reported in 236 articles	Longer training transfers to more positive reactions and better knowledge, skills, and attitudes. Training in educational settings is preferred over organizational settings. Hypothesis partially supported diversity training will have more substantial effects on all learning outcomes, with the training context providing more motivation to learn.	Level I: High Quality

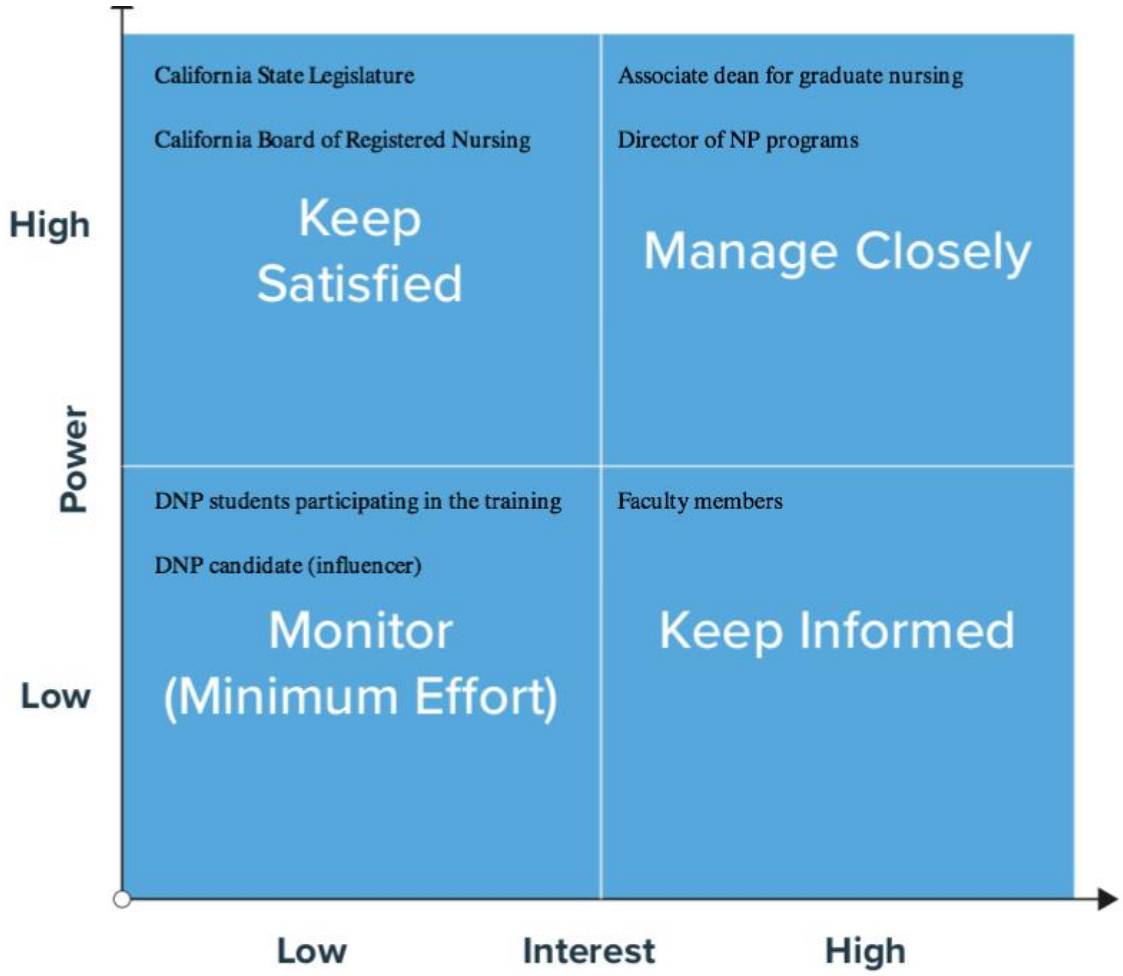
Appendix B

Design Thinking Framework



Appendix C

Power/Interest Grid for Stakeholder Prioritization



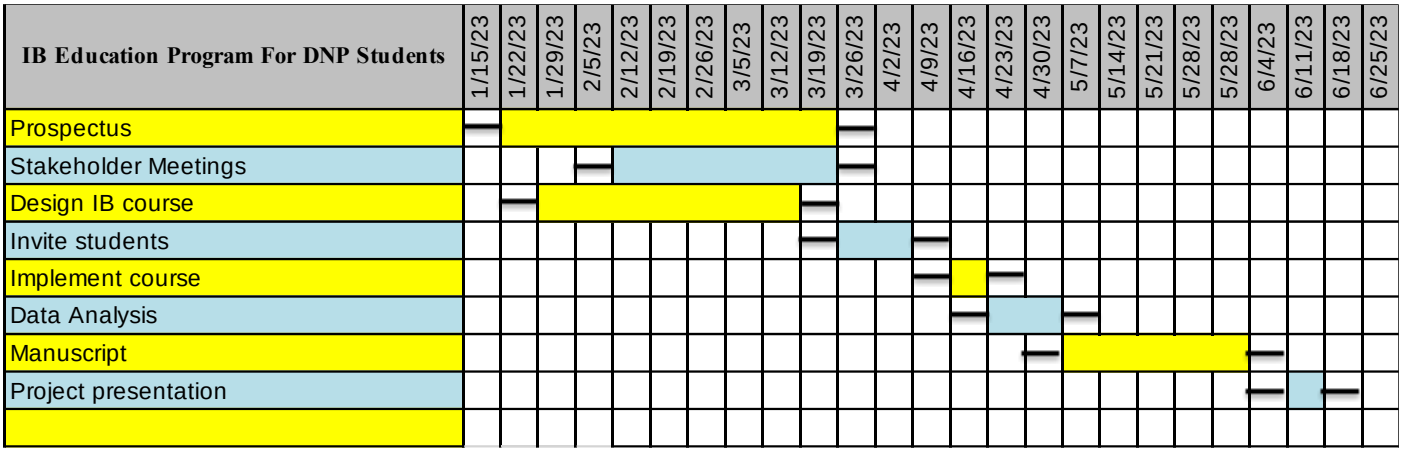
Appendix D

Gap Analysis

Current State	Desired State	Action Steps
The DNP program does not have implicit bias training in the curriculum. As a result, the students cannot identify and mitigate personal and institutional biases that contribute to poor health outcomes. According to California legislation the program does not meet nursing students pre graduation requirements.	The DNP program provides implicit bias training. Students can identify personal and institutional biases to promote health equity. The program meets legislation requirements.	Design, implement, and evaluate evidence-based implicit bias training for DNP students.

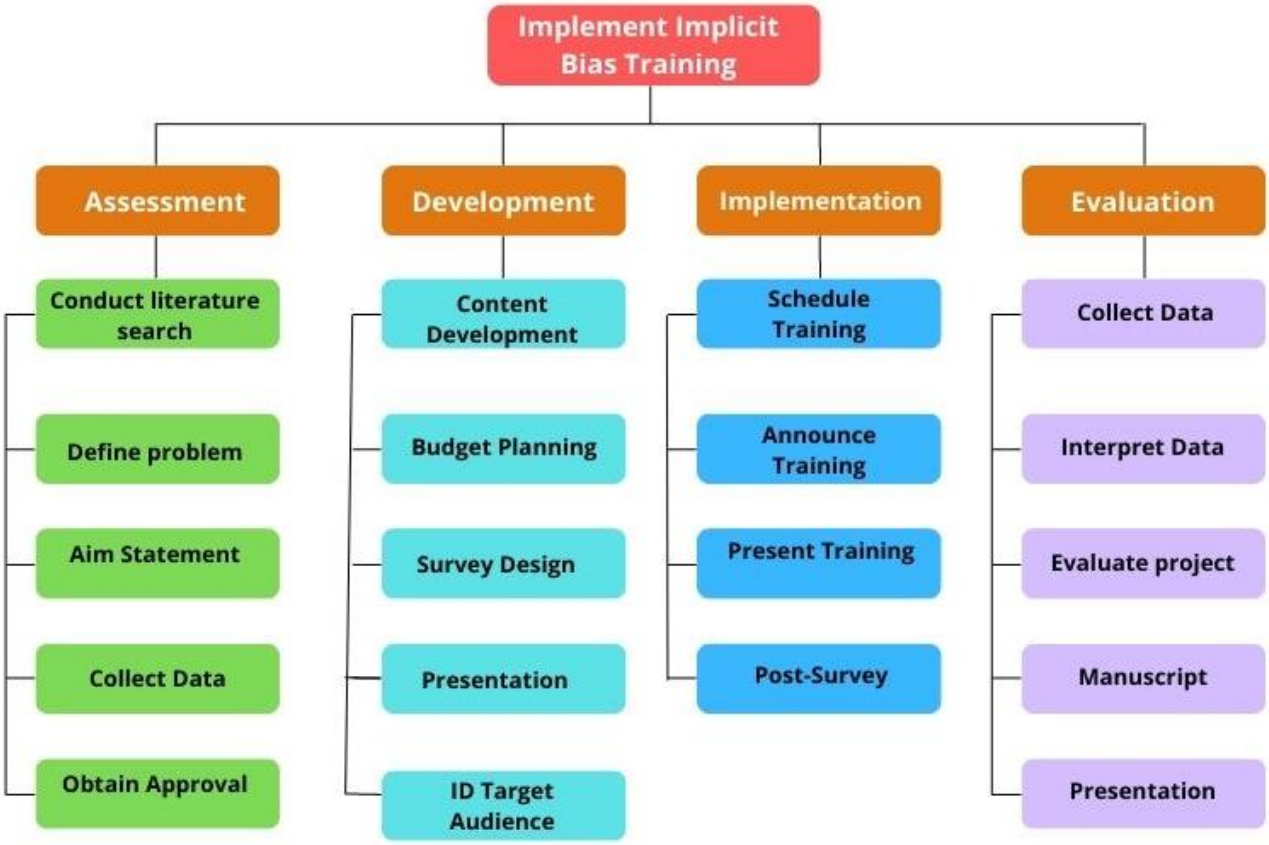
Appendix E

GANTT Chart



Appendix F

Work Breakdown Structure and Dictionary



Appendix F

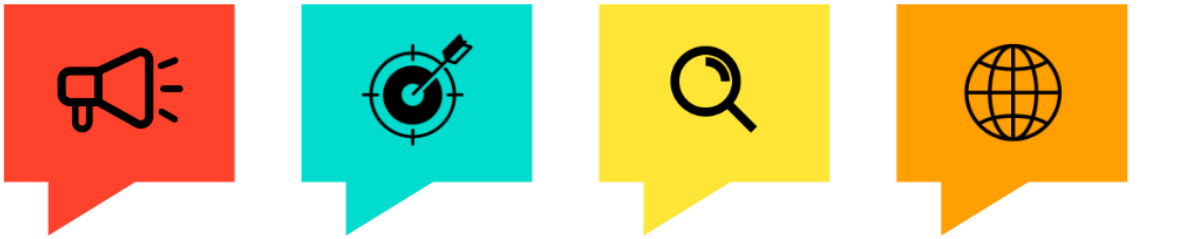
Work Breakdown Structure Dictionary

Level 1	Level 2	Level 3
Implement Implicit Bias Training	1.1 Assessment *Empathy, Ideate and Define*	1.1.1 Literature search to analyze evidence based IB training for DNP students. Identify conceptual framework. 1.1.2 Define the problem: Complete Gap and SWOT analysis of the academic center 1.1.3 Complete AIM statement: project proposal 1.1.4 Collect data: Identify stakeholders. Interview students and faculty 1.1.5 Obtain Facility Approval
	1.2 Development *Ideate and Prototype*	1.2.1 Content Development: Simulations, group discussions, readings, toolkit, PowerPoint presentation 1.2.2 Budget Planning: Prepare Budget 1.2.3 Survey design: pre and post survey 1.2.4 Present content and surveys to stakeholders 1.2.5 Identify target audience with stakeholders
	1.3 Implementation *Test*	1.3.1 Schedule training dates with faculty 1.3.2 Announce training dates and times to students with a pre-survey link 1.3.3 Presentation of training 1.3.4 Deliver training certificate of completion to students with a post-survey link

	1.4 Evaluation	1.4.1 Collect data: Evaluate and analyze pre and post surveys 1.4.2 Interpret Data: Prepare graphs and tables 1.4.3 Evaluate the project with stakeholders 1.4.4 Manuscript: Complete 1.4.5 Presentation: Present the project to a team

Appendix G

SWOT Analysis



STRENGTHS

The school's value system includes creating and maintaining an environment that promotes justice, diversity & cultural sensitivity

WEAKNESSES

DNP student's knowledge deficit on IB role on health equity

DNP students uncomfortable with managing bias

HRSA grant recipients mainly work with underserved populations

OPPORTUNITIES

Meet AB 1407 pre-graduation requirements

Offer education to all nursing students

School recognition for including IB training

Provide IB course to HRSA grant recipients

Improve pt interactions

THREATS

Non-compliance with regulatory boards

Students demonstrating bias behaviors during clinical rotations

Loss of HRSA grant

Loss of relationships with clinical sites

Faculty and student push back

Appendix H

Budget

Personnel Expenses	**Unit**	**Time (Hours)**	**Unit Price**	**Initial Cost**
Facilitator Fee per session	2	n/a	2500	$5000
Meeting with Stakeholders		8	$70	$560
Subtotal Personnel Expenses				**$5560**
Education Expenses				
Training Supplies/Equipment/Materials	2		$200	$400
Training Expenses	2		$200	$400
Subtotal Education Expenses				**$800**
Time of Student (in-kind)				
Research		30	0	0
Toolkit Creation		10	0	0
Training Design on Canvas		20	0	0
Training Implementation		4	0	0
Subtotal Time of Student		**64**	**0**	**0**
Total Expenses				**$6360**

Note: Subsequent expenses will not include the cost of meeting with stakeholders, $560.

Appendix I

Responsibility/Communication Plan

Name	Role	Responsibility	Communication Method
DNP Candidate (Project Leader)	Project Manager	Collaborate with organizational leadership to develop evidence-based IB course.	Emails and virtual meetings
Associate Dean for Graduate Nursing	Guide and support on IB course design	Provide support and approval for the course.	Emails, virtual meetings, and presentation
Director of Nurse Practitioner Programs	Guide and support on IB course design	Provide support and approval for the course.	Emails, virtual meetings, and presentation
DNP Students	Support and engagement in the IB course	Provide data to be analyzed pre- and post-course, and provide course feedback.	Emails, announcements, and virtual presentation

Appendix J

Results

Results of Paired-Sample T-test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Presurvey	41.67	6	25.820	10.541
	Postsurvey	79.17	6	10.206	4.167

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Presurvey & Postsurvey	6	.158	.765

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Presurvey - Postsurvey	-37.500	26.220	10.704	-65.016	-9.984	-3.503	5	.017

Paired Samples Effect Sizes

			Standardizer[a]	Point Estimate	95% Confidence Interval Lower	Upper
Pair 1	Presurvey - Postsurvey	Cohen's d	26.220	-1.430	-2.576	-.226
		Hedges' correction	28.415	-1.320	-2.377	-.209

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Appendix K

Statement of Non-Research Determination

UNIVERSITY OF SAN FRANCISCO | School of Nursing and Health Professions

Doctor of Nursing Practice
Statement of Non-Research Determination (SOD) Form

The SOD should be completed in NURS 7005 and NURS 791E/P or NURS 749/A/E

General Information

Last Name:	Selecon	**First Name:**	MacDana
CWID Number:		**Semester/Year:**	Spring/2023
Course Name & Number:	NP Qualifying Project: Prospectus Development: NURS 749B		
Chairperson Name:	Dr. Erica Hooper	**Advisor Name:**	Dr. Trinette Radasa
Second Reader Name			

Project Description

1. **Title of Project:**
   Implementation of an Implicit Bias Training in a Doctor of Nurse Practitioner's Program

2. **Brief Description of Project:**

The purpose of this project is to implement a California-approved Implicit Bias training course for the NP Students at the University of San Francisco who received the Nurse Practitioner and Communities Together (NPCT) HRSA award. These NP students agree to participate in rural and medically underserved clinical placements throughout their coursework. Implicit bias is ubiquitous in healthcare delivery. Moreover, this group of NP students is at an increased risk of delivering inequitable care related to unconscious bias. To reduce this risk an Implicit Bias Course will be implemented to prepare students to mitigate and reduce implicit bias which has been linked to disparities in care amongst marginalized groups.

3. **AIM Statement: What are you trying to accomplish?**

To develop, implement and evaluate an implicit bias training for the DNP Students who received the HRSA grant.

To increase awareness of unconscious bias in healthcare delivery through training by 50%.

To teach how to manage biases, change behavior, and track progress

Over the next three months we will develop, implement and evaluate an implicit bias training for the HRSA grant recipient DNP students. We will teach how to manage biases, change behavior, and track progress
We will increase knowledge of unconscious bias and comfortability managing unconscious bias by 50%

4. Brief Description of Intervention (150 words)**:**

A virtual IB course. The course will explain implicit bias and it's health impact.

During the course several methods will be used to engage students including, YouTube Videos, breakout groups for small discussions, role playing, and completion of Harvard IAT assessment.

4a. How will this intervention be implemented?

- The project will be implemented in1 online courses.
- The focus of the intervention is for NP Students at the University of San Francisco who received the Nurse Practitioner and Communities Together (NPCT) HRSA award
- A meeting will be held with key stakeholders. Students will be invited to participate via an email. An announcement will be made on the HRSA ANEW: Nurse Practitioners and Communities Together (NPCT) folder in Canvas.

5. Outcome measurements: How will you know that a change is an improvement?

A multiple-choice questionnaire will be used to assess participants knowledge. A 5-point Likert scale will be used to assess comfort and confidence. Both of these tools will be used both pre- and post- training to determine if change is an improvement. .

To protect participant confidentiality, each participant will be assigned a unique identification number for their survey

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: http://answers.hhs.gov/ohrp/categories/1569

UNIVERSITY OF SAN FRANCISCO | School of Nursing and Health Professions

DNP Statement of Determination
Evidence-Based Change of Practice Project Checklist Outcome

The SOD should be completed in NURS 7005 and NURS 791E/P or NURS 749/A/E

☐ This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). **Student may proceed with implementation.**

☐ This project involves research with human subjects and **must be submitted for IRB approval before project activity can commence.**

Comments:

Student Last Name:	Selecon	**Student First Name:**	MacDana
Student Signature:	MacDana Selecon	**Date:**	2/9/2023
Chairperson Name:	Dr. Trinette Radasa		
Chairperson Signature:		**Date:**	
Second Reader Name:	Dr. Erica Hooper	**Date:**	
Second Reader Signature:			
DNP SOD Review Committee Member Name:			
DNP SOD Review Committee Member Signature:		**Date:**	