

ORIGINAL RESEARCH

Transforming future nurses through simulation in mental health nursing

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ABSTRACT

Background and objective: Nursing students may not have a true understanding of the lived experience of patients who hear voices (auditory hallucinations). The authors proposed that a “hearing voices” simulation experience would be an effective method for providing this educational content. The aim of this study was to implement and evaluate an experiential, mental health simulation activity and determine if attitudes, understanding, and empathy of nursing students were impacted.

Methods: A narrative content analysis was utilized to compare pre- and post-simulation descriptive narratives in this qualitative study.

Results: Four themes emerged and findings indicate that the simulation positively impacted the attitudes, understanding, and empathy of nursing students.

Conclusions: This study supports previous research on the impact of a “hearing voices” simulation and provides additional corroboration for its use as an effective teaching strategy in equipping future nurses to provide quality healthcare for those with mental illness.

Key Words: Hearing voices, Schizophrenia, Mental health nursing, Nursing students, Nursing education

1. INTRODUCTION

Nurse educators are continually challenged in providing students with valuable learning opportunities which result in the growth of critical thinking and sound clinical judgment. Effective curricular design and comprehensive clinical planning are necessary to achieve such an outcome. For specialty courses like mental health nursing, however, additional obstacles are often confronted. Federal and state reductions in mental health funding have resulted in the closures of mental health facilities. An increase in the number of regional health education programs has produced competitive efforts for clinical placement within the fewer number of remaining mental health agencies. Consequently, experiential learning opportunities in mental health have become difficult to obtain for nursing students. Compounding these hurdles

are the fear, anxiety, and dread that nursing students may harbor in anticipation of encountering psychiatric-mental health patients. Faculty at the College of Nursing and Health Sciences at a southern university, have integrated a transformative learning activity to address these challenges. An innovative simulation entitled, “Developing Empathy for the Lived Experience of Psychiatric Disability: A Simulation of Hearing Distressing Voices”^[1] has been successfully utilized within the Bachelor of Science in Nursing (BSN) nursing curriculum.

The purpose of the study was to implement and evaluate an experiential clinical simulation of hearing distressing voices for baccalaureate nursing students and to determine if changes in attitudes, understanding, and empathy occurred.

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The researchers sought to identify how the “Hearing Voices” simulation was experienced by nursing students as well as the overall impact the simulation had upon the students.

Approximately 18.5 percent of Americans (43.8 million people) aged 18 or older experienced some form of mental illness during 2013 or the previous year;^[2] and an estimated 4.2 percent (10 million) of adults in the United States aged 18 or older suffered with a serious mental illness.^[3,4] According to the Centers for Disease Control and Prevention,^[5] the U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion^[6] and the World Health Organization,^[7] mental illness is a leading cause of disability in the United States, more so than cardiovascular disease and cancer. Mental health disorders are credited with 18.7 percent of the years of potential “healthy” life that are lost due to disability and premature death.^[6] Accordingly, Healthy People 2020 has identified Mental Health as one of twelve leading health indicators with an overall goal of improving mental health through access to high quality, effective mental health services.^[6,8] Healthcare professionals are challenged with providing adequate care to the increasing number of individuals living with mental illness.

Auditory hallucinations or voice-hearing is a symptom most often associated with schizophrenia.^[9–12] It is estimated that approximately 75 percent of patients with schizophrenia hear distressing voices.^[13] A better understanding of voice-hearing can enable one to reflect on other viewpoints and enhance therapeutic communication skills,^[14] inform nursing practice,^[15] and impact the development of new and innovative interventions.^[16] Listening to classroom lectures or reading from textbooks regarding schizophrenia and the accompanying symptoms cannot adequately convey to nursing students the daily struggles that confront those who hear distressing voices.^[13,17,18] It can be difficult to understand how merely socializing with others or completing the simple activities of daily living may be hindered by auditory hallucinations. The stigma, anxiety, and negative attitudes linked with mental illness have influenced nursing students’ perceptions of mental health nursing courses, the clinical settings associated with the courses, and the consideration of working in the mental health field post-graduation.^[19] Nurse educators can assist in meeting this significant need by acknowledging the lack of understanding, lack of confidence, and lack of awareness among nursing students regarding mental illness by the exploration of new and different teaching strategies to facilitate student learning of content.^[20] Experiential learning through simulation activities can be a powerful way to connect students to the subject matter, especially to content that is unfamiliar and uncomfortable to them.

In a study by Padiaditaki et al.^[21] designed to gain insight into the way a personal experience affects the attitude of healthcare professionals, participants recognized the insufficient knowledge of staff. Participants suggested that the personal experience is a chance for self-criticism resulting in an increased sensitivity to the problem with more awareness of the patient’s needs. Furthermore, they proposed educational interventions to focus on a holistic approach and to improve communication skills. Increased awareness of others’ lived experiences can facilitate understanding and empathy.^[22]

Nurse educators and carefully planned educational activities can impact student attitudes regarding mental illness; as well as enhance the confidence and competence of nursing students providing care to the mentally ill. Morris and Faulk^[23] asserted that a transformative learning environment in nursing education can provide a plethora of occasions for students to challenge personal assumptions and previously held negative perceptions. Simulations in mental health nursing, such as Deegan’s,^[1] can deliver a prime opportunity for perspective transformation among nursing students who may struggle to comprehend the challenges faced by people with serious mental illness.

2. METHODS

The study was conducted as part of the pre-licensure baccalaureate nursing program at a southern state university during the spring 2014 and fall 2014 semesters. Approval was obtained from the university’s Institutional Review Board. The inclusion criteria for the study was based on senior level BSN students who were enrolled in the course containing mental health nursing content. Recruitment occurred during the first week of the course when faculty verbally invited all nursing students to participate. A written announcement was distributed, explaining the purpose of the study and that participation was voluntary and anonymous. No penalty was given to any student not wishing to participate in the study; nor was any compensation provided to those who did participate. Students not wishing to participate in the study were provided an alternate assignment of reading a pertinent scholarly article and then responding to four applicable items and/or questions. Only one student elected not to participate due to having experienced the “Hearing Voices” simulation during a previous semester. A convenience sample of 108 fourth-year baccalaureate nursing students was obtained when those students willing to participate provided signature consent.

The investigators sought to answer the question: How will the perspective of nursing students change following the “Hearing Voices” simulation regarding persons who experience

auditory hallucinations? Four open-ended items/questions were developed to evaluate student responses pre and post simulation, which allowed the researchers an opportunity to assess fluctuations in attitudes, understanding, and empathy. Baccalaureate nursing students were asked to provide a written narrative to the following items:

- (1) Please describe as completely and clearly as you can, your current perceptions of a patient who is experiencing the symptom of auditory hallucinations (hearing voices).
- (2) How much control do you believe a patient has over experiencing auditory hallucinations (hearing voices)?
- (3) Please discuss how you would feel if assigned to care for a patient who is experiencing auditory hallucinations (hearing voices).
- (4) Discuss your comfort level in establishing a therapeutic relationship with a patient experiencing auditory hallucinations (hearing voices).

2.1 Procedure

During spring 2014 semester, a total of 51 students participated within six small groups: Group 1 (n = 7), Group 2 (n = 11), Group 3 (n = 12), Group 4 (n = 6), Group 5 (n = 9), and Group 6 (n = 6). During fall 2014 semester, a total of 57 students participated within three groups: Group 1 (n = 20), Group 2 (n = 19), and Group 3 (n = 18). Group size was determined by the class schedule for numerous sections of the Population Based Care course as well as limitations of available physical space.

The simulation took place within two classrooms and a computer lab of the university. The purchase of MP3 players and earbuds ensured comfortable mobility of students when transitioning between the three rooms of the simulation activity. A written script explaining the study criteria was read aloud at the beginning of each "Hearing Voices" simulation. Participating students were escorted to a computer lab and seated at individual computer terminals. Following instructions on accessing the appropriate survey tool, students were asked to respond to the four items/questions previously specified. A web-based course-management system provided a confidential depository where students were instructed to electronically submit their anonymous typewritten narratives. Upon completion of the pre-simulation narrative, students were accompanied to a nearby classroom for a detailed orientation of the learning activity, which included instructions to stop the simulation and/or MP3 player at any time if they experienced stress or anxiety from the audio simulation. This was followed by a viewing of the digital versatile disk (DVD) provided in Deegan's^[1] simulation curriculum. A brief discussion ensued regarding student reac-

tions to the contents of the DVD, followed by the distribution of MP3 players and earbuds. The researchers then directed students to apply the earbuds and turn on the MP3 players. After adjusting the volume level, students proceeded to six activity stations set up within two large classrooms. Students were allowed to progress through the stations in the order of their choice, which were comprised of 1) a recall exercise, 2) a word search game, 3) a reading/comprehension exercise, 4) a creative writing exercise, 5) a math and counting money exercise, and 6) a matchstick puzzle.

The simulation highlighted the challenge of accomplishing every day, relatively simple tasks while experiencing auditory hallucinations. Upon completion of all six activity stations, students returned to the computer lab where they were encouraged to reflect on personal outcomes of the simulation experience. The nursing students then completed a post-simulation survey comprised of the same four items/questions formerly mentioned. The anonymous typewritten text narratives were again electronically submitted to the confidential depository of the web-based course-management system. Lastly, a group debriefing discussion was held with the students and researchers.

2.2 Data analysis

Interpretive methodology guided the data collection and analysis using the phenomenological works of Benner,^[24,25] van Manen,^[26] and Colaizzi.^[27] A qualitative narrative content analysis method was utilized by the researchers when evaluating the written narratives of students' perceptions, feelings, and experiences both before and after the "Hearing Voices" simulation. The Pre and post simulation questions were synonymous allowing for the examination of the narratives for meaning and differences. The researchers coded the data and the content was analyzed for recurring ideas in the statements and phrases. The narratives were collected between semesters and were read several times in order to identify patterns of meaningful statements and allow for the identification of saturation. Pre-simulation narratives were grouped and compared with grouped post-simulation narratives for meanings related to each of the four questions. This comparison allowed for change recognition based on the post-simulation findings. Each pattern of meaning was color-matched to the narratives and assigned a number related to frequency of findings. The data were prepared in aggregate form of pre and post findings for comparison and were abstracted to create a coding paradigm. Open coding was utilized to generate categories of similar findings among the data. Using axial coding and color coding, relationships were identified among the categories. The coding process involved carefully reading each transcript by using words

or short phrases to briefly summarize each item. The words were assessed for content, attitudes, processes, and other foci. Several rounds of recoding and reclassifying were necessary and a valuable part of the analysis process. An examination of the the final set of categories revealed the concept themes. Following further review and discussion, the development of four themes was agreed upon by all researchers; and data saturation was achieved when no new themes or categories emerged. Findings were verified through member checks (peer debriefing) to allow clarification and modification, establishing credibility. Credibility was maintained by keeping a journal-audit trail reviewed by the researchers during the process of detailing insights, content and observations.

Trustworthiness and validity were established through triangulation, confirmability and transferability. Triangulation occurred with multiple researchers working together as a team to draw conclusions about what constitutes the truth.^[28] Bias was minimized during the study and subsequent analysis through the data interpretations being supported by the content of audit trail, ensuring confirmability. The findings of this research may provide meaning for nurses, nurse educators, and nursing students, as well as members of other disciplines interacting with the public at large (social workers, first responders, psychologists, etc.) which can lead to improved real-life experiences.

3. RESULTS

Four major themes were extracted from the data: 1) Misinterpretations and assumptions, 2) Fear and apprehension, 3) Elusive communication, and 4) Perspective transformation. Theme 1 was revealed within the written narratives with phrases such as “crazy”, “voices are not actually there”, “faking voices”, and “act worse than disease really is”. Overcoming negative attitudes held by students is often the most difficult hurdle in mental health simulations because of students’ anxiety related to fear of the unknown in the clinical setting.^[13] Since phenomenology has been described as a “... reflection on the lived experience...”,^[29] the experience provided a simulated lived experience on which students could reflect through writing. Reflective writing allows a unique opportunity to internally explore an experience in order to create meaning.^[30] As such, this strategy allowed the students and the researchers to gain insight and wisdom into understanding meaning.^[31]

For Theme 2, student comments indicated an interrelationship of fear and apprehension with words such as “scared”, “cautious”, “intimidated”, “frightened”, “terrified”, and “nervous and stressful”. Fossen and Stoeckel’s study^[32] noted that participants remarked on the fear of the physical danger of the situation, and their fear that the nursing students might

inadvertently upset the patient and potentially cause him or her to become suicidal. The responses in our study reflected a similar reluctance: “I would be concerned about the patient harming himself or herself or me, therefore, I’d be nervous about the responsibility and fear that I would somehow mess up and something awful would happen”; “I would honestly be intimidated at first and out of my comfort zone”; and “I ... would want someone who worked there present because being alone with a patient under this kind of anxiety could cause them to be easily angered”. Another remarked: “They really can’t help it and they are people who want to be loved just like anyone else”.

Theme 3 demonstrated that therapeutic communication can be one of the most challenging skills for the nursing student to grasp. When describing their feelings about talking with patients who experience auditory hallucinations, words such as “timid”, “anxiety”, “not confident”, and “inexperienced” were used. Students acknowledged that they felt challenged and uncertain about what to discuss with a patient who hears voices. Phenomenology can be a helpful framework for students experiencing insecurity regarding communicating with mentally ill patients.^[32] After the experience with the “Hearing Voices” simulation, students reported a greater level of empathy, achieved a greater understanding of the stress caused by the voices, and indicated the development of new approaches to communicating with these patients. Statements such as “I did not know that medication only muffled the voices” and “I could not tune out the voices while trying to comprehend the article” support a change in empathy from the pre-simulation writings. The use of simulation for practicing communication skills can help students understand the value of the use of therapeutic communication, especially when working with a patient who is experiencing auditory hallucinations.^[13] Students commented: “They deserve nurses who are understanding that their irritability sometimes comes from so much going on in their head”; “It also reminds me to speak a little louder and simplify information”, “... now I know a little bit about what they are going through... but, I also would like to help them through the voices and help them to focus on my voice to try to ignore the ones in their head”; “I would exercise more patience after this simulation.”

Theme 4 showed that the “Hearing Voices” simulation assisted the students in achieving a perspective transformation as indicated by their comments of “new found understanding”, “better prepared”, “have more empathy and compassion”, “not as judgmental”, and “willing to try”. The exercise led to students recognizing the struggles of the auditory hallucinations being experienced, the authenticity of the voices being heard, and the need for preconceived biases and judg-

ments to be questioned. Transformational learning seemed to challenge the previous perceptions and cynicisms and a deeper level of compassion began to take root. Students remarked: "It was once a fearful thought; however, now that I have had a small glimpse into what these patients go through, I have more understanding"; "I was not really comfortable until I got this experience. Experiencing is the best part to understanding patients..." "... after this simulation, I have a much better ease of comfort level than before. I now have insight into what they experience so it isn't as foreign to me"; "I am a lot more comfortable now." Others noted: "I feel that a patient experiencing voices is scared and the patient feels no one understands them", "I think that people who are experiencing auditory hallucinations are very brave".

4. DISCUSSION

The limitations of the study were a small sample size at one academic setting; therefore, it would be difficult to generalize findings. Because nursing students were exclusively utilized during the exercise, a possibility existed that some may have had prior experience working in hospital settings outside of the academic environment. Previous interactions with patients could have potentially impacted students' responses in the study.

This study supports previous research on the effectiveness of a "Hearing Voices" simulation^[13,32-35] and provides additional corroboration for its use as an effective teaching strategy in equipping future nurses to provide quality healthcare for those with mental illness. Students reported an increase in their understanding of patients who experience auditory hallucinations and that patients had little control over the "voices". Students also noted an increase in their empathy as well as a greater ability to provide patient care with compassion. However, despite such positive findings, some students indicated that they still were apprehensive regarding their ability to care for patients who were experiencing auditory hallucinations. This indicates that additional emphasis should be placed on finding ways to help students cope with their concerns regarding caring for patients experiencing mental health issues. Future replications with different populations (practicing nurses, caregivers, and family members of those with mental illness) and diverse backgrounds (educational preparation, culture, race, and geography) could enhance understanding and further demonstrate effectiveness of the simulation.

5. CONCLUSION

Findings of this research study indicate that the innovative simulation entitled, "Developing Empathy for the Lived Ex-

perience of Psychiatric Disability: A Simulation of Hearing Distressing Voices"^[1] resulted in positive changes of the attitudes, the understanding, and the empathy of BSN nursing students regarding persons who hear distressing voices. The strategy of reflective writing allowed students and the researchers to better understand how individual assumptions can be examined, questioned and, at times, transformed. Four themes emerged from the study: 1) Misinterpretation and assumptions, 2) Fear and apprehension, 3) Elusive communication, and 4) Perspective transformation.

The learning activity was viewed by students as an effective and worthwhile clinical experience; and the results suggest that perspective transformation occurred. Outcomes revealed that negative attitudes toward mental health patients were changed and that students recognized the significance of increased patience through understanding when caring for those with mental illness. Similarly, the researchers consider this simulation as an effective element of the BSN curriculum. The study answered some questions and resulted in additional questions for future exploration. Results suggest the "Hearing Voices" simulation can assist the novice nursing student, through an experiential learning experience, to develop intellectual empathy.

Clinical practicums for psychiatric-mental health nursing continue to be challenging for nurse educators. Numerous barriers exist that require faculty to be creative in meeting curricular outcomes and providing effective clinical opportunities for the next generation of healthcare professionals. Simulations, such as the one examined herein, can help achieve educational requirements, enhance awareness and understanding of mental illness, shape positive professional attitudes, and provide an opportunity for personal self-reflection and growth, thereby potentially improving the overall quality of mental health services. By implementing this simulation, faculty have the opportunity to enrich the awareness and understanding of nursing students regarding the experience of those who hear distressing voices. Consequently, as new graduates enter the workforce, an increased number of nurses are better equipped to provide effective healthcare for those with mental illness.

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CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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