Recommendations and Guidelines for the Use of Simulation to Address Structural Racism and Implicit Bias

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Summary Statement: Simulation-based education is a particularly germane strategy for addressing the difficult topic of racism and implicit bias due to its immersive nature and the paradigm of structured debriefing. Researchers have proposed actionable frameworks for implicit bias education, particularly outlining the need to shift from recognition to transformation, with the goal of changing discriminatory behaviors and policies. As simulation educators tasked with training health care professionals, we have an opportunity to meet this need for transformation. Simulation can shift behaviors, but missteps in design and implementation when used to address implicit bias can also lead to negative outcomes. The focus of this article is to provide recommendations to consider when designing simulation-based education to specifically address racism and implicit bias.
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Key Words: Antiracism, racism, implicit bias, implicit bias mitigation, simulation design, simulation based education, equity, inclusion, training.

The witnessed murder of George Floyd is one of the defining moments of our time, prompting conversations about structural racism and implicit bias contributing to disparities across all areas of healthcare, including simulation-based education (SBE). Racial and ethnic disparities in care and health outcomes have persisted since being called out by the Institute of Medicine in 2003, as is clear with recent COVID-19 data.[1,2] Studies show Black and Latinx populations are less likely to receive appropriate cardiac medications, undergo necessary cardiac interventions,[2] survive after an in-hospital cardiac arrest,[3] or receive appropriate analgesics for severe pain.[4–8] The root causes of these health disparities are complex. Racism, implicit or unconscious bias (IB), and discrimination all play a considerable role in this disproportionality.[9,10] Pro-White/anti-Black bias toward adults and children has been identified in well-intentioned healthcare professionals (HCPs).[11–14] Although there is not a clear causal relationship between IB and health outcomes, the literature demonstrates an association between IB and decision making, treatment recommendations, nonverbal communication, and adverse birth outcomes.[15–17] Ongoing research shows that racism also plays a major role in the persistence of health disparities.[18,19]

Considering the current momentum to address racism and IB, many healthcare organizations are implementing, and often mandating, IB training to begin addressing healthcare disparities.[20,21] Simulation-based education is a particularly germane strategy for addressing the difficult topic of racism and IB due to its immersive nature and the paradigm of structured debriefing. As simulation educators tasked with training the next generation of HCP, it is vital that we reconceptualize our vision to intentionally focus on applying a diversity, equity, and inclusion (DEI) lens across the spectrum of SBE.[22,23] The focus of this article is to provide recommendations to consider when designing SBE to specifically address racism and IB. The authors not only bring racial, ethnic, sex, geographical, and disciplinary diversity (although we are all based within the United States) to this task but also recognize that much is still unknown in this area. We are humbly committed to continuing this conversation within the simulation literature and invite our readers to join us as we all learn more. This article is a call to action for HCPs to harness SBE to address the difficult topic of IB, while also ensuring that we do not cause unintended harm. The examples included throughout this article focus on racial bias; however, the recommendations are applicable to other biases.

DEFINING RELEVANT TERMS

A shared vocabulary is critical to engaging in this topic, as many terms can be new to learners and educators alike. Camara Jones describes 3 levels of racism and the impact on health: institutional/structural, personally mediated, and internalized racism.[24] Table 1 explicitly defines these terms as they will be used throughout the article.[24–35]

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BIAS AND SIMULATION IN THE LITERATURE: CURRENT STATE

The initial focus of bias and diversity training was on "fixing" the behavior of the person who was perceived to be expressing biased behavior.[36] The paradigm has subsequently shifted as a clearer understanding of the role of IB, and its impact has been established in the social-cognitive psychology and education literature.[32,37,38] Recently, researchers have proposed actionable frameworks for HCP IB education,[39] particularly outlining the need to shift from recognition to transformation, with the goal of changing discriminatory behaviors and policies.[28,41]

Although simulation curricula addressing "cultural competence," "cross-culture care," or "cultural humility" are described in the literature,[42–49] little has been published regarding the utilization of simulation to address IB. Simulation can shift behaviors, but missteps in design and implementation when used to address IB can also lead to negative outcomes.[50] Implementing IB training without further context not only allows racism to persist[51] but also can lead to increased dissonance, anxiety, false confidence, and further avoidance.[28,50,52,53] It is, therefore, important to ground IB training in a clinical and translational framework that also allows meaningful outcome assessment.[28] Recently, Sukhera et al[40] proposed transformational learning theory by Mezirow[41] as a guide to designing IB curricula (Fig. 1). This model includes self-reflective debriefings and functions via a guided movement from dissonance through critical reflection and dialog and then to skill acquisition and behavior change. By providing a platform for deliberate practice of implicit bias mitigation strategies (IBMS) with feedback, simulation provides a powerful opportunity for HCPs to practice expected professional behaviors that can reduce the impact of racism and IB on patients.[28,50,54–56]

RECOMMENDATIONS FOR CURRICULUM DEVELOPMENT

Racism is embedded in the HCP education system and continues to lead to health disparities.[2,14] Simulation-based education is no exception as illustrated by the lack of diversity within simulation technology (default White male mannequins as well as dark skinned mannequins with White features), use of Black mannequins for stereotypical scenarios (eg, drug abuse scenarios), lack of diversity in simulated patient names, and lack of diversity in standardized participant (SP) actors.[57–59] We can begin to reconceptualize the field by using a DEI lens to identify and address institutional/structural racism across all our simulations. This will take time and require a culture shift. Simulation educators would need to ensure that every simulated scenario is reviewed for underlying IB and includes longitudinal learning objectives that address racism and IB and prepare debriefers to discuss the role of IB in the cases. This commitment to address institutional/structural racism within SBE and patient care must be understood to be an expected professional responsibility.

TABLE 1. Definitions From the Literature of Relevant Terms

Term	Definition	As Defined by:
Structural/systemic racism	Differential access to the goods, services, and opportunities of society by race. Pervasive set of societal and interpersonal practices within and outside healthcare institutions that foster discriminatory practices to create systematic disadvantage and health inequities in a racial group.	Jones[24] (2000) Doubeni and Simon[25] (2021)
Institutional racism	The policies and practices within and across institutions that, intentionally or not, produce outcomes that chronically favor, or put a racial group at a disadvantage.	The Aspen Institute[26] (2020)
Personally mediated racism	Prejudice and discrimination, where prejudice means differential assumptions about the abilities, motives, and intentions of others according to their race, and discrimination means differential actions toward others according to their race.	Jones[24] (2000)
Internalized racism	Acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth.	Jones[24] (2000)
Implicit/unconscious bias	Implicit bias is defined as unconscious attitudes toward a person, group, or idea, which often result in discriminatory behaviors and can often differ from explicit or expressed beliefs.	Fazio and Olson[27] (2003) Hagiwara et al[28] (2020)
White fragility	"State in which even a minimum amount of racial stress becomes intolerable, triggering a range of defensive moves"	DiAngelo[29] (2011)
White privilege	White peoples' historical and contemporary advantages in access to quality education, decent jobs and liveable wages, homeownership, retirement benefits, wealth, and so on.	The Aspen Institute[26] 2020
White urgency	White people newly finding the need to speak out against racial injustice and actively dismantling structural racism as urgent while people of color have been leading and working in racial justice movement for decades.	Berila[30] (2020)
Microaggressions	"Racial microaggressions are brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color." "Microaggressions seem to appear in 3 forms: microassault, microinsult, and microinvalidation."	Sue et al[31] (2007)
Stereotypes	"Cognitive schemas, often rooted in culturally held beliefs that are used by social perceivers to process information about others." Stereotypes are most often negative versus an "archetype" used to describe basic characteristics.	Dovidio and Jones[32] (2019)
Prejudice	"An attitude that represents generalized feelings toward and evaluation of a group or its members and can result in discriminatory behavior or behavioral intentions."	Dovidio and Jones[32] (2019)
Discrimination	Discrimination refers to the unequal treatment through an action or inaction based on one's physical characteristics or perceived social group assignment.	Davis[33] (2020) Dovidio and Jones[32] (2019)

Definitions of terms from the social-cognitive psychology literature to create a shared vocabulary.

Racist behaviors secondary to IB, by definition, are more challenging to uncover and mitigate, and an important early consideration for simulation educators is whether the curriculum will specifically focus on racism and IB. Simulation-based education provides an opportunity to promote changes in knowledge, skills, attitudes, and behaviors through the deliberate practice of IBMS and self-reflective debriefing. Because of the nature of this charged topic, clear goals and measurable objectives are essential to be successful. Qualitative studies have noted that educators and learners may view curricula on racism to be "touchy-feely" and "think that there are [not] really health disparities and think cultural competency is 'foo foo.'"[60] When focused attention is given to racial biases, many people become uncomfortable and want to change the subject. To learn and grow, discomfort is often necessary, but it is important to still maintain psychological safety.[49,61,62] Using simulation to practice effective IBMS strategies identified in the social-cognitive psychology literature such as counter-stereotypic imaging, emotional regulation, and perspective taking will allow the learner to explore and understand the discomfort.[50,54–56,63]

We will use the following simulation scenario to outline stepwise considerations when designing a simulation curriculum that addresses racism and IB and to explore the IBMS strategies outlined previously.

> *Baby David is an ex-28-week premature infant who has been in the neonatal intensive care unit for 3 days on noninvasive respiratory support. He is currently stable but tenuous because of his prematurity. The father was present for the birth of the baby. It was challenging for him to watch the initial resuscitation efforts. He did not feel that the condition of his baby and the resuscitation was explained very well to him, so he is distrustful of the care team. The care team has felt that the father has been disruptive and has displayed perceived escalated behaviors.*

Society often avoids discussions of racism and conversations can be shut down before they begin. Because of this avoidance, in the previously mentioned case, when the father is Black, the role of IB may never be addressed during a simulation. Successfully addressing IB, in this case, will involve the deliberate choice of strategies to ensure psychological safety, active consideration of the spectrum of learners, and focused training and preparation of facilitators.

Simulation Strategy Considerations

Use recommendations from the literature on how to appropriately incorporate race, ethnicity, or language into your simulation scenario. If race (a social construct) is not relevant to the case, leave it out. Consider including it in the social history or family history instead of in the stem of the case and provide contextual evidence of its relevance.[64]

> *Instructions to standardized participant: You are the father of the patient that is very ill in the neonatal intensive care unit. This is your first baby, and you are not coping well with not being able to hold and enjoy your baby as you had expected. You are on edge, exhausted, stressed, and ready to escalate. Your emotional response depends on how well the learner manages the interactions. You could easily become angry, blaming, crying, etc. You will never take a threatening posture or become physical and will not advance toward the learner in any threatening way.*

To avoid perpetuating stereotypes in simulation scenarios, consider using the IBMS of "*counter stereotyping.*"[56] For example, when writing a scenario with a Black man as the patient, choose a diagnosis and career background that counter common stereotypes. The Black mannequin or SP should be used for all types of scenarios, not just a stereotypical scenario (such as refusal of blood products for religious reasons or a sickle cell pain crisis). When training the SP actor as baby David's father, it is also important to consider avoiding perpetuating stereotypes of "threatening" Black men. Debriefing can be a useful mechanism to address these frames.

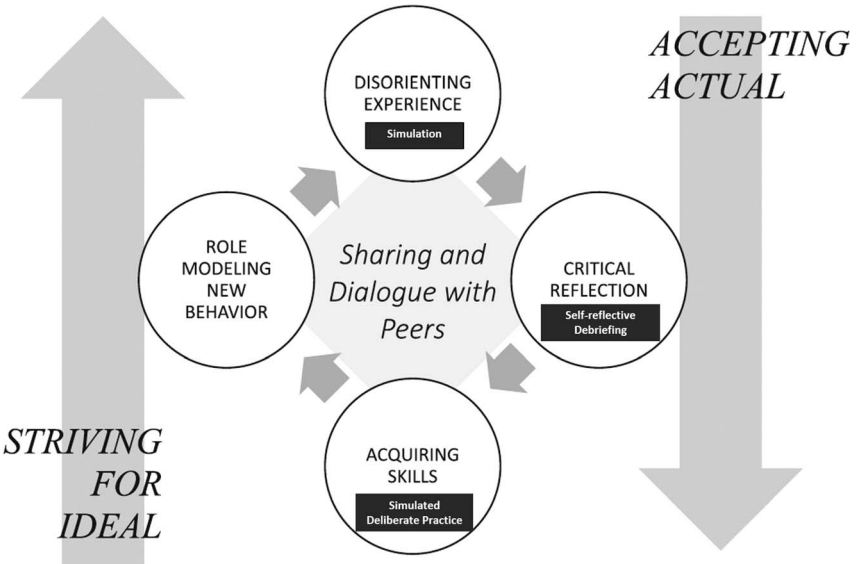

FIGURE 1. Transformational learning theory adapted to guide creation of SBE IB curricula.[41] This figure applies the transformational learning theory to SBE IB curricula, outlining specific components, which guide the learner through the transformational process.

Consider the specific simulation strategy that will be implemented, paying particular attention to the establishment of a "safe container" in which learners can fully engage in the simulation.[65] We recommend the integration of deliberate practice, which allows for repetition of some or all aspects of the case based on ongoing, high-quality feedback, to promote the development of these new skills.[66] A "fishbowl" or small group strategy can further be used to prevent any one individual learner from being put on the spot.[67] Even if a learner does not personally engage in the simulation, the small group format may allow learners to learn from their peers through observation and to engage in the debriefing.[55] Learners and facilitators can use a stop/start "microdebriefing" method (a reflection-on-action–oriented process that pauses the scenario at multiple intervals for discussion and debriefing) to guide learners throughout the case, further promoting psychological safety.[68,69]

The prebrief has been completed, and clear objectives outlined to the learners. A learner volunteers to start the scenario and engage the SP (baby David's father) in conversation, "Good morning, I will be caring for your family today. I am just going to take a look at baby David." Father replies, "I do not know you, have you taken care of us before? I need to know what is going on, no one is telling me anything." The learner replies, "I have not cared for David before but I will make sure to include you in what I am doing." The father stands up and states, "People have not been telling me anything, I need to know what is happening with my son." The learner looks to the facilitator and states, "I am not sure what else to do as he seems really upset and I feel threatened." The facilitator pauses the scenario and engages the group to consider the next step. The facilitator guides the learners in the emotional regulation IBMS by asking them "Let us reflect on why you are having this 'gut feeling'. What factors do you think may be bringing up this feeling? How would you feel the actor's race might be impacting your feeling or reactions to the case?" After this microdebriefing, the facilitator asks the learner to go back into the simulation and practice using this IBMS.

In addition to the integration of deliberate practice, further considerations related to simulation modalities are outlined in Table 2.[11,42,43,57–59,70–77]

Learner Consideration

It is of particular importance to use all recommended practices to create and maintain a "safe container."[65] Table 3 presents a list of key questions to consider regarding the learners within the simulation. It is important to remember that "mandatory" bias training has traditionally yielded mixed results. Mandatory training can lead to further denial and potentially harden discriminatory behavior.[78,79] On the other hand, limited data indicate that it may be easier for learners to shift

TABLE 2. Considerations in Choosing a Simulation Strategy for Implicit Bias Training

Strategy	Considerations	Barriers/Cons
Mannequin based	- Simulation programs should seek out technology to be representative of the patient populations served and frequently integrated across scenarios. - Simulation facilitators should be representative of the population. - Simulation programs should seek out hiring and training faculty representative of their patient population.	- Currently available mannequins and task trainers do not represent the heterogeneity of the population.
SP based	- Deliberate considerations should be made when training, briefing, and debriefing SPs. - SPs can provide learners with real-time feedback from a patient perspective. - SPs allow for improved realism during deliberate practice. - Have a plan to debrief the SPs as this may be an emotional or re-traumatizing experience for SPs of color.	- Available SPs may not represent the patient population, so simulation programs may need to reach out to local actors or production companies to promote a more representative group of SPs. Another option could be to find SPs in other areas of the country that can join a simulation via Zoom as it is no longer uncommon to have virtual healthcare visits. - Evidence indicates that SP feedback and assessments also suffer from racial bias. Therefore, providing intentional training to decrease implicit racial bias in SPs and creating increased diversity in the SP pool may provide more equitable opportunities to learners. - The cost of SPs, if the curriculum is intended to be used on a large departmental or organizational scale, may be prohibitive.
VR based	- Promising results indicating increased empathy for people of color when using a first-person view. - Ensure careful measurement of outcomes and use additional modalities for racial bias mitigation skill development. - There are limited data to indicate that VR training may reduce implicit bias.	- Cost and access to VR technology
Case study/ vignette based	- Although data from many vignette-based studies evaluating the impact of IB on HCP showed varied results, there may be helpful in developing knowledge and attitude changes in learners. - Using these strategies to form a foundation for learners without previous knowledge of IB or systemic racism may be most useful. - Low cost to implement - Can be integrated into a classroom setting	- This strategy is not experiential and therefore has not been shown to help the development of skills or behavior change. - The utilization of a more active form of simulation for skill-related learning outcomes should be considered.

Although considerations and barriers to choosing a simulation strategy to address racism and IB may overlap with choosing a strategy for other SBE, this table highlights aspects that are particularly germane to this topic.
VR, virtual reality.

TABLE 3. Considerations for Learners to Maintain Psychological Safety

Are the learners interdisciplinary?
- Limit implicit or explicit hierarchies within the learner group as possible.
- Consider who is allowed to observe the simulation session to limit hierarchy influence.
Are the learner's trainees or practicing healthcare professionals?
- The power differential and the potential lack of choice for trainees impact their ability to be vulnerable.
- Consider if and/or how the simulation will be tied to any summative assessments. If summative assessment is intended, provide ample formative opportunities first.
- Consider if the education is mandatory or voluntary.
Are the learners racially diverse or members of a group adversely affected by systemic racism?
- Consideration for racial make-up of the learner group is required to develop a plan to decrease the risk for retraumatization/microaggressions in the education sessions.
- Create an identity-safe space.
Are the learners knowledgeable of structural racism and personal identity?
- Consider learner knowledge of structural racism to help determine the amount of prelearning material and/or number of sessions needed to develop a shared mental model.

Although these are consideration for every simulation curricula, they are of particular importance when building curricula on implicit bias.

perspectives after participation in an interactive experience.[55] Minimizing hierarchies and power differentials in the learner group may improve the learner's ability to be vulnerable in these situations.[80–82] Psychological safety may be impacted if learners are afraid to "say something wrong."[83] Particular attention should be paid to creating identity-safe spaces, a modification of the typical safe space emphasized in SBE. An identity-safe space entails acute awareness of the experiences of the learners of color. For example, including the ground rules, "the content may be triggering or difficult for people of color and we aim to create a safe space." The educator should attend to the fears of people of color as a primary responsibility.[82,84] While White learners may fear being perceived as racist, people of color may fear becoming the target of more discriminatory behaviors.[82]

A well-constructed prebriefing is particularly important in these simulations to support the maintenance of an identity-safe space. The prebrief should explicitly state the learning objectives and set ground rules for the simulation. It is important, as in any simulation, to avoid hidden learning objectives or deception to maintain psychological safety. Ground rules salient to these simulations are listed in Table 4 and can be used as a starting point. Learners should also be asked if there are additional protective measures that they would like the educational team to take.

The prebrief will also be easier to deliver if the learners have engaged in meaningful prelearning regarding the learning objectives. Prelearning may include articles describing IB in the field of the targeted learner group, videos discussing IB, and self-reflection activities to promote recognition of personal identity and biases. For some learner groups, more relatable forms of bias (such as gender bias) can be used as stepping stones to a deeper consideration of race.

Facilitator Considerations

Facilitators must be chosen carefully and developed purposefully.[60,86,87] Consider the racial identity of the facilitator as well as the facilitator's experience/background. Create intentional diversity and intentional cofacilitation (eg, pairing a White facilitator with a facilitator of color) to enhance the psychological safety within a simulation. The use of cofacilitation also allows facilitators to support each other, especially when triggered by a learner comment, to promote effective role modeling. In addition, consider engaging a subject matter expert as you would when developing, implementing, and evaluating a clinical simulation. Someone with DEI work experience can offer an important lens in the development of a scenario, training of faculty, or codebriefing learners. Considering the subject matter expert may not have experience facilitating simulations, providing a clear roadmap will be important. Supplemental Digital Content 1 (see Text Document, Supplemental Digital Content 1, http://links.lww.com/SIH/A693, an abridged example facilitator guide for IBMS deliberate practice simulations) provides an example facilitator guide that can assist your team in creating your own SBE. It is important to recognize that organization-specific issues will need to be incorporated into this roadmap, and therefore, one size is unlikely to fit all. Connecting with stakeholders within the organization can assure that your approach is appropriately tailored to the local population.

To succeed, facilitators must acknowledge and develop insight into their own identities and biases and how these impact their performance. Consider having facilitators review further resources as part of their preparation (see Text Document, Supplemental Digital Content 2, http://links.lww.com/SIH/A694, a list of further reading, watching, and listening options).

TABLE 4. Proposed Ground Rules to Create and Maintain an Identity-Safe Space

Proposed Ground Rules:
- Share air time.
- Lean into discomfort with difficult conversations and commit to engaging in emotional labor.
- All learners are here to improve and provide better care to patients and families. We all have different identities and life experiences. Speak honestly from your own perspective—use "I" statements. We all hold implicit biases and are striving to recognize these biases and mitigate them to improve our care.
- Expect and accept nonclosure.[85] We are all aiming for improvement during these sessions and we accept our growth will need to continue after this session.
- The content may be triggering or difficult for people of color and we aim to create a safe space. Microaggressions will be addressed as they arise.
- Please only share your own experiences and respect others by refraining from sharing their stories. We value confidentiality as a way to allow us to be vulnerable today while we practice skills around mitigating racial bias.

Establishing ground rules and allowing the learners to add to them will provide an opportunity to establish a "safe container."

Many educators may not have adequate training or experience to successfully facilitate simulations addressing racism or IB, lending to hesitation to lead unless further training is offered and supported at an organizational level.[41,60,83,86,88,89] Consider providing deliberate space to debrief with facilitators after sessions, as they may experience a "vulnerability hangover." A vulnerability hangover is "a gut-wrenching feeling that follows a moment or episode of openness and forthrightness about who we are, what we want, and how we express it."[90] Facilitators have to acknowledge and understand their own personal identities and be prepared for a sense of nonclosure and a potential lingering emotional unrest as the issues of racism and IB likely will not be resolved during one session.[85,91] Facilitators should be familiar with IBMS identified in the literature.[50,56,63,92,93] Facilitators also should practice openly addressing microaggressions and defensiveness outside the simulation context. Facilitators risk promoting a "pervasive culture of silence" if microaggressions are not addressed during the educational session.[83] Facilitators will need to continue to monitor for microaggressions and defensiveness throughout the case and debriefing. Sue et al[31] outlined several examples of language used that may be perceived as microaggressions.

Facilitators will encounter denial, anger, and White fragility during simulation sessions. They must be prepared to model explicit discussions to address learner reactions. Thoughtful facilitator preparation should include deliberate practice on methods to address learner resistance. Reactions of defensiveness, anger, or denial are normal and require redirection to help learners reframe their experience. We recommend identifying the emotion in the room, normalizing the reaction, and role modeling an IBMS.

One example of an IBMS is "perspective taking," ask "What might the patient/family be thinking or feeling right now?"[56] Table 5 presents possible responses to common learner reactions and identifies how various mutually reinforcing IBMS can be used.[31,54,55,61,94,95] The facilitator's main goal is to explicitly and authentically address the language and defensiveness and maintain an identity-safe space.

> *A learner states during the debriefing, "Why are we only talking about racial diversity; there are many types of diversity. Why aren't we talking about other people who are impacted by bias, like gender or socioeconomic status?" The facilitator replies, "I agree, there are other forms of bias and discrimination and racial bias is at the sharpest end of this discussion. Today's simulation and debriefing is focused on Baby David's family and the racial bias that exists in his care. What are the initial reactions to this case?"*

It is crucial to keep the discussion centered on the preidentified objectives, as deviation from this discussion may be a manifestation of White fragility. Facilitators can promote engagement from learners by removing the stigma "associated with IB, normalize the concept, and enhance the safety of the learning environment."[83] When facilitators are prepared to model skills and support learners, they can help learners reframe from "this is a deficiency in me" to "what can I do to make the situation better."

Outcome Measures

Currently, there are few implicit and explicit measures to evaluate outcomes of training.[27] The Implicit Association Test (IAT, a computer-based test intended to assess, among other things, race, ethnicity, gender, age, and LGBTQ+-related IB) has been used in a number of studies with HCP,[11,15,96] including simulation-based studies.[11] The IAT is intended to assess an individual's IB. Although insufficient data exist to recommend the IAT as a reliable predictor of biased behaviors, suggestive studies do exist.[97,98] Greenwald et al[97] note that small changes in IAT scores may well correlate with large differences in discrimination-related behaviors in several settings, including healthcare, and further state that IAT measures can be used "(*a*) to identify persons especially prone to committing discrimination and (*b*) to understand system-level discrimination." An additional study by Leslie et al[99] also found statistically significant improvement in IAT results after IBMS education in medical students, suggesting that changes in IAT scores can potentially be used to evaluate the outcomes of IBMS curricula.

Additional options for measurement of IB reduction include tools such as Internal Motivation Scale and External Motivation Scale (IMS/EMS)[55,100] and the Would/Should Subscale.[101] Devine et al[55] used the IMS/EMS scale to demonstrate decreased IB after implementation of a multifaceted prejudice habit-breaking intervention. In addition to learner reactions and impact on perceptions and knowledge, we recommend measuring outcomes to investigate learner behavior changes, including patient and family satisfaction scores stratified by race, ethnic group, and language.[62] To return to our example scenario, the baby David simulation scenario has been implemented by two of the authors (B.D. and S.V.) with more than 180 clinical nurses (RNs), nursing leaders, advanced practice registered nurses, and physicians. Unit-level outcomes were measured including the number of calls to security and the number of behavior contracts stratified by race before and after the simulation intervention. The IMS/EMS scale was used for the pre, post, and 3-month follow-up. After completing the course, learners reported using IBMS at the bedside and having more open discussions about structural racism and IB. The selected outcome measurements will depend on the learning objectives outlined in the simulation scenario. In addition, departments or organizations can set concrete goals to reduce inequities at the institutional level.[102]

RECOMMENDATIONS FOR FUTURE RESEARCH

It is incumbent upon the simulation community to conduct additional research to determine the translational outcomes of curricula for the reduction of institutional/structural racism and IB in healthcare. Considerable work is needed to understand how issues of race impact the psychology, perceptions, and cognitive processes of learners. We must consider that simulation facilitators, like all of us, are not free of IB, and the effect of their specific responses on learners should be investigated. There is also a pressing need for well-designed and tested frameworks for development of future curricula. It is important to consider the various socioecological levels (ie, individual level, interpersonal level, community level, organizational level, policy level) when designing and implementing curricula on racism and IB.[103] Ultimately, it will be vital to address questions regarding translation to actual practice, both in terms of HCP behavior in the clinical environment

TABLE 5. Examples of Learner Resistance and Possible Responses Using IBMS

Term	Examples	Possible Responses From Facilitator	Implicit Bias Mitigation Strategies
Color-blind racism	Possible learner statement: *"I do not see color. My parents/grandparents/community taught me to treat everyone the same."*	Suggested response: *"Unfortunately, we know people of color are not treated equally in society. How may the statement, "I do not see color" be perceived by a person of color… Color blindness invalidates the person's lived experience where they likely have encountered microaggressions and it minimizes part of their identity. Seeing differences is not a bad thing. Honoring those differences is actually empowering."*	Individuation, perspective taking
White fragility	Many ways to show fragility, all lead to stopping the conversation and shift focus to care for the White person's feelings. Examples include[61]: - Talking but not listening - Taking over all the energy in the room - Denying other people's lived experience - Jumping to statistics - Jumping to theory, philosophy, concepts, or generalities - Reframing racialized issues about money or social class - Focusing solely on personal responsibility and individualism - Defensiveness - Denial - Blaming - White guilt - White savior complex "Let me help you" - Being "one of the good ones"	Facilitators can divert the conversation back to the group by stating *"we have heard a lot from some people, let us give others a chance to speak"* *"Today's discussion can be uncomfortable and difficult, take a moment to feel your reactions in your body before you speak. Be okay with the discomfort."* Help the learner practice perspective taking: *"What's happened to this family?"* or *"What might this family be thinking or feeling?"* *"Ask yourself, if this person was exactly the same, but White instead of Black, how would I feel right now?"*	Mindfulness, emotional regulation, perspective taking, stereotype replacement
White privilege	White people hold much of the power in our society and in a learning environment. Learners may exert their privilege through tears or leaving and re-entering the room to draw attention away from the explicit conversation around implicit bias and center the attention on themselves.	When you observe White privilege, such as tears that disrupt the rest of the class, state to the learner, "I am noticing you are tearful, why do not you take a moment and come back when you are ready." If the learner is defensive and dominating the conversation, consider providing a redirection, "We want everyone here to participate and learn from each other's experiences."	Mindfulness
Micro/macro aggressions[94]	Referring to a person using a racial epithet *"colored"* or *"oriental"* is a more explicit microassault (or perhaps macroassault). Not listening to or interrupting people of color during a conversation, as this demonstrates a lack of respect. When a person of color shares their experience of discrimination and someone states *"Do not be so oversensitive"* or tries to rationalize the possible other reasons for the experience, as this invalidates their lived experience. Use of coded language or dog whistles: *"Inner city youth," "low-income people"* Use of dodges: *"We need to wait until we have all the facts before we can say if the police officer did something wrong"*	When responding to microaggressions, the facilitator should first call out the action by "calling in" the group to the impact of what was stated. "I noticed ____ was stated, although the intent may not have been to harm someone, the impact of the statement is harmful" Other helpful ways to stop the conversation when a microaggression occurs is to simply say "Ouch" or "Let us pause there." Using a simple phrase will allow the facilitator a moment to find the words to address the microaggression. **The most important thing is to not be silent, as silence connotes approval.** Response to coded language: *"What do you mean by _____?" "Do you mean Black kids? Or poor kids? Or kids from Minneapolis?"* Politely, but firmly keep pushing that person until you get a clear answer.[61] Response to dodges: *"No, we do not need to wait until all the facts are in to discuss the death of (eg, Philando Castile, George Floyd, Eric Garner, Sandra Bland). We're not a jury, we are 2 citizens having a discussion and we both saw the video taken as he/she died"*[61]	Perspective taking, stereotype replacement

This table presents potential challenging statements or behaviors that could be encountered during simulation debriefing and offers possible responses based in the various mutually reinforcing IBMS.

and the effect that this has on care. Consider review of the annotated bibliography provided (see Text Document, Supplemental Digital Content 3, http://links.lww.com/SIH/A695, a nonexhaustive list of references related to racism and implicit bias).

CONCLUSIONS

Racism and IB are a pervasive undercurrent within our society, and SBE is well positioned to help address this problem. While a specific focus on pro-White/anti-Black bias is an excellent place to start, it must also be recognized that this is only a beginning point.[22] Experiences of racism and IB intersect with many other identities, such as gender, ethnicity, and religion.[104–107] Ultimately, we should strive to embed the lens of DEI across all simulations, similar to how patient safety principles are currently addressed. Antiracism work should stem from organizational goals, with SBE as one intervention. We recognize and applaud the Society for Simulation in Healthcare's recent creation of a task force focused on diversity within the society and on the creation of curricula intended to address IB. Although the journey to greater racial equity will be uncomfortable for us, it is necessary if we are to create a society in which we all would wish to live. We must begin this needed work.

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