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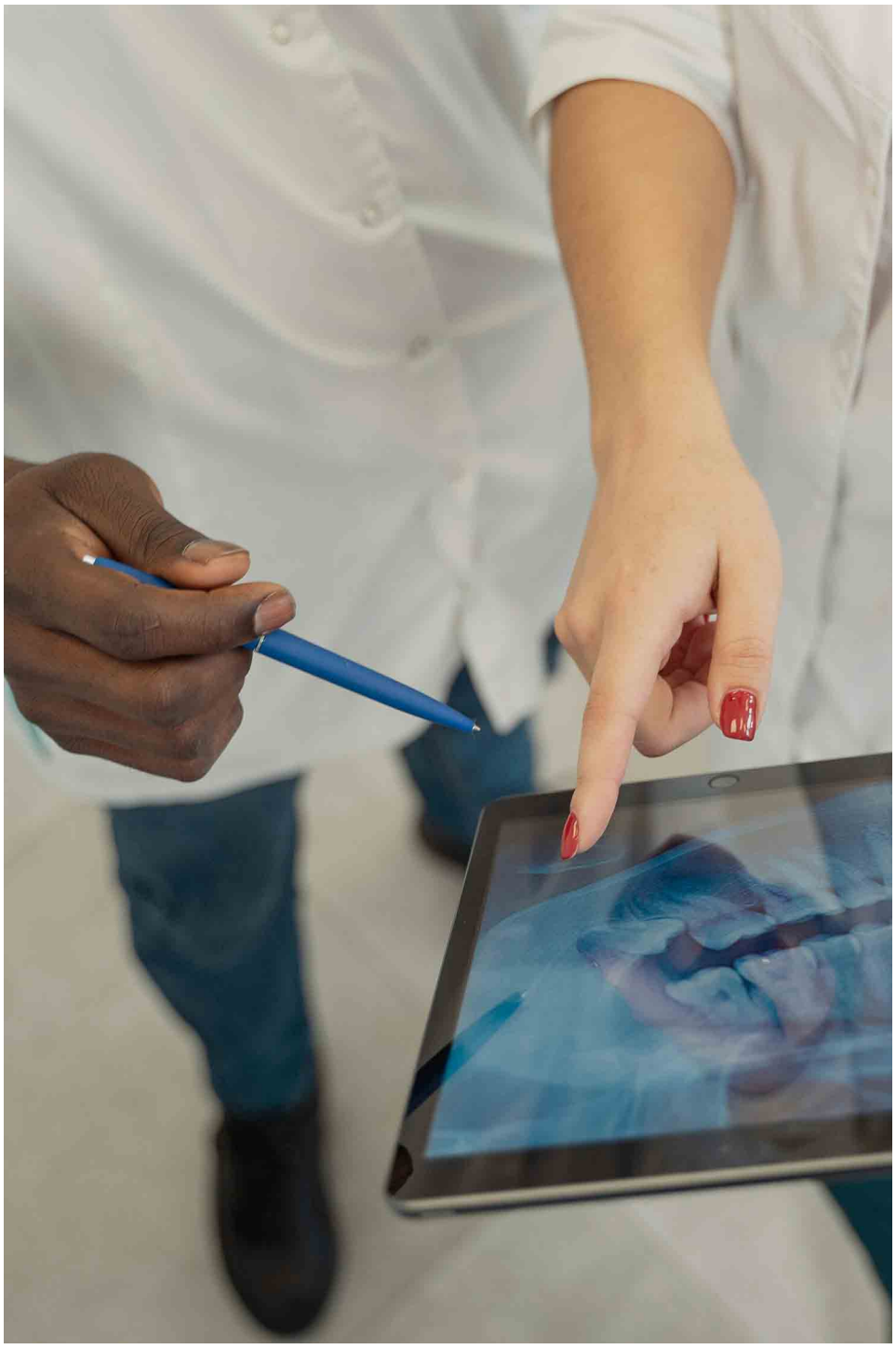
An introduction to digital simulation in healthcare



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Contents

Introduction

Simulation offers a safe learning environment for healthcare professionals, leading to better preparation and safer patient care. This course explores digital simulation’s role in enhancing learning and clinical practice, including debriefing. It examines the principles behind digital simulation, its beneficiaries, and its impact on patients and healthcare professionals.

Throughout the course, you will read and explore the embedded resources and complete reflection tasks to explore your thoughts, feelings and experiences with digital simulation. These activities will help you consider how to incorporate digital simulation into your

hands-on clinical work as well as your academic work. There are quizzes to evaluate your learning as you progress through the course. Many of the resources are from sources from across the globe, reflecting the significance of simulation and digital simulation within healthcare practice education.

This free course is related to the Open University qualification R39 *BSc (Honours) Nursing*.

Learning outcomes

After studying this course, you should be able to:

- understand the principles behind digital simulation
- identify the benefits of digital simulation for participants
- evaluate the potential impact of digital simulation on patients and healthcare professionals
- develop an understanding of the principles of debriefing.

1 What is digital simulation?

Healthcare digital simulation uses advanced technologies to create realistic scenarios for training, evaluation, and improving healthcare practices. Here are some key applications:

1. Healthcare professional training: simulation-based training allows healthcare professionals to practice procedures and decision-making in a risk-free environment. This includes using mannequins, virtual reality (VR), and augmented reality (AR) to simulate real-life clinical situations such as surgeries, emergency responses, and routine healthcare procedures.
2. Patient care improvement: simulations can be used to model patient care processes and identify potential improvements. Simulations can be developed from incident reporting to increase awareness and understanding of how to manage situations accordingly.
3. Regulatory frameworks: simulation is also used to evaluate digital health technologies from a regulatory perspective. For example, the Simulation for Regulation of SaMD (SIROS) framework helps assess clinical simulation methods to ensure they meet regulatory standards, while the full ASPiH Standards can be viewed here.

These applications highlight how digital simulation is transforming healthcare by enhancing education, improving patient care, and supporting the evaluation of innovative technologies.

While simulation and digital simulation is transforming healthcare education, the simulated learning experience provides a ‘what’ aspect to the learning experience. However, a further process such as debriefing can provide additional learning opportunities to explore wider and deeper learning in respect of ‘why’ and ‘how’ learning from a virtual experience can translate to tangible improvements in healthcare practice.

2 Benefits of digital simulation

Digital simulation in healthcare offers numerous benefits that enhance both the healthcare professionals training and patient care.

Take a look at the healthcare reader for an overview of simulation in healthcare. Here are some key advantages:

1. Enhanced patient safety: by allowing healthcare professionals to practice complex procedures in a simulated environment, the risk of errors during real patient care is significantly reduced.
2. Improved skill acquisition: repeated practice in a safe, controlled setting helps learners refine their techniques, develop muscle memory, and build confidence.
3. Simulation-based training offers long-term cost-effectiveness by reducing consumable material use and enabling the reuse of equipment, which offsets the initial investment.
4. Teamwork and communication: simulations often involve team-based scenarios, which help improve communication and collaboration among healthcare professionals.
5. Standardised training: Digital simulations provide a consistent training experience for all learners, ensuring that everyone meets the same high standards of competency.
6. Immediate feedback: Learners receive instant feedback on their performance, allowing them to quickly identify and correct mistakes.
7. Accessibility: digital simulations can be accessed remotely, making training more accessible to healthcare professionals regardless of their location.

These benefits highlight how digital simulation is transforming healthcare by improving the quality of training and enhancing patient outcomes.

3 Limitations of digital simulation in healthcare education

1. Lack of real-world experience: simulations cannot fully replicate the unpredictability and complexity of real-life clinical situations. This can limit students' ability to develop critical thinking and decision-making skills in a real-world context.
2. Technical issues: simulations rely heavily on technology, which can sometimes fail or be difficult to use. Technical glitches can disrupt learning and cause frustration.
3. High costs: developing and maintaining high-quality simulation programs can be expensive. This includes the cost of software, hardware, and training for educators.
4. Limited interpersonal skills training: while simulations can teach procedural skills, they may not effectively teach interpersonal skills such as communication, empathy, and teamwork, which are crucial in healthcare.
5. Accessibility: not all students may have access to the necessary technology or high-speed internet required for effective digital simulation, leading to disparities in learning opportunities.
6. Over-reliance on simulation: there is a risk that students may become too reliant on simulations and not gain enough hands-on experience with actual patients.

Despite these limitations, digital simulations remain a valuable tool in healthcare education, especially when used in conjunction with other teaching methods.

Activity 1

20 minutes

Part 1: Reflection

Make your own notes in response to the following questions.

How do you feel about the use of digital simulations in healthcare education?

- Think about the possible opportunities and limitations of using digital simulation within your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

Part 2: Quiz

Question 1: Which of the following is a primary benefit of digital simulation in healthcare regarding patient outcomes?

- ○ a) It directly reduces the need for all hands-on patient experience.
- ○ b) It significantly enhances patient safety by reducing errors during real-world procedures.
- ○ c) It replaces the need for continuous professional development.
- ○ d) It limits access to training for remote healthcare professionals.

Question 2: Digital simulations contribute to skill acquisition primarily by:

- a) Requiring minimal practice time due to advanced technology.
- b) Providing a chaotic and unpredictable learning environment.
- c) Offering repeated practice in a safe, controlled setting to refine techniques and build confidence.
- d) Focusing solely on theoretical knowledge without practical application.

Question 3: A key advantage of digital simulation in fostering collaborative skills among healthcare professionals is:

- a) It encourages individual, isolated practice without group interaction.
- b) It often incorporates team-based scenarios to improve communication and collaboration.
- c) It eliminates the need for any in-person team meetings.
- d) It provides a rigid, unadaptable training structure.

4 How does digital simulation help to increase awareness, knowledge and skills in healthcare?

Digital simulation in healthcare significantly increases awareness in several ways (Healthcare Readers, 2025):

1. Realistic scenarios: by creating life-like healthcare scenarios, digital simulations help healthcare professionals understand the complexities of real-world situations. This heightened awareness can lead to better preparedness and response in actual clinical settings.
2. Highlighting systemic issues: simulations can reveal systemic issues within healthcare processes, such as demonstrating bottlenecks in patient flow or communication breakdowns. Identifying these issues helps in developing strategies to address them, thereby improving overall healthcare delivery.
3. Patient education: digital simulations can also be used to educate patients about their conditions and treatments. By visualising healthcare condition using simulated scenarios, patients gain a better understanding of their health, which can lead to more informed decisions and better adherence to treatment plans.
4. Training and competency: for healthcare professionals, simulations provide a platform to practice and refine their skills. This continuous practice increases their awareness of best practices and potential pitfalls, leading to higher competency levels.
5. Interdisciplinary collaboration: simulations often involve multiple healthcare disciplines working together.

By leveraging digital simulations, healthcare systems can enhance the awareness and preparedness of both professionals and patients, leading to improved clinical outcomes and patient safety.

5 How does digital simulation reduce risk to patient care?

Digital simulation reduces risk to patient care in several impactful ways – consider the following points.

1. Identification of latent safety threats: simulations can uncover hidden risks within healthcare systems, such as design flaws or procedural inefficiencies before they cause harm. By conducting simulations in real clinical environments (in situ simulation), healthcare teams can identify and address these latent safety threats.
2. Enhanced training and skill development: healthcare professionals can practice complex procedures and emergency responses in a controlled, risk-free environment. This repeated practice helps build proficiency and confidence, reducing the likelihood of errors during actual patient care.
3. Improved teamwork, leadership skills and communication skills: simulations often involve interdisciplinary teams, promoting better communication and collaboration. This teamwork is crucial in high-stress situations, ensuring that all team members are aware of their roles and can work together effectively.
4. Human factors consideration: simulations account for human factors, such as stress and fatigue, which can impact performance. By training in realistic scenarios, healthcare professionals can develop strategies to manage these factors and maintain high standards of care.
5. Standardised training: digital simulations provide a consistent training experience for all learners, ensuring that everyone meets the same standards of practice. This standardisation helps reduce variability in care and improves overall patient safety.

Source: *5 Reasons Why You Should Consider Simulation to Mitigate Risk*. While it must be acknowledged that they have an 'interest' in promoting simulation, many of the five points presented above also appeared in other healthcare practice publications, such as Knight et al, 2018 and Ordu et al, 2019.

By integrating digital simulation into healthcare training and practice, the risk to patient care can be significantly minimised, leading to safer and more effective healthcare delivery.

Activity 2

20 minutes

Part 1: Reflection

Make your own notes in response to the following questions.

What value could digital simulation bring to you and your area of work?

- Consider the possible opportunities and limitations of using digital simulation within your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

Part 2: Quiz

Question 1: How does digital simulation help identify ‘latent safety threats’?

- ○ a) By strictly limiting training to theoretical knowledge.
- ○ b) By eliminating the need for any physical training equipment.
- ○ c) By allowing for simulations in real clinical environments (in situ), uncovering hidden risks before harm occurs.
- ○ d) By focusing only on individual performance, not system flaws.

Question 2: Digital simulation enhances patient safety by improving skill development primarily through:

- ○ a) Requiring only one-time exposure to new procedures.
- ○ b) Providing a risk-free environment for repeated practice of complex procedures and emergency responses.
- ○ c) Automatically correcting all errors without learner intervention.
- ○ d) Focusing solely on theoretical knowledge that does not require practical application.

Question 3: Which aspect of teamwork and communication is highlighted as crucial for patient safety in digital simulations?

- ○ a) Minimising interaction between interdisciplinary teams.
- ○ b) Promoting better communication and collaboration within interdisciplinary teams during high-stress situations.
- ○ c) Encouraging individual decision-making without team input.
- ○ d) Limiting awareness of roles among team members.

6 Guidance for digital simulation in healthcare

Guidance for implementing digital simulation in healthcare can be found in several comprehensive frameworks and toolkits. This list summarises several of these sources and their approaches:

1. National strategic vision for simulation in health and care: this document outlines a vision for integrating simulation and immersive learning technologies into healthcare education and practice. It emphasises the importance of strategic leadership, collaboration among stakeholders, and the use of technology to enhance patient care and staff wellbeing.
2. National framework for Simulation-Based Education (SBE): this was developed by Health Education England (2018) and provides guiding principles for the development, delivery, and commissioning of simulation-based education. It focuses on quality outcomes, leadership and governance, strategic resource allocation, multi-professional faculty development, and quality assurance.
3. National toolkit for simulation in health and care: This toolkit supports the implementation of simulation-based education by providing practical guidance on faculty development, resource allocation, and quality assurance. It aims to ensure high standards in the development and delivery of simulation training.
4. The Nursing and Midwifery Council (NMC, 2024) defines simulation in education as: 'An educational method which uses a variety of modalities to support students in developing their knowledge, behaviours, and skills, with the opportunity for repetition, feedback, evaluation, and reflection to achieve their program outcomes and be confirmed as capable of safe and effective practice'. This definition emphasises the use of diverse simulation techniques to enhance learning, ensuring that students can practice and refine their skills in a controlled environment before applying them in real-world settings.

The following resources collectively offer a robust foundation for integrating digital simulation into healthcare, ensuring that it is used effectively to improve training, patient safety, and overall care quality.

- Enhancing education, clinical practice and staff wellbeing. A national vision for the role of simulation and immersive learning technologies in health and care (HEE, 2020).
- National framework for simulation based education (HEE, 2018).
- ASPiH Standards 2023 – ASPiH (ASPiH, 2023).
- Healthcare Simulation Standards of Best Practice (INACSL, 2021).
- National toolkit to support the use of simulation in health and care (HEE, 2021).

6.1 All Wales simulation-based education and training strategy

The all Wales simulation-based education and training strategy is a comprehensive plan developed to enhance simulation-based education and training (SBET) across the healthcare workforce in Wales (HEIW, 2022). Here are some key points:

1. Collaborative and coordinated approach: the strategy emphasises a collaborative and coordinated approach to ensure high-quality, interprofessional, and accessible

SBET. This involves engaging various stakeholders, including healthcare professionals, educators, and lay representatives.

2. Strategic aims and objectives: the strategy outlines several strategic aims, including improving patient and service user safety, enhancing learning experiences, and ensuring cost-effectiveness. It also focuses on promoting quality, faculty development, and the use of digital platforms.
3. Implementation and evaluation: the strategy includes detailed plans for implementation and evaluation, ensuring that the initiatives are effectively integrated into the healthcare system. This involves continuous professional development, performance reviews, and the use of immersive technologies.
4. Supporting simulation delivery: the strategy provides guidance on supporting simulation delivery, including accessibility, interprofessional development, and research. It aims to create a sustainable and high-quality simulation-based education framework.

The all Wales simulation-based education and training strategy supports simulation in several ways:

1. Collaborative learning: the strategy promotes a collaborative and coordinated approach to simulation-based education and training (SBET), engaging various stakeholders, including healthcare professionals, educators, and lay representatives.
2. Quality and safety: it emphasises improving patient and service user safety, experiences, and outcomes through high-quality SBET. This includes implementing best practices and quality improvement principles.
3. Accessibility and inclusivity: The strategy ensures that SBET is accessible and inclusive, providing opportunities for interprofessional development and continuous professional development.
4. Digital platforms and immersive technologies: it encourages the use of digital platforms and immersive technologies to enhance learning experiences and make simulation more effective and engaging.
5. Faculty development: the strategy supports the development of a skilled faculty to deliver high-quality simulation training. This includes providing resources and guidance for faculty development and performance reviews. Including Ongoing Learning: The strategy emphasises the importance of CPD to ensure healthcare professionals continuously update their skills and knowledge. This includes regular training sessions, workshops, and access to the latest simulation technologies and methodologies.
6. Inter-professional (IP) development: the strategy promotes inter-professional development by encouraging collaborative training sessions where healthcare professionals from different disciplines can learn and practice together. This helps to improve teamwork and communication skills, which are crucial for patient care.
7. Shared learning experiences: it supports shared learning experiences through simulation scenarios that involve multiple healthcare roles, fostering a better understanding of each other’s responsibilities and enhancing overall care coordination.
8. Research and evidence-based practice: it promotes research and evidence-based practice to continuously improve SBET and ensure it meets the evolving needs of the healthcare workforce.

These elements collectively ensure that simulation is effectively integrated into healthcare education and training in Wales, ultimately benefiting both healthcare professionals and patients.

Activity 3

20 minutes

Part 1: Reflection

Make your own notes in response to the following questions.

How could/would you make digital simulation accessible for all?

- Think about the possible opportunities and limitations of using digital simulation within your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

Part 2: Quiz

Question 1: What is a core emphasis of the all Wales simulation-based education and training strategy regarding its approach?

- ○ a) An isolated, top-down implementation by a single authority.
- ○ b) A collaborative and coordinated approach involving various stakeholders.
- ○ c) Exclusive focus on medical doctors' training.
- ○ d) Limiting access to SBET based on professional seniority.

Question 2: Which of the following is not explicitly listed as a strategic aim or objective of the all Wales strategy?

- ○ a) Improving patient and service user safety.
- ○ b) Enhancing learning experiences.
- ○ c) Completely eliminating the need for traditional clinical placements.
- ○ d) Ensuring cost-effectiveness and promoting quality.

Question 3: What role do 'Digital platforms and immersive technologies' play in the all Wales strategy?

- ○ a) They are seen as a minor, optional addition to traditional training.
- ○ b) They are encouraged to enhance learning experiences and make simulation more effective and engaging.
- ○ c) They are primarily used for administrative tasks, not direct learning.
- ○ d) Their use is limited to theoretical instruction only.

7 Different modalities in simulation

Digital simulation in healthcare is a dynamic and integrated approach that combines various technological and human-based modalities to create immersive learning environments, with the purpose of advancing education, enhancing patient care, and supporting the evaluation of new technologies.

Here are some of the key modalities:

1. Standardised Patients (SPs): these are trained actors who simulate real patient cases, allowing healthcare professionals to practice clinical and communication skills in a realistic scenario.
2. Part-task trainers: these are physical models or devices that replicate specific parts of the human body or healthcare procedures. They are used to practice skills such as suturing, injections, or intubation.
3. Virtual Reality (VR): VR creates immersive, computer-generated environments where learners can interact with 3D models and scenarios. This modality is particularly useful for complex procedures and surgical training.
4. Augmented Reality (AR): AR overlays digital information onto the real world, enhancing the learning experience by providing additional context and guidance during procedures.
5. Computer-based simulations: these are software programs that simulate clinical scenarios and decision-making processes. They often include interactive elements and feedback to help learners improve their skills.
6. Simulated clinical immersion: this involves creating a realistic clinical environment where learners can practice managing patient care in a controlled, risk-free setting. It often includes the use of high-fidelity mannequins that can mimic real patient responses.
7. Hybrid simulations: these combine different modalities, such as using part-task trainers with standardised patients, to create more comprehensive and realistic training scenarios.

These modalities offer diverse and effective ways to enhance learning and improve patient care outcomes. (Conelius et al, 2023; CISL, N.D.).

Activity 4

10 minutes

Reflection

Make your own notes in response to the following questions.

Which modalities would work in you area of practice the best and why?

- Think about the possible opportunities and limitations of using digital simulation modalities within your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

8 Debriefing to support simulated learning

What is the significance of debriefing to support simulated learning?

Debriefing can be viewed as a post-training discussion that guides participants to reflect on their performance, reinforce key takeaways, and apply them to real-world situations.

Debriefing is a crucial part of the learning process for several reasons:

1. Reflection and insight: debriefing allows learners to reflect on their experiences, analyse their actions, and understand the outcomes. This reflection helps identify what went well and what could be improved.
2. Reinforcement of learning: by discussing and reviewing what was learned, debriefing reinforces key concepts and skills, making them more likely to be retained.
3. Identification of gaps: it helps in identifying gaps in knowledge or skills, providing an opportunity to address these areas before moving on to new material.
4. Encouragement of critical thinking: debriefing encourages critical thinking and problem-solving as learners evaluate their performance and consider alternative approaches.
5. Emotional processing: it provides a space for learners to process their emotions, especially after challenging or stressful experiences, which can enhance their overall well-being and readiness to learn.
6. Continuous improvement: regular debriefing fosters a culture of continuous improvement, where learners are constantly seeking ways to enhance their performance and outcomes.

By incorporating debriefing into the learning process, individuals and teams can achieve a deeper understanding and more effective application of their knowledge and skills. The significance of the value of debriefing as part of the learning process has been chosen by Pearse (2015),while research by Secheresse et al (2021) suggests there is value in the utilisation of debriefing as part of simulation training because there is evidence that it leads to greater knowledge improvement.

8.1 Principles of debriefing

Debriefing, as for all forms of learning, can be improved for all concerned by considering some key principles for inclusion during the debriefing process:

- Leveraging Simulation Data: Digital simulations are a game-changer! They allow us to capture and replay our performance, so we can review screen recordings, performance metrics, and decision logs for objective feedback. This shifts the conversation from ‘what I think I did’ to ‘what the data shows’, making it more evidence-based and constructive.
- Establishing Psychological Safety in a Virtual Room: Creating a safe space is even more important in a virtual environment where non-verbal cues can be tricky. The facilitator should set the tone by establishing ground rules for the video call, like ‘no

judgment' or 'all cameras on if possible'. This helps participants feel comfortable sharing mistakes, even if we're not in the same room.

- Structured Facilitation: Digital tools can help us stay on track with the debriefing. The facilitator can use screen-sharing to guide the group through the different phases of the debrief, like displaying a slide for the 'Reactions' phase and then another for the 'Analysis'. This keeps the conversation focused and ensures we cover all the learning objectives, even if we're not in the same room.
- Encouraging Reflection Through Prompts: It can be tough to get everyone involved in a digital debrief, so the facilitator should use specific, open-ended questions to encourage deeper reflection. For example, 'Looking at the data, what decision would you change and why?' can help us think more critically. Using features like a shared digital whiteboard or chat can also allow for wider, anonymous participation.
- Connecting Virtual Experience to Real-World Practice: The debriefing is the bridge between the digital world and the clinical one. We should explicitly link the skills we learned in the simulation, like using a virtual interface or managing a remote team, to their real-world applications. This makes sure the training's value is clear and actionable.

Overall, debriefing is a valuable tool for both personal and professional growth, helping to ensure that experiences are used constructively to improve future outcomes (Toews, Martin, and Chernomas, 2021).

Activity 5

20 minutes

Part 1: Reflection

Make your own notes in response to the following questions.

What are your thoughts on being in or facilitating a debriefing session?

- Think about the possible opportunities and limitations of using debriefing as a stage of digital simulation within the context of your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

Part 2: Quiz

Question 1: A facilitator is leading a debriefing session after a team completes a simulated emergency scenario. The facilitator wants to use the data captured during the simulation to guide the conversation. Which of the following principles is the facilitator applying?

- ○ a) Establishing psychological safety in a virtual room
- ○ b) Leveraging simulation data
- ○ c) Encouraging reflection through prompts
- ○ d) Connecting virtual experience to real-world practice

Question 2: During a digital debrief, a facilitator notices that a participant seems hesitant to speak. To address this, the facilitator reminds the group that the session is a safe space for learning and that mistakes are an essential part of the process. Which two principles is the facilitator focusing on?

- ○ a) Structured facilitation
- ○ b) Establishing psychological safety in a virtual room
- ○ c) Encouraging reflection through prompts
- ○ d) Learner-centered approach

Question 3: A debriefing session ends with the facilitator asking each participant to state one thing they will do differently in their next real-world clinical shift based on what they learned. This action is most closely related to which debriefing principle?

- ○ a) Structured facilitation
- ○ b) Connecting virtual experience to real-world practice
- ○ c) Leveraging simulation data
- ○ d) Encouraging reflection through prompts

9 Modalities of debriefing

In healthcare simulation, various debriefing modalities are used to enhance learning and improve clinical practice. Here are some key modalities:

1. Self-reflection: this involves individuals reflecting on their own performance and experiences after a simulation. It encourages personal insight and self-assessment, helping learners identify their strengths and areas for improvement.
2. Self-debriefing: similar to self-reflection, self-debriefing involves a more structured approach where individuals use guided questions or frameworks to analyse their performance. This can be done through written reflections or recorded video reviews.
3. Facilitated debriefing: this is a structured debriefing led by a facilitator, often an experienced educator or clinician. The facilitator guides the discussion, helping participants reflect on their actions, understand the rationale behind decisions, and identify learning points. Facilitated debriefing can be done in groups or one-on-one.
4. Tele-debriefing: with advancements in technology, tele-debriefing allows for remote debriefing sessions. Participants and facilitators can connect via video conferencing tools to conduct debriefings, making it accessible even when in-person sessions are not possible.

Each modality has its own benefits and can be chosen based on the specific needs and context of the simulation. Combining different modalities can also provide a comprehensive debriefing experience. Secheresse et al (2021) found in their research that people had a greater knowledge improvement when debriefing is structured and facilitated.

9.1 Debriefing approaches

There are many different approaches to debriefing, below are the most common.

Table 1

Debriefing Approach	Description
SHARP	SHARP contains the absolute basic principles of what to cover when conducting a debriefing. SHARP is an acronym that comprises five 'prompts' to guide trainers and trainees in providing/receiving a structured debrief. SHARP stands for Set learning objectives, How did it go, Address concerns, Review learning points, and Plan ahead.
Triangular approach to debriefing	Health Education Improvement Wales's simulation team have proposed a triangular approach to debriefing which includes Principles, Structure and Strategies. • A66 Standardizing debriefing in Wales: the Triangular Approach (Diaz-Navarro et al, 2023) • Debriefing approach - HEIW (HEIW, N.D.)
Diamond debriefing method	Diamond debrief method is based on the debrief framework technique which is made up of: description, analysis and application. Diamond debrief also consists of aspects of the advocacy-inquiry approach and of debrief with good judgement. *'The Diamond': a structure for simulation debrief* (Jaye et al, 2015).
Objective Structured Assessment of Debriefing (OSAD)	OSAD is a tool which can be used to facilitate debriefings in both real clinical and simulated settings. It identifies eight core components/categories of effective debriefing i.e. best practice guidelines. These include the approach of the trainer, establishing a learning environment, learner engagement, gauging learner reaction, descriptive reflection, analysis of performance, diagnosis of performance gaps and application to future clinical practice. Each category describes poor, average and good practices. If

	desirable, each category may also be rated on a scale of 1 (minimum) to 5 (maximum) regarding how well that element of the debriefing is conducted by the trainer. Descriptive anchors at the lowest point, mid-point, and highest point of the scale are used to guide ratings. The global score for OSAD, therefore, ranges from a minimum of 8 to a maximum of 40 with higher scores indicating higher quality *Briefing and debriefing during simulation-based training and beyond: Content, structure, attitude and setting* (Kolbe et al, 2015).
SHARE	The SHARE debrief tool supports health and social care teams to engage teams and staff who may be affected by the outcome (ie safety actions) of a learning response. Consists of 5 stages: 1. 1. Scene 2. Hear 3. Articulate 4. Response 5. Embed SHARE debrief tool
TALK (NHS tool)	TALK has four steps: Target, Analysis, Learning points, Key actions and promotes guided reflection within teams as a way to improve and maintain patient safety, increase efficiency and contribute to a supportive culture of dialogue and learning in any clinical environment. TALK materials (Diaz-Navarro et al, 2014).

Activity 6

20 minutes

Part 1: Reflection

Make your own notes in response to the following questions.

Is there a debriefing approach you prefer? Explain your rationale.

- Think about the possible opportunities and limitations of using your chosen debriefing as a stage of digital simulation within the context of your own practice setting.
- If possible, discuss this with a colleague and make some notes on your conclusions.

Provide your answer...

Part 2: Quiz

Question 1: Which of the following are recognised debriefing modalities that encourage individual reflection and self-assessment after a simulation? (Select all that apply.)

- ☐ a) Facilitated debriefing
- ☐ b) Self-reflection
- ☐ c) Self-debriefing
- ☐ d) Tele-debriefing

Question 2: According to the text, which characteristics are true of facilitated debriefing? (Select all that apply.)

- ☐ a) It is always conducted without a guide or leader.
- ☐ b) It is led by an experienced educator or clinician.
- ☐ c) It can be done in groups or one-on-one.
- ☐ d) It primarily involves individuals reflecting on their own without external guidance.

Question 3: Which of the following statements accurately describe tele-debriefing? (Select all that apply.)

- ☐ a) It requires all participants and facilitators to be in the same physical room.
- ☐ b) It utilises video conferencing tools for remote sessions.
- ☐ c) It makes debriefing accessible even when in-person sessions are not possible.
- ☐ d) It is a very outdated debriefing modality.

Question 4: The SHARP debriefing approach provides prompts to guide trainers and trainees. Which of the following are components of the SHARP acronym? (Select all that apply.)

- ☐ a) Set learning objectives
- ☐ b) How did it go
- ☐ c) Address concerns
- ☐ d) Review learning points
- ☐ e) Share feelings

Question 5: The Objective Structured Assessment of Debriefing (OSAD) tool identifies core components of effective debriefing. Which of these are listed as categories within OSAD? (Select all that apply.)

- ☐ a) Establishing a learning environment
- ☐ b) Learner engagement
- ☐ c) Diagnosis of performance gaps
- ☐ d) Providing immediate grades on simulation performance
- ☐ e) Approach of the trainer

Question 6: Which of the following debriefing approaches or tools mentioned in the text consist of five distinct stages or steps? (Select all that apply.)

- ☐ a) Diamond debriefing method
- ☐ b) SHARP
- ☐ c) SHARE
- ☐ d) TALK

Conclusion

Now that you have completed the course, you will have had an opportunity to explore and to understand the role that digital simulation can play in supporting the training and education of healthcare practitioners. As well as having reflected on key points within the course that is relevant to your own sphere of healthcare, you will have also had opportunity to think about the benefits and opportunities as well as some of the drawbacks of digital simulation. Technology in support of learning will continue to be a changing landscape, not only as new technologies emerge but as the integration of machine learning/artificial intelligence (AI) provide additional scope to learners and instructors as they seek to enhance and improve the safety and quality of patient and client care.

Further resources:

- Event recordings (HEIW, N.D.) – explore this curation of Wales-based simulation related events and publications.
- Virtual Reality work experience videos – if you are an NHS employee you may find this resource useful with examples of different case scenarios (HEE, 2022).
- The best podcasts on healthcare simulation – SIMZINE – Marhar (2024) presents a summary of podcasts in healthcare simulation.
- CoDHcast | Council of Deans of Health – Podcasts by the CoDH (2025) on contemporary topics.
- Simulation Debrief by CAE Healthcare – a podcast about the future of healthcare simulation (Patel, 2022).
- TALK: A tool for structured clinical debriefing (Diaz-Navarro et al, 2022). You will need to sign up to an account to access this one.

Want to explore more? You may be interested in the following OpenLearn resources:

- Introducing Health Sciences: Paramedics: Track 1
- Life or Death Decisions
- So, you want to be a nurse? A brief introduction to nursing
- Practice supervision and assessment in nursing

This free course is related to the Open University qualification R39 *BSc (Honours) Nursing*.

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