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Adapting the Use of Mask Ed™ Simulation in Nursing Programmes During the COVID- 19 Pandemic

Kerry Reid-Searl, PhD, MClin Ed, BHLth, Sc.^a, Jane Frost, RN, BSC(Hons), MSc NP, DNP, GCTE, SFHEA^b, JoAnn G. Crownover, DNP, RN, CNE^c, Johanna Rhodes, RN, BN, PGCertHealSc (Emergency Nursing). PGCertHighE (Clinical). PGDipRehab. MTchg, MHealSc.^d, Jennifer Bassett, RN, MClin Practice (Periop)^{e,*}

^a University of Tasmania, Emeritus Professor CQUniversity, Rockhampton, Queensland 4700, Australia

^b University of Canberra, Australian Capital Territory 2617, Australia

^c University of Colorado. Aurora, CO 80045, USA

^d Southern Institute of Technology, Southland, New Zealand

^e Dept Rural Nursing & Midwifery, La Trobe Rural Health School, Shepparton, 3630, Victoria, Australia

KEYWORDS

Mask Ed (KRS Simulation);
Simulation;
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Abstract The onset of the COVID-19 pandemic toppled education delivery worldwide. Nursing education was no exception. The pandemic required nurse educators to quickly shift from face-to-face learning environments to remote and more virtual interactions. Educators were compelled to create and employ strategies to support nursing learners as they assimilated critical and complex knowledge, and skills from their homes, instead of classrooms and simulation laboratories. One modality of simulation which maintained engagement and connection with learners in the online environment was Mask-Ed™ Simulation. This paper presents a snapshot of Mask-Ed™ simulation activities across four higher education institutions globally during the COVID-19 pandemic.

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Background

Due to the COVID-19 pandemic, nurse academics have been challenged with the implementation of meaning-

ful simulation activities in remote learning environments. Mask-Ed™ (KRS Simulation) (here after referred to as Mask-Ed™) is one modality of simulation that was shown to be easily implemented in the virtual learning platform. Mask-Ed™ is a simulation technique which involves the educator/ teacher applying silicone props and in doing

* Corresponding author. j.bassett@latrobe.edu.au (J. Bassett).

so becoming disguised so that they can then transform into another person/ character. The character has a backstory which relates to the learner's discipline. The KRS acronym stands for knowledgeable, realistic, and spontaneous. The hidden educator and the character are knowledgeable with regards to the discipline they are involved in. The R represents realistic. The S represents spontaneous, meaning that the educator now playing the character responds to human interactions in a spontaneous way- there are no set scripts. Traditionally Mask-Ed™ has been used in face-to-face learning environments such as classroom and clinical laboratory. However, during the COVID19 pandemic, face to face education has been disrupted due to lockdowns, the Mask-Ed™ modality has been expanded for use online. The main objectives in using Mask

Ed online was; to facilitate engagement with learners during COVID 19, to encourage learners to have fun as they interacted with characters and to enable the characters to remain a part of the learners journey, despite learners being in lockdown. Additionally, the online presence meant that the characters could interact with

learner's real time either with small or larger cohorts of learners.

This paper showcases innovative ways Mask-Ed™ simulation has been used in higher education nursing programmes in Australia, New Zealand (NZ), and the United States of America (USA) during the pandemic. Examples of online strategies used in synchronous, hybrid and asynchronous learning platforms will be discussed, as well as the utilization for authentic assessment.

Mask-Ed™ Simulation

Mask-Ed™ simulation technique was developed at Central Queensland University, Australia and involves the educator wearing silicone props, including highly realistic masks, hands and on some occasions body torsos. Having applied the silicone props, the educator becomes disguised which allows them to transform into a simulated character. The character has a carefully prepared backstory/ history which directly relates to the learner's discipline. For example, in nursing, the character may be a retired nurse. Through the character's wisdom, they pass on knowledge, guide, and coach learners through nursing care. In essence the hidden educator can teach and coach through the character (Frost, Sainsbury, & Waller, 2017). The technique requires the character to have several attributes, including a level of vulnerability, being kind, portraying a genuine concern

for learners and knowledge that can be shared. These elements enable the character to facilitate a caring relationship with learners. Studies report value in the connection between the learner and the character; (Reid-Searl, Happell, Vieth, & Eaton, 2012; Reid-Searl, Levett-Jones, Cooper, & Happell, 2014) enhanced confidence in their clinical practice (Reid-Searl, Eaton, Vieth, & Happell, 2011; Reid-Searl, Mainey, Bassett, & Dwyer, 2019), improved confidence in communication (Gaida & Frost, 2021), an understanding of empathy (Reid-Searl & O'Neill, 2017), and developing a genuine connection due to the realism, the relevance to learning and the gentleness of the character (Crownover, Henrichs, & Oja, 2021).

Mask Ed in the Online Learning Environment: Synchronous, Hybrid, and Nonsynchronous

Synchronous

In Victoria, Australia, learners cared for Mask-Ed™ character, "Alan" in the nursing laboratory. During the Pandemic, learners and educators were no longer allowed in the laboratory, so instead, Alan joined real time via a video conferencing software (Zoom). The online platform allowed learners to maintain a relationship with the character. Learners focused on patient-centered care by interacting with Alan whilst developing their clinical reasoning skills. To prepare for the simulation activity with Alan, learners were provided with a self-directed learning activity, to be completed individually, then as a group. During the synchronous activity, the Mask-Ed™ character (Alan), chatted with learners and coached them through important elements of their clinical physical assessment skills. Alan responded to learner queries and provided examples from his life experience when he had been a patient in the hospital. At the conclusion of the simulation, the Mask-Ed™ educator "unmasked" from being Alan and debriefed with the learners. Anecdotal feedback from learners indicated they enjoyed hearing Alan's "real-life stories" and learning from his hospitalized experiences.

Like the Victoria experience, a nurse academic in the USA also used Zoom to sustain numerous Mask-Ed™ simulation activities with the character "Lilly" (Figure 1). One activity, for example, focused on the myths and stereotypes of older adults. Learners listened intently to Lilly's stories and responded with care and support. A logical and realistic interplay was able to occur between learners and the educator in character. As a retired nurse, Lilly was able to coach and guide learners during each of the simulated interactions. In a qualitative study conducted at this University, learners described a genuine connection with Lilly and stated that they were able to personally relate to, and learn from, her realistic life stories (Crownover et al., 2021).

Key Points

- Mask Ed is adaptable to multiple contexts.
- Mask Ed Simulation suitable for online environment.
- Mask Ed engages learners in the online platform.



Figure 1 Mask Ed character Lilly.

In New Zealand, the Mask-Ed™ character "Wallace" logged into the virtual learning platform Blackboard with nursing learners. Wallace told the learners he just wanted to check-in to ask how they are coping with the challenges related to the enforced New Zealand lockdowns. Wallace shared with the learners how the lock-down was difficult for him and his wife. He proceeded to tell the learners that he had fallen earlier that day. As Wallace tearfully told his story, the learner nurses interacted with Wallace, asked questions, and displayed genuine concern. Throughout the interaction between Wallace and the learners, it was apparent to educators that this authentic simulated activity led to learner engagement and learning.

In Canberra, Australia, Mask-Ed™ educators developed and studied an innovative face-to-face simulation activity with the Mask-Ed™ character, "Marjorie" (see [Figure 2](#)). The educators replicated this same activity in the online learning management platform Canvas, during the Pandemic. Marjorie appeared online and interacted in real time conversation with learners. The initial study on this innovation demonstrated an increase in learner's confidence with communication in a clinical setting, and similar feedback after the online intervention ([Gaida & Frost, 2021](#)).

Hybrid

In the USA, several Mask-Ed™ simulation activities were implemented during the Pandemic by having the learner nurses view a recording of "Lilly" prior to the characters' synchronous virtual visit. For example, one of the activities included a video of Lilly telling the learners that she is newly diagnosed with type 2 Diabetes Mellitus. She shares that she is fearful of attending Diabetes education due to COVID-19 virus restrictions. She asked learners to provide her with information on her medication regimen. Lilly then joined learners in a synchronous environment where they provide her with patient education. Throughout interactions, Lilly found opportunities to coach learners with helpful hints to guide their learning.



Figure 2 Mask Ed character Marjorie.

Asynchronous

To complement the virtual learning environment demanded by the COVID19 Pandemic, asynchronous Mask-Ed™ simulation activities were developed. In the USA, a video recording of "Lilly" was provided for learners to view. In the recording, Lilly is concerned about her friend who has been admitted to hospital and is experiencing delirium. In groups, the learners developed a written teaching plan for Lilly about delirium and corresponded with her through email. Lilly's response to learners via return email served to coach and guide learners in patient education of delirium. Course faculty debriefed with all of the learners gathered in a synchronous online platform (Zoom) following the email interactions.

Authentic Assessment

Combinatorial approaches have the potential to enhance strengths and versatility of different simulation teaching techniques and Mask-Ed™ was a valuable addition to 360-degree video and digital story telling approaches. In Canberra, Australia Mask-Ed™ was used for authentic assessment. An Objective Structured Clinical Assessment was developed with the Mask-Ed™ character, 'Marjorie' in a digital story ([Frost, Isbel, Kellett, & Lawlis, 2017](#)). In the video Marjorie's described her current health condition and concerns and learners were required to prioritize care. The assessment combined a 360-degree video of Marjorie within a clinical ward environment. A 360-degree video

is a spherical video in which a view from every direction is recorded, this allowed learners to feel immersed in the video and navigate a clinical area for safety risks. This approach allowed learners to explore both their situational awareness and the specific environment in which they were caring for Marjorie. This assessment created a realistic platform for assessment that learners could explore independently and provide a video response. The resulting video response was graded against the specific learning objectives of the unit related to patient safety. Marjorie also provided an alternative assessment for those learners who required a supplementary assessment in units where patient interaction or story was the key for reflection, and when learners could not access a patient due to lockdown restrictions.

Socialization and Support During a Time of Isolation

Nurse educators across the globe were aware that remote learning environments during the Pandemic led to feelings of isolation for many nursing students. Thus, besides the numerous simulated learning experiences discussed above, the Mask-Ed™ characters also provided a connection with learners, offering encouragement and support during this time of isolation and uncertainty. Lilly, the Mask-Ed™ character in the USA, reached out to learners in recorded videos and provided humor as well as reassurance. Lilly, for example, said “My gosh, where did all of the toilet paper go?.”

Lessons Learnt: Content and Feedback

Initially there was some concern that online Mask-Ed™ activities might not be as effective as in the clinical laboratory or classroom, but responses from learners showed the positive benefits from the realistic virtual interactions. During a qualitative study on the student nurses’ perception of Mask-Ed™ simulation (Crowner et al., 2021), nursing students in the USA expressed that the simulation activities with Lilly were “...extremely helpful especially because during Covid we didn’t get opportunities to interact with older adults in the same capacity we would have normally”. Although interactions were virtual, the students commented that the opportunities to engage with the Mask-Ed™ character increased their comfort level in communicating with a patient and helped to ease their transition into the clinical setting. Following a Mask-Ed™ activity in Australia, one student said “Absolutely loved it,...this was my first experience talking to a patient”.

Connection and engagement with learners in remote learning platforms were seen with Mask-Ed™ simulation activities consistently across all the tertiary institutions featured. Anecdotal positive feedback from learners and their requests to see the characters again, suggests learners en-

joyed the break from “usual” on-line classes. Learners appear engaged and eager to interact with their Mask-Ed™ character, providing support, education and sometimes problem-solving. One student in the USA shared that the real-time dialogue with the Mask-Ed™ character encouraged a spontaneous response which was great practice in providing patient education, guidance and support. Another student, from across the Globe, shared a similar sentiment “...it puts you on the spot and makes you think on your feet, being conscious that this may be a real-life situation”.

For some learners the realism they experienced during online learning activities with Mask-Ed™ simulation triggered the realization that many older adults in communities may be experiencing isolation and thus may need support. In New Zealand, the learner’s interactions with the Mask-Ed™ character ‘Wallace’ led to a collaboration with a local business; learners regularly telephoned older adult members of the community to offer companionship.

Conclusion

This paper showcases the value and versatility of Mask-Ed™ simulation. Traditionally, Mask-Ed™ has been utilized in the face-to-face learning environment, but the COVID-19 Pandemic required a shift in learning activities to remote and virtual. Mask-Ed™ educators across the globe were able to quickly adapt this innovative simulation modality to the online environment. The Mask-Ed™ activities that were implemented virtually positively engaged the learner.

Conflict of Interest

The authors declare no conflicts of interest.

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