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Implicit Biases, Interprofessional Communication, and Power Dynamics

SPOTLIGHT CASE CE/MOC

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Case Objectives:

- Define implicit bias, imposter syndrome, stereotype threat, and second victim effect.
- Recognize how individual and institutional level implicit bias impacts care teams and patient outcomes.
- Discuss the value of effective interprofessional team communication for patient outcomes and provider wellbeing.
- Identify strategies to mitigate implicit bias and promote effective team communication.

The Case

A patient on a step-down unit began showing signs of progressive mixed respiratory failure and appeared to be decompensating despite several interventions. The ICU medical resident, wards medicine resident, and overnight supervising hospital medicine attending in her first year out of residency training, all women, determined that the patient warranted ICU-level care and communicated this assessment at bedside with the interdisciplinary team. The respiratory therapist and bedside

RN, both men with 5-10 years of experience at the institution, and the ICU charge RN felt that rescue BiPAP therapy was temporarily appropriate for the step-down unit and that the patient did not need ICU-level care, given ICU RN staffing limitations. After some discussion, the female physicians were overruled and the patient remained on the step-down unit.

Ultimately, rescue BiPAP therapy was unsuccessful and the patient's respiratory failure progressed requiring emergent intubation in the ICU. His course was further complicated shortly thereafter by an episode of pulseless electrical activity cardiac arrest due to breath-stacking and auto-PEEP (positive end expiratory pressure). Return of spontaneous circulation was achieved after several rounds of resuscitation, and the patient was discharged one week after presentation with improved respiratory status and baseline neurologic function.

The Commentary

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There were several complex factors that contributed to the lack of timely escalation in care for this patient in respiratory distress, which ultimately resulted in delayed intubation and a pulseless electrical activity (PEA) cardiac arrest that was probably preventable. In this commentary, a root cause analysis framework is used to explore two overarching causes for the lack of timely escalation in care: (1) implicit bias complicated by imposter syndrome and

stereotype threat, and (2) complex social power dynamics and dysfunctional interprofessional team collaboration. These root causes can have negative impacts on both patient outcomes and provider well-being. Strategies to tackle these root causes are also explored.

Root Cause 1: Implicit Bias

The fact that the three physicians involved in this case were all women, early in their careers, may have played a role in the decision of the larger multidisciplinary team, which contained more tenured and male members, to disregard the physicians' explicit recommendation to transition the patient to the ICU.

Implicit bias is defined as beliefs and prejudices that reside outside of our conscious awareness. The human brain is continually processing enormous amounts of information and creates schema to help us process information more efficiently. For example, we tend to categorize others into groupings based on gender, age, and race/ethnicity, but this may result in inaccurate information about the people we categorize, leading to implicit bias. Implicit bias has been identified as a factor contributing to health disparities in the United States, such as the under-recognition and undertreatment of conditions like pain, cardiovascular disease, asthma, and mental health in women and racial and ethnic minorities.[1,2,3,4,5,6] The nature of hospital medicine depends on fast-paced, time-pressured decision-making that often relies on automatic or intuitive thinking, described by Kahneman as System 1 thinking.[6] This case is an example

in which an acute process of progressive respiratory failure required a timely decision.

The recognition of implicit bias in healthcare practice is critical, not only to improve health outcomes for patients, but also to improve communication within the healthcare team. There are several studies that demonstrate implicit gender bias impacts women in medicine. For example, a 2017 study published in JAMA found that males received higher performance ratings and achieved milestones (a standardized framework for longitudinal resident assessment) sooner than females over the course of residency by the equivalent of 3-4 months of training, despite entering with similar achievements in the first year. Although there is speculation as to why this gap emerges, implicit gender bias is considered a driver.[7] A follow-up study to explore what drives this inequality in assessments found that role expectations, which are embedded in milestone assessments of residents, may contribute to implicit gender bias in the working environment. These role expectations by design shift from a student-dominant set of expectations as postgraduate year ones (PGY1s) to a colleague-dominant set of expectations as postgraduate year threes (PGY3s). In this study, the authors explain that an attending's expectation of student-dominant behaviors bias toward stereotypical feminine qualities, while an attending's expectation of colleague-dominant behaviors bias toward stereotypical masculine qualities. Consequently, implicit bias emerges due to the perception of men outperforming women because they naturally meet the more "masculine" role expectation of "colleague", even though performance is

equal. This is illustrated in this study with the use of medical errors as a barometer for performance: by evaluating written feedback provided to residents after committing a medical error, in the PGY 1 student role, the feedback for medical errors was fairly similar. However, in the PGY3, colleague role, the feedback was strikingly different and much harsher critique was given to women, despite the medical errors being of similar severity. This depicts how role expectations can trigger implicit bias that perpetuates gender inequality.[8]

Another study assessed data gathered using Implicit Association Tests (IATs) for both gender-career and gender-specialty to measure implicit bias among healthcare professionals and surgeons, and found respondents had strong biases that associated men with career and surgery, and women with family and family medicine.[9] Gender biases in medicine are
further exemplified by the language colleagues use to refer to one another in a professional setting. A retrospective observational study of introductions in internal medicine grand rounds found that if women introduced a male speaker, they used his professional title 95% of the time. However, when men introduced a female speaker, her professional title was used only 49% of the time.[10]

These studies have demonstrated hidden biases that affect women in medicine. In addition, the medical profession continues to have clear gender gaps—with fewer women in academic medical careers, and even fewer in leadership roles.[9] Further research on this issue and its effects on physician well-being is crucial, especially in light of the fact

that enrollment of women in medical school has recently surpassed that of men for the first time.

Due to the complex nature of bias, however, establishing whether gender bias was definitively involved in this particular Case would be difficult. Nevertheless, awareness that implicit gender bias in medicine exists is a critical first step in tackling this problem.

Root Cause 2: Interprofessional Team Communication

Researchers studying interprofessional education and practice often identify hierarchy as a source of conflict in interprofessional healthcare teams.[11] This hierarchy can result in unresolved tension and perpetuate barriers to interprofessional collaboration. These unspoken hierarchies can lead to the medical team and nursing team arriving at significantly different assessments, as occurred in this case. In a review of the literature between 1954-2013, Paradis and Whitehead found only six out of over two thousand journal articles on interprofessional education focused primarily on power and conflict.[12] The authors concluded that the absence of this discourse in interprofessional education suggests a hesitancy on the part of educators to address the realities of hierarchies in healthcare.

The effect of implicit gender bias on interprofessional communication in a crisis was studied by Pattni et al. Given a scripted simulated scenario of anesthetists making clearly incorrect medical decisions, respiratory therapists

were more likely to challenge a decision of a female anesthetist than one made by a male anesthetist. In debriefing sessions, the respiratory therapists reported that they immediately realized that patient safety could be compromised by the inappropriate medical management of the anesthetists; and yet their responses were different based on the gender of the anesthetist involved. This suggests that gender influences communication in part due to perceived power imbalances.[13] Which begs the question: if the team of physicians in this Case had been comprised of men, would the delay in escalation of care have occurred? Likewise, if the respiratory therapist and bedside RN had been women, would the outcome have been the same?

Impacts/Effects

Implicit biases can result in long-lasting effects on physician well-being through several secondary effects. The female physicians involved in this patient's Case are at high risk of experiencing "second victim" effect, which describes the unanticipated emotional impact of a medical error on the healthcare professionals involved.[14] Second victims can feel personally responsible for the error and can develop dysfunctional coping mechanisms that can contribute to burnout. This effect can also perpetuate feelings of imposter syndrome (IS), which is when successful people have a persistent belief in their lack of intelligence or competence despite many worthy accomplishments.
[15,16] Women are disproportionately affected by IS and symptoms have also been closely linked to burnout.
[17,18] Furthermore, those suffering from IS can have chronic

doubt and are less likely to speak up, which may have played a role in the deficient interprofessional communication that occurred during this Case.

The consequences of stereotype threat—the risk of conforming to a negative stereotype about an individual's race, ethnic, gender, or cultural group—must also be considered in this Case. Burgess et al. describe prescriptive gender stereotypes in academic medicine that adversely affect women including occupying subordinate roles, lacking confidence in leadership abilities, and not exhibiting ambition, assertiveness or competitiveness. When women violate these stereotypes, they are likely to incur negative reactions, such as derogation and dislike, from their colleagues. Further, women who suffer from stereotype threat may perform below their actual abilities when group membership is emphasized.[19] The impact of "second victim" effect, and its role in perpetuating feelings of imposter syndrome and stereotype threat, can be profound and have lasting consequences on academic identity, performance, and rates of burnout in medicine.[17,19]

Failures in interprofessional teamwork and communication can lead directly to compromised patient care, staff distress, tension, and inefficiency.[20] Breakdown in communication also can lead to medical errors and adverse events. These adverse events can result in substantial and unnecessary suffering of patients, as well as a high financial cost in terms of extended hospital stays and litigation costs.[21,22] In one study, failures in interprofessional teamwork were found to be a contributory

factor in 61% of sentinel events.[23,24] For the sake of patient safety, it is critical to optimize interprofessional team communication by limiting influences of embedded hierarchies and power imbalances.

Interventions/Strategies:

Strategies to Mitigate Implicit Bias and Imposter Syndrome:

- Use of Implicit Association Tests (IATs) and Cultural Competency Training

Successful interventions for reducing implicit racial bias have been described in the literature. For example, the Medical Student Cognitive Habits and Growth Evaluation Study (CHANGES) assessed implicit racial bias in over 3500 medical students at 49 U.S. allopathic medical schools using IATs administered in their first and last semesters of medical school.[25] Medical students who demonstrated significant reduction in implicit racial bias reported: (1) more experiences with formal curricula addressing racial disparities and cultural competency, including use of IATs, and (2) informal curricula of positive racial climate and faculty/resident role modeling.[25] This study supports the incorporation of implicit bias training into medical education curricula to improve the effectiveness of interpersonal and interprofessional interactions. However, there is less evidence about what approaches or interventions may reduce implicit gender bias.

- Discuss Imposter Syndrome (IS) and Develop Structured Mentorship Programs

If IS was indeed a contributing element to the team's interaction, this patient outcome may have been different had the young female physicians felt more confident in their recommendation to transfer the patient to the ICU and, without self-doubt, engaged in a dialogue with the more senior male members of the team. While no clear evidence-based treatment for IS exists, there are several suggested strategies to ameliorate the symptoms of IS, such as cognitive based approaches.[26] For example, when experiencing IS, one can reframe thought processes by recognizing the imposter and recalling confidence in their expertise. Had this strategy been utilized in this Case, it could have resulted in a more open discussion with the tenured male members of the care team and avoided the delay in escalation of care. Additionally, the senior team members should also implement strategies to create an inclusive environment to ensure all voices are heard.[17]

Other strategies require preparation for understanding these dynamics, and they need to start early in medical education. Normalizing the phenomenon of IS among trainees by defining it, openly discussing it, and integrating it into wellness initiatives throughout training can be a helpful intervention. Another strategy is to revise medical education curricula and resident training to adopt teaching styles that optimize an inclusive learning environment. Furthermore, structured mentorship programs and providing more diverse role models may ameliorate the issue.[18]

Strategies to Promote Effective Team Communication

- Incorporate Interdisciplinary Healthcare Delivery Models

Research suggests that utilizing interprofessional care teams can improve healthcare practice and patient outcomes.[27] There have been various interventional strategies and models of care designed to promote organized and effective team communication, such as interdisciplinary team rounds. Such interventions could help overcome psychological barriers to interprofessional communication and enhance a sense of belonging to an inclusive patient care team.[24] One institution utilizes a model for improving interprofessional team-based care called Accountable Care Units (ACUs) to create conditions for mutual respect, cohesiveness, and communication. The ACU is a hospital care model specifically designed to organize physicians, nurses, and allied health professionals into high-functioning unit-based teams to help overcome geographic and temporal challenges that can occur when patients and team members are spread across the hospital.[28]

- Encourage Early Interprofessional Training and Discourse Around Hierarchies

Hierarchies (associated with gender, seniority, and/or profession) within care teams are deeply embedded in our medical culture and can negatively impact patient care. In order to promote effective communication, strategies for navigating the hierarchical nature within multidisciplinary healthcare teams are necessary. One strategy is to incorporate interprofessional training and encourage

discourse around hierarchies early in the medical education curriculum.[13] Education on the topics of communication styles and hierarchies can reduce perceived power imbalances and may improve patient safety. Adapting teamwork trainings from other sectors, such as the Crew Resource Management (CRM) approaches developed by the aviation industry to reduce flight errors, for the healthcare setting could be useful for addressing hierarchies and improving patient safety.[13,29]

- Use Standardized Communication Models

Additionally, standardized models that encourage a more collaborative approach among healthcare teams have been shown to improve interprofessional communication. For example, the SBAR method (Situation, Background, Assessment, Recommendation) is a standardized approach to streamline communication and facilitate shared decision making between nurses and physicians.[30] In this Case, since the recommendations of the team members were not aligned, using the SBAR or other standardized communication models could have allowed for an open dialogue to navigate these differences and understand why and where the recommendations between the care team differed. Could this have allowed for earlier reconciliation and adoption a different plan that would have changed the patient outcome?

Multidisciplinary huddles such as the ACU and structural workflow changes can take time to implement and may require a significant amount of effort and investment. In

our Case example, a decision needed to be made rapidly. There are conflict negotiation strategies, which can be helpful, such as defining common ground for agreement, for example good patient care. Other examples of conflict negotiation strategies include trying to identify and expand on small agreements, and avoid communication freezes, such as negative personal comments or interjections.[31] In this time-sensitive situation, perhaps the most effective approach would have been for the hospitalist attending to escalate her concerns to the ICU attending. An attending-to-attending discussion may have facilitated escalation of the patient's care to the appropriate level. If there continue to be disagreements between attending physicians, most institutions have a medical staff structure in place to help resolve them. For example, the bedside clinicians can call on the Chief of the Medical Staff, Department Chair, or Medical Officer of the Day (MOD).

Take-Home Points

- Implicit bias can impact patient safety outcomes and clinician wellbeing.
- Evidence-based strategies to reduce implicit bias include utilizing IAT's in medical training and formal curricula to address gender and racial disparities and cultural competencies.
- Effective communication among team members is critical for optimal performance and positive patient safety outcomes.
- Strategies to help improve interprofessional collaboration and communication include: developing curricula that include early

interprofessional training and discourse around hierarchies; utilizing models of healthcare delivery that create interprofessional teams of healthcare providers, and using standardized communication tools like the SBAR methods.

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