

Trinity College Dublin Evaluation Testing Phase

1. Description of the intervention:

- **What was the starting point and what is the current situation?**

The intervention was a clinical simulation activity (transfer of patient with tracheostomy) for healthcare professionals (nursing and medical). It was implemented as follows:

- Testing Phase 1: March and April 2024
- Testing Phase 2: May and June 2024

Testing phase is complete.

- **Which activities did you carry out in the testing phase?**

The simulation activity was delivered in the Trinity Simulation Suite and adjoining classroom (live streaming facility) during the above timeframe. The simulation activity was problem based and planned around the journey of a patient who is in ICU with a tracheostomy and the transfer of this patient back to a ward setting with the appropriate care plans, policies, and protocols to manage the care and discharge of the patient to the community setting. Experts in the chosen topic were consulted to ensure reliability and authenticity of the information. The activity included a pre-brief; simulation activity and a debrief.

- **A short description of any changes/improvements made after the pilot stage:**

Reflecting on the lessons learned from the initial pilot, experts in the field of simulation and clinical and academic staff from Trinity College Dublin, formulated the lessons learned into changes for the next iteration of the course. These included increasing the information provided in pre-brief and debrief. This additional information addressed identified gaps in the learner's knowledge. In addition, the range of pre-reading supporting documentation was revised to include additional clinical information.

2. Description of the implementation process

- **Dates and timeline, resources employed, other relevant information:**

Included 2hour Simulation Inter-professional education session broken down into the following:

- 30 minutes Pre-Briefing
- 60 minutes Simulation Activity

- 30 minutes Debriefing

- Testing Phase 1: 2hour Simulation Inter-professional education
 - 13th March 2024 (13:30-15:30; 16:00-18:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 15th March 2024 (13:30-15:30; 15:30-17:30)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 20th March 2024 (14:00-15:30; 16:00-18:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 11th April 2024 (11:00-13:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks

- Testing Phase 2: 2hour Simulation Inter-professional education
 - 10th May 2024 (11:00-13:00; 14:00-16:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 13th May 2024 (11:00-13:00; 14:00-16:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 20th May 2024 (11:00-13:00; 14:00-16:00)
 - High Fidelity Simulators
 - Live-streaming Equipment
 - Clinical Frameworks
 - 4th June 2024 (11:00-13:00; 14:00-16:00)
 - High Fidelity Simulators

- Live-streaming Equipment
- Clinical Frameworks

Evaluation methods applied (survey, interviews, assessment, other?)

No amendments made to the HEAL project agreed Qualtrics Survey supplied by Maastricht University.

3. **Evaluation report students/learners:**

➤ **Testing Phase 1:**

1. **Live Learning in Teams with Scenarios:**

- Teams engaged in live learning, facing challenging scenarios.
- Exposure to topics not typically encountered during brief ward snapshots.

2. **Learning Opportunity:**

- The activity allowed obtaining new knowledge from instructors and peers.
- This knowledge could be applied in nursing practice.

3. **Support and Environment:**

- Felt fully supported by coordinators.
- Welcoming space with organised structure.
- Appreciation for constructive feedback.

4. **Simulation and Relevance:**

- Enjoyed the simulation as a medical and nursing student.
- Relevance to the role, especially regarding tracheostomies.
- Efficient and well-organised placement for maximising learning outcomes.

5. **Feedback and Suggestions:**

- Positive feedback overall.
- Suggestion to provide pre-reading material earlier.
- Desire for more collaboration between healthcare professionals.
- Consider starting scenarios from the first year for general nurses.
- Clarification on ICU procedures beyond ABCDE assessment.

➤ **Testing Phase 2:**

1. Live Learning in Teams with Scenarios:

- Appreciation for the opportunity to improve clinical skills.
- Need for more simulation in undergraduate programs.
- Positive experience with instructors and openness to questions.

2. Learning Opportunity:

- Exposure to new experiences.
- Brilliant and helpful learning environment.
- Integration of theoretical and practical skills.

3. Support and Environment:

- Felt welcomed and comfortable.
- Supportive preceptors.
- Safe learning environment.

4. Simulation and Relevance:

- Hands-on learning.
- Modified ABCDE evaluation for intubated patients with tracheostomies.

5. Feedback and Suggestions:

- Positive feedback overall.
- Desire for more similar placements.
- Appreciation for time spent answering questions during simulations.
- Learning activities and relevant topics.
- Welcomed the opportunity to learn about tracheostomies.
- Would like other topics covered in a similar way during placement.

Evaluation discussions between students, simulation experts and clinical and academic staff identified the following themes:

1. Tools:

- The simulation activities were hands-on and relevant to learning needs.
- The instructors provided supportive feedback.
- Peer working was beneficial.
- Having time to ask questions and understand the material was appreciated.

- The simulation helped in-depth learning.
- There's a need for more simulation training.
- Live learning in teams with challenging scenarios.
- More simulation-based learning opportunities.
- Incorporating practical skills training (e.g., managing tracheostomies).
- Self-assessment through MCQ practice questions.
- Video resources (e.g., ABCDEs, managing tracheostomy dislodgement).

2. Learning Environment:

- The learning environment was excellent, open to questions, and conducive to hands-on skills development.
- The instructors were knowledgeable and approachable.
- The warm atmosphere contributed to a positive experience.
- The organisation of workshops was concise and accommodating.
- Collaboration between different healthcare professionals.
- Supportive and welcoming placement experiences.
- Constructive feedback.
- Safe learning environments.
- Smaller groups for specific and useful feedback.

3. Clinical internships/ placements:

- The simulations provided exposure to different situations, aiding learning from both successes and mistakes.
- Learning about tracheostomies and dealing with emergencies was valuable.
- Activities broke up placements and highlighted knowledge gaps.
- Learning topics beyond short snapshots of wards.
- Relevance to real-life situations (e.g., dealing with critical patients).

4. Beyond the current project:

- The safe learning environment allowed practice of required nursing skills.
- The debrief at the end was informative and supportive.
- Mistakes were not judged, fostering a comprehensive learning experience.
- Starting from the first year for general nurses.
- More scenarios.
- Providing pre-reading material in advance.
- Availability of simulation equipment.

Overall, the feedback emphasises the importance of relevant, supportive, and practical clinical experiences. It also highlights the need for ongoing simulation training and a positive learning environment.

Suggestion for improvement: The days allocated for the simulation activity needs to be spread out over the 6-week placement block as some of the students are on placements outside of the hospital environment. This would mean that most students can be captured within the timeframe allocated.

5. Evaluation by project implementers

- **Summarize main strengths, weaknesses and suggestions for improvement regarding the organization, planning and logistics of the innovation**

Strengths and Weaknesses:

The strengths and weaknesses that were thought to be present were as follow:

a) **The collaboration between the two professions:**

This brought about delegation; teamwork; assigning roles and problem solving. These are all attributes you aspire to see within the practice placement environment and met their learning outcomes.

b) **Actively participating in learning:**

The simulation activity gave the opportunity for both groups of students to actively participate in learning. There is visible learning observed in the simulation activity and debriefing session. One also sees personality traits been displayed and leaders come to the fore.

c) **Filtering unsafe practice:**

Realism of the simulation session is important to mirror the practice placement. This realism was enhanced with the use of practice placement protocols that are used within the clinical setting. Throughout the simulation activity, using problem-based learning, an opportunity is made available for unsafe practices to be recognised. These can then be addressed during the activity or as part of the debrief at the end. Facilitating learning in a safe environment.

Following on from the strengths highlighted additional observations were made under the following headings:

Organisation: To allow for this to take place collaboration needed to happen between the partner healthcare setting and university. The scenario needed to encompass the clinical practice learning needs. Dates needed to be set that allowed for the medical students to partake in the simulation. Nursing students had to take part in the simulation session where the medical students were voluntary. The resources to be used during the simulation needed to be sourced. This meant further collaboration between hospital partner staff and university teaching staff.

Information and Communication: The systems were not in place to contact the students as a collective group, so this meant that each of student needed to be emailed directly which made it very time consuming. There is a project in place trying to make this process more efficient. The relationships needed to be built with the clinical partners which has now been done but the initial discussions around the project meant that time had to be allocated for this.

Learning Activity: The designing of the scenario was based on the learning outcomes of the practice placement. The appropriate care plans, policies, and protocols to manage the care and discharge of the patient to the community setting was used which meant the simulation activity had appropriate links to the practice placement setting.

Learning Climate: For simulation to be successful a safe learning environment needs to be set from the outset. This was set in the pre-briefing session. This led to the success of the simulation session as without psychological safety the students would not have embraced the simulation as well as they did. Simulation really embraced the diverse learning styles of the students.

Assessment: With regards to the assessment elements of the simulation session itself, formative feedback was given throughout. Gaps in the knowledge were seen and then filled. Self-assessment was also used with the checklists needing to be completed. Peer feedback also formed part of the assessment process. The students were given tools to support learning. The opportunity was given for questions to be raised from what had been observed in the practice placement setting. This allowed for retrospective learning to take place. Time may not allow in practice placement for questions to be raised or may not have explained properly. This debriefing part of the simulation allows for this. Also, the students could visualise what was happening where the spoken word does not always explain it.

6. Conclusions & recommendations

- **Which concrete learning and teaching methods were developed and implemented as part of your intervention? Which Innovative Framework Method cards has that resulted in?**
 - Pre-brief
 - Simulation Activity
 - Debrief.
- **What promoting factors and barriers in implementation of the innovation have you identified? Which of these factors are typical for your local context, and which would also apply elsewhere?**

The collaboration between students, clinical and academic staff and healthcare provider site is key for this inter-professional education to be a success. Without these key links this would not be possible.

- **What adaptations; changes or improvements to the intervention would be needed based to ensure sustainable implementation and/or scaling up?**

The days allocated for the simulation activity needs to be spread out over the 6-week placement block as some of the students are on placements outside of the hospital environment. This would mean that mostly all students can be captured within the timeframe allocated.