

Bridging Realism and Risk: Confederates in Simulation-Based Education

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Introduction

Simulation-based education provides healthcare professionals with a psychologically and physically safe environment to repeatedly practise both technical and non-technical skills without placing patients at risk.¹ It represents a modern approach to healthcare education that aligns closely with the goals of Education 4.0.² While high fidelity manikins and simulated patients are widely used, the pedagogical value of confederates has received less attention and remains underexplored in literatures.

In healthcare simulation, a confederate is defined as “*an individual other than the patient who is scripted in a simulation to provide realism, additional challenges, or additional information for the participant*”.³ In other words, a confederate is someone who is “in on” the scenario, playing a scripted role such as a nurse, family member, or colleague, to guide or shape the learning experience without being a learner themselves. Unlike simulated patients who primarily portray patients, confederates often represent healthcare professionals, relatives, or team members.^{4,5,6}

Research on healthcare confederates in Malaysia remains limited; however, existing insights into simulation-based education within the country reveal potential areas where confederates could be integrated.⁷ This commentary discusses both the potential benefits and the challenges of employing confederates in simulation, emphasising their role in enhancing healthcare education. It ultimately calls for the broader use of confederates in simulation-based education and highlights the importance of

structured training programmes to ensure they are well-prepared, effective, and consistent in their roles.

Benefits of Confederates in Simulation-Based Education

Incorporating confederates enhances the social realism of simulations⁵ by enacting emotional responses, complex interpersonal interactions, and professional roles, thereby creating learning contexts that cannot be reproduced by manikins or task trainers alone.⁸ For instance, in a simulation of breaking bad news, a confederate playing the role of a distressed family member can display grief, anger, or denial – an emotional response that manikins cannot provide. Such portrayals challenge learners to practise empathy and refine their communication skills in a realistic context.

Similarly, in a team-based emergency scenario, a confederate acting as a nurse may question clinical decisions or introduce a medication error, prompting learners to demonstrate leadership, teamwork, and error management within a dynamic clinical environment. For learners, confederates not only enhance engagement but also deepen immersion⁵ and strengthen the perceived authenticity of simulation scenarios.⁹ They support the development of essential skills such as communication, teamwork, and situational awareness, all of which are critical for safe clinical practice.

Confederates also introduce unpredictability that mirrors real-world interactions, fostering learner resilience and adaptability.¹⁰ For example, in a simulated ward round, a confederate portraying a

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junior doctor might interrupt with an urgent concern, while another, playing a patient's relative, raises emotional questions about care. These unexpected interactions draw learners deeper into the scenario, compelling them to communicate clearly, collaborate effectively, and remain situationally aware. The unpredictability of such encounters closely resembles real clinical practice, helping learners cultivate the flexibility and coping skills necessary for safe patient care.

Beyond realism and unpredictability, confederates can subtly help guide the scenario flow to ensure that key learning objectives are addressed without breaking immersion.⁹ They offer a cost-effective complement to high-fidelity manikins and simulated patients,^{10,11} while their versatility allows them to take on diverse roles across multiple scenarios. Importantly, confederates can also provide valuable feedback on learner performance,^{4,9} offering unique insights from their perspective within the scenario. Such feedback, when incorporated into debriefing, enriches reflection and helps learners better understand how their behaviours and communication are perceived by others.

While challenges exist, confederates significantly enhance learner experiences, emphasising the need for their structured training and deliberate use in simulation. By bridging technical fidelity with human realism, confederates enrich the educational value of simulation and prepare learners more effectively for the complexities of clinical practice.

Challenges in the Use of Confederates in Simulation-Based Education

Alongside their educational value, confederates also present a range of challenges that must be carefully considered. Incorporating confederates into simulations requires thoughtful planning by scenario designers, simulation leaders, and the confederates themselves. Confederates require thorough training to maintain role authenticity, ensure consistency across sessions, balance realism with educational purpose, and minimise bias in learner assessment.^{4,8,12} Acting also does not come easily to every confederate, as some may mix personal and scenario roles, which can mislead learning.

One challenge arises when experienced clinicians are assigned the role of a novice within their own specialty. While this may appear straightforward, it can be difficult for experts to authentically portray a beginner, as their clinical reasoning, management strategies, and other skills have become deeply inherent and automatic. For example, an experienced intensive care nurse may be asked to take on the role of a newly graduated nurse during a simulation on medication administration. While the expectation is to demonstrate hesitancy with dosage calculations and to rely more heavily on protocols or peer support, the senior nurse may instinctively recall drug interactions, anticipate complications, or administer medications with a level of efficiency that unintentionally reflects their expertise rather than the uncertainty of a novice.

In a similar way, junior clinicians may be tasked with portraying a more senior colleague, yet the expected fluency in clinical actions and professional language often exceeds their current level of competence.

For instance, a newly qualified junior doctor may be asked to portray a senior registrar leading a trauma resuscitation. The role requires authoritative leadership, advanced clinical reasoning, and confident communication with the multi-disciplinary team. However, the junior doctor may struggle to convincingly display the decisiveness and fluency characteristic of a more experienced colleague, as these skills are still developing in their own practice.

Another challenge relates to the resources required for effective use of confederates. Recruiting, training, and rehearsing with confederates can be time-consuming and resource-intensive,^{8,13} which may limit their sustainability in settings with constrained staff or budgets.⁵ Even with training, consistency can be difficult to achieve, as different confederates may deliver the same role in slightly different ways, introducing variation in learner experience and potentially influencing assessment outcomes. Furthermore, confederates who are also educators or clinical staff may face role conflict, as their instinct to guide or support learners can inadvertently interfere with the authenticity of the scenario.

In addition, ethical concerns arise when confederates are required to provoke stress, deliver bad news, or portray conflict,¹⁴ as such roles may risk psychological discomfort for both learners and confederates if not carefully managed.⁹ For example, an ethical concern is evident in simulations where a confederate plays an angry family member following a patient's sudden deterioration, a scenario that can produce emotional stress for learners and unease for the confederate. Ethical considerations also extend to maintaining confidentiality, where confederates must refrain from

discussing or revealing how well or poorly learners performed during the simulation.¹⁵ Upholding confidentiality protects learner trust, supports a psychologically safe learning environment, and reinforces the educational integrity of the simulation process.¹⁵

Proposed Structured Preparation Framework for the Use of Confederates in Simulation-Based Education

A structured preparation plan can help overcome challenges related to training, authenticity, resources, and ethics when using confederates in simulation-based education. The process begins with a comprehensive orientation⁹ session, where confederates are introduced to the purpose of simulation, learning objectives, role expectations, confidentiality, and ethical considerations. In this stage, they are also familiarised with the simulation environment, available equipment, and the roles of other participants.

This is followed by a detailed role briefing⁹ which provides a clear understanding of the scenario, expected behaviours, and boundaries for improvisation to maintain authenticity and consistency. Confederates are provided with a written role description that outlines the scenario context, background of the character, expected emotional tone, and verbal or non-verbal behaviours. Adequate orientation and role briefing helps improve performance and realism.⁹

A role play rehearsal¹³ session is then conducted to allow confederates to practice their parts, receive facilitator feedback, and refine their performance for realism and accuracy. Rehearsing beforehand is the

key to running simulation cases well.¹³ The rehearsal can include mock simulations, peer observations, or video recording to allow facilitators to provide targeted feedback on timing, communication style, and authenticity of the portrayal.

On the day of the simulation, a short pre-simulation briefing¹⁶ ensures coordination between facilitators and confederates where the confederates are reminded of the objectives, key cues, and ethical boundaries, including the need to avoid overacting or revealing scenario details prematurely.

Finally, a structured debriefing⁹ is conducted not only for learners but also for confederates. This reflection allows confederates to discuss their experience, share observations about learner behaviour, and express any emotional or ethical challenges faced during the simulation, hence, promoting continuous learning and emotional support, reinforcing their value as integral members of the simulation team.

Additionally, a post-simulation review involving facilitators and confederates helps evaluate the effectiveness of the whole preparation process, identify areas for improvement, and plan for ongoing training or resource optimisation. Regular review meetings also serve as a platform for continued professional development, helping build a pool of skilled, confident, and ethically aware confederates.

Conclusion

Confederates bring unique value to simulation-based education by adding human realism that supports communication, teamwork, and adaptability – skills manikins alone cannot provide. Their use, however, presents challenges in training, authenticity, resources, and ethics. Addressing these through structured preparation, thoughtful scenario design, and institutional support will ensure their meaningful contribution. Future work, particularly in Malaysia, should build evidence and best practices for training and role assignment so that confederates can be integrated more effectively, enriching the realism and impact of healthcare simulation.

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