

# **An evaluation of nursing students' perceptions on the efficacy of high fidelity clinical simulation to enhance their confidence, understanding and competence in managing psychiatric emergencies**

**Key words:** High fidelity simulation; psychiatric emergency; nurse education; mental health nursing; clinical skills.

## **Aims**

This study aimed to evaluate final year mental health nursing students' perceptions on the efficacy of using immersive high fidelity simulation to enhance their confidence, understanding and competence in managing psychiatric emergencies.

## **Background**

Final year undergraduate nurses may lack the knowledge and competence required to manage deteriorating patients and respond to emergency situations (Stayt *et al.* 2015). Mental health nurses are likely to be the first responders to emergency situations in a psychiatric setting. Nevertheless, there is a dearth of evidence regarding the effectiveness of high fidelity simulation in preparing mental health nursing students to respond to and manage psychiatric emergencies. Therefore, the efficacy of clinical simulation as a strategy to teach the skills required to manage such emergencies needs to be evaluated.

## **Design & Methods**

The study consisted of an evaluation form whereby participants reported on the effectiveness of clinical simulation to enhance their *confidence, understanding and competence* in managing psychiatric emergencies. The evaluation form did not request any demographic information and the respondents were completely anonymous. The evaluation was given exemption from necessitating ethical approval by the University Research Ethics Committee as they classed this activity as course evaluation.

## *Procedures*

Final year undergraduate mental health nursing students (N = 51) at a United Kingdom School of Nursing, Midwifery and Social Work had on-campus lectures and directed reading exploring the theoretical aspects related to psychiatric emergencies. Theory content consisted of management of the patient in respiratory depression, cardiac arrest, de-escalation, rapid tranquilization and neurological, respiratory and cardiovascular systematic assessment. Following the theoretical aspects, students participated in two workshops of 3 hours duration practicing the technical and clinical reasoning skills required to assess and manage psychiatric emergencies. The simulation workshops were based on clinical case scenarios, which included: responding to a patient who had a ligature compromising their airway; assessing and managing a patient who's respiratory rate deteriorates owing to a benzodiazepine overdose; responding to a patient in hypovolemic shock owing to blood loss from a self-inflicted laceration and the administration of rapid tranquilization and the patient's management following this.

The sessions made use of the Resusci Anne Simulator<sup>®</sup> and nurse educators roleplaying patients. They were undertaken in the Clinical Simulation Laboratory designed to replicate an inpatient psychiatric setting. All participants were orientated to the environmental logistics of the laboratory (drugs cabinet, patient monitors, telephone etc.). Participants were randomly assigned to teams of four and all were assigned the role of Registered Nurse and given sub roles of first responder or Nurse in Charge. Scenarios were undertaken repeatedly and each participant contributed to a minimum of two scenarios. The non-practicing students viewed the scenario from the opposite side of the laboratory. Each scenario finished with a facilitated debriefing session and constructive oral feedback given to the students by nurse educators highlighting "lessons learnt" and recommendations for changes to future clinical practice.

### *Outcome measure*

Following the workshops participants were asked to complete a student evaluation form that asked the following questions:

*Participating in the clinical simulations regarding psychiatric emergencies has*

*increased my:*

- 1. Understanding**
- 2. Confidence**
- 3. Competence**

*of how to managing these situations.*

Students had to answer this question for each of the three factors (understanding; confidence; and competence) by giving an answer from 1 (strongly agree) to 5 (strongly disagree), with a midpoint answer of 3 (ambivalent).

The students were also asked to rank, with one being the most effective and three being the least effective, which of the following teaching and learning strategies: Clinical Simulation; Lecture; or Seminar they felt was most effective to develop their skills in managing psychiatric emergencies.

Data were imported to SPSS version 22 for analysis.

## **Results**

All participants completed the evaluation form (N=). These results are displayed in Figure 1. The median score for each of the factors was:

1. Understanding = 1
2. Confidence = 1.5
3. Competence = 2

Therefore there was also strong agreement that the students' perceived that the clinical simulation workshops increased their competence; confidence; and especially understanding of how to manage psychiatric emergencies owing to the inter-quartile-range (IQR) for all three questions going from 1 "strongly agree" to 2 "agree".

The majority of students (96.9%) ranked clinical simulation as the most effective teaching and learning strategy to facilitate their learning regarding how to manage psychiatric emergencies (only 3.1% ranked it the least effective). Least popular was

lecture owing to 75.0% of students ranking it as the least effective setting. Similarly 21.9% of students ranked seminar as their least effective setting.

## **Conclusions**

Patient safety is high on the international healthcare agenda. Nurse educators and healthcare providers have an obligation to ensure that staff are competent in the skills required to respond appropriately to emergency situations where patients are acutely ill and deteriorating (Buckley & Gordon 2011, Stayt *et al.* 2015). The students in this study reported that they felt the most effective strategy to teach these skills were clinical simulation rather than the traditional didactic approach. This concurs with other research where students reported being satisfied with simulation based education (Wagner *et al.* 2009). Moreover, Landers (2008) posits that merely sharing the theory is not enough in itself, and that students must also be able to practice physically applying the theory.

Whilst this study suggests that students' perceived that the clinical simulation workshops enhanced their confidence; understanding; and competence of how to manage psychiatric emergencies, a small minority were ambivalent or disagreed, as they failed to correlate its clinical applicability. This could be attributed to the difference in learning style.

## **Relevance to clinical practice.**

This study adds to the burgeoning body of evidence that suggests that clinical simulation may be efficacious in developing the knowledge and skills required to achieve clinical competence. However, further research is needed to recognise the type of learning that actually take place using this method and ultimately assess its impact in practice.

## **References**

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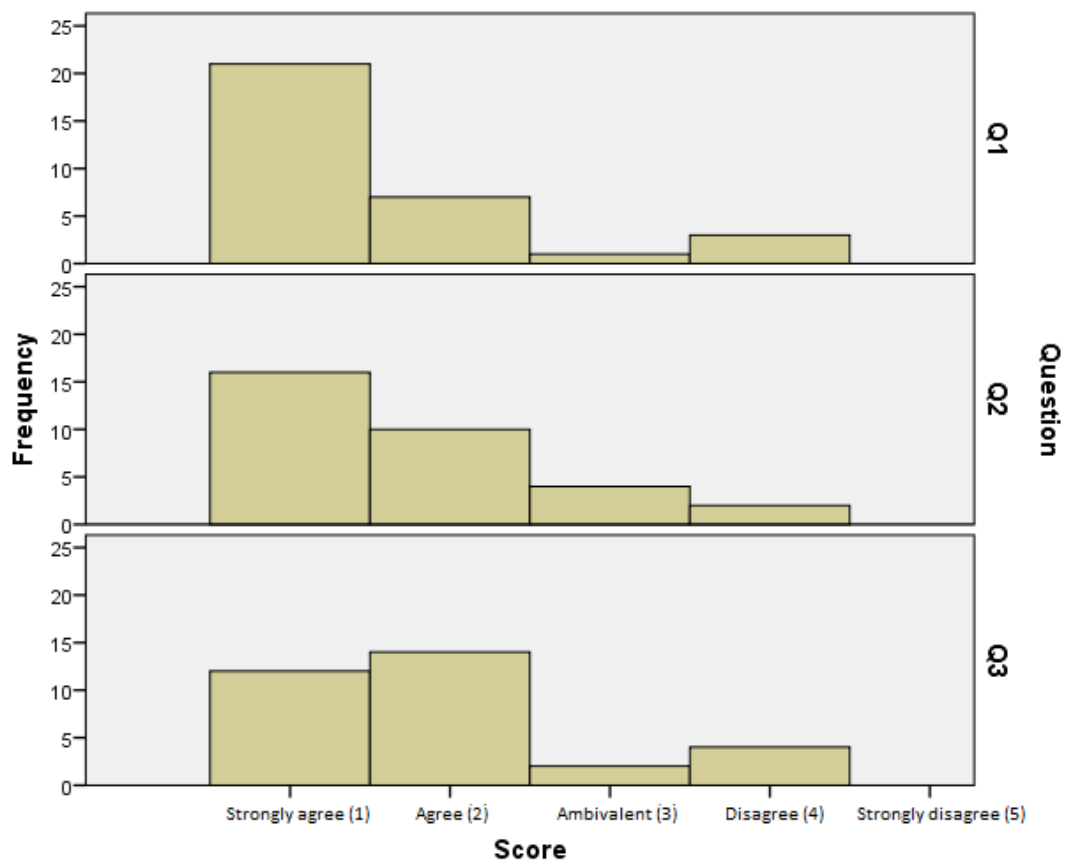


Figure 1. Q1=Understanding, Q2=Confidence, Q3=Competence