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An Educational Module on Minority Maternal Mortality and Complications in Obstetric Care

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An Educational Module on Minority Maternal Mortality and Complications in Obstetric Care

A DNP Project Presented to the Faculty of the
Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements
For the Degree of Doctor of Nursing Practice

By

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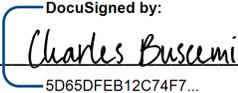
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Abstract

Background
Certified Registered Nurse Anesthetists may be impacted by the growing minority maternal mortality and complications of obstetric care. Healthcare providers will be held accountable for the adverse health outcomes of minority obstetric patients by completing the Multidimensional Cultural Humility Scale and Cultural Humility Scale educational tools which shed light on racial biases. The U.S is ranked 46th in maternal mortality, reflecting a rate that has doubled since 1990, and includes an exponential increase in the African American (AA) population. The significance of the problem is seen in the comparison of mortality ratios between white women, black women, and women of other races during childbirth. Promoting cultural humility by instituting educational tools is the proposed solution to combat the disproportionate rate of AA maternal mortality.

Methods
Utilizing CINAHL and MEDLINE the keywords "Cultural humility" "African American", and "maternal mortality" were searched yielding 133 results. Applying inclusion criteria resulted in 3 articles included in this study. An educational module and pre- and posttest test questionnaire were prepared and disseminated to anesthesia providers based on the selected evidence with the intent to answer the question: In minority obstetric patients, how effective are cultural humility educational tools in improving healthcare providers accountability and awareness for racial inequalities in obstetric healthcare?

Results
The baseline knowledge was 49% on the pretest and 73% on the posttest, reflecting a 24% knowledge increase. Limitations were a small sample size and time constraints to administer the pre and post survey. Implementation of both scales may bridge the gap between cultural humility and AA maternal mortality by increasing awareness of providers to diverse patients.

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Introduction

Significance of the Problem

Welcoming a new life into the world can surely be an exciting moment for all personnel involved; nonetheless, concerns arise when certain populations are ripped away from this magical moment more so than others. African Americans (AA) are a part of the racial and/or ethnic minority community. The clinical issue at hand involves the high rate of disproportionate complications and deaths involving AA obstetric patients during childbirth.[1] To comprehend the current clinical issue discussed in this project, it is important to understand that America has an extensive history of oppression towards women of color and their reproductive rights. The history of slavery still rages in current structural racism today and, consequently, has resulted in the disproportionate maternal and infant death rate in AA women during childbirth.[2]

Current literature on AA maternal mortality acknowledges that today in current practice, there are still health disparities among AA women during childbirth. The literature further explains that the clinical issue at hand has become a national priority, and interventions were set in place such as federal support programs to help reduce health disparities in marginalized groups to improve maternal and infant health.[1] Nonetheless, AA maternal death during childbirth is still an alarming clinical problem because, despite the interventions implemented, AA maternal death rates are still rising disproportionately than their counterparts.[1] Therefore, many questions still need to be answered about AA maternal mortality.

Background

Many problems have led to the neglect and rise of AA maternal mortality that can range from lack of data to blatant racism. For example, to implement evidence-based practice (EBP) to help improve the disproportionate rate of AA maternal deaths in obstetric care, consistent and

accurate data would need to be collected and examined as the first step. Alarmingly, research is neither accurate nor consistent among different states as it relates specifically to AA maternal mortality, whereas in other races, the research is accurate.[1]

The attempted solutions implemented to help combat the inaccuracy and inconsistency of data collection in the AA population involved categorizing AA maternal deaths with administrative forms, coding strategies, and instituting maternal review boards in hopes of collecting accurate data.[1] Another intervention consisted of advocating for standardized data collection among all states that would lead to a national depiction of consistent and accurate data.[1] Interestingly enough, major organizations such as The American Congress of Obstetricians and Gynecologists (ACOG) and the Centers for Disease Control and Prevention (CDC) have both proposed interventions and recommendations to help reduce AA maternal deaths.[1] Nonetheless, the AA maternal death rate is not declining, and ultimately, research points to racial and gender inequalities and implicit bias as major factors.[1]

Proposing a solution to a problem in obstetric care is important because the care of maternal women has national importance and maternity care is the most frequent overall reason for hospitalization.[3] Furthermore, cesarean sections are the most common surgery performed in medical facilities.[3] In addition, Medicaid is responsible for half of all births in the United States (U.S.).[3] Therefore, when problems arise in obstetric care, it can seriously affect several individuals, stakeholders, and organizations. Going forward, a solution needs to be implemented to help reduce the disproportionate rate of AA maternal mortality and/or complications in obstetric care.

Scope of the Problem

The U.S is ranked 46th in maternal mortality compared to other countries, and the mortality rate has doubled since 1990.[1] Sadly, this ranking is magnified in the AA population. Specifically, AA women are more likely to die in childbirth than white women.[1] The significance of the problem can be seen in the comparison of mortality ratios between white women, black women, and women of other races during childbirth.[1] For instance, there were 12.1 deaths per 100,000 live births for white women, 40.4 deaths for black women, and 16.4 deaths for women of other races.[1] Distressingly, black infants are dying 2.3 times higher than non-Hispanic white babies in today's clinical setting.[2]

Although maternal mortality has declined by an estimate of 50% worldwide, AA maternal death landed the U.S. the second-worst in maternal mortality on the Organization for Economic Cooperation and Development nations list.[1] From the 1990s to today's current practice, research on AA maternal and infant health disparities has led to the conclusion that structural racism at large is a stressor that harms AA women physically, emotionally, and genetically.[1] For instance, AA pregnant women living in a predominately non-black community may bypass "signs" of complications and will not seek medical attention until it is too late because of the impending stress due to the way they will be treated because of racial discrimination and disregard in medical institutions.[2] Individuals may victim shame AA women and turn a blind eye to the real clinical issue at hand that so desperately needs to be brought to light.

Consequences of the Problem

Lack of addressing the apparent systemic racism in obstetrics and gynecology not only leads to more deaths in the AA patient population but also perpetuates the stigma that AA pregnant women are causing their health problems. Victim blaming is an enormous consequence

of this clinical problem. Also, the lack of accurate and consistent data for pregnant AA women makes it difficult to implement EBP guidelines to help bridge the gap between the deaths among white and non-white pregnant women and infants. If this clinical issue is not addressed, then AA women and infants will continue to die at a disproportionate rate and systemic racism will continue to oppress an already marginalized group in the one place where pain should be healed and not inflicted. Consequently, not addressing the structural racism, racial inequalities, and racial biases that still exist in health care can cause a national crisis because obstetric care is of national importance and constitutes the highest rate of hospitalization with cesarean sections ranking as the most common surgery.

Knowledge Gaps

The topic of AA maternal mortality lacks information about how to hold healthcare providers accountable for the implicit racial inequalities in healthcare. Therefore, an intervention needs to be implemented to help hold healthcare providers accountable for the continued oppression of AA obstetric patients. Specifically, exhibiting cultural humility can be instrumental in bringing awareness and accountability to healthcare providers about how behavior can either perpetuate or combat AA maternal complications and/or mortality.[4] For instance, learning about cultural humility can reveal information about power and privilege between patients and providers and unravels the feelings of provider intimidation that leads to further complications for AA obstetric patients.[4] Also, bridging the gap between cultural humility and AA maternal mortality can shed light on the misinformed notion that cultural training is a one-step deal. In detail, several healthcare providers believe that cultural training can be accomplished by completing the same educational module every year to keep their license active. When in fact, there is a lack of knowledge on the actual duration of cultural training

because it is a lifelong commitment of self-evaluation and self-critique to properly care for diverse populations. Overall, bridging the gap between cultural humility and AA maternal deaths can significantly help to reduce complications related to AA maternal mortality by holding obstetric healthcare providers accountable for the behavior that perpetuates this negative atmosphere.

Proposal Solution

Promoting cultural humility is the proposed solution to hold obstetric healthcare providers accountable for their way of being with AA obstetric patients and to help combat the disproportionate rate of AA maternal mortality. It is important to differentiate between cultural competence and cultural humility. Cultural competence encompasses the provider's knowledge and skills of caring for diverse patients, whereas cultural humility refers to the provider's way of being with diverse patients where there is no designated endpoint.[4] Therefore, providers who instill cultural humility negate the assumption that they hold competence for engaging with patients from all cultural backgrounds.[4] Instead, culturally humble and ego-less providers promote the elimination of all power differentials as deemed appropriate based on the patient's cultural worldview.[4] Culturally humble providers work collaboratively with patients to obtain a deeper comprehension of their culture and background.[4] Overall, culturally humble providers lead to positive patient outcomes that foster therapeutic relationships between patients and providers to reduce patient complications and mortality rates.[4]

Cultural humility is an influential and powerful tool; nonetheless, there are limited ways to measure cultural humility, which is why the implementation of the Cultural Humility Scale (CHS) and the Multidimensional Cultural Humility Scale (MCHS) is imperative.[4] The CHS assesses a provider's level of cultural humility from the patient's point of view.[3] The CHS consist

of a 12-item measure of positive characteristics and negative characteristics depicting superiority and making assumptions.[4] The items are rated on a 6-point Likert scale that ranges from strongly disagree to strongly agree.[4]

The MCHS is a provider-report scale that may be used to measure clinician's perceived cultural humility to better measure their understanding and self-awareness.[4] The MCHS consists of a 57-item scale for helping professions and is based on 5 dimensions of cultural humility: openness, self-awareness, ego-less, supportive interactions, and self-reflection and critiques. The MCHS is rated on a 6-point Likert scale ranging from strongly disagree to strongly agree.

Overall, healthcare providers with higher scores on each scale represent greater levels of cultural humility. Both cultural humility scales can hold healthcare providers accountable for their way of being with AA obstetric patients. The implementation of both scales can bridge the gap between cultural humility and AA maternal mortality by increasing awareness for providers to care for diverse patients. Clinicians who do not score high on both scales can be held accountable as to how their lack of cultural humility is perpetuating the continued national crisis of structural racism in obstetric care. Implementation of both scales may bridge the gap between cultural humility and AA maternal mortality by increasing awareness of providers to diverse patients. As such, this study was conducted to answer the PICO question: In minority obstetric patients, how effective are cultural humility educational tools in improving healthcare providers accountability and awareness for racial inequalities in obstetric healthcare?

Summary of the Literature

Objective

The goal of this literature review was to explore various articles on the impact of cultural humility educational tools on AA obstetric outcomes. Unfortunately, the literature was limited;

therefore, articles were reviewed that discussed the development of the MCHS educational tool to help hold healthcare providers accountable for their way of being with diverse patients. In doing so, studies concluded that healthcare providers who scored low on this scale ultimately cared for minority patients that had poor outcomes. Conversely, healthcare providers who scored high on the MCHS educational tool had positive patient outcomes for diverse populations and committed fewer racial microaggressions and cultural stereotypes. As a result, implementing the MCHS in obstetric units can be the start of reducing AA maternal patient complications and mortality.

The research study for the MCHS educational tool took place in a setting for counselors but is now being advocated for hospital use for AA obstetric patients to help hold healthcare providers accountable for adverse patient outcomes. It is important to remember that counseling is one of the core job descriptions of healthcare providers; therefore, the results of the counseling study can also apply to hospital healthcare providers. The study revealed that in current practice, racial/ethnic minority (REM) individuals still experience forms of racism even in subtle ways during treatment. Therefore, if the CHS and MCHS educational tools are implemented in obstetric units for AA patients, then it can help shed light on the healthcare providers who need extra training to stop racial microaggressions and help reduce AA obstetric complications. Today, there is no known assessment tool such as the MCHS or CHS tool in obstetric units; therefore, healthcare providers are not being held accountable for racial microaggressions and poor patient outcomes.

The term cultural humility may often get confused with cultural competence; therefore, a systemic literature review must discuss the current definition for the term cultural humility. Cultural humility is a way of being and employing it means being aware of power imbalances

and being humble in every interaction with every patient. With a full understanding of cultural humility, individuals such as healthcare providers and public health communities will be better equipped to comprehend and foster an inclusive environment with mutual benefit and optimal care.

Methods

Inclusion Criteria

Studies evaluated for this literature review were chosen based on the inclusion and exclusion criteria set to best emphasize the objectives. Inclusion criteria included studies that were published within the past 5 years, written in English, full-text availability, and inclusive of all maternal minority groups with emphases on AA maternal disparities in modern-day healthcare. Exclusion criteria included articles only discussing Anglo-Saxon obstetric deaths and teenage birth experiences. Lastly, studies focused on how to decrease the knowledge gap between healthcare provider accountability and implicit racial inequalities in healthcare. Database sources used for the research were accessed via Florida International University (FIU) library services.

Based on the clinical question, the following search keywords were identified using the appropriate Boolean operators and search symbols: African American maternal mortality, cultural humility, cultural humility education tool, Multidimensional Cultural Humility Scale.

Search Strategy

The databases utilized for the search included the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and MEDLINE (ProQuest). The literature also was guided by the Preferred Reporting Items for Systemic Reviews.

With the assistance of the FIU health science librarian, the key search terms were further expanded to include: (cultural humility*) AND/OR (nurse* OR obstetrics*) AND ("African American mothers" OR "African American maternal death" OR "black maternal and infant health" OR "historical legacies of slavery" OR "public health") AND ("morbidity prevention and control" OR "Multidimensional Cultural Humility Scale").

Study Selection

Only using the search term "cultural humility AND African American" resulted in 1 search result, which further emphasizes the lack of research on an imperative topic in health care. Whereas "cultural humility" as a search term alone resulted in 331 research results. For the most relevant research to be reviewed, only articles published within the past 5 years and those written in English were included. This yielded 89 articles, but again, when including the search term African American only 1 research article appeared. Therefore, specific search terms were utilized such as "Multidimensional Cultural Humility Scale," "African American maternal death rates," and "addressing maternal mortality and morbidity" were used for this literature review. Unfortunately, there were only a handful of articles discovered to help answer the PICO questions at hand. Titles were excluded if they did not meet inclusion criteria. Three articles were reviewed and read in their entirety to help advocate for cultural humility assessment tools to help hold healthcare providers accountable for the rising rate of poor patient outcomes in minority patients such as the AA obstetric population.

Results

The 3 articles chosen for this literature review analyzed the effects of current healthcare practice on how healthcare providers express cultural humility and how it can affect the health outcomes of minority patients. The first article details how the Multidimensional Cultural

Humility Scale (MCHS) can help hold healthcare providers accountable for their way of being with diverse populations.[4] The article further details how the MCHS scale rating can help identify providers with high scores who can help reduce poor health outcomes in diverse patients.[4] The second article revealed that in modern-day healthcare practices, subtle but impactful forms of racism such as racial microaggressions occur and have deleterious effects on REM patients.[5] Furthermore, the study utilized the Cultural Humility Scale (CHS) to help identify providers who lack this imperative skill, which resulted in poor health outcomes for diverse patients.[5] The third article provides a context analysis and a current definition for the term cultural humility. With a full understanding of cultural humility, individuals such as healthcare providers and public health communities will be better equipped to comprehend and foster an inclusive environment with mutual benefit and optimal care.[6] Tables 1, 2, and 3 start the literature review and search process.

Table 1.

Author (s)	Purpose	Methodology/Research Design	Interventions (s)/Measures	Sampling/Setting	Primary Results	Relevant Conclusions
Gonzalez et al., (2020)	Describes the development and initial testing of the Multidimensional Cultural Humility Scale (MCHS), a healthcare provider report scale to measures the providers' cultural humility.	Clinical Research; Quality improvement (QA) project Level V	Implementation of the MCHS, along with a five-factor structure that reflected the five dimensions of cultural humility to help use as a self-assessment tool of their cultural humility to promote positive therapeutic outcomes.	The study was sent to 10,000 participants, where 169 emails did not work and a total of only 1,028 completed surveys (10.45% response rate). 167 participants were removed based on missing answers. The final response rate for this study was 8.76% (n= 861) and a 7:1 participant-per-item ratio.	The MCHS can be utilized by healthcare providers as a self-assessment tool to assess their level of cultural humility. A higher level of cultural humility is imperative because it can foster positive patient outcomes, especially in diverse patients. Providers with higher cultural humility commit fewer racial microaggressions and avoid cultural stereotypes.	The success of reducing poor outcomes in diverse patients depends on healthcare providers accountability and self-awareness of their cultural humility. The MCHS tool can help healthcare providers gain awareness of which five factors of cultural humility need to be improved.

| Hook and Farrell (2016) | To examine a specific form of covert racism-racial microaggressions as experienced by racial/ethnic minority (REM) individuals during counseling. | Descriptive cross-sectional study including a questionnaire Level IV | Implementation of the Racial Microaggressions in Counseling Scale (RMCS). The RMCS consists of a 10-item tool that measures client perceptions of the frequency of racial microaggressions in counseling and the perceived personal impact of these experiences.

Implementation of the cultural humility scale (CHS) which is a 12-item tool that measures client perceptions of the cultural humility of their counselor.

Multicultural competence was assessed using a 7-item tool | A community sample of 2,212 adults with a mean age of 29.6 (SD = 9.0). There were 35.1% males, 62.9% females, and 2.0% as "other", and all identified as REM. | 81.7% of participants reported experiencing at least one racial microaggression in counseling which can lead to poor patient outcomes. Two common themes of racial microaggression involved (a) denial or lack of awareness regarding stereotypes or bias about cultural issues and (b) avoidance of discussion of cultural issues. | The study revealed that in modern-day healthcare practices, subtle but impactful forms of racism such as racial microaggressions occur and have deleterious effects on REM patients. |

			where it assessed a counselor's multicultural competence about cross-counseling skill, sociopolitical awareness, and cultural sensitivity. Higher mean scores indicated higher levels of perceived multicultural competence			
Steefel et al., (2016)	To provide context analysis and a current definition for the term cultural humility.	Systemic Literature Review Level 1	The literature review was conducted using CINAHL Plus, Academic Search Complete, Anthropology Plus, ERIC, Human Resources Abstracts; Humanities Full Text, and PsycINFO. Search terms utilized include "cultural humility,"	Articles published before 2009 were excluded resulting in 116 articles published from 2009-2014. Only English articles were utilized. 46 articles were also excluded because they did not discuss cultural humility. Overall, 62 total articles were included.	The movement toward cultural humility implies one must reach the highest level of learning (Transformation). Cultural humility is a life-long process. Cultural humility is a way of being and employing it means being aware of power imbalances and being humble in	With a full understanding of cultural humility, individuals (healthcare providers) and communities (public health) will be better equipped to comprehend and foster an inclusive environment with mutual benefit and optimal care.

			"culturally humble," "cultural," or "culturally."		every interaction with every patient. "Realizing cultural humility is possible when one is open, self-aware, humble, reflective, and supportive with others."	

Summary of the Evidence

In the study by Gonzalez et al.[4], the authors described the development and initial testing of the Multidimensional Cultural Humility Scale (MCHS), a healthcare provider report scale to measures the providers' cultural humility. The research design constituted a clinical research and quality improvement approach. Interventions included the implementation of the MCHS, along with a 5-factor structure that reflected the 5 dimensions of cultural humility to help use as a self-assessment tool of their cultural humility to promote positive therapeutic outcomes.[4] The study was sent to 10,000 participants, where 169 emails did not work and with a total of 1,028 completed surveys (10.45% response rate).[4] Furthermore, 167 participants were removed based on missing answers. The final response rate for this study was 8.76% ($n = 861$) and a 7:1 participant-per-item ratio.[4]

The article concluded that the MCHS assessment tool can be utilized by healthcare providers as a self-assessment tool to gauge their level of cultural humility.[4] A higher level of cultural humility is imperative because it can foster positive patient outcomes, especially in diverse patients. Providers with higher cultural humility commit fewer racial microaggressions and avoid cultural stereotypes.[4] The success of reducing poor outcomes in diverse patients depends on healthcare providers' accountability and self-awareness of their cultural humility.[4] The MCHS tool can help healthcare providers gain awareness of which 5 factors of cultural humility are needed to improve patient outcomes for diverse populations.[4] After the author's extensive review of cultural humility, the 5 factors of cultural humility included openness, self-awareness, ego-less, supportive interactions, and self-reflection and critique.[4]

There are a few limitations to this study that should be brought to light to help future studies on cultural humility. For instance, participants were chosen from only one state, which

led to a lack of diverse participants.[4] Going forward, recruiting from a national database would be a better option for further studies to help diversify the participants. Another limitation involved a low response rate of 8.76% because only emails were used to send surveys.[4] For future studies, it is important to add mail surveys to help increase participant response rates.[4]

In the next study by Hook and Farrell,[5] the purpose was to examine a specific form of covert racism such as racial microaggressions as experienced by REM individuals during counseling.[5] The research design constituted a descriptive cross-sectional study and a questionnaire for REM patients. Interventions included the implementation of the Racial Microaggressions in Counseling Scale (RMCS), which consists of a 10-item tool that measures client perceptions of the frequency of racial microaggressions in counseling and the perceived personal impact of these experiences.[5] The study also implemented the Cultural Humility Scale (CHS), which is a 12-item tool that measures client perceptions of the cultural humility of their counselor.[5] Lastly, a multicultural competence screening via a 7-item tool assessed a counselor's multicultural competence about cross-counseling skills, sociopolitical awareness, and cultural sensitivity.[5] Higher mean scores indicated higher levels of perceived multicultural competence.[5] The sample included a community of 2,212 adults with a mean age of 29.6 ($SD = 9.0$). There were 35.1% males, 62.9% females, and 2.0% as "other," and all identified as REM patients.[5]

The results concluded that 81.7% of participants reported experiencing at least one racial microaggression in counseling, which led to poor patient outcomes.[5] Two common themes of racial microaggression were involved (a) denial or lack of awareness regarding stereotypes or bias about cultural issues and (b) avoidance of discussion of cultural issues.[5] The study revealed that in modern-day healthcare practices, subtle but impactful forms of racism such as racial microaggressions occur and have deleterious effects on REM patients.[5]

Limitations of this study start with its cross-sectional design, which supports the idea that causal conclusions cannot be made.[5] For future research, longitudinal or experimental designs should be constructed to elicit a more detailed conclusion. Another limitation involves the type of reporting such as client-report measures. To have a bigger picture of the results, it is important to also add clinician report or objective behavioral measures.[5] Also, the data collection for this study was uncontrolled and used a Mechanical Turk approach to data collection.[5] For future research, it is important to have a more controlled data approach. Lastly, the study only sought general racial microaggressions therefore, it is important to allow participants to describe specific and detailed microaggressions in future studies.[5]

The third study by Steefel et al.[6] was a systemic literature review and provided a context analysis and a current definition for the term cultural humility.[6] The authors conducted a literature review using CINAHL Plus, Academic Search Complete, Anthropology Plus, ERIC, Human Resources Abstracts, Humanities Full Text, and PsycINFO.[6] Search terms utilized included "cultural humility," "culturally humble," "cultural," or "culturally."[6] Articles published before 2009 were excluded, resulting in 116 articles published from 2009-2014.[6] Only English articles were utilized. Forty-six articles were also excluded because they did not discuss cultural humility. Overall, 62 total articles were included.[6]

Results stated that the movement toward cultural humility implies one must reach the highest level of learning, which is defined as transformation learning.[6] The literature review stresses that cultural humility is a lifelong process and that it is a way of being and employing.[6] Cultural humility means being aware of power imbalances and being humble in every interaction with every patient.[6] "Realizing cultural humility is possible when one is open, self-aware, humble, reflective, and supportive with others."[6] With a full understanding of cultural humility,

individuals such as healthcare providers and public health communities will be better equipped to comprehend and foster an inclusive environment with mutual benefit and optimal care.[6]

Limitations of this study included the sample population because all participants were employed as registered nurses. Therefore, all participants may have similar viewpoints and limited interpretation because nurses are historically oppressed.[6] Also, the sample size may have lacked diversity in age, socioeconomic status, and sexual orientation.[6]

Discussion

Unfortunately, the literature was limited on cultural humility and AA obstetric patient outcomes. Therefore, I reviewed articles that discussed the development of the MCHS educational tool to help hold healthcare providers accountable for their way of being with diverse patients. In doing so, studies concluded that healthcare providers who scored low on this scale ultimately cared for minority patients that had poor outcomes. Conversely, healthcare providers who scored high on the MCHS educational tool had positive patient outcomes for diverse populations and committed fewer racial microaggressions and cultural stereotypes. As a result, implementing the MCHS in obstetric units can be the start of reducing AA maternal patient complications and mortality.

The research study for the MCHS educational tool took place in a setting for counselors; however, it is now being advocated for hospital use for AA obstetric patients to help hold healthcare providers accountable for adverse patient outcomes. It is important to remember that counseling is one of the core job descriptions of healthcare providers; therefore, the results of the counseling study can be beneficial to hospital healthcare providers. The study revealed that REM individuals still experience forms of racism even in subtle ways during treatment. Therefore, if educational tools such as the MCHS and CHS scales are implemented in obstetric units for AA

patients, then it can help shed light on healthcare providers who may need extra training to stop racial microaggressions and help reduce AA obstetric complications. Today, there is no known assessment tool such as the MCHS or CHS tool in obstetric units; therefore, healthcare providers are not being held accountable for racial microaggressions and poor patient outcomes.

Overall, with a full understanding of cultural humility, individuals such as healthcare providers and public health communities will be better equipped to comprehend and foster an inclusive environment with mutual benefit and optimal care.

Conclusion

Cultural humility is an influential and powerful tool; nonetheless, there are limited measures, which is why the implementation of the CHS, and the MCHS is imperative.[7] Overall, healthcare providers with higher scores on each scale represent greater levels of cultural humility. Both cultural humility scales can hold healthcare providers accountable for their way of being with AA obstetric patients. The implementation of both scales can bridge the gap between cultural humility and AA maternal mortality by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality. Clinicians who do not score high on both scales can be held accountable as to how their lack of cultural humility is perpetuating the continued national crisis of structural racism in obstetric care. Attempting to solve racism in healthcare is a continued battle from slavery until today. However, instituting scales in an arena with limited measure can be the start of holding healthcare providers accountable for lack of cultural humility when caring for AA obstetric patients.

<div align="center">**Primary DNP Project Goal**</div>

Obstetric care is of national importance and constitutes the highest rate of hospitalization with cesarean sections ranking as the most common surgery.[1] Furthermore, the U.S. is ranked

46th in maternal mortality compared to other countries, and the mortality rate has doubled since 1990.[1] Sadly, this ranking is magnified in the AA population because AA maternal death landed the U.S. second-worst in maternal mortality on the Organization for Economic Cooperation and Development nations list.[1] Based on evidence-based research, healthcare racial biases by healthcare providers constitutes an enormous role on AA obstetric complications and mortality. Therefore, not addressing the structural racism, racial inequalities, and racial biases that still exist in healthcare can continue to perpetuate a national crisis. Overall, the primary DNP project goal is to improve healthcare providers accountability and awareness for racial inequalities in healthcare in minority obstetric patients by utilizing cultural humility educational tools. In doing so, it can help change behaviors in healthcare that lead to AA maternal complications and mortality.

Specifically, healthcare providers with higher scores on each cultural humility scale represents a greater level of cultural humility. Both cultural humility scales can hold healthcare providers accountable for their way of being with AA obstetric patients. The implementation of both scales can bridge the gap between cultural humility and AA maternal mortality by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality. Clinicians who do not score high on both scales can be held accountable as to how their lack of cultural humility is perpetuating the continued national crisis of structural racism in obstetric care. Attempting to solve racism in healthcare is a continued battle from slavery until today; nonetheless, instituting scales in an arena with limited measure can be the start of holding healthcare providers accountable for lack of cultural humility when caring for AA obstetric patients.

A hospital offering maternity care to diverse populations will be the location where this project will be implemented. The types of providers include obstetricians, midwives, anesthesiologist, Certified Registered Nurse Anesthetists (CRNAs), RNs, medical students, and student registered nurse anesthetists (SRNAs). Unfortunately, there is no current process instilled to help hold healthcare providers accountable for "their way of being" with patients from diverse backgrounds on the maternity ward. Currently, all healthcare employees employed by the hospital are required to complete a cultural competence educational course yearly that is more geared toward cultural competence and not cultural humility. Therefore, implementing the CHS and MCHS cultural humility scales specifically on the maternity unit can help decrease and/or bring awareness to the disproportionate complications and deaths of AA maternal patients. Furthermore, it will help healthcare providers see a different viewpoint of themselves to see where they may need extra education and guidance in cultural humility.

Goals and Outcomes

To lead the development of the goal objectives, the acronym SMART was utilized. SMART details that the objectives should be specific, measurable, achievable, realistic, and timely.[5]

Specific

The MCHS and CHS cultural humility educational tools will be implemented to improve health care providers accountability and awareness for racial inequalities in healthcare in the minority obstetric population. In doing so, it can help to combat the disproportionate rate of AA maternal complications and mortality.

Measurable

Healthcare providers with higher scores on each cultural humility scale represent greater levels of cultural humility in the clinical setting. Representing cultural humility leads to positive patient outcomes that foster therapeutic relationships between patients and providers to reduce patient complications and mortality rates in diverse populations. The effectiveness of bringing awareness to healthcare providers' own biases can be calculated by the reduced percentage of diverse patients' complications and mortality rates.

Achievable

Anesthesia providers and all other healthcare professionals on the maternity unit collaborated on the obstetric unit to complete the cultural humility educational tools to help bring awareness to their own biases when caring for diverse patients.

Realistic

Anesthesia providers and all other healthcare professionals on the maternity unit were educated on the purpose of the cultural humility scales. Also, the anesthesia providers and all other healthcare providers were educated on the detrimental effects of their lack of awareness on the rising number of complications and deaths in AA maternal patients.

Timely

The CHS and the MCHS educational tools were both available for all healthcare professionals on the maternal unit within 6 months. The outcome of this initiative was as follows: within a 6-month period, anesthesia providers and all other applicable healthcare professionals on the obstetric unit completed both cultural humility scales and as a result will hold themselves accountable for their "way of being" with diverse patients. In doing so, culturally humble providers will lead to positive patient outcomes that foster therapeutic

relationships between patients and providers to reduce patient complications and mortality rates in diverse populations.

<div align="center">**Program Structure**</div>

Strengths

Implementation of both the CHS and MCHS educational tools can help to reduce the disproportionate rate of AA maternal mortality by holding obstetric healthcare providers accountable for their way of being with AA obstetric patients.[3] Once healthcare providers see their score on both scales whether it is high or low, they can then begin to become aware of their own biases and can start the path of becoming a culturally humble healthcare provider. Implementation of both cultural humility scales can also lead to ego-less providers and the elimination of power differentials.[3] Furthermore, the strengths of implementing the CHS and MCHS scales include the ability for healthcare providers to become humble and to obtain a deeper understanding of their patient's culture and background.[3]

Weakness

Unfortunately, the counseling setting is the only clinical setting that has implemented both cultural humility scales. Furthermore, both cultural humility scales have yet to be implemented in the hospital setting and specifically on an obstetrics unit where anesthesia is provided. Therefore, a weakness involves the inability to see prior outcomes of the implementation of both cultural humility scales in a hospital setting. Therefore, there is no way to compare the results of the upcoming intervention to prior results conducted in the same setting. Nevertheless, both scales have been implemented in counseling sessions with positive outcomes and a reduction of microaggressions toward diverse populations such as AA patients.

Another weakness may involve healthcare providers' lack of understanding between culturally competent care and culturally humble providers. It is important to understand that cultural competence and cultural humility are not interchangeable, and it is important to differentiate between the two terms. Cultural competence encompasses the provider's knowledge and skills of caring for diverse patients whereas cultural humility refers to the provider's way of being with diverse patients where there is no designated endpoint.[3] Therefore, providers who instill cultural humility negate the assumption that they hold competence for engaging with patients from all cultural backgrounds. Instead, culturally humble, and ego-less providers promote the elimination of all power differentials as deemed appropriate based on the patient's cultural worldview.[3] In doing so, a decrease in microaggressions and an increase in patient outcomes in diverse populations have been reported.

Opportunities

The implementation of the CHS and MCHS educational tools both provide opportunities for providers and patients to express their point of view. For instance, the CHS assesses a provider's level of cultural humility from the patient's point of view.[3] The CHS consists of a 12-item measure of positive characteristics and negative characteristics depicting superiority and making assumptions. Going forward, the MCHS is a provider-report scale that may be of use to measure clinicians' perceived cultural humility to better measure their understanding and self-awareness.[4] The MCHS consists of a 57-item scale for helping professions and is based on 5 dimensions of cultural humility: openness, self-awareness, ego-less, supportive interactions, and self-reflection and critiques. Both the CHS and MCHS scales offer unique opportunities because they will be implemented in a hospital setting and on an obstetric unit for the first time. Also,

both scales will provide not only the healthcare professionals' point of view of their cultural awareness but also the point of view of their patients.

Threats

Factors that may potentially harm the process or interfere with the program's ability to achieve its objectives must be evaluated.[5] For instance, risks to the program may include resistance to interventions that may bring out negative attributions of oneself as a healthcare provider. Unfortunately, it is common for medical professionals to obtain a sense of "know it all" and may not want to participate in an intervention that may shatter their ego and shine a light on their faults. Furthermore, some providers may score so low on the MCHS scale that they may feel that their occupation may be in jeopardy or that they are viewed as providing bias care to diverse patients such as AA obstetric patients. Also, healthcare professionals may not want to dabble in the conversation of race because it may be uncomfortable for them, or they may not want to get involved in such a sensitive topic. Lastly, the MCHS scale is composed of a 57-item scale and some providers may see this as being too long of a survey.

It is important to emphasize that even though healthcare professionals' biases may be brought to the surface, the overall purpose of the implementation of both cultural humility scales is to help healthcare professionals and to not ridicule. Both interventions will help to hold healthcare professionals accountable for their way of being with AA obstetric patients. Therefore, the first step to change is to become aware of one's own mishaps.

Organizational Factors

The implementation of both the CHS and MCHS scales was conducted using a collaborative team approach. We first determined the steps needed to get approval for both scales to be printed and distributed in the clinical setting. The research was conducted on how to

appropriately contact the creators of both cultural humility scales. In the evaluation phase, healthcare professionals on obstetric units were interviewed to obtain their input on how they felt after receiving their scores on both cultural humility scales. A summary of results for both scales was collected and evaluated. The report must be clear and include the description of both cultural humility scales, interventions utilized, purpose statement, methods used for data collection and analysis that includes the background and history about the clinical issues, tools used to collect information and how data was analyzed, major findings and conclusions, unanticipated and unexpected outcomes, design flaws, and recommendations to improve the program.

Definition of Terms

Cultural Humility

The term cultural humility is not interchangeable with cultural competence. Cultural humility refers to a provider's way of being with diverse patients where there is no designated endpoint.[4]

Health Disparity

According to the National Institute on Minority Health and Health Disparities, a health disparity (HD) is a health difference that adversely affects disadvantaged populations, based on one or more of the following health outcomes:

- Higher incidence and/or prevalence and earlier onset of disease

- Higher prevalence of risk factors, unhealthy behaviors, or clinical measures in the causal pathway of a disease outcome

- Higher rates of condition-specific symptoms, reduced global functioning, or self-reported health-related quality of life using standardized measures

- Premature and/or excessive mortality from diseases where population rates differ

- Greater global burden of disease using standardized metric[7]

Minority Health

According to the National Institute on Minority Health and Health Disparities, "minority health refers to ehe distinctive health characteristics and attributes of racial and/or ethnic minority groups… that can be socially disadvantaged due in part to being subject to potential discriminatory acts."[7]

Maternal Mortality

According to the Centers for Disease Control and Prevention, the term maternal mortality refers to "the death of a woman during pregnancy, at delivery, or soon after delivery."[8]

Methodology

Setting and Participants

This study took place in a hospital setting on an obstetric unit where a high proportion of minority patients receive treatment. There are 5 certified registered nurse anesthetists (CRNAs) on the unit along with over 10 obstetricians and a vast number of RNs, and advanced practice midwives. The hospital is in Broward County and some of the providers themselves, as well as the population they serve, are of diverse backgrounds.

Description of Approach and Project Procedures

The DNP project intervention began by inviting the professionals on the unit to participate in the study. A pretest/posttest design was used to measure self-reported cultural humility awareness by using the MCHS scale. Then, there was an attempt to have their patients complete the CHS scale to assess minority patients' perception of how their providers interacted with the patients. Data collected before the educational intervention included demographic information, years of practice, and history of previous knowledge of cultural humility. The

educational program discussed the difference between cultural competence and cultural humility, the importance of cultural humility on reducing AA maternal complications and mortality, and the importance of seeing their patient's point of view. The training was expected to have a duration of 90 minutes. After the educational segment, participants were asked to complete the MCHS again.

Protection of Human Subjects

All providers from the previously described hospital and obstetric unit were invited to participate via email. Should the Institutional Review Board (IRB) determine that this study poses more than minimal risk, participants consented via a HIPAA compliant online survey platform such as REDCap, Qualtrics, or Survey Monkey. Participants had the right to withdraw their consent at any time. The benefit of participation includes improving healthcare providers' knowledge on cultural humility, minority cultures, and self-reflection on their own awareness of how their care has affected minority patients and their health outcomes. Some participants may experience emotional distress when discussing topics such as race and ethnicity. No identifiable data was collected during this study; however, due to the size of the sample, participants may be identified through indirect identifiers. Data was stored in a password-protected online database and was only accessible to the primary investigator.

Data Collection

Demographic data to be collected included gender, race, ethnicity, and education. Additionally, participants were asked to provide an approximation of the number of years they have been practicing and whether they have previously received cultural humility training. If they have received prior training, they were asked to provide the approximate number of hours of

training. The data collected from each cultural humility educational tools was retrieved electronically for both pre/posttest questions.

Data Management and Analysis Plan

Data were stored in an electronic database. Only the primary investigator had the password to this database. No direct identifiers were collected in this investigation, and all results were reported in aggregate. Questionnaires were scored according to instructions provided by the MCHS and CHS developers. Means of the total scores and sub-scores were compared before and after the intervention.

Results

Demographics

The demographics of the participants are shown below in Table 1.

Table 1. Demographic Data

Demographic	n (%)
Total Participants (pretest)	5 (100%)
Gender	
Male	0 (0%)
Female	5 (100%)
Ethnicity	
Caucasian	1 (20%)
Hispanic	2 (40%)
African American	1 (20%)
Other	1 (20%)
Education	
Associate's	0 (0%)
Bachelor's	0 (0%)
Master's	0 (0%)
Other	5 (100%)
Position/Title	
CRNA	5 (100%)
Years of Precepting Experience	
1 to 2 years	0 (0%)
2 to 5 years	1 (20%)
5 to 10 years	0 (0%)
Over 10 years	4 (80%)

There was a total of 5 participants for the pretest. Only 2 participants completed the posttest. All participants were females ($n = 5$, 100%), and no males participated ($n = 0$, 0%). The ethnicities of the participants included Caucasian ($n = 1$, 20%), Hispanic ($n = 2$, 40%), African American ($n = 1$, 20%), and other ($n = 1$, 20%). The education level for all participants resulted in "other" ($n = 5$, 100%), and no participants selected associates ($n = 0$, 0%), bachelor's ($n = 0$, 0%), or master's degrees ($n = 0$%, 0%). The positions of all participants included CRNA ($n = 5$, 100%). The participants were asked about years of precepting experience, which ranged from 2 to 5 years ($n = 1$, 20%) and over 10 years ($n = 4$, 80%).

Pretest Knowledge Based Questions

Prior to receiving the educational module, the participants were asked a series of questions to gather a baseline assessment on their current knowledge. Only 20% ($n = 1$) of participants were able to identify where the U.S ranked in maternal mortality compared to other countries and 60% ($n = 3$) were able to identify that AAs are the biggest population affected by maternal mortality during childbirth in the U.S. Again, only 20% ($n = 1$) of participants were able to identify what percentage of deaths included AA women per 100,000 live births and 40% ($n = 2$) were able to identify the rate of Black infant mortality in today's clinical setting. One-hundred percent ($n = 5$) of participants were able to identify the population in Broward County with the greatest disparity of infant mortality, and 40% ($n = 2$) were able to rank the U.S. correctly on the Organization for Economic Cooperation and Development nations list for worst maternal mortality care. Twenty percent ($n = 1$) were able to identify structural racism as a large stressor that harms AA women physically, emotionally, and genetically, and 100% ($n = 5$) were able to identify the national importance of the care of maternal women. Forty percent ($n = 2$) of participants were able to identify factors that perpetuate minority maternal mortality, and 40% ($n = 2$) were able to define cultural humility. Only 20% ($n = 1$) were able to understand the effects of implemented the CHS and MCHS scales, 100% ($n = 5$) were able to identify the characteristics of providers who exhibit high levels of cultural humility and 40% ($n = 2$) understand what providers need to improve on based on the 5 factors of cultural humility.

Posttest Knowledge Based Questions

The posttest questions included the same questions from the pretest to gauge if knowledge was gained from the educational module. Unfortunately, only 2 out of the 5 participants from the pretest completed the posttest. Fifty percent ($n = 1$) of participants were

able to identify where the U.S. ranked in maternal mortality compared to other countries and

100% (*n* = 2) were able to identify that AAs are the biggest population affected by maternal

mortality during childbirth in the U.S. Unfortunately, 0% (*n* = 0) of participants were able to

identify what percentage of deaths included AA women per 100,000 live births and 50% (*n* = 1)

were able to identify the rate of Black infant mortality in today's clinical setting. One hundred

percent (*n* = 2) of participants were able to identify the population in Broward County with the

greatest disparity of infant mortality, and 50% (*n* = 1) were able to rank the U.S. correctly on the

Organization for Economic Cooperation and Development nations list for worst maternal

mortality care. Unfortunately, 0% (*n* = 0) were able to identify structural racism as a large

stressor that harms AA women physically, emotionally, and genetically and 100% (*n* = 5) were

able to identify the national importance of the care of maternal women. One hundred percent (*n*

= 2) of participants were able to identify factors that perpetuate minority maternal mortality and

100% (*n* = 2) were able to define cultural humility. One hundred percent (*n* = 2) were able to

understand the effects of implemented the CHS and MCHS scales; 100% (*n* = 2) were able to

identify the characteristics of providers who exhibit high levels of cultural humility and 100% (*n*

= 2) understand what providers need to improve on based on the 5 factors of cultural humility.

**Table 2.** *Differences in Pretest and Posttest Knowledge-Based Questions*

True Responses	*Pre-test (5) participants*	*Post-test (2 participants)*
Ranking the U.S. in maternal mortality compared to other countries – 46th	1 (20%)	1 (50%)
Identifying the biggest population affected by maternal mortality during childbirth in the U.S. - AA	3 (60%)	2 (100%)
Per 100,000 live births, what percentage of deaths included African American women – 40.4%	1 (20%)	0 (0%)
Black infants are dying how many times higher than non-Hispanic white babies – 2.3X	2 (40%)	1 (50%)
In Broward County, what population has the greatest disparity when	5 (100%)	2 (100%)

compared to total infant mortality – AA		
Rank the U.S. correctly on the Organization for Economic Cooperation and Development nations list for worst maternal mortality care – Second	2 (40%)	1 (50%)
What at large is a stressor that harms African American women physically, emotionally, and genetically – Structural racism	1 (20%)	0 (0%)
Acknowledge the national importance of the care of maternal women	5 (100%)	2 (100%)
Factors that perpetuate minority maternal mortality, complications, and biases – Victim blaming, systemic racism, healthcare provider bias, lack of accurate and consistent data on minorities	2 (40%)	2 (100%)
Defining Cultural Humility	2 (40%)	2 (100%)
Understanding the Implementation of the Cultural Humility Scale (CHS) and the Multidimensional Cultural Humility Scale (MCHS) in obstetric healthcare	1 (20%)	2 (100%
Able to identify the characteristics of providers who exhibit high levels of cultural humility	5 (100%)	2 (100%)
Understands what providers need to improve on based on the 5 factors of cultural humility	2 (40%)	2 (100%)

Discussion

Summary

The same knowledge-based questions were asked on the pretest and posttest to assess if the participants learned new knowledge after the educational module. More posttest questions were answered correctly. Nonetheless, only 2 participants out of 5 completed the posttest survey. Figure 1 shows that the overall knowledge was 49% on the pretest and 73% on the posttest, resulting in a 24% knowledge increase.

Figure 1 Pre/post test
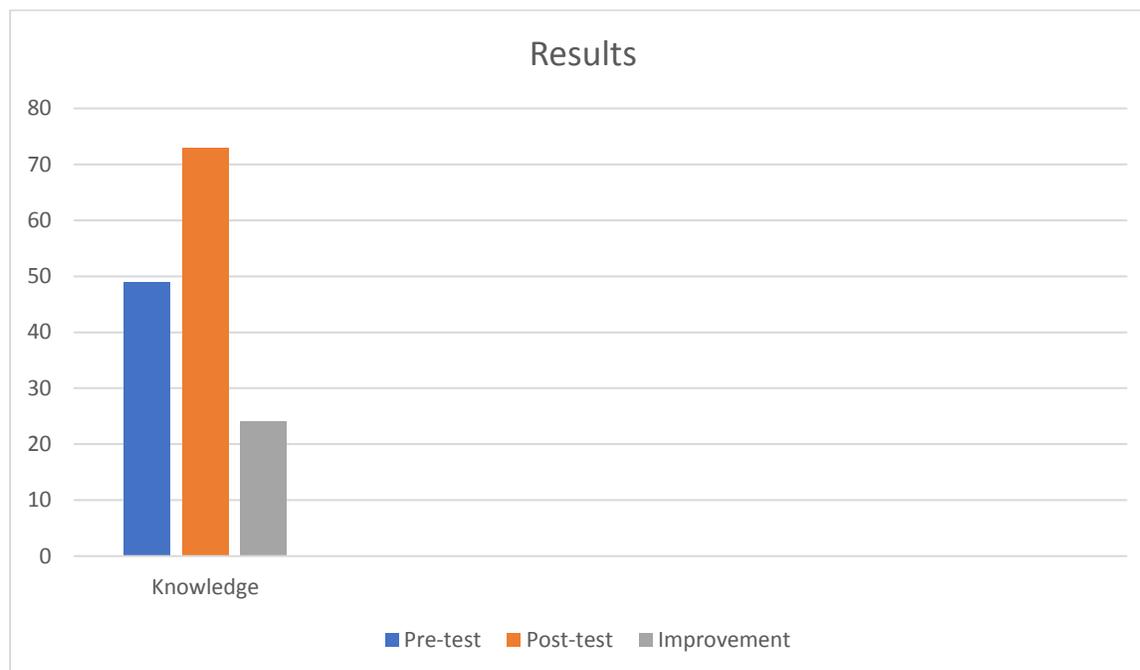
Limitations

Limitations would include a small sample size because even though emails were sent out

to a large population, only 5 participants participated in the pretest and only 2 participated in the

posttest. Also, time constituted a limitation because there were only 2 weeks to allow for

responses, and if more time was allotted, then maybe more people would have responded to the

survey. I also feel as though the survey had too many questions, and if the questions were

reduced from 14 to 10, then people may have completed both the pre- and posttest questions.

Implications to Advanced Nursing Practice

Overall, there was an increase in learning after the completion of the educational module,

which is the start to a long process of understanding cultural humility and the positive effects it

can have on minority obstetric patients. Cultural humility plays a vital role in improving

clinicians' way of being with minority patients and improving patient outcomes. Promoting

cultural humility is the proposed solution to hold obstetric healthcare providers accountable for their way of being with AA obstetric patients and to help combat the disproportionate rate of AA maternal mortality. Therefore, the educational module has taught healthcare providers about the increasing minority obstetric complications and has proven why it is so important to implement cultural humility tools in practice such as the CHS and the MCHS.

Plan for Sustaining the Practice Change

The goal to have both the MCHS and CHS educational tools utilized in obstetric units in hospitals in Broward County. In doing so, it can be the start of holding healthcare providers accountable for their way of being with diverse obstetric patients. Furthermore, the educational tools can help to reduce adverse treatment of minority obstetric patients. To sustain the utilization of both educational tools, I would encourage healthcare providers to utilize the tools for all patients as a part of their daily assessments. Therefore, it will become a part of their normal routine when assessing obstetric patients from all backgrounds. Another method that can help sustain this practice includes accessibility to both educational scales on all obstetric units and to also have them placed as visual aids in patient rooms and in the electronic medical record. Lastly, monthly meetings should be held to ensure that the educational tools are being utilized and to hear feedback from healthcare providers.

<div align="center">

Conclusion

</div>

The overall goal for creating an educational module on cultural humility and minority obstetric care was to increase the awareness of structural racism and provider bias on the detrimental effect it can have on patient outcomes. Furthermore, the educational module helps to advocate for an intervention to help combat provider bias by implementing the CHS and MCHS. Overall, healthcare providers with higher scores on each scale represent greater levels of cultural

humility. Both cultural humility scales can hold healthcare providers accountable for their way of being with AA obstetric patients. The implementation of both scales can bridge the gap between cultural humility and AA maternal mortality by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality. Clinicians who do not score high on both scales can be held accountable as to how their lack of cultural humility is perpetuating the continued national crisis of structural racism in obstetric care. Attempting to solve racism in healthcare is a continued battle from slavery until today, nonetheless instituting scales in an arena with limited measure can be the start of holding healthcare providers accountable for lack of cultural humility when caring for AA obstetric patients.

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Appendix A

IRB Approval

FIU | FLORIDA INTERNATIONAL UNIVERSITY

Office of Research Integrity
Research Compliance, MARC 414

MEMORANDUM

To:	Dr. Valerie Diaz
CC:	Micallia Wilson
From:	Elizabeth Juhasz, Ph.D., IRB Coordinator
Date:	March 17, 2022
Protocol Title:	"An Educational Module Explaining the Disparity Of Maternal Death In Persons Of Color: A Quality Improvement Project To Increase Self-Awareness Of the Nurse Anesthesiology Provider"

The Florida International University Office of Research Integrity has reviewed your research study for the use of human subjects and deemed it Exempt via the **Exempt Review** process.

IRB Protocol Exemption #:	IRB-22-0082	**IRB Exemption Date:**	03/17/22
TOPAZ Reference #:	111563		

As a requirement of IRB Exemption you are required to:

1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
3) Submit an IRB Exempt Project Completion Report Form when the study is finished or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at http://research.fiu.edu/irb.

EJ

Appendix B

Letter of Support

![ANESCO logo - Driving Results in Anesthesia]

February 1, 2022

CAPT Valerie Diaz, DNP, CRNA, APRN, NC USN

Clinical Assistant Professor,

Department of Nurse Anesthesiology Florida

International University

Dr. Diaz

Thank you for inviting Broward Health to participate in Doctor of Nursing Practice (DNP) project conducted by Micallia Wilson entitled "*An Educational Module Explaining the Disparity Of Maternal Death In Persons Of Color: A Quality Improvement Project To Increase Self-Awareness Of Nurse Anesthesiology Provider*" in the Nicole Wertheim College of Nursing and Health Sciences, Department of Nurse Anesthetist Practice at Florida International University. I have granted her permission to conduct the project using our providers.

Evidence-based practice's primary aim is to yield the best outcomes for patients by selecting interventions supported by the evidence. This project intends to evaluate if a structured education targeting providers will increase knowledge on the Disparity Of Maternal Death In Persons Of Color.

We understand that participation in the study is voluntary and carries no overt risk. All Anesthesiology providers are free to participate or withdraw from the study at any time. The educational intervention will be conveyed by a 15-minute virtual PowerPoint presentation, with a pretest and posttest questionnaire delivered by a URL link electronically via Qualtrics, an online survey product. Responses to pretest and posttest surveys are not linked to any participant. The collected information is reported as an aggregate, and there is no monetary compensation for participation. All collected material will be kept confidential, stored in a password-encrypted digital cloud, and only be accessible to the investigators of this study: Micallia Wilson and Dr. Diaz. We expect that Micallia Wilson will not interfere with normal hospital performance, behave in a professional manner and follow standards of care.

Prior to the implementation of this educational project the Florida International University Institutional Review Board will evaluate and approve the procedures to conduct this project. Once the Institutional Review Board's approval is achieved, this scholarly project's execution will occur over two weeks. We support the participation of our Anesthesiology providers in this project and look forward to working with you.

February 1, 2022

_____

Edward Punzalan, DNP, CRNA, APRN   Date

Administrative Director of Nurse Anesthesia

Healthcare Performance Anesco

Appendix C

Informed Consent

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UNIVERSITY

CONSENT TO PARTICIPATE IN A QUALITY IMPROVEMENT PROJECT
"Improve healthcare provider accountability and awareness for racial inequalities in minority obstetric care by utilizing cultural humility educational tools: A Quality Improvement Project"

SUMMARY INFORMATION
Things you should know about this study:

- **Purpose:** Educational module to improve healthcare providers accountability and awareness for racial inequalities in minority obstetric care by utilizing cultural humility educational tools.
- **Procedures:** If you choose to participate, you will be asked to complete a pre test watch a voice PowerPoint and then a post test
- **Duration:** This will take about a total of 20 minutes total.
- **Risks:** The main risk or discomfort from this research is minimal. There will be minimal risks involved with this project, as would be expected in any type of educational intervention, which may have included mild emotional stress or mild physical discomfort from sitting on a chair for an extended period of time, for instance.
- **Benefits:** The main benefit to you from this research is increase the participants knowledge in caring for minority obstetric patients by utilizing cultural humility educational tools.
- **Alternatives:** There are no known alternatives available to you other than not taking part in this study.
- **Participation:** Taking part in this research project is voluntary.

Please carefully read the entire document before agreeing to participate.

PURPOSE OF THE PROJECT
You are being asked to be in a quality improvement project. The goal of this project is to improve health care provider accountability and awareness for racial inequalities in minority obstetric care by utilizing cultural humility educational tools. You are being asked to participate in this quality improvement project.

DURATION OF THE PROJECT
Your participation will require about 20 minutes of your time. If you decide to participate you will be 1 of 10 participants.

PROCEDURES
If you agree to be in the project, we will ask you to do the following things:
If you agree to be in the study, we will ask you to do the following things:
1. Complete an online 10 question pre-test survey via Qualtrics, an Online survey product for which the URL link is provided

2. Review the educational PowerPoint Module lasting 10 minutes via Qualtrics, an Online survey product for which the URL link is provided.
3. Complete the online 10 question post-test survey via Qualtrics, an Online survey product for which the URL link is provided.

RISKS AND/OR DISCOMFORTS
The main risk or discomfort from this research is minimal. There will be minimal risks involved with this project, as would be expected in any type of educational intervention, which may have included mild emotional stress or mild physical discomfort from sitting on a chair for an extended period of time, for instance.

BENEFITS
The following benefits may be associated with your participation in this project: An increased understanding of caring for minority obstetric patients and the effects of healthcare provider accountability and awareness for racial injustice in healthcare.
The overall objective of the program is to increase the quality of healthcare delivery and improve healthcare outcomes for our patients.

ALTERNATIVES
There are no known alternatives available to you other than not taking part in this project. However, if you would like to receive the educational material given to the participants in this project, it will be provided to you at no cost.

CONFIDENTIALITY
The records of this project will be kept private and will be protected to the fullest extent provided by law. If, in any sort of report, we might publish, we will not include any information that will make it possible to identify you as a participant. Records will be stored securely, and only the project team will have access to the records.

PARTICIPATION: Taking part in this research project is voluntary.

COMPENSATION & COSTS
There is no cost or payment to you for receiving the health education and/or for participating in this project.

RIGHT TO DECLINE OR WITHDRAW
Your participation in this project is voluntary. You are free to participate in the project or withdraw your consent at any time during the project. Your withdrawal or lack of participation will not affect any benefits to which you are otherwise entitled. The investigator reserves the right to remove you without your consent at such time that they feel it is in the best interest.

RESEARCHER CONTACT INFORMATION
If you have any questions about the purpose, procedures, or any other issues relating to this research project, you may contact Micallia Wilson at 561-267-4642 at Mwils016@fiu.edu and Dr. Valerie Diaz at 305-348-9027 at vdiaz@fiu.edu.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights pertaining to being a subject in this project or about ethical issues with this project, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

PARTICIPANT AGREEMENT
I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. By clicking on the "consent to participate" button below I am providing my informed consent.

5. **Level of Education:** Associates   Bachelors   Masters

   Other _____

6. How many years have you been an anesthesia provide?

   Over 10   5-10 years   2-5 years   1-2 year

QUESTIONNAIRE

1. **The U.S is ranked _____ in maternal mortality compared to other countries?**

    a. 20th

    b. 46th

    c. 15th

    d. 10th

2. **What is the biggest population affected by maternal mortality during childbirth in the U.S?**

    a. African American

    b. Hispanics

    c. Caucasian

    d. Native Americans

3. **Per 100,000 live births, what percentage of deaths included African American women?**

    a. 40.4

    b. 30

    c. 60

    d. 20

4. **In today's clinical setting, black infants are dying how many times higher than non-Hispanic white babies?**

    a. 1

    b. 3

    c. 2.3

d. 4

5. **Infant mortality reflects maternal healthcare therefore, in Broward County, what population has the greatest disparity when compared to total infant mortality?**

    a. Hispanics

    b. Native-Americans

    c. African Americans

    d. Caucasian

6. **African American maternal death landed the U.S. _____ worst in maternal mortality on the Organization for Economic Cooperation and Development nations list?**

    a. First

    b. Second

    c. Third

    d. Fourth

7. **From the 1990s to today's current practice, research on African American maternal and infant health disparities has led to the conclusion that _____ at large is a stressor that harms African American women physically, emotionally, and genetically?**

    a. Personal neglect

    b. Lack of education

    c. Structural racism

8. **The care of maternal women has national importance because maternity care is the most frequent overall reason for hospitalization with cesarean sections being the most common surgery performed in medical facilities.**

    True or False

9. **Factors that perpetuate minority maternal mortality, complications, and biases?**

    a. Victim blaming

    b. Systemic racism

    c. Healthcare provider bias

    d. Lack of accurate and consistent data on minorities

    e. All the above

10. **Cultural Humility is defined as**

    a. The provider's knowledge and skills for caring for diverse patients

    b. The provider's way of being with diverse patients where there is no designated endpoint

    c. Providers who negate the assumption that they hold competence for engaging with patients from all cultural backgrounds

    d. Providers who promote the elimination of all power differentials as deemed appropriate based on the patient's cultural worldview and work collaboratively with patients to obtain a deeper comprehension of their culture and background

    e. B, C, and D

    f. B and D

11. **Implementation of the Cultural Humility Scale (CHS) and the Multidimensional Cultural Humility Scale (MCHS) in obstetric healthcare can result in:**

a. Holding healthcare providers accountable for their "way of being" with minority obstetric patients by measuring their openness to culturally diverse clients

b. Bridging the gap between cultural humility and minority maternal mortality, complications, and biases by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality

c. Leads to positive patient outcomes that foster therapeutic relationships between patients and providers to reduce patient complications and mortality rates

d. All the above

12. **Healthcare providers with high levels of cultural humility:**

a. Commit fewer racial microaggressions

b. Avoid cultural stereotypes

c. Promote positive relationships that are sensitive to cultural differences

d. Commit more racial microaggressions

e. A, B, C

13. **Healthcare providers who use the MCHS as a self-assessment tool can gain awareness on which of the 5 factors of cultural humility can be improved (openness, self-awareness, ego-less, supportive interactions, and self-reflection and critiques). Once providers become aware of which area needs to be strengthened then:**

a. they can pursue assistance through supervision and consultation on supplementing their identified dimension of weakness

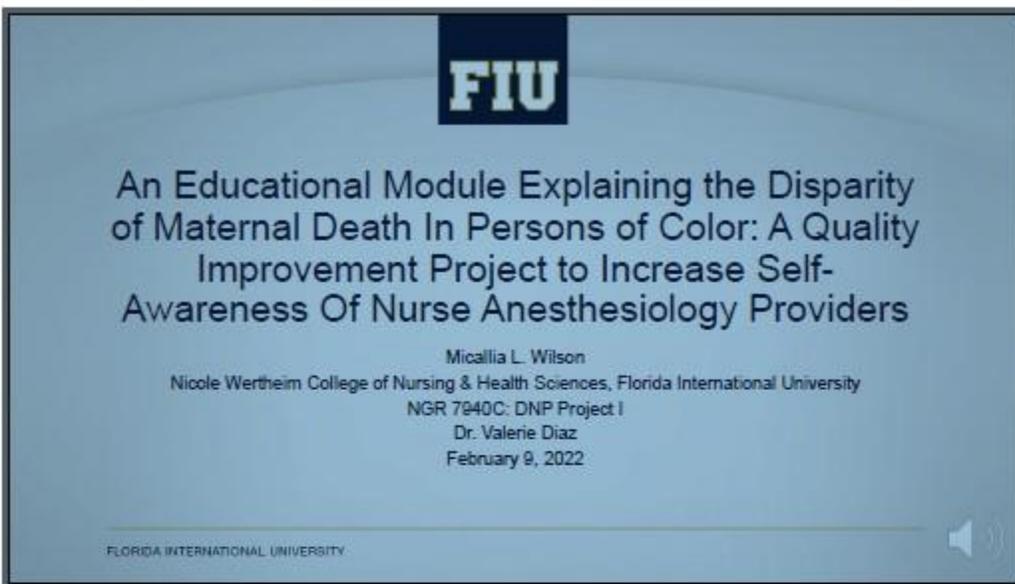b. They can use the measurement to determine their areas of strength when working with a diverse patient

    c. Utilize self-reflection to help curtail and improve their "way of being" with culturally diverse patients, in hopes of reducing minority mortality, complications, and biases

    d. All the above

14. How likely are you to recommend Cultural Humility educational practices?

    a. Most likely

    b. Somewhat likely

    c. Somewhat unlikely
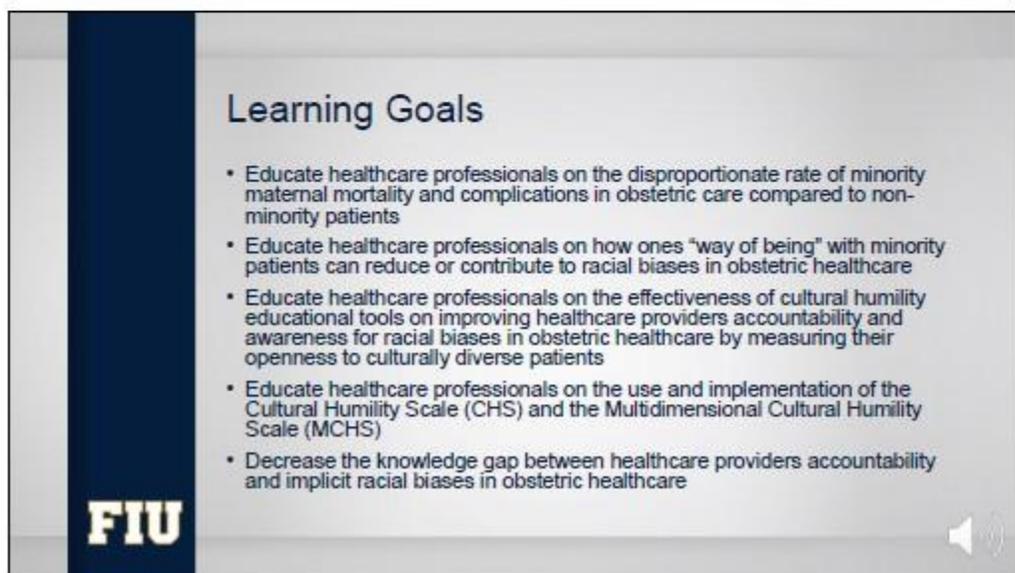
    d. Most unlikely

Appendix E

Educational Module

1

2

Background of Problem

- The U.S is ranked 46th in maternal mortality compared to other countries and the mortality rate has doubled since 1990.[1] Sadly, this ranking is magnified in the African-American (AA) population.
- Specifically, AA women are more likely to die in childbirth then white women.[1] The significance of the problem can be seen in the comparison of mortality ratios between white women, black women, and women of other races during childbirth
- There were 12.1 deaths per 100,000 live births for white women, 40.4 deaths for black women, and 16.4 deaths for women of other races.[1] Distressingly, black infants are dying 2.3 times higher than non-Hispanic white babies in today's clinical setting.[2]
- AA maternal death landed the U.S second-worst in maternal mortality on the Organization for Economic Cooperation and Development nations list.[1] From the 1990s to today's current practice, research on AA maternal and infant health disparities has led to the conclusion that structural racism at large is a stressor that harms AA women physically, emotionally, and genetically
- For instance, AA pregnant women living in a predominately non-AA community have a tendency to mentally bypass "signs" of complications and will negate medical attention until it is too late because of the impending emotional stress from previous experiences of racial discrimination in medical institutions in predominantly white neighborhoods

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3

Education of Problem
Maternal Deaths per 100,000 Live Births

MATERNAL DEATHS

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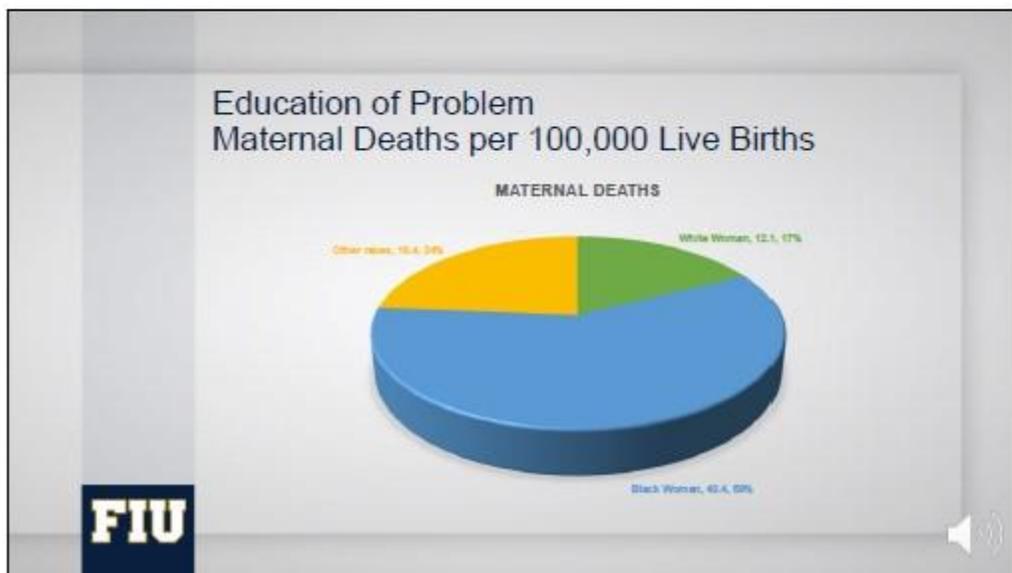
4

5

Education of Problem

- Lack of addressing the apparent systemic racism in obstetrics and gynecology, not only leads to more deaths in the AA patient population but also perpetuates the stigma that AA pregnant women are contributing to their own health problems.

- Victim blaming is an enormous consequence of this clinical problem. Also, the lack of accurate and consistent data for pregnant AA women has made it difficult to implement EBP guidelines to help bridge the gap between the deaths among white and non-white pregnant women and infants.

- If this clinical issue is not addressed, then AA women and infants will continue to die at a disproportionate rate and systemic racism will continue to oppress an already marginalized group in the one place where pain should be healed and not inflicted.

- Consequently, not addressing the structural racism, racial inequalities, and racial biases that still exist in health care can cause a national crisis because the care of maternal women has national importance due to maternity care being the most frequent overall reason for hospitalization with cesarean sections being the most common surgery performed in medical facilities.[3]

- In addition, Medicaid is responsible for half of all births in the United States (U.S.).[3] Therefore, when problems arise in obstetric care, it can seriously affect several individuals, stakeholders, and organizations. Going forward, a solution needs to be implemented to help reduce the disproportionate rate of AA maternal mortality, complications and biases in obstetric

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Intervention: Implementation of the Cultural Humility Scale (CHS) and the Multidimensional Cultural Humility Scale (MCHS) in Obstetric healthcare

- Goal: Completing the cultural humility scales will hold healthcare providers accountable for their "way of being" with minority obstetric patients by measuring their openness to culturally diverse clients

- In doing so, it can bridge the gap between cultural humility and AA maternal mortality, complications, and biases by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality

- Implementing cultural humility tools will create culturally humble healthcare providers who work collaboratively with patients to obtain a deeper comprehension of their culture and background[4]

- Overall, culturally humble providers lead to positive patient outcomes that foster therapeutic relationships between patients and providers to reduce patient complications and mortality rates[4]

- Healthcare providers who use the MCHS as a self-assessment tool can gain awareness on which of the five factors to improve on based on cultural humility (openness, self-awareness, ego-less, supportive interactions, and self-reflection and critiques). Once providers become aware of which area needs to be strengthened then they can pursue assistance through supervision and consultation on supplementing their identified dimension of weakness. Healthcare providers can also use the MCHS self-assessment tool to determine their areas of strength when working with diverse patients.[4]

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7

Cultural Competence Verses Cultural Humility

- It is important to differentiate between cultural competence and cultural humility

- Cultural competence encompasses the provider's knowledge and skills of caring for diverse patients whereas cultural humility refers to the provider's way of being with diverse patients where there is no designated endpoint

- Therefore, providers who instill cultural humility negate the assumption that they hold competence for engaging with patients from all cultural backgrounds

- Instead, culturally humble and ego-less providers promote the elimination of all power differentials as deemed appropriate based on the patient's cultural worldview[4]

- Culturally humble providers work collaboratively with patients to obtain a deeper comprehension of their culture and background[4]

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8

Creating Culturally Humble Providers
Cultural Humility Scale (CHS) – measuring openness to culturally diverse patients

- Assesses a provider's level of cultural humility from the patient's point-of-view[3]
- Consist of a 12-item measure of positive characteristics and negative characteristics depicting superiority and making assumptions[4]
- The items are rated on a six-point Likert scale that ranges from strongly disagree to strongly agree[4]
- Overall, healthcare providers with higher scores represent greater levels of cultural humility
- Instructions on the use of the CHS for patients: please think about your counselor (provider). Using the scale, please indicate the extent to which you agree or disagree with the following statements about your counselor (provider). Positive subscale items, 1,2,3,4,5, 7, 9, 12 and Negative subscale items: 3,6,8,10,11

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Cultural Humility Scale

Regarding the core aspect(s) of my cultural background, my counselor (provider)...	Strongly Disagree (1)	Mildly Disagree (2)	Neutral (3)	Mildly Agree (4)	Strongly Agree (5)
1. Is respectful.	1	2	3	4	5
2. Is open to explore.	1	2	3	4	5
3. Assumes he/she already knows a lot.	1	2	3	4	5
4. Is considerate.	1	2	3	4	5
5. Is genuinely interested in learning more.	1	2	3	4	5
6. Acts Superior.	1	2	3	4	5
7. Is open to seeing things from my perspective.	1	2	3	4	5
8. Makes assumptions.	1	2	3	4	5
9. Is open-minded.	1	2	3	4	5
10. Is a know-it-all.	1	2	3	4	5
11. Thinks he/she understands more than he/she actually does.	1	2	3	4	5
12. Asks questions when he/she is uncertain.	1	2	3	4	5

10

Part 2:
Creating Culturally Humble Providers

- The Multidimensional Cultural Humility Scale (MCHS)
- A provider-report scale that may be of use to measure clinician's perceived cultural humility to better measure their understanding and self-awareness[4]
- Consists of a 57-item scale for helping professions based on five dimensions of cultural humility: openness, self-awareness, ego-less, supportive interactions, and self-reflection and critiques
- The MCHS is rated on a six-point Likert scale ranging from strongly disagree to strongly agree
- Overall, healthcare providers with higher scores represent greater levels of cultural humility

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The Multidimensional Cultural Humility Scale (MCHS)

Dimension	Items
Openness	I am comfortable asking my clients about their cultural experience. (1)
	I seek to learn more about my clients' cultural background. (2)
	I believe that learning about my clients' cultural background will allow me to better help my clients. (4)
Self-Awareness	I seek feedback from my supervisors when working with diverse clients. (11)
	I incorporate feedback I receive from colleagues and supervisors when I am faced with problems regarding cultural interactions with clients. (13)
	I am known by colleagues to seek consultation when working with diverse clients. (14)
Ego-less	I ask my clients about their cultural perspective on topics discussed in session. (12)
	I ask my clients to describe the problem based on their cultural background. (27)
	I ask my clients how they cope with problems in their culture. (28)
Supportive Interactions	I wait for others to ask about my biases for me to discuss them. (reverse coded) (42)
	I do not necessarily need to resolve cultural conflicts with my client in counseling. (Reverse coded) (43)
	I believe the resolution of cultural conflict in counseling is the clients' responsibility. (Reverse coded) (44)
Self-Reflection and Critique	I enjoy learning from my weaknesses. (49)
	I value feedback that improves my clinical skills. (50)
	I evaluate my biases. (50)

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Summary

- Overall, healthcare providers with higher scores on each scale represent greater levels of cultural humility
- Both cultural humility scales can hold healthcare providers accountable for "their way of being" with minority obstetric patients by measuring their openness to culturally diverse clients
- The implementation of both scales can bridge the gap between cultural humility and minority maternal mortality, complications and biases by bringing awareness to providers as to how they truly care for diverse patients based on power, privilege, bias, and racial inequality
- Healthcare providers who do not score high on both scales can be held accountable as to how their lack of cultural humility and lack of openness to culturally diverse patients is perpetuating the continued national crisis of structural racism in obstetric care
- Therefore, low scoring healthcare providers have an opportunity to reflect on their own behaviors based on patient feedback and based on their own perceptions of their behavior to help curtail and improve their "way of being" with culturally diverse patients, in hopes of reducing minority mortality, complications, and biases

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13

Summary

- Furthermore, healthcare providers who scored low on the MCHS cared for minority patients that had poor health outcomes
- Conversely, healthcare providers who scored high on the MCHS educational tool had positive patient outcomes for diverse populations and committed fewer racial microaggressions and cultural stereotypes thus promoting a positive therapeutic relationship that is sensitive to cultural differences
- As a result, implementing cultural humility self-assessment scales in obstetric units can be the start of reducing minority maternal mortality, complications and biases in healthcare by creating culturally humble providers. The MCHS can also help healthcare providers gain insight into improving the five factors of cultural humility
- Obstetric care is already a national importance and in Broward county Black women exhibited higher pregnancy-related mortality ratios (PRMRs) than non-Hispanic White or Hispanic women. Therefore, implementation of the CHS and MCHS is imperative to increase minority maternal patient satisfaction and healthcare outcomes
- Attempting to solve racism in healthcare is a continued battle from slavery until today, nonetheless instituting scales in an arena with limited measure and with an abundance of minority patients can be the start of holding healthcare providers accountable for their lack of cultural humility when caring for minority obstetric patients

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