

Examining Undergraduate Nursing Students' Empathetic Care and Understanding of Bipolar Disorder Using a Virtual Patient Simulation: A Pilot Study

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AACN 2019 Baccalaureate Education Conference

November 21-23, 2019

Orlando, Florida

Disclosure

The authors of this presentation are current employees of an educational software company that develops virtual patient simulations for nursing education and allied health programs.

No additional funding was received for the completion of this study.

Overview of Presentation

Virtual Patient Simulations

- DCE Mental Health Simulations

Bipolar Disorder Considerations

Focused Exam: Bipolar Disorder

- Patient Case Overview
- Simulation Learning Objectives
- Simulation Learning Activities

Kirkpatrick Model of Evaluation

Pilot Study

- Purpose
- Methodology
- Results

Conclusions and Implications for Practice

Virtual Patient Simulations

Virtual Patients



Asynchronous, computer-based clinical simulations in which students can interview and examine virtual patients

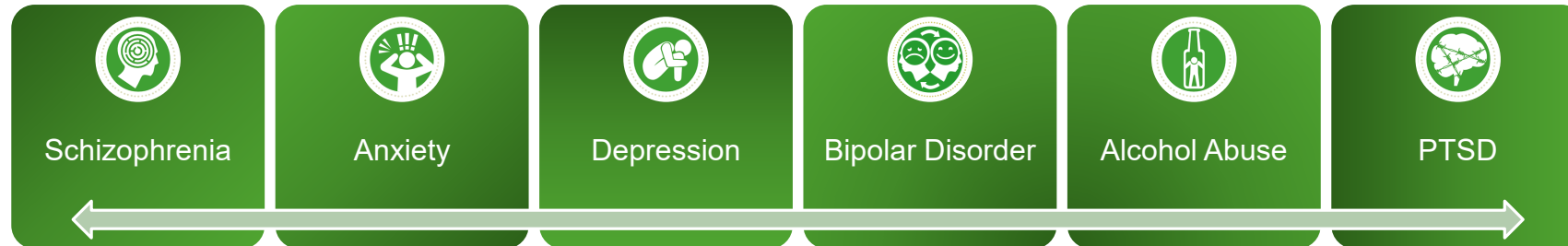
Considered to be “high-fidelity” simulations

Used to teach a variety of skills in nursing

- Communication and empathy
- Clinical knowledge
- Debriefing
- Diagnostic and clinical reasoning

Can be used to replace traditional clinical hours!

DCE Mental Health Simulations



In each simulation, students

- Complete a pre-brief
- Interview patient
- Conduct assessments
- Document findings
- Educate and empathize
- Perform SBAR handoff



Bipolar Disorder Considerations

Treatment of Bipolar Disorder

Often subjected to stereotypes, discrimination, but more important, medical misdiagnosis (Arboleda-Flórez & Stuart, 2012; Singh & Rajput, 2006).

- Clinical encounters tend to be in the depressive state.
- Patients would not come in for treatment on their own.

Past research indicates that undergraduate nursing students

- demonstrate negative attitudes towards individuals with a mental health condition (Betran et al., 2007; Thongpriwan et al., 2015), and
- experience anxiety regarding mental health clinical environments (Alexander et al., 2018; Szpak et al., 2013).

Focused Exam: Bipolar Disorder

Focused Exam: Bipolar Disorder



Scenario Details

- Mr. Lucas Callahan is a 25-year-old White male who was brought to the ED at 11:30 pm by the police for erratic behavior in a grocery store parking lot.

Diagnosis

- Bipolar I disorder, in a manic episode.

Chief Complaint

- “Those idiots cops brought me here. I don’t need to be here but the front desk guy said they have to check me out. Like I’m some sort of book on the history of atlases”.*

Relevant Medical History

- Diagnosed with depression at 22 following a depression-caused suicide attempt.

Learning Moments

- Understanding cause of symptoms associated with bipolar disorder.

Simulation Learning Objectives

Describe the major physiological, psychological, emotional, and sociological changes experienced by adults with mental health issues

Assess patient condition and identify physical signs and symptoms related to mental health issues using appropriate objective assessment strategies

Demonstrate an understanding of the manifestations of the underlying mental health issues by synthesizing data discovered in the patient interview and physical assessment

Apply principles of medication management to the care of the mental health patient by evaluating effects of medications, including symptom abatement and side effects

Demonstrate use of evidence-based screenings in a mental health assessment (e.g., MDQ and ASQ)

Apply therapeutic communication techniques in care practices with patients experiencing common psychiatric symptoms and practice mental health focused education

Analyze the needs of mental health patients and families for health care services, including implications for health policy, financing, and service availability



Simulation Learning Activities

Assessed General Appearance

Eye Contact

- Direct eye contact
- Indirect or no eye contact

Posture

- Upright posture without tension or rigidity
- Bent or hunched posture, tension, or rigidity

Clothing

- Clean clothing, appropriate to age, fit, season, and occasion
- Dirty, disheveled, or inappropriate to age, fit, season, or occasion

Inspected Arms

Observations

- No visible evidence of self-harm or abuse
- Evidence of self-harm

Wounds or scars

- No visible wounds or scars
- Wound visible
- Scar visible

Location of visible abnormality

- No visible abnormality
- Right upper arm

Chief Complaint

Enter text...

SBAR Hand-off

Use the SBAR prompts to transfer care of the patient to Preceptor Diana. Your SBAR should focus on relevant subjective and objective data for Mr. Callahan's mental status and behaviors.

It isn't ready to take over care of this patient. Could you tell me what the situation is?

Enter your response here.

Conduct
Patient
Interview

Administer
MSE

Perform
problem-
focused
physical
assessment

Document
signs and
symptoms in
the EHR

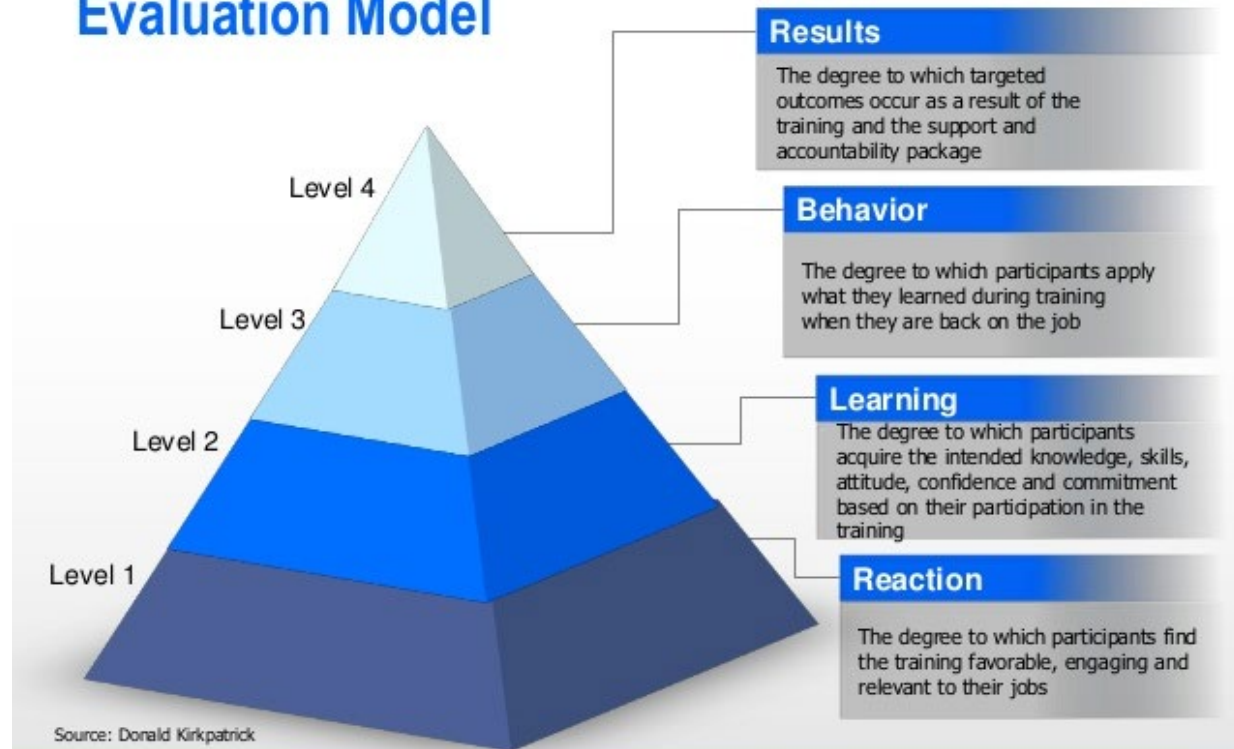
Describe
findings in
an ED
nursing note

Complete
SBAR hand-
off

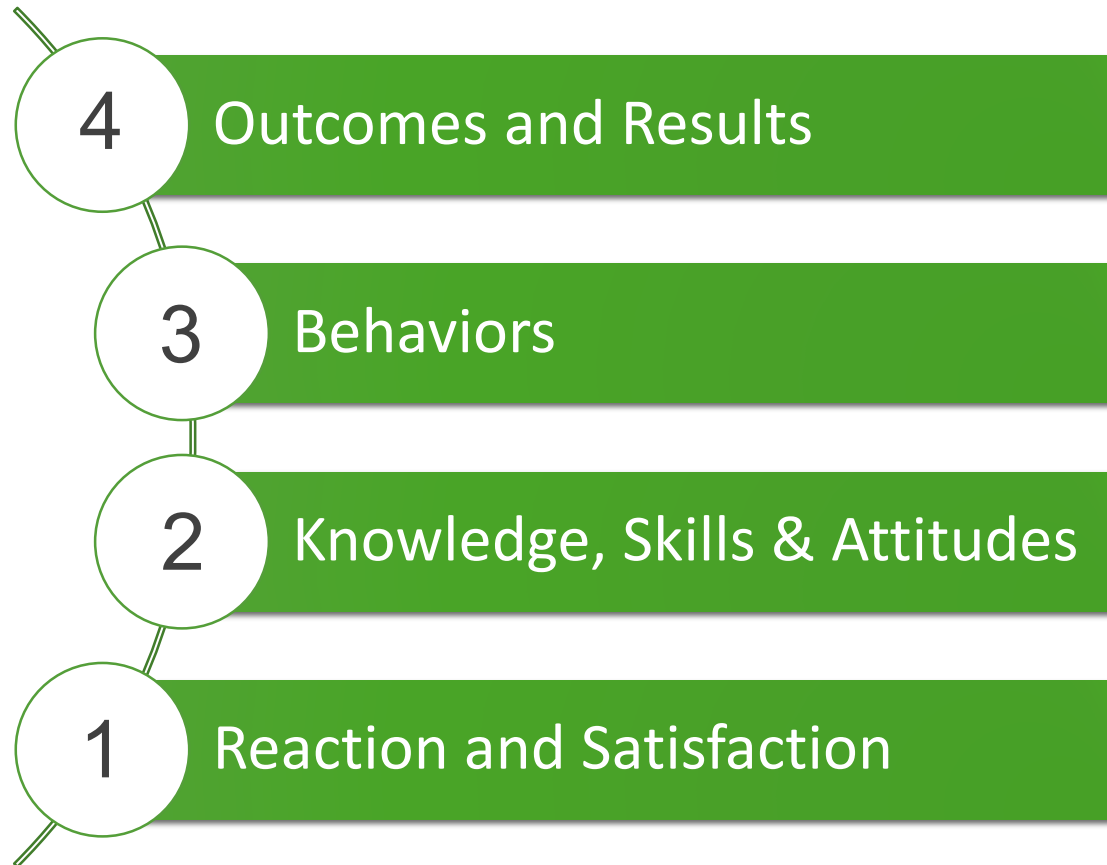
Kirkpatrick Model of Evaluation

Kirkpatrick Model

Overview of Kirkpatrick's Four-Level Training Evaluation Model



Simulations in Mental Health



What patient outcomes would you expect to see improved by using this simulation?

Are the skills learned in the simulation being applied in practice?

How much did students learn from the simulation?

Did students like the simulation? Did they see the relevance in it?

Simulations in Mental Health

4 Outcomes and Results

What patient outcomes would you expect to see improved by using this simulation?

3 Behaviors

Are the skills learned in the simulation being applied in practice?

2 Knowledge, Skills & Attitudes

How much did students learn from the simulation?

1 Reaction and Satisfaction

Did students like the simulation? Did they see the relevance in it?

Pilot Study

Purpose of Study

Evaluate a bipolar disorder virtual patient simulation with undergraduate students.

Methodology

Participants

- 31 students enrolled in mental health courses at four-year, both traditional and online BSN and RN-BSN programs across the United States.

Instrument

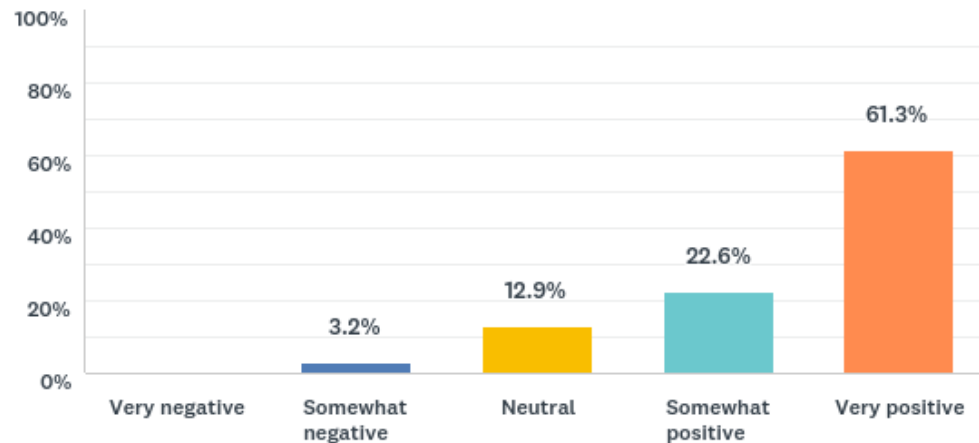
- 18-item online survey, including closed- and open-ended questions.

Procedure

- Students were recruited through a banner embedded in their simulation course dashboard.
- The simulation had a post-exam activity that included a link to the online survey instrument. Students were told that their answers would be confidential and that participating or opting-out of the survey would not interfere with their patient exam in any way.

Study Results

Overall Reaction to Simulation

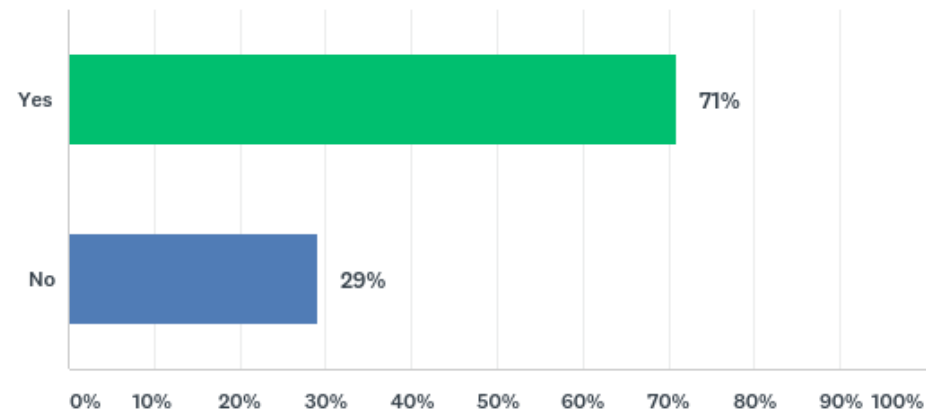


What students liked

- Realistic representation of the patient
 - *"It is very interactive... it is a great representation of a manic patient"*
 - *"The patient is very realistic seeming"*
- Opportunity to assess a patient with a bipolar disorder condition
 - *"I learned how to give a proper evaluation. I also was able to recognize important information needed in assessment"*
 - *"I thought the mental health assessment topics were really good and gave an overall understanding of the types of questions necessary when conducting an assessment on patients with mental health illnesses"*
- Patient's script and responses
 - *"I really enjoyed his responses. The script was pretty entertaining"*
 - *"I feel this would be a real life situation. The responses from the patient would be very similar to those in the simulation"*

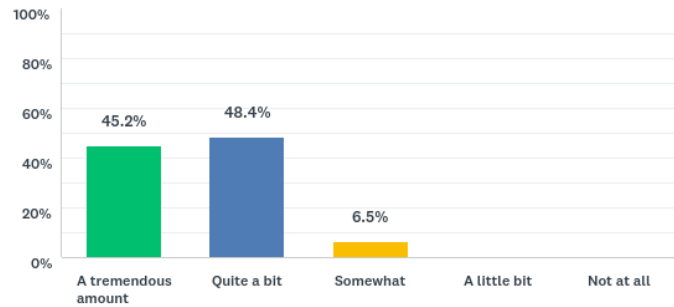
Past Experience with Bipolar Disorder

Q5 Before completing this assignment, did you ever experience interacting with a patient presenting with mania in any capacity or clinical setting (e.g., at a hospital or outpatient mental health institution, etc)?

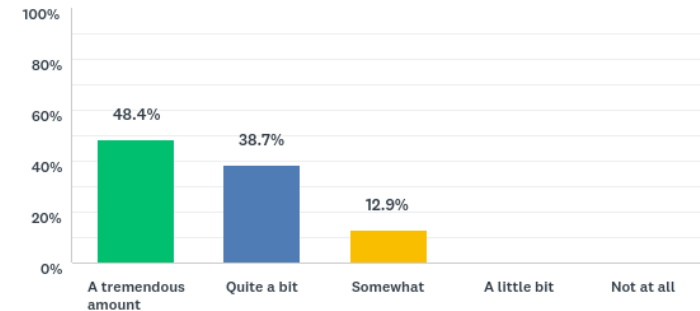


Factors Behind Positive Perception

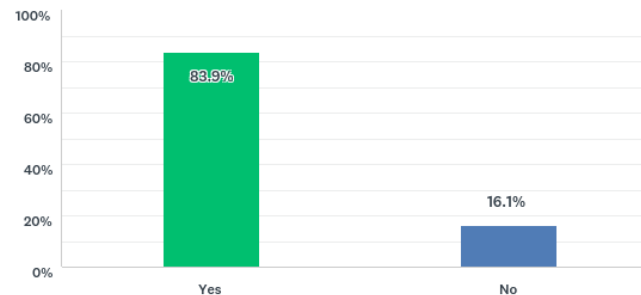
Q6 To what extent did the portrayal of the patient presenting with mania contributed to your ability to recognize signs and symptoms of a bipolar disorder presentation?



Q14 To what extent did the visual representation of the patient contributed to your ability to recognize signs and symptoms of a bipolar disorder presentation?

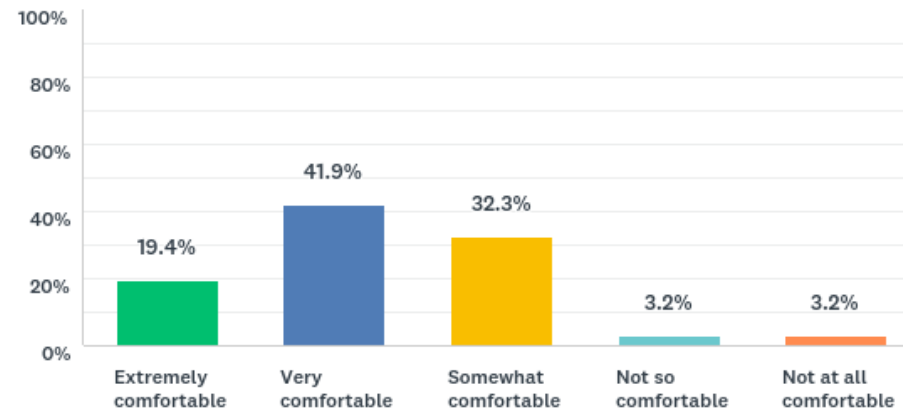


Q15 Did the patient's body images and visuals allow you to identify and describe physical findings relevant to his problem-focused assessment (i.e., suicide scars, scratches on his back relating to sexuality, or unhealthy thinness, etc)?



Therapeutic Communication

Q10 How comfortable did you feel communicating therapeutically and non-judgmentally with the patient?



Student Experience

Answer Choices	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Weighted Average
Overall, I feel that this assignment was a worthwhile learning experience for a Mental Health course.	0	1	1	13	16	4.42
I feel that I understood how to successfully complete the assignment.	0	0	4	13	14	4.32
I feel that the pop-ups provided during physical assessments were useful.	0	2	3	10	16	4.29
I feel that I understood how my performance would be assessed in this assignment.	0	0	6	12	13	4.23
I feel that this assignment helped me identify nursing skills that need improvement.	0	1	5	14	11	4.13
I feel that I was able to administer a mental status exam in an appropriate manner.	0	3	4	13	11	4.03
I feel that I was able to provide appropriate nursing interventions and recommendations in the SBAR handoff.	0	1	8	12	10	4.00
I feel that the duration of this assignment was appropriate.	0	2	9	11	9	3.87
I feel that this assignment was too challenging for me to complete.	5	12	6	4	4	2.68

Conclusions and Implications for Practice

Addressing Mental Health in Nursing

The high estimate of people suffering from mental health related illnesses in the United States makes delivering appropriate care a top priority for healthcare providers (Thongpriwan et al., 2015).

However, there is a shortage of nurses choosing to specialize or work in mental health settings.

The lack of clinical opportunities for students to gain experience assessing mental health patients, the negative perception of patients suffering from mental health illnesses, and the anxiety about mental illnesses have had a detrimental effect on students' readiness and desire to practice in the mental health field (Thongpriwan et al., 2015).

Value of Virtual Patient Simulations

This study showed that virtual patient simulations can

- provide a unique opportunity for students to gain experience assessing bipolar disorder patients,
- help develop therapeutic communication skills, and
- promote students' readiness for practice in the mental health field.

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Thank you!

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