

# Using simulation to effectively deliver mental health content in undergraduate nursing programs: A systematic review

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## Introduction

Registered nurses must be prepared to care for the mental health needs of patients, regardless of clinical setting. Despite current educational practices, many nurses exit undergraduate programs unprepared to care for these needs. It is therefore necessary to modify our current educational practices in order to better prepare nurses for care of people with mental health needs.

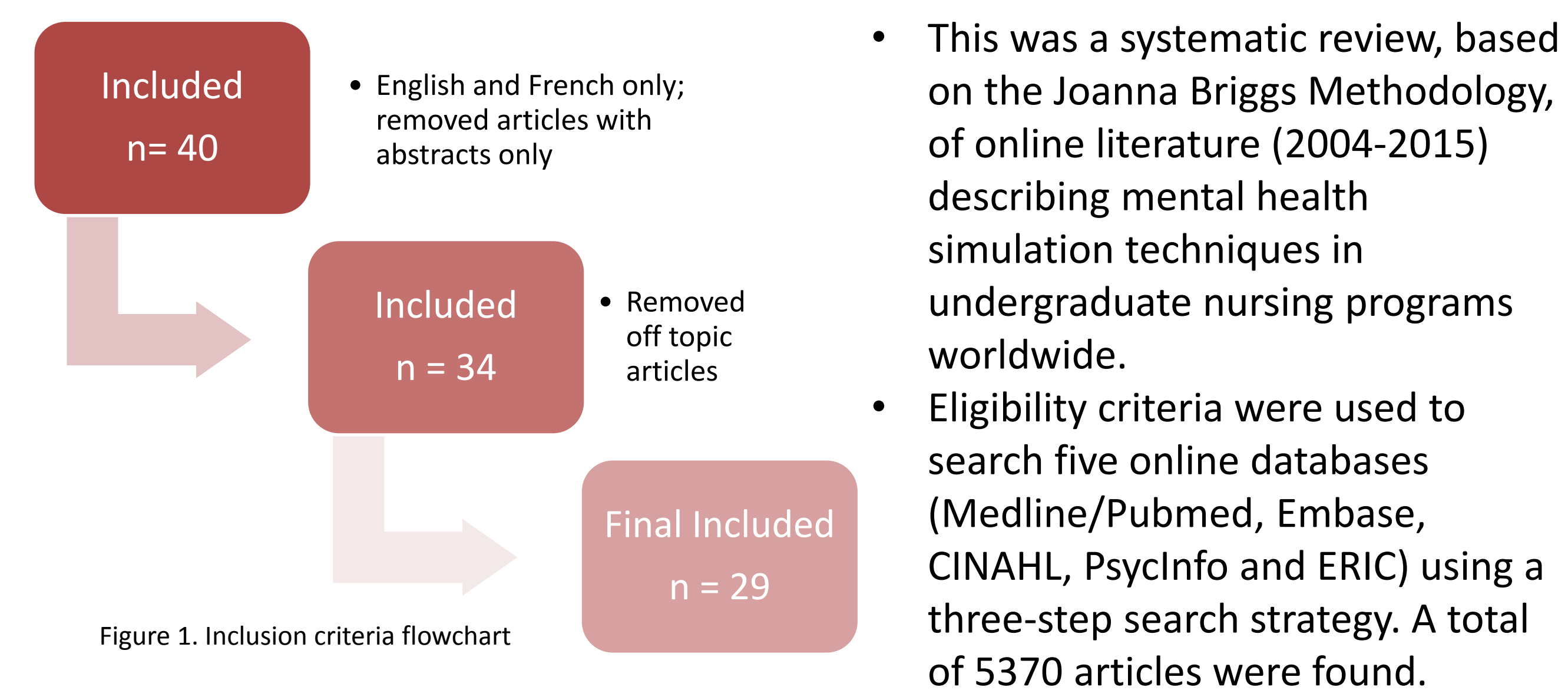
Mental health teaching is undergoing reform, with new entre-to-practice competencies being developed. Education must be tailored to ensure that these new competencies are learned and mastered by all students, in the most efficient way. Simulation has been identified as a valid method to deliver content to undergraduate nursing students worldwide. Many nursing programs around the world now supplement theory and clinical education with simulation as a means of educating students in a safe and interactive way. However, the use of simulation to teach mental health content is in its infancy and very little best evidence exists to help guide its delivery.

## Research Question

What are the current and most effective ways of delivering mental health education using simulation in an undergraduate nursing program setting in order to improve mental health care?

The research question was identified through the use of the PICO method; where the population refers to undergraduate nursing students or nursing educators, the intervention is the delivery of mental health content using simulations, the context is undergraduate nursing programs worldwide, and the outcome is a significant improvement in graduating nursing students' preparation in caring for the mental health needs of patients.

## Methodology



- These articles were screened and initially reviewed by a research team, and were divided into three categories (theory, clinical and simulation). 40 simulation articles were read to determine if they matched with the inclusion criteria.
- From these 40 articles, 27 remained for data extraction (see inclusion flow sheet).
- Data from the included studies were extracted using a standardized spreadsheet that included study characteristics and detailed simulation descriptions.
- Preliminary results were presented at a Stakeholder Forum where a group of experts discussed the best current approaches at mental health education.
- Recurring themes and interesting points were then discussed in a smaller focus group in order to improve the quality of mental health education at the University of Ottawa.

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## Discussion

Multiple types of simulations were recommended by various articles in the systematic review. In general, these types of simulations were said to increase students confidence, self-awareness, knowledge, critical thinking, empathy, therapeutic communication skills and preparation for clinical. They also generally decreased the student's anxiety towards their upcoming clinical placement.

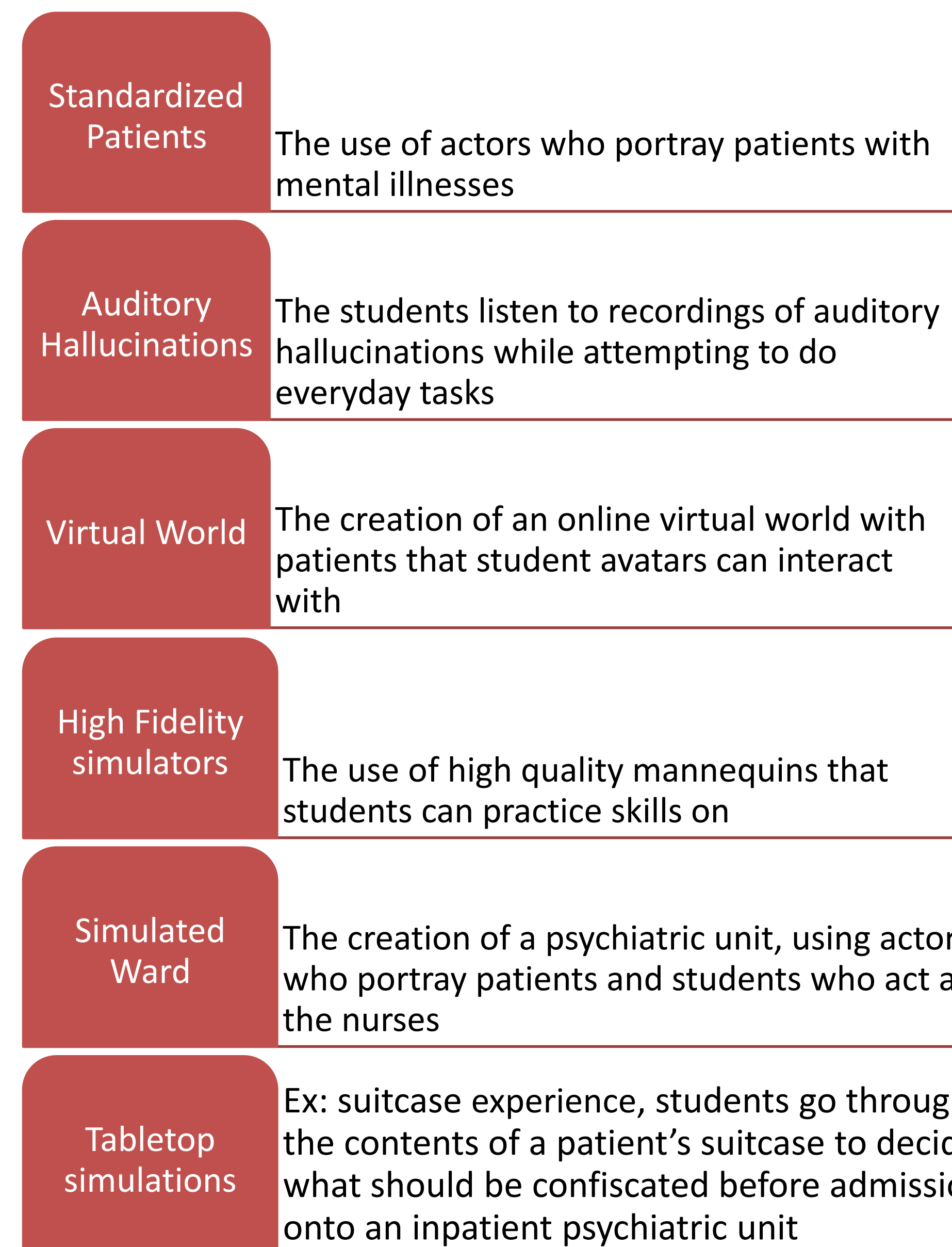


Figure 2. Types of simulations mentioned in research.

### Limitations

- Exclusion criteria (English and French articles only, abstract only articles removed instead of purchased, etc.)
- Most of the research used un-validated questionnaires, and therefore the science is limited.
- The great majority of studies contained qualitative information; there was very little quantitative research.

### Interesting Findings:

- The most researched simulation is the standardized patient. This is a very costly experiment.
- No Canadian Studies were found! Many were from Australia and the UK, and multiple studies came from Brazil. However, the Brazilian studies from San Paolo University were in Portuguese, and were therefore excluded. Nevertheless, based on initial screening, most of the Portuguese articles seemed eligible. It might be interesting to replicate this study in a Portuguese database.
- This seems like a topic that would lend itself well to an experimental study, yet no one has attempted it.
- There are many articles that suggested simulation as a replacement for clinical placement. However, the Stakeholder Forum and the Focus Group completely disagree with this recommendation.

## Results

Focus Group recommendations will be discussed at the yearly curriculum meeting. The changes will then need to be implemented in the 2015-2016 curriculum and more research will need to be done after the end of the course in order to determine if the implemented changes were effective.

## Recommendations

These recommendations were taken from the Stakeholder Forum, the Focus Group and the data extraction.

- There is a need for increased communication and cohesion between the theory, clinical and simulation portions of the nursing program at the University of Ottawa.
- Simulations should be developed by mental health experts, or by people who have real experience working in this setting in the past.
- Include simulations mimicking symptoms, such as auditory hallucination simulations, as they allow students to become more empathetic.
- Standardized patient simulations are recommended, but must be well executed in order to prevent the reinforcement of stereotypes and stigma.
- Use a wide variety of simulation, including tabletop simulation such as the suitcase experience, in order to best prepare students for their clinical placement and entry to practice.
- Ideally, have simulations that show mental health in all types of settings (for example in a medical surgical setting) as well as a simulation to prepare the students for their clinical placement in the mental health setting. However, due to time constraints, this may not be possible. Instead, simulation should target high risk situations in order to offer a safe space for students to practice and make mistakes without affecting the health of the patient (ex: suicide simulation).
- Have people with lived experiences talk about their challenges and explain how the students can change this as future health care workers.

## Conclusion

Additional research will need to be done in this area before any conclusions can be drawn. The use of simulation to teach mental health content is still a very new concept, and more research is necessary in order to determine the most effective way of delivering these simulations. Experimental studies using validated pre and post-test questionnaires that directly evaluate the student outcomes (and not the student experiences) are much needed. Following these studies, the most effective way of delivering mental health education using simulation can be determined and applied in the curriculum for the undergraduate nursing programs in order to create generalist nurses that can properly care for patients with mental health needs.

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