

Enhancing Mental State Assessment Competencies of Enrolled Nurses for Diverse Patients through Standardized Patient-based Simulation

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Abstract— *Mental state assessment is crucial to provide critical information for psychiatrists and explore the needs of patients with mental illness. Continuing professional education and converting to registered psychiatric nurses, enrolled psychiatric nurses in Hong Kong must advance their mental state assessment skills in a higher diploma program. This study assessed students' nurse competencies in mental state assessment and satisfaction after participating in a newly developed standardized patient-based simulation in the higher diploma program. The School of University approved this study. The study employed a cross-sectional design. Two measurements were employed to assess nurse competencies and student satisfaction among the enrolled psychiatric nurses in the program. The developer established the simulation sessions, trained the facilitators and the recruited standardized patients, and monitored their performances. In the result, all final-year, a total of fifty-two students, were recruited. All of them completed the simulation sessions and passed all assessments of nursing competencies. In addition, self-administrative questionnaires were distributed to the students, and quantitative and qualitative feedback was collected. The results supported that this standardized patient-based simulation was effective and welcomed by nursing students and informed the future development of continuing education for enrolled psychiatric nurses.*

Index Terms— *Mental State Assessment, Standardized Patient-Based Simulation, Psychiatric Nurse Practitioner Education*

I. INTRODUCTION

Psychiatric care is a demanding and constantly changing field that requires healthcare professionals to have a range of competencies. For instance, psychiatric nurses need to have the ability to assess a patient's mental state accurately, which is crucial for diagnosis, treatment planning, and ongoing care. However, developing and maintaining these competencies can be challenging for enrolled psychiatric nurses, given the diverse and often complex nature of mental illnesses, the need to stay current with emerging treatments and therapies, and the lack of adequate training opportunities. Therefore, it is essential for enrolled psychiatric nurses to have access to ongoing training and education that can help them develop and maintain the competencies necessary to provide high-quality care. Simulation-based training, particularly using standardized patients, can provide a safe and controlled environment for psychiatric nurses to practice and improve their skills, gain practical experience, and enhance their nursing competencies.

II. LITERATURE REVIEW

Mental state assessment is an essential skill of psychiatric nurses. With an accurate assessment, the health care providers can identify the mentally ill patient's signs and symptoms to offer appropriate treatments and interventions. The data given by the patients are influenced by their mental state. For example, patients with hallucinations cannot express themselves fluently and communicate with others in good contact. Hence, the nurse carrying out mental state assessment should have excellent observation and advanced

communication skills with psychiatric patients [1]. In this regard, psychiatric nurses need specific training, practice, and experience.

The curriculums between registered nurses and enrolled nurses are different in Hong Kong. According to the Nursing Council of Hong Kong, the theoretical hours of registered nurses and enrolled nurses are 1400 hours and 1000 hours, respectively. The clinical job nature of enrolled nurses was similar to those of nurse associates in the United Kingdom and licensed practical nurses in the United States. When comparing their core competencies, registered nurses should be able to carry out the nursing process while enrolled nurses focus on direct patient care [2][3]. Therefore, registered nurses are expected to conduct assessments and formulate care plans, whereas enrolled nurses implement bedside care. To continue their education, advance their profession, and upgrade to be registered psychiatric nurses, enrolled psychiatric nurses in Hong Kong need to opt for a part-time higher diploma program in which they learn to conduct mental state assessment interviews with patients.

Simulation is a technique to replace or amplify real healthcare experiences by replicating the real world in a standardized and controlled environment. There are various types of simulation, ranging from low-fidelity, such as mannequins and task trainers, to high-fidelity simulation using computerized mannequins that can mimic human physiology and respond to interventions in real time. Virtual simulation in healthcare provides an artificial virtual environment for medical students, medical practitioners, or nurses to practice their skills ranging from surgical procedures to clinical judgment, through different mediums,

including desktop computer applications, virtual reality headsets, and augmented reality tools.

Simulation is proven to be effective in developing students' cognitive skills, practical skills, and empathy of students [4]-[6]. In mental health nursing, students must master advanced communication skills and implement talking therapy or counseling for people with emotional distress or cognitive disorder [7]. The highly technological mannequins cannot mimic non-verbal communication, such as facial expressions and body language, and provide instant two-way responses to the students [8]. The application of standardized patient-based simulation could be the solution. A standardized patient is an actor used in simulation education. In a structured scenario, the actor will act as the patient and respond to the students according to the protocol. Standardized patient-based simulation is gaining popularity in nursing education [9][10]. However, the impact of standardized patients in teaching mental state assessment has yet to be investigated. Lack of study investigating the application and effects of using standardized patient as a pedagogy in teaching mental health nursing.

III. AIM OF STUDY

This study aimed to investigate the impact of a new standardized patient-based simulation on registered psychiatric nursing competency and satisfaction among the enrolled psychiatric nurses.

IV. RESEARCH METHODOLOGY

A. Design sample and setting

This study aimed to investigate the impact of a new standardized patient-based simulation on registered psychiatric nursing competency and satisfaction among the enrolled psychiatric nurses. The School of Nursing and Health Studies at a local, private university training most psychiatric nurses in Hong Kong has launched a three-yearly higher diploma program serving as a conversion program for the experienced enrolled psychiatric nurses to upgrade to registered psychiatric nurses. A total of 52 students in the final year of this program were recruited by convenience sampling, and all of them participated in this study. All of them had the standardized patient-based simulation in basic

nursing skill laboratories of the School.

B. Interventions

A series of standardized patient-based simulations was newly developed in early 2022 to provide students with the knowledge and skills to interview psychiatric patients from different backgrounds to assess their mental states. The developer of this standardized patient-based simulation attended seminars and workshops on simulation education in healthcare and a two-day workshop on acting provided by the Hong Kong Academy for Performance. In addition, the developer trained the facilitators and briefed all the standardized patients based on the protocol before the standardized patient-based simulation launched. All facilitators were Associate Professors or Senior Lecturers in mental health nursing at the study university. The standardized patients, the part-time actor or actresses, were recruited from a local repertory troupe after all standardized patients had attended a two-day training workshop on standardized patients provided by the Hong Kong Academy for Performance. All standards were required to rehearse the role in simulation and discussed to achieve consensus in portraying the patients to standardize their performance in simulation.

There were eight sessions of standardized patient-based simulations for 40 hours. A set of simulation materials, including learning outcomes, learner guides and instructions, standardized patient guides and protocols, facilitator guides, scenarios, pre-briefing plans, and debriefing clues, was developed and reviewed by the teaching team of the Department of Mental Health Nursing at the School. The scenarios covered mental state assessments of diverse patients' backgrounds, including adult psychiatric patients, psychogeriatric patients, patients with learning disabilities, substance users with psychotic symptoms, and patients in psychiatric rehabilitation and community. The topics, learning hours, and learning outcomes of this standardized patient-based simulation are listed in Table 1. Before launching, the Dean and the Department Heads of the School had reviewed and approved the implementation of this standardized patient-based simulation. Besides, all participating students were well-informed and agreed to participate in the standardized patient-based training.

Table 1: The topic, learning hours and learning outcomes

Topic	Number of sessions	Hours of each session	Learning outcomes
Adult psychiatric care	2	10	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in caring a patient in acute psychiatric ward 2. Demonstrate suicidal assessment interview 3. Demonstrate the ability to provide safe nursing care to a patient in psychiatric acute unit 4. Demonstrate effective therapeutic communication skill with a patient with depression and suicidal ideation

Psychiatric rehabilitation	1	5	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in caring a patient in rehabilitation psychiatric ward 2. Demonstrate nursing discharge plan for a patient with anxiety disorder in rehabilitation psychiatric ward 3. Demonstrate effective therapeutic communication skill with a patient with anxiety disorder
Community psychiatric care	1	5	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in caring a psychiatric patient in a home visit 2. Demonstrate needs assessment on a psychiatric patient in a home visit 3. Demonstrate effective therapeutic communication skill with a psychiatric patient in a home visit
Learning disabilities	1	5	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in caring a patient with learning disabilities 2. Conduct assessment to a patient with learning disabilities; 3. Demonstrate the ability to a patient with learning and behavioural problems; 4. Demonstrate effective therapeutic communication skills in a patient with learning disabilities
Substance use	1	5	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in substance abuse nursing 2. Demonstrate the assessment on a patient with substance abuse 3. Demonstrate the ability to provide safe nursing care to a patient with substance abuse 4. Demonstrate effective therapeutic communication with a substance abuser
Psychogeriatric care	2	10	<ol style="list-style-type: none"> 1. Apply theoretical and clinical nursing knowledge in older people with mental health issues 2. Demonstrate the cognitive assessments on a psychogeriatric patient 3. Demonstrate the ability to provide safe patient care 4. Demonstrate effective therapeutic communication with a psychogeriatric patient

The pre-readings and audiovisuals of the mental state assessments were uploaded to an online learning platform to equip students with knowledge. Before the simulation, students attended didactic lectures that covered the causes, manifestations, assessments, treatments, and nursing management of patients in the acute psychiatric care unit, psychiatric rehabilitation, community, psychogeriatric unit, learning disabilities unit, and substance use center. The facilitators conducted these didactic lectures.

Six or eight students in a group attended a pre-briefing conducted by the facilitators. The learning outcomes, student guides, and instructions were briefed. Next, the students worked in groups of two and conducted mental assessment interviews with the standardized patients in basic nursing laboratories, with simulated settings based on the scenarios. Related props and equipment, such as medical records, patient documents, and furniture, were designed and prepared to mimic actual situations. While two students demonstrated these skills, the others acted as peer review observers. All students had the opportunity to be the demonstrators and observers. Subsequently, the facilitators provided structured debriefing using the 3D Debriefing Model [11], consisting of defusing, discovering, and deepening. This 3D Debriefing

Model discovered students' mental models that guided their behavior in the simulation and connected new learning to future situations [11]. The students also shared their observations during peer review in the debriefing sessions.

C. Measurement

Nurse competencies were assessed by an assessment form for simulation education developed by the simulation team of the study university and approved by the school board members and external examiners from other institutions. This assessment form was adapted to assess the students' performances in this study. It consists of 12 items on nursing competencies, including the application of the nursing process and professional behavior. All facilitators were briefed on how to use this assessment tool to assess students' performance. This assessment was applied to formative and summative assessments at the middle and the end of the simulation of each scenario, respectively.

The self-administered questionnaires were distributed to all the students to collect quantitative and qualitative feedback. These questionnaires were used to assess participating students' satisfaction with the standardized patient-based simulation. The questionnaire was designed by

the School for simulation education and endorsed by the external examiners. In the quantitative part, there were 17 questions using a 5-point Likert scale to indicate strongly disagree (1), disagree (2), no comment (3), agree (4), and strongly agree (5). The questions are listed in Table 2. In addition, the students provided narrative feedback in the qualitative part of the questionnaire.

Table 2: Questions in questionnaire collecting feedback from students

1. I liked the activity because it was relevant to my professional development.
2. The topic of the activity made me want to find out more about it.
3. The space in which the activity took place was practical.
4. I liked the design and the clinical events appearing in the activity.
5. I wanted to spend time to familiarize myself with the Sim ward and relevant nursing skills.
6. I wanted to spend the time to complete the activity successfully.
7. I wanted to spend time reviewing the information provided.
8. The time I spent on the preparation was more than I expected.
9. I was excited since I felt as being part of the activity.
10. It was easy for me to conduct the nursing process in the activity.
11. I felt confident since I knew how to perform with the briefing and pre-briefing.
12. I felt satisfied since I got debrief immediately.
13. I looked forward to returning to the activity.
14. The content of the activity helped me achieve the learning outcomes.
15. The activity have improved my competency in related academic/ professional contexts.
16. The activity reinforced my learning.
17. Overall, I am satisfied with the training.

V. RESULTS

The standardized patient-based simulation was conducted between April and May 2022. A total of 52 enrolled psychiatric nurses completed the simulation. The completion rate was 100%. Of these, 23 were male, and 29 were female. They were between the ages of 24 and 40, with nursing experiences of 5-18 years. Eight standardized patients were recruited and attended the briefing and rehearsal. Seven facilitators conducted pre-briefings, simulations, formative assessments, summative assessments, and debriefings. All students passed both formative and summative assessments on all scenarios.

Thirty students returned the questionnaires; the response rate was 57.7%. The means and standard deviations for each question are listed in Table 3. All students agreed that the

standardized patient-based simulation achieved the learning outcomes. The quantitative data were supported by narrative feedback. Two students stated that this was a valuable experience. One of them expressed that he could practice the learned skills in a safe environment for sufficient time. One student said, "I could practice the skill repeatedly until I could master it." The students also appreciated the performance of standardized patients. One student said, "I can apply the theories and special communication skills in interviews and improve my performance according to the instant responses of the standardized patients." Two students used the opportunities for practice and reflection. One of them wrote, "I had a deep reflection on not only my performance in the simulation but also my past nursing journey. The simulation allowed me to reflect on what I had done before and how to improve it in the future. Such reflection never occurs. I am too busy with my nursing routine without time for deep introspection in my daily work."

Table 3: Mean and standard deviation of questions in student feedback

Question	Mean	Std. Deviation
1.	4.17	1.117
2.	4.23	.935
3.	4.17	1.117
4.	4.23	1.135
5.	4.17	1.117
6.	4.23	1.135
7.	4.17	1.117
8.	4.17	1.117
9.	4.23	.935
10.	4.10	.960
11.	4.03	1.129
12.	4.17	1.117
13.	4.10	1.094
14.	4.17	1.117
15.	4.17	1.117
16.	4.30	.952
17.	4.23	.935

VI. DISCUSSION

This study is the first of its kind to apply standardized patient-based simulation to enrolled psychiatric nurses with a certain level of working experience, aiming to upgrade their mental state assessment skills. The study provides certain evidence of the impact of this standardized patient-based simulation on nursing competencies among experienced psychiatric nurses. Additionally, for the first time, the study assesses the enrolled psychiatric nurses' satisfaction with the standardized patient-based simulation program.

Experienced nurses require continuing training and education; however, their learning needs should be addressed. Their learning opportunities are limited, as employers or institutions may assume that they can learn through on-the-job training. The existing continuing education training

provided to the enrolled psychiatric nurses is usually theoretical input that cannot assess their demonstration of specific skills.

However, it is essential to formally respond to their learning needs and assess and prove their learning outcomes. The standardized patient-based simulation provides a safe and controlled environment for them to practice, reflect, and master nursing skills requiring more communication techniques. Besides, this well-designed learning environment is challenging to replicate in an actual ward situation, which is busy and not tailor-made for learning purposes. Furthermore, the standardized patient-based simulation in this study allows nurse learners to practice and improve their mental state assessment skills without risking the safety or well-being of actual patients.

Experienced nurses may have had years of clinical experience but may have yet to encounter every type of patient or situation. According to a study by Mak [12], standardized patient-based simulation can improve the clinical competency of experienced nurses. The study found that nurses who participated in standardized patient-based simulation had higher clinical competency assessment scores than those who did not receive training. The 100% passing rate of this study supports this conclusion. Another benefit of standardized patient-based simulation is that it allows for targeted skill development. Experienced nurses may possess a wide range of clinical skills; however, certain areas, such as mental assessment interviews, may require more attention. In particular, the mental state assessment interviews revealed a set of advanced communication skills. Such communication skills can include practicing difficult conversations, such as suicidal assessment interviews. According to a systematic review [13], standardized patient-based simulation can improve the communication skills of experienced nurses. The study found that nurses who participated in the training had higher scores on the communication skills assessment than those who did not receive training. The results of this study were consistent with previous findings.

After this standardized patient-based simulation, it was valuable to find that students had experienced a profound reflection on what they had learned and practiced, the process of critically examining one's thoughts, feelings, and actions to gain a deeper understanding of oneself and the world around them. Research [14] has shown that deep reflection is essential to effective learning. As a result, the students experienced a retreat in the current standardized patient-based simulation, which may be the reason for learning satisfaction.

VII. IMPLICATION

The results of this study support the idea that simulations using standardized patients have become an integral part of professional nursing development. Although simulation training is typically associated with nursing students and novice nurses, it also has implications for experienced nurses in enhancing patient outcomes and advancing career

development. One way in which standardized patient-based simulations can benefit experienced nurses is by providing them with opportunities to practice and refine their advanced clinical skills. According to previous studies [12][13], providing experienced nurses access to standardized patient-based simulations can help them improve their clinical confidence and competency, particularly in areas where they may have less experience or feel less confident. Additionally, standardized patient-based simulations can help experienced nurses stay up-to-date with evidence-based practices and guidelines. A study [15] showed that standardized patient-based simulations could be used to simulate complex clinical scenarios requiring high expertise and more knowledge. By participating in these simulations, experienced nurses can improve their clinical reasoning and decision-making abilities and gain exposure to new practices. These skills are essential for effective collaboration among healthcare professionals and for providing patient-centered care. The results of this study inform the future direction of curriculum design for experienced enrolled psychiatric nurses.

VIII. LIMITATION AND FURTHER RESEARCH

The results of this study support the idea that simulations using standardized patients have become an integral part of professional nursing development. Although simulation training is typically associated with nursing students and novice nurses, it also has implications for experienced nurses in enhancing patient outcomes and advancing career development. One way standardized patient-based simulations can benefit experienced nurses is by providing them with opportunities to practice and refine their advanced clinical skills. According to previous studies [12][13], providing experienced nurses access to standardized patient-based simulations can help them improve their clinical confidence and competency, particularly in areas where they may have less experience or feel less confident. Standardized patient-based simulations can help experienced nurses stay up-to-date with evidence-based practices and guidelines. A study [15] showed that standardized patient-based simulations could be used to simulate complex clinical scenarios requiring high expertise and more knowledge. By participating in these simulations, experienced nurses can improve their clinical reasoning and decision-making abilities and gain exposure to new practices. These skills are essential for effective collaboration among healthcare professionals and for providing patient-centered care. The results of this study inform the future direction of curriculum design for experienced enrolled psychiatric nurses.

IX. CONCLUSION

The results of this study provide valuable insights into the impact of enhancing the registered psychiatric nursing competencies and the acceptance of standardized patient-based simulation among experienced enrolled psychiatric nurses. The narrative feedback of the standardized patient-

based simulation supplemented the quantitative data result, reflecting this pedagogy's effects and applicability. It highlights the application of this new training method in the continuing education and training for experienced nurses and the benefits of incorporating standardized patient-based simulation in their learning and development.

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