

## EDITORIAL

## Fostering diversity in healthcare simulation

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<https://ijohs.com/article/doi/10.54531/RGUS8506>

The purpose of healthcare simulation is to create a situation or environment to allow the participants to experience a representation of a real healthcare event [1]. As such, it is important that simulations represent the diversity of our patients and healthcare professionals. The American Association of Colleges of Nursing (AACN) defined diversity as 'a broad range of individual, population, and social characteristics, including but not limited to age; sex; race; ethnicity; sexual orientation; gender identity; family structures; geographic locations; national origin; immigrants and refugees; language; physical, functional, and learning abilities; religious beliefs; and socioeconomic status' [2]. In the past, adult manikin simulators tended to be idealized representations of young pale-skinned people (mostly men unless they were birthing simulators). Similarly, task trainers also had pale-skin tones. This is changing with simulator manufacturers increasingly adding simulators with a range of skin tones and age brackets to their inventory. However, as is clear from the AACN [2] definition of diversity, we need to think much more broadly about how to introduce diversity into healthcare simulation.

At the Irish Centre for Applied Patient Safety and Simulation (ICAPSS), we have embarked on a process to improve the representativeness and diversity of the simulation-based education being delivered at our centre. We certainly acknowledge that we are far from experts in fostering diversity in simulation. Our efforts to improve diversity are summarized in Box 1 and described in more detail below.

### Box 1. Summary of efforts to improve diversity at the ICAPSS.

- Recruited a diverse patient and public involvement (PPI) group.
- Reviewed existing scenarios for unconscious biases.
- Specifically included diversity as a consideration in simulator purchasing decisions.
- Solicited input on the development of scenarios from diverse communities.
- Started addressing diversity in the pre-brief and debrief.

*Recruited a diverse patient and public involvement (PPI) group.* Research funders increasingly recommend and in many cases require PPI in the design, conduct and dissemination of health services research. PPI co-design is based upon the premise that this improves the quality, relevance and uptake of research [3]. The goal of the recently established ICAPSS PPI group is to move beyond research and ensure that the patient and public voice also shapes the teaching activities of the centre.

*Review existing scenarios for unconscious biases.* Unconscious, or implicit, bias refers to ways people unknowingly draw upon assumptions about individuals and groups [4]. We have given some of our simulation scenarios to members of our PPI

group for review to identify biases that may exist in the scenarios. This process has identified a number of issues. For example, it was noticed that all of our patients had rather old-fashioned Irish names (e.g. Kathleen and Michéal) and were lacking in any diversity in background. This is despite our undergraduate learner cohort being of international origin. As a result, we have diversified the names/ backgrounds of the patients in our scenarios and made greater use of our recently purchased dark skin tone manikin across our scenarios. Interestingly, another unconscious bias that was identified was how different healthcare professional groups were portrayed in our scenarios. For example, often the radiographer on-call would be unhelpful to the learners, and invariably the surgeon would be too busy to review the patient when called. Therefore, we are also reviewing our scenarios to ensure that we are not presenting stereotypical, or false, depictions of healthcare providers or teaching learners to avoid escalation of care.

*Specifically included diversity as a consideration in simulator purchasing decisions.* When purchasing simulators, the focus should certainly be on important factors such as task alignment, price and ease of maintenance. We have extended these factors to include diversity as an additional consideration. At the ICAPSS, we have an increasing range of simulators with different skin tones and of different ages. We have also tried to ensure that this purchasing is not tokenistic. For example, when teaching suturing to medical students, we use skin pads with a range of different skin tones.

*Solicit input on the development of scenarios from diverse communities.* Involving patients in creating scenarios, particularly simulated participant (SP) scenarios, has become more commonplace [5]. It is possible to involve people from diverse communities in scenario design to ensure that the scenarios are representative of the lived experience of these healthcare consumers and avoids any unconscious biases that may lead to reinforcement of stereotypes [6]. To illustrate, we wanted to develop some formative objective structured clinical examination (OSCE) stations as part of a module on LGBTQ+ healthcare developed for medical students. We engaged with members of the lesbian, gay, bisexual, transgender, queer, plus (LGBTQ+) community in order to identify some of their challenges in accessing health care. We used this engagement to develop scenarios in which a doctor conducted a consultation with an SP playing a member of this community (e.g. asking a general practitioner for a prescription for pre-exposure prophylaxis). Drawing upon the lived experience of members of the LGBTQ+ community allowed us to develop authentic, and relevant, scenarios.

*Addressing diversity in the pre-brief and debrief.* We have reviewed our pre-brief protocols to ensure that we are clear and explicit about the rules of engagement for simulation and the need to be respectful and professional in communications. Our facilitators also observe and reflect on their own, and others, debriefings from the perspective of equality, diversity and inclusion. The Sim-Edi tool [7] provides useful guidance in supporting these types of reflections.

*Planned future diversity activities.* We would like to involve relevant PPI members in the debriefing of simulated activities to provide input to the learners from the patient perspective. We are reticent to actively search for members of a particular diverse community to be members of the SP programme. Our hesitancy is due to the fact that the SP would be acting as a version of themselves, and so has an 'increased degree of vulnerability' [6]. Therefore, there is a threat to the psychological safety of the SP should the learner unconsciously display prejudicial or stereotypical attitudes or behaviours. Although care is still required, the involvement of the PPI member in the debriefing provides a degree of protection. It is also important to consider the diversity of the learners in our simulations. It has been found that racial abuse of medical staff by patients is far from uncommon [8]. In the future, we hope to use simulation to support the didactic active bystander training of our organization.

## Conclusion

For simulation to be a valid representation of the real world, it is important that our simulations are representative of the patient and healthcare providers in the healthcare system. We hope that our initial approaches to improving the diversity in the simulations conducted at the ICAPSS may be an encouragement to others.

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