#### Research Article

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# An Evaluation of Mental Health Simulation with Standardized Patients

**Abstract:** Interviewing standardized patients (SPs) trained to model psychiatric disorders can promote student nurses' interview skills and therapeutic communication, while at the same time increasing their confidence and decreasing anxiety. From a constructivist view of education and Kolb's (1984; Experiential learning: Experience as the source of learning and development. Edgewood Cliffs, NJ: Prentice-Hall) theory of experiential learning, this article describes the development and use of SPs as a learning strategy. The use of SPs helps faculty in overcoming some of the challenges of competing for clinical sites and meeting objectives in limited clinical time. In this simulation, baccalaureate nursing students had the opportunity to interact with SPs, who had been trained to demonstrate symptoms of bipolar disorder, anxiety, and schizophrenia. During debriefing, students critiqued their performances, identifying strengths and weaknesses. The advantage to nursing students was the ability to improve their interviewing skills in a safe educational environment before encountering these patients in a clinical experience. Both faculty and student evaluations of this experience support its integration into psychiatric undergraduate courses.

**Keywords:** simulation, standardized patients, mental health nursing, undergraduate nursing students

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## Introduction

Against the background of increasing competition for mental health clinical placements for nursing students, an increasing mental health population, and improvements in healthcare access through the Patient Protection and Affordable Care Act, nurse educators face pressure to implement innovative, evidence-based learning strategies (American Association of Colleges of Nursing, 2005; Institute of Medicine, 2011; Benner, Sutphen, Leonard, & Day, 2010; King, Kalucy, De Crespigny, Stuhlmiller, & Thomas, 2004; Mikasa, Cicero, & Adamson, 2013). One such learning strategy is standardized patient (SP) encounters. This article describes how a school of nursing in the southwest region of the United States successfully incorporated SP encounters into an undergraduate mental health course.

Although one modality of high fidelity simulation (HFS), full body patient simulators that mimic reality to a high degree, had been incorporated into most other clinical courses since 2007, the mental health nursing course had vet to develop HFS as a learning strategy. Mental health faculty felt high fidelity patient simulators could not adequately reflect reality within the context of a mental health environment. As an example, high fidelity patient simulators, such as Laerdal Medical's SimMan® are unable to provide non-verbal cues such as body language, facial expressions, and physical movement. However, authors have suggested that the use of SP mental health simulated scenarios (from simple to complex) can replicate reality to a high degree, standardize clinical experiences, and facilitate students' successful completion of mental health learning objectives (Brown, 2008; Robinson-Smith, Bradley, & Meakim, 2009). As a result, faculty members explored the possibility of incorporating SP encounters, another type of HFS that replicates reality to a high degree into the mental health course (Hetzel Campbell & Daley, 2013; Lehr & Kaplan, 2013; Robinson-Smith et al., 2009). For this

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project, a SP is defined as a person who is coached to authentically replicate a mental health patient and provide constructive feedback to nursing students on interpersonal skills. According to Barrows (1987), the SP presents the gestalt of the simulated patient, including the body language, the physical findings, and the emotional and personality characteristics.

# **Background**

The use of simulation in undergraduate nursing education allows students to practice and develop clinical skills in a safe and controlled environment that reduces anxiety (Lehr & Kaplan, 2013; Robinson-Smith et al., 2009; National League for Nursing, 2006). The stigma of violence and the unpredictability associated with mental illness creates added anxiety for nursing students about communicating with and assessing patients with mental health disorders in a mental health clinical setting (Brown, 2008; Kameg, Howard, Clochesy, Mitchell, & Suresky, 2010; Lehr & Kaplan, 2013; McAllister, 2008; Stuart, 2009). The use of encounters in undergraduate nursing complements didactic mental health content by allowing students to encounter specially trained individuals who exhibit signs and symptoms of a mentally ill patient in a less threatening environment. The students can then intervene by using learned therapeutic communication and assessment and planning skills that are core objectives of their mental health nursing course (Lehr & Kaplan, 2013; Nehring & Lashley, 2010; Robinson-Smith et al., 2009). Additionally, students gain the experience of working with SPs who mimic symptoms of mental health disorders that the students might not have encountered in their clinical rotation (Brown, 2008; Kameg et al., 2010). Further, students benefit from SPs' structured feedback on the effectiveness of their therapeutic communication.

In addition to the advantages previously mentioned, the use of SP encounters provides an alternative for mental health clinical encounters in the absence of actual mental health clinical placement sites for students (Durham & Alden, 2008). Cuts to funding for mental health services across several states have resulted in a reduction of inpatient hospital beds and decreases in outpatient services that directly affect the availability of mental health clinical sites for nursing students. Between 2009 and 2012, some states imposed drastic cuts to their mental health budgets, resulting in a large number of mentally ill patients seeking mental health services in

emergency rooms (Department of Health and Human Services & Nevada, 2011; Unworth, McKeever, & Kelleher, 2012; USA Today, 2013). Additionally, many patients with mental health disorders are diagnosed and treated in primary care settings (Sadock & Sadock, 2007; Stuart, 2009). This phenomenon presents a unique challenge to nursing faculty to ensure nursing students gain necessary clinical mental health experience and skills. The use of SPs may improve the competency of these future nurses to work with patients with mental health disorders they will encounter in any setting.

Although there is limited research in the use of SPs in undergraduate mental health nursing education, current evidence supports the use of this method of learning as an effective strategy to develop clinical mental health nursing skills (Brown, 2008; Durham & Alden, 2008; Kameg et al., 2010; Lehr & Kaplan, 2013; McAllister, 2008; Mikasa et al., 2013; Stuart, 2009). Several state boards of nursing have acknowledged the educational value of simulation, including the use of SPs, and credit a percentage of time spent in clinical simulation to augment clinical hours (Jeffries & Rogers, 2007). May, Park, and Lee (2009) conducted a literature review of 69 articles published from 1996 to 2005 on the use and value of SPs in teaching and learning among medical and nursing students. They concluded that although a majority of the studies reviewed lacked rigor in their research design, most of the literature reviewed supported the educational utilization of SPs as useful and valuable in teaching and learning.

## Theoretical framework

Faculty approached this project with a constructivist worldview of learning. Nursing students are adults who come prepared to actively participate in learning experiences with prior experience and a pre-existing knowledge base (Brandon & All, 2010; Knowles, 1980). In addition, nursing students are autonomous learners basing the acquisition of new nursing knowledge on personal interpretation of the mental health SP learning experience (Brandon & All, 2010; Driscoll, 2005; Vandeveer, 2009). The constructivist conditions for instruction include the provision of complex and relevant learning environments, opportunities for social negotiation, and a safe environment for self-reflective practices (Driscoll, 2005; Gall, Gall, & Borg, 2007). Similarly, SP encounters can provide nursing students with active participation in a relevant mental health learning environment (Rowles & Russo, 2009), opportunities for social negotiation, and a

environment to practice interview skills. Additionally, a debriefing session after the SP encounter allows for student self-reflection and meaning-making from the learning experience (Rowles & Russo, 2009).

Kolb's (1984) theory of experiential learning is congruent with a constructivist view of learning and was chosen as the framework for SP encounters. According to Kolb (1984), learning is a process, not an outcome, where the development of new knowledge is a result of transforming real-life experience (Kolb, 1984; Kolb & Kolb, 2005; Lisko & O'Dell, 2010). There are two processes in the transformation of experience: (1) grasping the experience (apprehension) and (2) transforming the experience (comprehension). The two modes of grasping experience are concrete experience and abstract conceptualization. Immediately following the SP encounter, a debrief period provides time for learners to self-reflect on their performance and to transform the learning experience into new

nursing knowledge (Jeffries & Rogers, 2007; Lisko & O'Dell, 2010; Rowles & Russo, 2009).

# Standardized patient program

There were several steps in the incorporation of SPs into the mental health course. First, mental health and two simulation faculty met to align the course outcomes and associated learning objectives with simulation as the learning strategy. Second, based on the course learning objectives, three case studies were chosen that would facilitate learners' successful completion of the objectives. Three cases were chosen to include bipolar disease, schizophrenia, and anxiety. Figure 1 provides examples of simulation outcomes for bipolar disease. With curriculum needs accounted for, the group then met with the SP Educators.

#### **Nursing 419 Course Objectives**

The student will be able to:

- 1. Conduct comprehensive and focused behavioral and psychological assessments.
- 2. Use clinical judgment, evidence based information, an inter-professional perspective, and patient preferences to plan, implement, and evaluate the effectiveness of psychobiological outcomes of care.
- 3. Minimize risk of harm to self, patients, and providers through individual practice and system effectiveness.
- 4. Engage in caring and healing techniques and relationships which promote growth in the patient and the patient's support network when available.
- 5. Promote collaboration in collaborative teams

#### Scenario Objectives

#### Bipolar Disorder

The student will be able to:

- 1. Recognize and assess signs and symptoms of bipolar disorder.
  - a. Increased agitation and hyperactivity
  - b. Mood changes
  - c. Sleep patterns
  - d. High risk behaviors
  - d. Pressured/rapid speech
  - d. Delusional thoughts
- 2. Maintain a focused mental health assessment of a patient with bipolar disorder.
  - a. Develop a therapeutic nurse patient relationship
  - b. Develop therapeutic communication
  - c. Maintain focus and redirect patient responses
  - d. Demonstrate a calm and non-judgmental attitude
  - e. Demonstrate verbal de-escalation techniques
- 3. Identify risk factors that will minimize harm to patients and implement interventions that promote patient safety;
  - a. Reduce stimuli
  - b. Remove hazardous objects from the area
  - c. Stay with and focus on patient
  - d. Conduct a risk assessment for violence and suicide

Figure 1 Simulation objectives

### Selection and training of SPs

The SP program selection, training, rehearsal, and implementation are based on best practices for SP education in medical education (Wallace, 2007). Established methods for training SPs for high-stakes clinical assessment of medical students, set forth by the California Consortium for the Assessment of Clinical Competence (May, 2008), were modified (Wallace, 2007) to suit the needs of this formative assessment of nursing students. The SP Educators used several criteria to select the SPs for this project, including demographics specific to the written cases (two females, age 18-22, and one male, age 18-22), skill sets required for the simulations (strong acting ability and verbal feedback in a group setting), and availability for all of the rehearsal/training and performance/ simulation dates. We chose one SP due to his personal experience working in a mental health facility. Additionally, the SP Educators leveraged their close ties with the local theatre community to identify, audition, and hire one female actor and one male understudy who met requirements (Wallace, 2007).

Training consisted of two four-hour group rehearsals planned by the lead SP Educator and implemented by the assistant SP Educator. Training topics included the following:

- project overview
- introduction to the simulation rooms and debrief area
- costumes/attire
- verbal feedback
- stimulated recall: immediate video playback of a student encounter with an SP to analyze clinical reasoning and interpersonal skills (Bloom, 1953; Barrows, 2000)
- read-through and clarification of the scenarios
- role playing
- review and discussion of an example video
- training in verbal feedback techniques
- SP errors and how to avoid them

To train the SPs to engage in debriefing conversations that deliver effective positive and constructive feedback to the learners, the lead SP Educator developed a one-page outline of debriefing guidelines for each case (Wallace, 2007). Based on the learning objectives for each scenario, the guidelines helped the SP to consider how they felt as a patient when the learners attempted to meet the objectives. The assistant SP Educator trained the SPs to use the guidelines frame their feedback points before joining the faculty led debrief session.

The second training session also included a dress and technical rehearsal. Mental health faculty members observed the case scenarios to help ensure the SPs were accurately portraying the mental health patients in the case studies (Wallace, 2007). The tech rehearsal revealed that much of the SPs' clinically significant body language was visible in the simulation room and from the simulation control room/faculty observation area, but not from the debrief room. This is significant because out of a group of eight learners, two will participate in the simulation room, six will observe from the debrief room, and all eight will debrief the experience together. Thus, they must all have access to the same visual and audio information. Therefore, the SP Educator directed the SPs to play to the camera as well as to the participants.

This project called for some simulation features that are standard in the HFS environment (video annotation, group viewing of a live video stream, and faculty led debriefing with video playback) paired with others found separately in the SP environment (interview with a live patient and verbal feedback from the SP). Blending these two environments required foresight, organization, and collaboration to seamlessly incorporate an autonomous SP into a setting designed for a dependent mannequin. To ensure a smooth flow, the SP Educator was in charge of coordinating the SPs, simulation technician, and the participants throughout the two full days of simulation.

#### **Implementation**

The morning of the simulated SP experiences, everyone involved huddled before the learners arrived to discuss the plans and address any concerns. After the learners arrived at the simulation center, the technician oriented them to the simulated patient rooms. Then, to simulate the pre-interaction phase of a mental health patient encounter, the mental health faculty provided learners with a brief overview of the patient they were going to interview.

The interaction phase of the simulated SP experience entailed two learners pairing up to interview the patient. The learners introduced themselves and proceeded with the mental health interview. The interaction phase was limited to 20 minutes, and most learners finished the interview before reaching the time limit.

After the simulated experience, nursing students, the mental health faculty, and the SP debriefed for 20 minutes. Debrief included reflection, discussion, and stimulated recall using playback of the simulated experience.

This process allowed students to reflect on what they did well and what they could have done differently. Moreover, including the SP in the debrief process allowed students to hear the perceptions and feelings of the patient they just interviewed. Last, the students completed a questionnaire evaluating the SP encounter, and the SPs completed a SP debriefing questionnaire providing feedback of the SP encounter following the debrief process. After finishing the SP encounters and after the learners left, the entire team debriefed and reviewed the learners' and SPs' feedback. This allowed every team member to share their experiences and perceptions and to make suggestions for future simulations.

# Student evaluation of the simulation experience

Institutional Review Board (IRB) exempt approval was obtained prior to collecting student evaluations on the SP encounters. Students were made aware that participation in the evaluation was optional and were asked to select a checkbox giving faculty permission to publish the results of their survey in aggregate form. If the box was not checked, the evaluation was not included in the published evaluation results.

Ninety-four mental health undergraduate nursing students over three semesters completed an 11-item guestionnaire of the SP experience at the end of the clinical simulation day. This was a faculty-developed questionnaire designed for the evaluation of the SP encounters. Samples of the questions on the Likert scale are presented in Table 1. Each item on the questionnaire had three choices, ves, no, and somewhat. The students circled the response that most matched their evaluation of the SP encounter. Students were asked to add any additional comments on the back of the questionnaire.

Overall, student evaluation responses were favorable suggesting the three SP encounters were helpful to students in reinforcing the course objectives, in testing decision-making, and successful in preparing students for the mental health inpatient and outpatient setting. Additional findings were that students felt they were able to (1) recognize and assess signs and symptoms of anxiety, bipolar disease, and schizophrenia, (2) develop interview and therapeutic communication skills, and (3) promote patient safety. In addition, students reported the SP encounter decreased their fear of interviewing live mental health patients and was effective in preparing them for their mental health clinical rotation. Further, all students stated the SP encounter provided them with an overview of their own competency and performance when conducting an interview with a mental health patient. Results from the student evaluations are presented in Table 1

The open-ended student evaluation responses were overwhelmingly positive. We performed content analysis on the open-ended responses to identify broad themes. The themes that emerged included realistic, learning occurred, improved interviewing skills, gained confidence, applied skills and knowledge, and recommended improvements. In essence, the students perceived the SP experiences to be realistic where they could apply the skills and knowledge learned in their didactic course and clinical rotation. In addition, the open-ended responses suggested that students who participated in the SP experiences learned new information, improved their interviewing skills, and gained confidence. Last, numerous student responses recommended improvements for

Table 1 SP simulation student feedback questionnaire

	Yes	No	Somewhat
Participation in SP encounter successfully provided realistic patient scenarios	97.87%	0%	2.13%
The room and supplies adequately mimicked a clinic and/or inpatient healthcare environment	76.60%	2.12%	21.28%
SP encounter scenarios were useful and tested student interview skills	100%	0%	0%
The SP encounter scenarios were valuable in testing decision-making	100%	0%	0%
SP encounter scenarios were helpful in reinforcing course objectives	100%	0%	0%
SP encounter scenarios successfully prepared students for the mental health clinical environment	95.75%	1.06%	3.19%
SP encounter scenarios were valuable and allowed me to evaluate my own competencies/performance	98.94%	0%	1.06%
SP encounter scenarios were valuable and allowed me to practice in a risk free environment	98.94%	0%	1.06%
The orientation to the simulated environment prepared me for the SP encounter scenarios	92.62%	0%	6.38%
Feedback during the debrief session was friendly and adequate for improving performance	95.74%	0%	4.26%
Pace and flow of the scenarios was rushed and did not reflect real life	9.57%	86.17%	4.26%

Note: These results represent three semesters of student data (N = 94).

Table 2 Qualitative themes and exemplars

Theme	Student comment exemplars	
Realistic	"The actors did a great job! I forgot she was acting. Once the conversation starts, the interaction becomes r "The actors made the simulation more realistic which reinforced memory and learning."	
Learning occurred	"Simulation was successful and eye-opening. Everything was helpful and challenging. We were able to learn about different psychological diagnosis and characteristics. I specifically learned to be more sincered before drilling questions."  "I felt like I learned a lot with this simulation not only that I can apply to psych but to other situations as well."	
Improved interviewing skills	"The actors were very impressive and helpful in growing our interview skills."  "The simulated standardized patient simulation helped me improve my interview skills better than the clinical rotations. I now feel I would be able to carry out an interview more effectively now."	
Gained confidence	"I felt that this simulation truly gave me the confidence and feedback that I needed."	
Applied skills and knowledge	"allowed students to use skills learned in the classroom and apply to the clinical setting."  "I was able to use therapeutic skills I learned in lecture and enjoyed all the simulations."	
Recommended improvements	"I do think this sim would have been more helpful closer to the start of the semester to help establish good interviewing techniques."  "I would have liked to have 10 more minutes."	

future SP scenarios. See Table 2 for a list of the themes and exemplar student comments.

In addition to the content analysis, we identified numerous student responses that suggested they derived meaning from the SP experience. For example, one student said, "I felt like I learned a lot from this simulation not only that I can apply to psych but to other situations as well." This comment suggests the student may be able to generalize knowledge from the experience to other areas of nursing practice. In addition, students found value and meaning through the self-reflection process as evidenced by comments such as, "It was a very valuable experience and I learned a lot about the patient and myself"... "I thought as terrifying as it was sitting with Joe, I learned a lot about myself and my interview skills." Another student commented, "Simulation was successful and eye-opening. Everything was helpful and challenging. We were able to learn about different psychological diagnosis and characteristics. I specifically learned to be more sincere before drilling questions." This comment indicates the development of some sensitivity and empathy toward this patient population.

#### Discussion

The feedback from this project suggests the ongoing integration of the SP encounters into a mental health undergraduate course should continue. The SP encounters were well received and appreciated by faculty and nursing students. However, feedback from mental health

faculty during the fall, spring, and summer 2013 semesters indicated a need for a fourth case study. Three case studies made it necessary to have some scenarios with three interviewing students, which was counterproductive in decreasing the anxiety in a patient with a mental health disorder. Consequently, the goal for the future is to have four scenarios with two interviewing students for each scenario. In addition, for future SP encounters faculty are interested in obtaining SP evaluations of the students. This would add another dimension to the debrief process as the SPs debrief with the nursing students and provide feedback.

Also, mental health faculty members are eager to develop a formative assessment to evaluate student learning related to SP encounters as a learning strategy. To accomplish this, faculty will develop a blueprint for test items based on the simulation learning objectives. It is not possible to isolate learning to the SP encounters, because students also build knowledge in didactic and clinical contexts. However, the results from the formative assessment of the SP encounter learning objectives will provide faculty with evidence for best practice and guide the refinement of existing SP encounter cases and the development of new ones.

#### **Conclusions**

Through implementation and evaluation of this ongoing project, our initial assumptions were confirmed. The use of mental health simulation with SPs, incorporating techniques borrowed from both HFS (group observation via live video stream, faculty facilitated group debrief, and annotated video playback) and SP methodologies (role-play with a well-coached live patient and verbal feedback from the SP), is valuable in promoting nursing students' interview and therapeutic communication skills, increasing confidence, and decreasing anxiety. Further, the use of cases covering a variety of mental health disruptions increasingly seen in previously unexpected healthcare settings, such as primary care and emergency medicine, serves an important dual purpose in addressing the gap between declining undergraduate mental health clinical placements and the increasing need for mental health nursing competency at the professional level.

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