



An Initiative to Improve Cultural Competence among GYN/OB Providers

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An Initiative to Improve Cultural Competence among GYN/OB Providers

Abstract

Healthcare cultural competence is defined as a process of delivering care by meeting the social, cultural, and linguistic needs of diverse populations, and should be optimized at all organizational levels to reduce racial disparities and poor patient outcomes. The American College of Obstetrics and Gynecology (ACOG) recognizes the importance of cultural competence and states that research should be conducted to identify and combat barriers that impede equitable care. In this prospective, pre- and post-intervention study design, we used the Healthcare Provider Cultural Competence Instrument (HPCCI) to measure five dimensions of cultural competence within the Department of Gynecology and Obstetrics in a large academic medical center. The intervention was a single Grand Rounds educational presentation on cultural diversity. Baseline survey response rate was 64%. Post-intervention survey response rate was 30%. Post-intervention survey results showed that cultural competence increased by statistically significant amounts across all five dimensions. Our results show an effective and feasible method to assess baseline cultural competency in a large interprofessional clinical department. Our results also indicate that a single intervention may have some positive impact on levels of cultural competence for a diverse interprofessional health care team.

Keywords

cultural competence, provider, disparities, women, healthcare

Cover Page Footnote

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ABSTRACT

Healthcare cultural competence is defined as a process of delivering care by meeting the social, cultural, and linguistic needs of diverse populations, and should be optimized at all organizational levels to reduce racial disparities and poor patient outcomes. The American College of Obstetrics and Gynecology (ACOG) recognizes the importance of cultural competence and states that research should be conducted to identify and combat barriers that impede equitable care. In this prospective, pre- and post-intervention study design, we used the Healthcare Provider Cultural Competence Instrument (HPCCI) to measure five dimensions of cultural competence within the Department of Gynecology and Obstetrics in a large academic medical center. The intervention was a single Grand Rounds educational presentation on cultural diversity. Baseline survey response rate was 64%. Post-intervention survey response rate was 30%. Post-intervention survey results showed that cultural competence increased by statistically significant amounts across all five dimensions. Our results show an effective and feasible method to assess baseline cultural competency in a large interprofessional clinical department. Our results also indicate that a single intervention may have some positive impact on levels of cultural competence for a diverse interprofessional health care team.

Keywords: cultural competence, provider, disparities, women, healthcare

INTRODUCTION

Over the past three decades as the worldwide healthcare industry has innovated and developed, new technologies and economic structures have emerged. Particularly in the United States, the healthcare industry serves a multi-cultural population that is demographically, ethnically, and racially diverse. One of the many challenges healthcare providers face is understanding these demographic, social, technological, and economic factors, and how they impact patient care.

Health disparities are described as higher incidents of disease or mortality in certain racial, ethnic or socioeconomic groups relative to others. A landmark report written by the Institute of Medicine (IOM) (2003) entitled, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare* concluded that even when controlling for socio-economic factors, minorities experienced unequal treatment during clinical encounters within the healthcare environment. The origins of this disparity are multi-factorial, occurring anywhere along the continuum of care at the provider, organizational, or system-level. Moreover, the Agency for Healthcare Research and Quality (AHRQ) stresses that healthcare systems continue to fall short when addressing inequalities among Blacks, Hispanics, Native Americans/Asian Americans, and Pacific Islanders when compared with their White counterparts (AHRQ, 2018).

Beyond ethnicity and race, women are further subjected to inequalities in care as their healthcare outcomes also demonstrate disparities in morbidity and mortality. It is important to acknowledge and understand the lived experience of minority women to understand how structural racism has contributed to health outcomes in gynecology and obstetrics. There are documented cases which describe the misuse of Black women as subjects of medical and surgical experimentation. Dr. James Marion Sims, heralded as the founding father of gynecology, advanced the field through his painful surgical experimentation on unanesthetized Black enslaved women (Ojanuga, 1993). The damaging abuse and mistreatment of women of color throughout history has contributed to their high level of mistrust in the health care system, which in turn has increased their fear of accessing care and their resistance to obtaining vaccines, which demonstrably has resulted in poorer health outcomes (Okorodudu & Okorodudu, 2021; Savitt, 1982).

The American College of Obstetricians and Gynecologists (ACOG) reports that racial and ethnic healthcare disparities are ubiquitous and obstinate in obstetric and gynecologic patients. Incidents of infertility, unintended pregnancy, sexually transmitted infection, and gynecologic cancer are disproportionately higher in non-White women when compared with incidents in similar populations of White women (ACOG, 2015). Additionally, there continues to be an increased rate of maternal morbidity and mortality in Black women, with significant attention to the three-to-four-fold increased risk of maternal mortality among Black mothers (Howell, 2018; Peterson et al., 2019).

Cultural diversity extends beyond race and ethnicity. Significant health disparities occur in all populations based on any single or combination of factors: genetics, religion, culture, history, language, age, disability, sexual orientation, gender identity, socio-economic status, demographics, and geographic location, which add to the complexity of caring for patients. There is a dire need for healthcare providers to meet the social, cultural, and linguistic needs of all patients within healthcare systems. For example, 23% of transgender persons reported that they did not seek needed medical care because they fear being mistreated (ACOG, 2021). ACOG

recommends that obstetrician–gynecologists strive to make their offices open to and inclusive for all individuals, and should seek their own educational resources in order to enhance their awareness and personal approach to health care disparities in their individual practices and health care system (ACOG, 2021).

Provider Cultural Competence

Healthcare provider cultural competence is defined as a process of delivering healthcare by meeting the social, cultural, and linguistic needs of diverse populations. Although most health care providers desire to provide culturally sensitive care, unintentional biases can account for care interactions that lead to healthcare disparities (FitzGerald & Hurst, 2017). Recognizing and addressing the shortcomings in healthcare practitioner cultural competency is imperative as our world continues to shift, and increasing cultural competency at the individual and institutional level is necessary to herald quality of care improvements and better healthcare outcomes in the coming decades. To improve healthcare delivery to our growing diverse populations, providers at all levels need to become more culturally competent, able to tailor care, and address social determinants of health for all patients.

One critical requirement for reducing disparities in healthcare outcomes is emphasizing and increasing provider cultural competence, which should occur at all levels of a healthcare organization to reduce racial disparities and poor patient outcomes (American Hospital Association, 2020). Previous studies and analyses demonstrate the correlation between improved health outcomes and higher levels of cultural competence among health care providers (Heitzler, 2017; Jongen et al., 2018; Slobodin et al., 2020).

ACOG issued a statement connecting culturally competent medical care to improved women’s healthcare outcomes, recognizing that obstetric and gynecologic teams need to promote awareness of racial and ethnic disparities, adopt federal standards to identify disparities, and conduct research to recognize barriers that impede equitable care (ACOG, 2015).

Our Department of Gynecology and Obstetrics (GYN/OB) has been adopting strategies to improve overall women’s health outcomes with specific efforts to decrease health care disparities. We had previously implemented the Alliance for Innovation on Maternal Health (AIM) patient safety bundles* by the National Partnership for Patient Safety workgroup within the Council on Patient Safety in Women’s Health Care that address Postpartum Hemorrhage and Severe Hypertensive disease, two major causes of maternal morbidity and mortality (Health Resources & Services Administration, 2020). In 2019, we set out to implement another AIM patient safety bundle; this one focused on reducing peripartum racial and ethnic disparities. Each patient safety bundle has four themes: 1) Readiness, 2) Recognition/Prevention, 3) Response, and 4) Reporting/Systems Learning that underlie efforts to improve patient outcomes. Five themes prevail in the AIM Reduction of Peripartum Racial and Ethnic Disparities Patient Safety Bundle: 1) Inability to assess disparities because they are not reliably measured, 2) Lack of recognition of disparities at the personal and system level, 3) Specific knowledge of the magnitude of racial and ethnic disparities that exist within a health care system, 4) Communication barriers, and 5) Differences in structures of care/fragmentation of care (Howell et al., 2018).

*A bundle is not a checklist. A bundle is a small set of critical evidence-based all-or-nothing processes which together support the delivery of patient care. Every bundle contains specific elements that make it unique. Each of the 3 to 5 processes included in a bundle are determined by scientific Level 1 evidence. If there are 4 elements and one is removed, the outcome will not be the same and the patient will not have the same chance of health improvement. A

bundle ties together a specific set of patient intervention best practices that must be followed for every patient, every time, in the same order. When performed collectively, reliably, and uniformly, at the same time, and in the same place, the bundle improves patient health outcomes. Accountability for the execution of the bundle lies with the attending provider or the team and must be clearly documented (Haraden, 2021).

The Challenge

In our effort to implement this AIM bundle that focuses on reducing disparities, one of our priorities was to assess and improve the cultural competence of providers in our department. At our large, academic medical center serving a diverse patient community, there is currently no quantitative data to describe the cultural competence of the interprofessional staff who provide care to women seeking gynecologic or obstetric care. This was a concerning knowledge deficit since significant health disparities tied to race and culture are persistent (Cogburn, 2019; Heitzler, 2017; Phelan & Link, 2015), and provider cultural competence is linked to improved patient outcomes.

Strategies to Improve Cultural Competency

Competence and competency differ, and so do the means of their assessment. A competence assessment *evaluates* a caregiver's potential knowledge and skills. A competency assessment *verifies* a caregiver's ability to perform and apply knowledge, to integrate knowledge and skills, and to follow established standards of care, policies and procedures in a given situation (McConnell, 2001). Achieving cultural competence among healthcare staff demands cultural openness, awareness, desire, knowledge, behavioral change, and sensitivity to the construct of cultural competence. However, it may be that observed characteristics tend to be outwardly exhibited by clinical team members only for superficial gains, such as social acceptance, and may not reflect true and consistent attitude and behavior. Attaining and maintaining true cultural competence requires formal and purposeful education about culture and ethics which leads to high levels of moral reasoning by staff members (Henderson et al., 2018). Many cultural competence training approaches examine methods used to teach cultural diversity and how those methods correlate with the changed cultural competence at the conclusion of training (McLennon et al., 2019). Much of the work being completed is either from the angle of developing a community outreach program to improve health care of a specific population, or from the view of focusing on one discipline within health care team (Barlow et al., 2018; Campbell et al., 2018). Some studies conclude that physicians need to improve their knowledge and skills training to become culturally competent (Jernigan et al., 2016; Ohana & Mash, 2015; Paez et al., 2009), while other studies address how nurses need to enrich and diversify their education through the cultivation of cultural competence training (Heitzler, 2017; Kaihlanen et al., 2019; Young & Guo, 2016). While these studies are beneficial, there has been little to no inquiry which focuses on all the interprofessional staff who collaboratively provide care to patients in the field of women's health.

The Cultural Competence Project

We recognize that members of our department share both conscious and unconscious attitudes and behaviors that may contribute to health disparities. To more fully understand how cultural competence levels impact care at our facility, we offered our GYN/OB practitioners the opportunity to participate in a comprehensive assessment of their cultural competence. The Cultural Competence Project was conducted in our GYN/OB department, which serves a diverse population that is susceptible to health care disparities. High patient acuity and complexity promote the need for strong team dynamics spanning across disciplines, departments and entities within our healthcare system. The interprofessional team works together to provide comprehensive

gynecologic and obstetric patient care. Stakeholders include physicians, nurses, advanced practice providers, social workers, leadership (chairman and division directors, nursing director, assistant directors and nurse educators), clinical associates, technicians, and medical assistants. During this project, providers represented both inpatient and ambulatory settings within the department. All providers were invited to participate in a 1) pre- and 2) post-survey of cultural competence and 3) engage in a Grand Rounds educational presentation, which was the intervention that focused on improving the cultural competence of GYN/OB department providers.

The Model

The Conceptual Model of Cultural Competence designed by Schwarz et al. (2015) provides a multifaceted approach to assessing meaningful culturally competent interactions between providers and diverse patient populations (Figure 1). This conceptual model is composed of five dimensions: 1) *awareness/sensitivity*, 2) *behavior*, 3) *patient-centered communication*, 4) *practice orientation*, and 5) *self-assessment*.

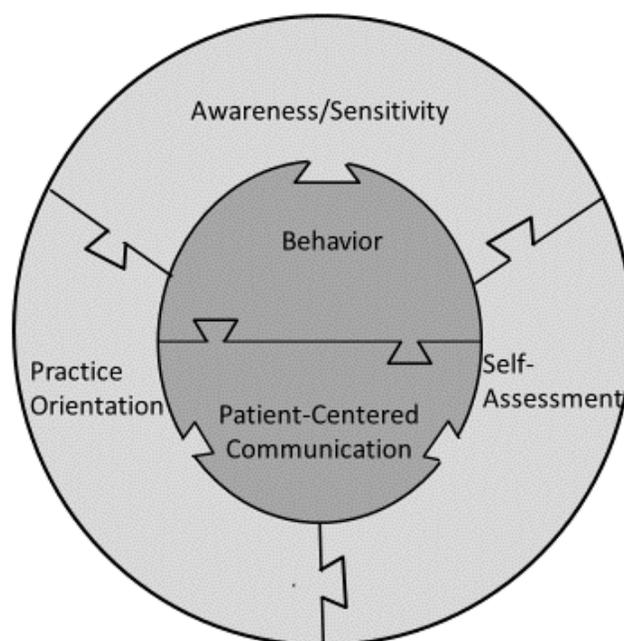


Figure 1: The Conceptual Model of Cultural Competence

Schwarz, J. L., Witte, R., Sellers, S. L., Luzadis, R. A., Weiner, J. L., Domingo-Snyder, E., & Page, J. E. (2015) (Used with permission).

Awareness and sensitivity (AS). In a perfect world, healthcare providers would be cognizant of their own cultural values, beliefs, personal identities, and ideals in order to acknowledge and appreciate the differences that others possess (awareness). Once providers become aware of their cultural environment, they can begin to better understand the existence of differences and similarities in the culturally diverse populations they serve (sensitivity) (Lin et al., 2017). The challenge for providers is to understand the differences and similarities of certain groups while engaging and appreciating the uniqueness of every patient encounter. The face of cultural diversity is experienced differently by every provider. As providers become more cognizant of their

attitudes, values, beliefs and perceptions, they will be better able to recognize that their personal views can, and do influence the healthcare and outcomes of the patients they serve.

Behavior (BR). This dimension is regarded as a central component of the model and describes how providers conduct themselves in response to each patient's attitudes and beliefs. Purnell et al. (2018) found that providers do not readily engage in behavior or possess the skills to address the cultural or social needs of their patients which is why interpersonal behaviors, attitudes and conscious beliefs among providers contribute to healthcare disparities among minority patients. Provider cultural education is key, for it may have a direct effect on whether a patient takes action to remedy their ailment (Abrishami, 2018).

Patient-centered communication (PCC). This dimension complements behavior, the other center-of-model component. Providers must consider the ideals, beliefs and values expressed by their patients to encourage participation in their own healthcare. Providers who actively listen to their patients' comments and suggestions, and incorporate these into care, increase patient satisfaction in the individual health care interaction and promote high quality of care (Hashim, 2017; Saha et al., 2008).

Practice orientation (PO). Awareness/sensitivity, behavior, and patient-centered communication encompass this dimension. A practice orientation focused on patients incorporates the patient's preferences, beliefs, values and needs in decision making instead of unilateral presumptions that lack awareness or sensitive consideration of patient needs. The concept of "we" rather than "I" encourages a relationship that fosters better communication, trust, satisfaction and adherence to needed care for the patient (Fuertes et al., 2007; Schwarz et al., 2015).

Self-assessment (SA). The last dimension of this model addresses the provider's ability to reflect on her or his own biases. Hall et al. (2015) suggested that healthcare providers demonstrate behaviors that support positive attitudes toward White patients and demonstrate negative biases toward non-Whites. Understanding one's own unconscious and conscious biases can enable a person to identify one's prejudices and develop a strategy to focus on personal cultural competence development and professional training. Self-assessment is a vital step toward cultural competency (Bernhard et al., 2015).

The five dimensions of this model guide the operational definition of cultural competence. In this project, we use the key dimensions of this model to assess cultural competence among providers within our GYN/OB Department.

METHODS

This quality improvement study was conducted in the GYN/OB Department of a large academic medical center. The project design involved three phases: 1) a pre-survey to assess baseline cultural competence of department professionals, followed by 2) a Grand Rounds educational cultural competence presentation, and 3) a post-survey to gauge any changes in baseline cultural competence. Approval for this undertaking was granted by our institution IRB and all the medical and nursing leaders within the GYN/OB Department.

The tool to measure cultural competence of our departmental providers needed to be publicly available and validated specifically in the healthcare context. The tool chosen was the Healthcare Provider Cultural Competence Instrument (HPCCI) (Schwarz et al., 2015) which assesses the five dimensions of the Conceptual Model of Cultural Competence already presented: 1) Awareness/Sensitivity, 2) Behavior, 3) Patient-Centered Communication, 4) Practice

Orientation, and 5) Self-Assessment. The HPCCI tool comprises 48 questions. Answers are measured on a 5-point Likert scale, with higher numbers indicating greater levels of cultural competence.

Sample questions across the 5 dimensions include:

Awareness and sensitivity: “People with a common cultural background think and act alike,” and “If I know about a person’s culture, I do not need to assess their personal preferences for health services.”

Behavior: “I include cultural assessment when I do client or family evaluations,” and “I recognize potential barriers to service that might be encountered by different people.”

Patient-centered communication: “When there are a variety of treatment options, how often do you give the client and their family a choice when making a decision?” and “When there are a variety of treatment options, how often do you ask the client and their family to take responsibility for their treatment?”

Patient orientation: “The health care provider is the one who should decide what gets talked about during a visit,” and “If health care providers are truly good at diagnosis and treatment, the way they relate to client and their family is not that important.”

Self-assessment: “The use of effective interpersonal skills is very important in working with my clients and their families,” and “I attempt to demonstrate a high level of respect for clients and their families.”

To view all the questions for each of these dimensions in the HPCCI instrument, see Schwarz et al., (2015). The reliability and validity of the instrument was established for a wide variety of healthcare professionals in Schwarz et al. (2015), with Cronbach’s alpha for the 5 scales at 0.79, 0.93, 0.76, 0.72 and 0.92, respectively. Strong factor loadings and generally low cross factor loadings were also established.

Within our GYN/OB Department, there are a total of 479 staff: nurses, advanced practice providers, residents, fellows, faculty physicians, and front-line ancillary staff, all of whom are defined as providers for this initiative. Each of the providers in this department delivers direct care to patients. The HPCCI pre-survey was made available to all 479 members of the GYN/OB Department by email which included a link to an on-line survey. Department members were sent frequent email reminders and heard many in-person reminders during team-based rounds to complete the pre-survey. All members of the Department were invited to attend a Grand Rounds presentation on cultural diversity presented by the institution’s Chief Diversity Officer who was provided a high-level summary of the results of the pre-survey to prepare for the Grand Rounds presentation. A video recording was made available for those who were unable to be present for the presentation.

To accurately evaluate the delta (the change) from the pre- to the post-test and still preserve the anonymity of all survey respondents, the researchers linked responses from the pre- and post-measures by coding respondent surveys. To accomplish this, a set of three questions was designed to uniquely and anonymously identify each respondent. On both pre- and post-surveys, respondents were asked to identify the two-digits of their birth month, the first two digits of their street address, and the last two digits of their phone number. This was to create a unique 6-digit number to match pre- and post-surveys. Surprisingly, this method resulted in several duplicate numbers which was mitigated by matching answers to demographic questions.

As an incentive to participate, an Apple iPad was gifted to a random selection of 10 department providers who 1) self-identified as having completed the pre-training survey, 2) self-identified as having viewed the Grand Rounds presentation by the Chief Diversity Officer, and 3) self-identified as having completed the post-training survey.

Qualtrics was the software tool used to collect pre- and post-survey responses. Statistical significance was defined by both a p value of $> .05$ and $.01$ level for two-sided t test. All the analyses were conducted using IBM SPSS Statistics.

RESULTS

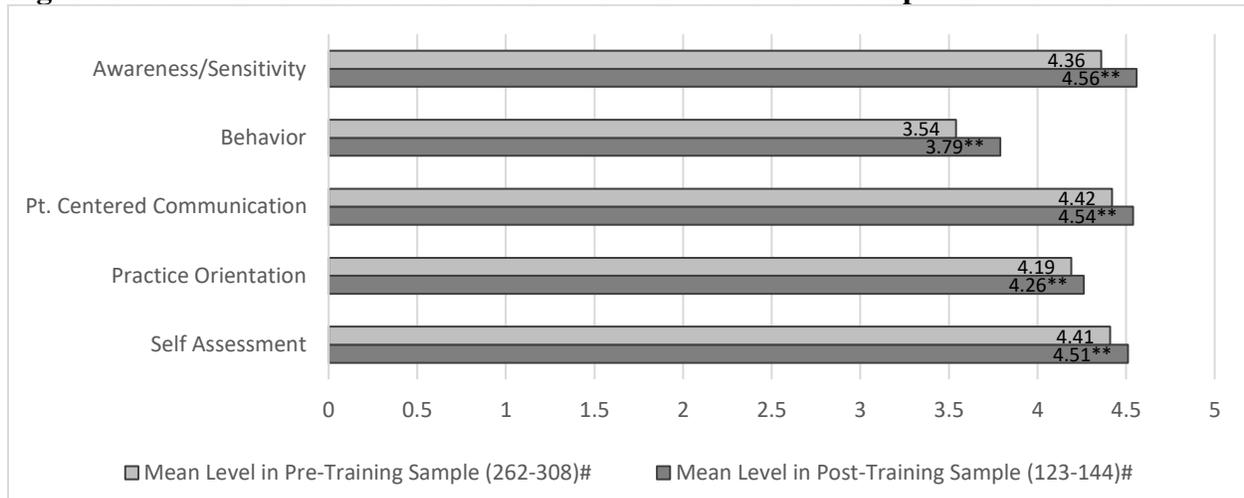
Of the entire GYN/OB population ($n=479$), 387 (81%) completed at least one survey. A total of 308 departmental providers completed the pre-survey for a response rate of 64%. A total of 243 completed *only* the pre-survey and not the post-survey. We received 144 responses to the post-survey, for a response rate of 30%. Seventy-nine providers completed only the post-survey. A total of 65 participants matched pre- and post-survey data; only 8 of the 65 had not actually viewed the Grand Rounds presentation.

Table 1: Number of Respondents to Each Aspect of the Project

Aspect of Study	# of Respondents
Total GYN/ OB Provider Population	479
Completed the Competency Survey at least once (pre-only, post-only, both pre & post)	387
Pre- Grand Rounds Survey Respondents	308
Pre-only Respondents	243
Post- Grand Rounds Survey Respondents	144
Post-only Respondents	79
Matched Pre-Post Respondents	65
Viewed Grand Rounds “Live” on Zoom	70
Viewed Grand Rounds “Recorded” on own time	63

Across all five dimensions, there was a statistically significant increase ($p < 0.05$) in measures of cultural competence for all participants who completed the pre- and/or post-survey (see Figure 2). This analysis includes all 308 respondents to the pre-survey and all 144 respondents to the post-survey.

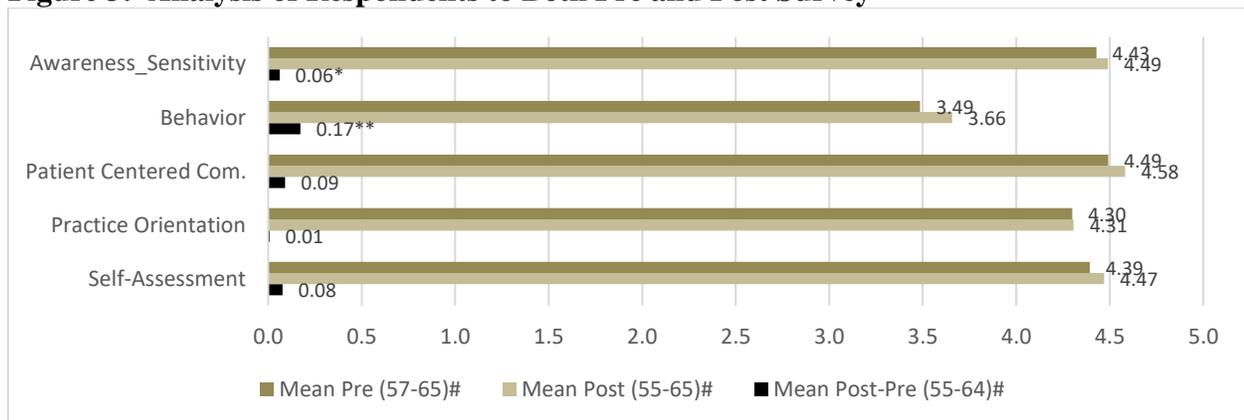
Figure 2: Overall Mean Pre & Post Grand Rounds Cultural Competence Measures



Note. * = Statistically significant difference at .05 level.
 ** = Statistically significant difference at .01 level.
 # = Range indicates differing number of respondents to Cultural Competence constructs

Before we concluded that the Grand Rounds educational intervention influenced the increase in cultural competence observed in Figure 2, we looked for other potential confounders. To isolate the effect of actually viewing the Grand Rounds training, we analyzed only the 65 providers who responded to both the pre- and post-surveys (See Figure 3).

Figure 3: Analysis of Respondents to Both Pre and Post Survey



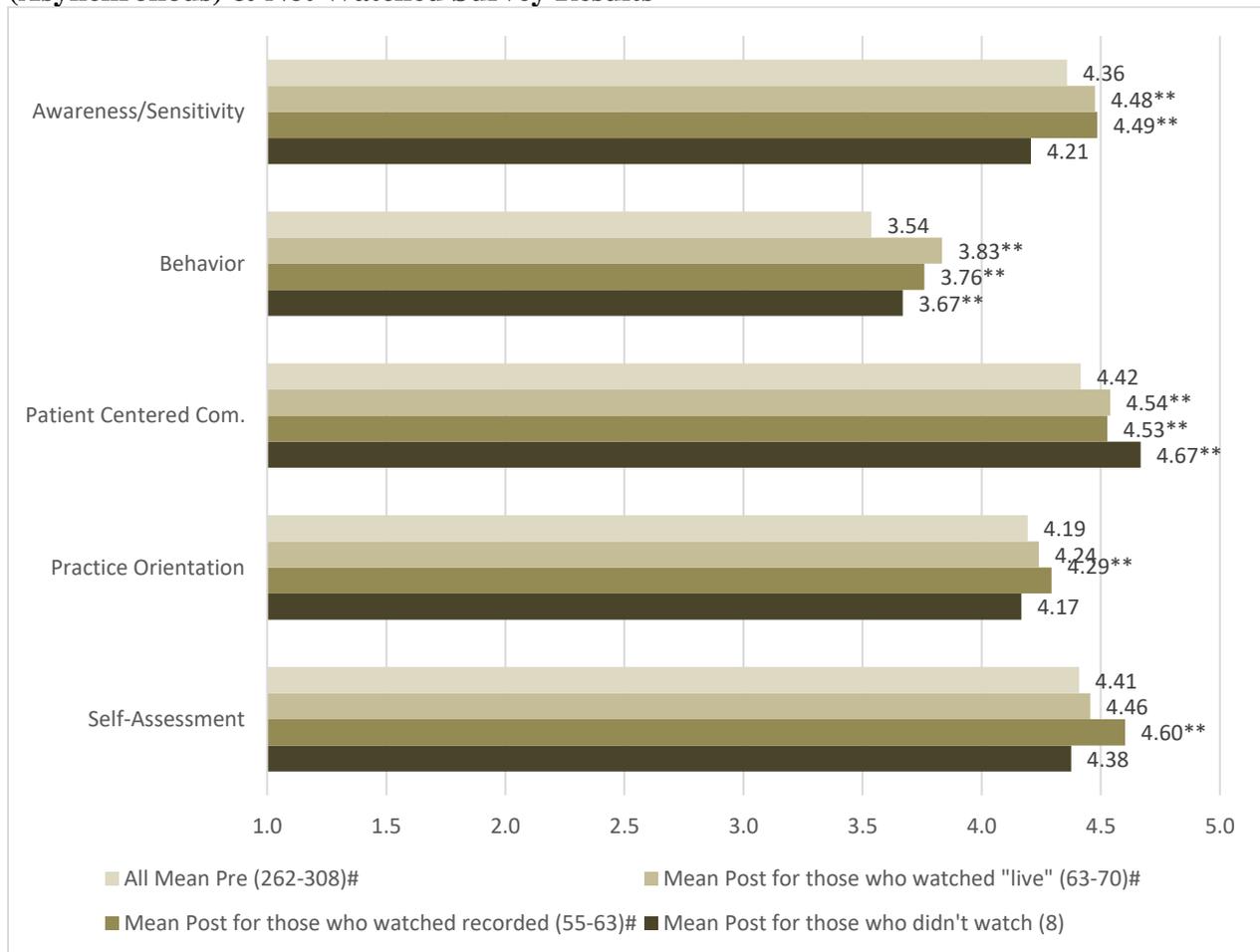
Note. * = Statistically significant difference at .05 level.
 ** = Statistically significant difference at .01 level.
 # = Range indicates differing number of respondents to Cultural Competence constructs

As Figure 3 shows, across this group of respondents, all five dimensions of cultural competence increased. However, for two measures only: Awareness/Sensitivity and Behavior --

is that difference statistically significant. Awareness/Sensitivity is statistically significant at .05 and Behavior is significant at .01. There was no significant difference in the PCC, PO, or SA.

As noted, all members of the GYN/OB Department were invited to Grand Rounds either synchronously (in-person, real time) when it was being presented, or asynchronously as an audio-visual recording. Since one objective of this project was to assess cultural competence training delivery methods, the researchers wanted to understand whether viewing the Grand Rounds presentation by the Chief Diversity Officer live or recorded had made any difference in learning outcomes. Therefore, this analysis includes only the 65 providers who responded that they had completed both the pre- and post-survey (see Figure 4).

Figure 4: Comparison of Pre and Post Grand Rounds Live (Synchronous), Recorded (Asynchronous) & Not Watched Survey Results



Note. * = Statistically significant difference at .05 level.

** = Statistically significant difference at .01 level.

= Range indicates differing number of respondents to Cultural Competence constructs.

The results reveal that for Self-Assessment and Practice Orientation, growth in cultural competence was statistically significant only for those who viewed the Grand Rounds as a video

recording. For Patient-Centered Communication and Awareness/Sensitivity, there was about equal statistically significant growth for both. For the Behavior dimension, viewing the presentation synchronously (live by Zoom) resulted in greater growth in cultural competence. For dimensions of Patient-Centered Communication and Behavior, respondents who *had not* viewed the training still gained in these measures of post-training cultural competence.

DISCUSSION

Improving the cultural competency of an entire health care team is a complex, yet vital undertaking to decrease the racial, ethnic and culture-based biases in health care delivery. For our department, completing the HPCCI was an important first step towards the goal of establishing a baseline measure of cultural competence. While this measurement process alone can lead to progress in cultural competency, further gains still can be made with the addition of purposeful training to improve the biases that contribute to a difference in medical decision making and delivery of patient care.

In our model, we assessed the cultural competence of all members of the GYN/OB Department using the validated HPCCI survey before and after a diversity and inclusion training intervention in the form of a Grand Rounds presentation. To our knowledge, this is the only published study that assesses the cultural competency of multi-professional providers (physicians, nurses, advanced practitioners, medical assistants, front-line ancillary staff) in a large GYN/OB Department before and after delivery of an educational intervention (Grand Rounds presentation about improving cultural competency).

We had 387 (81%) of our departmental providers actively participate in our study by completing one or both of the voluntary pre-and post-intervention surveys. This high participation rate reflects our department's interest in and recognition that cultural competence is critical to the delivery of outstanding and equitable healthcare. Establishing baseline cultural competency is an important first step for the implementation of the Reduction of Peripartum Racial and Ethnic Disparities AIM safety bundle.

In our evaluation, we found statistically significant increases in all five dimensions of cultural competence for all participants completing the pre-survey (n=308) or post-survey (n=144). These results suggest that over the relatively short time period between spring and summer 2020, our department demonstrated a measurable overall increase in cultural competency. While these findings are promising, our conclusion is limited by the decrease in response rate from pre- to post-survey. Sixty-four (64%) percent of respondents completed the pre-survey versus thirty percent who completed the post-survey. It is encouraging to see the increase in competency; however, what is not measured is the change in the competency of those who did not complete the post-survey. This reveals a bias toward the completion of both activities by participants who are more likely to have an interest in cultural competency and possibly a higher baseline score in competency measures before evaluation.

When we compared the five dimensions of competency in those participants who completed both pre- and post-surveys (n=65), there continued to be an increase in the five dimensions, but only the Awareness/Sensitivity and Behavior dimensions remained statistically significant. More specifically, these observed changes represent an increase in the provider's awareness of, and sensitivity to cultural expressions, attitudes, and behaviors of various patient groups as well as the provider's modification of their own observable behaviors in response to a

patient's cultural experiences. It is possible that the lack of statistical significance in outcomes in the other three dimensions was due to the smaller number of providers completing both the pre- and post-survey.

When determining whether the delivery method of the intervention had any impact on changes in cultural competence, our data show that there was no benefit to viewing the Grand Rounds presentation live despite the interaction between the presenter and the audience through Zoom. The original strategy was for the Grand Rounds presentation to be made face-to-face in-person. However, the COVID-19 pandemic required the switch to a virtual presentation over Zoom. It is possible that the virtual platform decreased the impact of any interactive benefits of the presentation. In fact, two of the cultural competency dimensions showed more improvement with the recorded viewing of the presentation when compared to the live viewing. For some organizations, having team members view an asynchronous recorded educational intervention may be logistically easier to administer; our results would support this approach.

For those respondents who did not view the Grand Rounds intervention at all, cultural competency increased more in a single dimension, Patient Centered Communication, and increased less in the other four dimensions when compared to the cohort that did watch the intervention. It was surprising to see that practitioners did show improvement without viewing the intervention, but there was only a very small number of respondents (n=8) who did not watch the Grand Rounds at all, which could have affected those results.

Strengths

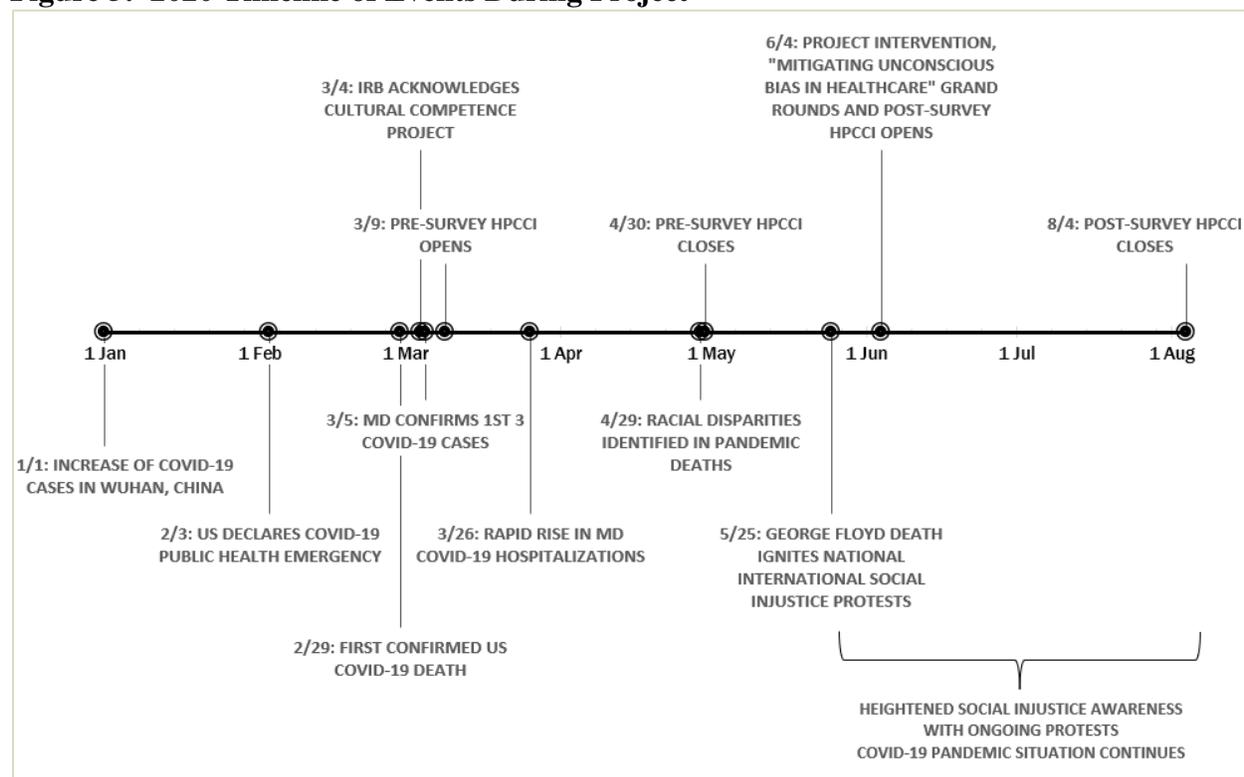
The strengths of our project include 1) a broad scope of members of our health care team considered "providers" were included as participants. 81% participated in some way by completing the pre-survey, post-survey, or both. While many prior evaluations in the literature focus on physician and nursing teams alone, our study includes stakeholders across the care team, which includes advanced practice providers, technicians, social workers, leadership, clinical associates, and medical assistants as well as both inpatient and outpatient staff providers. This increases the size of the provider participant pool, which enriches the scope of these results.

Another strength 2) of our project is that it breaks ground by focusing on participants delivering healthcare in the field of obstetrics and gynecology. While there is a clear disparity in health outcomes for non-White women (ACOG, 2015), the literature is limited to evaluations of cultural competency for providers of general women's health.

Additional strengths include 3) the availability of the intervention (Grand Rounds) both synchronously and asynchronously. This type of intervention can be easily utilized by other organizations. The increase in competency seen in both live and recorded viewing indicates that training can be effective via multiple avenues of administration. Finally, 4) we used a publicly available validated assessment instrument (HPCCI) which can readily be used by any organization to assess its own cultural competency.

Limitations

As we conclude this summary of our findings and describe its limitations, it is imperative that we place our study in its historical context, for Simmons (2006) reminds us, "Context is to data what water is to a dolphin" p. 465.

Figure 5: 2020 Timeline of Events During Project

On March 4, 2020, the IRB of our hospital system authorized approval to conduct this important cultural competency study. Four business days later, on March 9, 2020, the HPCCI pre-survey went “live” and became available on our secure server to all 479 GYN/OB healthcare practitioners. Just 2 business days after the pre-survey release, on March 11, 2020, the United Nations World Health Organization declared COVID-19 a global pandemic. Two days after this declaration, on March 13, 2020, the U.S. Centers for Disease Control mandated a total lockdown of the United States. Air traffic into and out of the United States was halted, and all citizens who earned their living performing non life-sustaining work were required to shelter-in-place and stay-at-home. All people performing essential work including healthcare providers, first responders, sanitation workers, firefighters, undertakers, food and drug supply chain manufacturers and distributors, and other workers designated essential by their state legislatures were required to be at their worksites.

As the COVID-19 pandemic unfolded, our study with its three components (pre-survey, Grand Rounds intervention, and post-survey) was at risk of becoming a low priority for our healthcare professionals, who were inundated by the overwhelming demands on their time and capabilities.

On April 30, 2020, the pre-survey was closed. The surge of COVID-19 deaths continued as data released from relevant sources revealed deep disparities in the demographics of healthcare access for White and non-Whites sickened and felled by COVID.

As if disproportional minority COVID deaths were not enough, on May 25, 2020, Mr. George Floyd was murdered in broad daylight by a policeman as citizen onlookers filmed the

crime on their cellphones. This heinous act was the critical event that sparked not only domestic, but global protests against systemic social injustice faced by minorities around the world.

On June 4, 2020, the second intervention of our three-part study was delivered by our Chief Diversity Officer as a Grand Rounds presentation, “Mitigating Unconscious Bias in Healthcare” live, in real time on Zoom, and as a video recording for those who were unable to attend. Immediately following the Grand Rounds presentation, the post-survey the final portion of this study, the post-survey, opened and remained open for two months until August 4, 2020. However, due to the COVID-19 pandemic, the Grand Rounds presentation was conducted virtually by Zoom for all participants. The presentation was recorded and made available for viewing after June 4, 2020 by anyone in the department. Immediately following the presentation, the post-training instrument which contained the same 48 questions as the pre-survey tool was made available to all providers by QR code and emailed link, both of which remained available between June 4th and August 10th. Due to COVID-19 restrictions, no in-person meetings or reminders were made to complete the post-training survey. All reminders were sent by email.

Our project is limited by the potential biases and confounders created by current events during the time frame of this project period. The discussion of this study, then, is insufficient unless it is understood as a microcosm of circumstances shared by patients and practitioners far beyond our healthcare institution, in fact, with the entire global healthcare system and the billions of patients it serves around the world. We have identified several limitations of our evaluation, beginning with the generalizability of findings. This project was conducted in a large urban tertiary care center, a setting, which neither neatly nor adequately represents the staff or patient populations of all forums of health care administration. While 81% of participants completed the cultural competency survey at least once (pre-only, post-only, or both pre/post), there was a large decline in the number of participants who completed the pre-survey then did not complete the post-survey. The pre-survey response rate (64%) is high by common standards; the 30% post-intervention response rate is more typical of organizational surveys. Furthermore, only 65 respondents completed both the pre- and post-survey, which provided a limited, yet useful dataset. Had there been more respondents who completed both the pre-survey and the post-survey, the resulting data would likely have been more robust. Many respondents who completed the initial pre-survey may not have fully understood the importance of providing answers to identical questions again, in a post-survey. Additionally, the 48 questions in the HPCCI along with a comprehensive set of demographic questions made for a long survey which we believe likely depressed participation, particularly for what was a duplicate survey. Finally, restrictions imposed during the COVID pandemic made frequent, in-person reminders during team-based rounds impossible, and email reminders to complete the Grand Rounds post-survey only added to the volume of email reminders that flowed into everyone’s inbox. Since there was a significant increase in emails largely due to COVID-related updates, depending on practitioners to rely on email reminders alone could likely have led to a lower post-training survey completion rate. Our department was subject to COVID related pandemic stress and fatigue. Many healthcare workers faced psychological and physical short- and long-term hardships precipitated by this pandemic (Mehta et al., 2021; Shreffler et al., 2020; Trumello et al., 2020), which could have made completing a post-survey less of a priority.

The COVID-19 pandemic not only illuminated healthcare disparities in the United States, it put a spotlight on disparities across the globe. As the world locked down and adjusted to altered practices of living and working, technology granted instant access for all to witness replays of the

events of May 25th and the escalation of racial tensions which unfolded during the time period between the pre- and post-survey. All these confounding events undoubtedly increased awareness of cultural competency and racial inequities, and when considered along with the Grand Rounds intervention, could have influenced the increase in our provider cultural competency. While this is a limitation of our evaluation, it indicates that there has been increased attention to cultural competency over this period. Whether the intended intervention or external events led to the positive effect, we hope that this improved cultural competency will positively alter our delivery of health care and ultimately our ability to effectively treat patients uniformly while maintaining a raised awareness of their cultural sensitivities.

CONCLUSION

We found that using a validated instrument in our large project made it feasible to survey the majority of our 479 health care team members on their baseline level of cultural competence. The high participation rate indicates that our GYN/OB health care team identifies cultural competence as an important issue for patient care. Our results also indicate that a single educational intervention, whether live (synchronous) or recorded (asynchronous) had some positive impact on levels of cultural competence. However, our study also demonstrates the challenges of clearly demonstrating that just one specific intervention can improve cultural competency as there are often many confounders (e.g., current events) that can also affect attitudes and behaviors linked to patient care. Regardless, our results do suggest that this type of educational intervention should be considered when the objective is to measure improvement in the cultural competency of an interprofessional health care team. This intervention is just one of many that should be part of an organizational toolkit to improve cultural competency. Interval surveys could also be conducted to identify baseline measures as well as to identify specific needs for augmenting cultural competency programming. These might include microaggression training, implicit bias training, focus groups, role play, community engagement, and self-reflection. Finally, any improvements in cultural competence should be studied for corresponding reductions in disparities in obstetrics and gynecologic health outcome measures.

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