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Evaluation and Simulated Learning.

Can Simulation Utilizing Standardized Patients Ease
Anxiety and Enhance Self-efficacy in Nursing Students Working
With Patients Experiencing Mental Illness? A Pilot Study.

Sandra A. King

Submitted in Partial Fulfillment for the Doctor of Nursing Practice Degree

Regis University

July 1, 2017

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SIMULATION AND EVALUATION

Executive Summary

Problem

In the United States (US), mental health disorders affect millions of adults and children each year Anxiety and Depression Association of America. (2016). A significant challenge facing nursing faculty, and students, is the shortage of psychiatric and mental health clinical placement sites. Due to the limited opportunities for hands-on experience, student nurses may miss opportunities to practice critical skills and gain knowledge in a supervised learning environment. This can result in increased anxiety and decreased efficacy when they encounter a patient with a mental illness or one that is in psychiatric crisis. Simulation allows students to practice low-frequency, high-stakes events that occur during routine and emergency health care that replicate experiences with patients with diagnosed or undiagnosed mental health conditions (Eta, Atanga, Atashill and D'Cruz, 2011; Redden, 2015). The question addressed by the project was: Can simulation using standardized patients ease anxiety and enhance self-efficacy in nursing students working with patients experiencing mental illness?

Purpose

To investigate the value of providing a simulation experience, utilizing standardized patients, to assess its effect on student knowledge, anxiety, and self-confidence as they prepare to enter their first community mental health clinical experience and work with patient experiencing emotional/mental illness. Current simulation frameworks and methodologies were used to assist community mental health students in recognizing signs of patient deterioration during psychiatric crisis or mental illness and developing vital skills transferable to other clinical practice areas.

Goals

The primary goal of the project was to provide senior-level Bachelor of Science (BSN) students with skills that can be transferred into a community mental health clinical setting to decrease student anxiety and enhance self-efficacy (self-confidence) leading to stronger clinical judgements. A secondary goal was to provide evidence-based practice findings related to the benefit of simulation in mental health nursing education and to implement these findings into nursing education practice. This study provides the potential for simulated learning in mental health education to become an evidence-based practice model for BSN nursing programs.

Objectives

The project evaluated participant demographics, knowledge, self-efficacy (self-confidence), and anxiety about working with patients with mental illness through pre- and post-tests, satisfaction and confidence surveys and evaluation of reflective comments.

Plan

This was a quasi-experimental study with random assignment to intervention and comparison groups. Twenty senior-level traditionally enrolled in a pre-licensure baccalaureate nursing students, during Fall 2015, were randomly assigned to one of two groups – one receiving standard education delivery and simulation experience (intervention group), and the other receiving standard education

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delivery only (comparison group). Using a pre-test/post-test design, the impact of simulation on knowledge and student-reported confidence and anxiety surveys was compared to that of the group who did not receive simulated experience. A Mental Health Knowledge Test (MHKT), Spearman's Rank-Order Correlation, the Pearson correlation coefficient, and paired t-tests were methods used to collect and analyze data. Data was analyzed using IBM SPSS PC+ software version 23.

Outcomes and Results

All six objectives were met for this project. Objective two identified that there was no statistically significant ($p \geq 0.05$) difference in student knowledge between pre-and -post-simulation intervention, as knowledge scores remained relatively unchanged for both groups. Objective three found that there was statistical significance ($p \leq 0.05$) in the intervention group with decreased anxiety and enhanced self-efficacy pre-intervention but not to post. Objective four identified statistical significance in the intervention group only with improved self-efficacy post-intervention but not that it reduced/improved anxiety level. Objective five identified that, in relation to anxiety levels, out of 27 pair possibilities, 18 (or 67%) showed statistical significance between both the intervention and comparison groups – pre-to-post intervention. In relation to self-efficacy, out of 27 pair possibilities, 12 (or 44%) showed statistical significance between both the intervention and comparison groups – pre-to-post-intervention. Participant self-reports in relation to objective six, established that the simulation intervention did improve self-efficacy, comfort, preparation, ability to critically think and complete accurate patient assessments and did decrease anxiety.

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Acknowledgements

English philosopher Alfred North Whitehead said, “No one who achieves success does so without acknowledging the help of others. The wise and confident acknowledge this help with gratitude” (Anonymous, 2013). In my journey for the Doctorate of Nursing Practice degree, there were so many people who helped me along the way that it would be impossible to acknowledge each and every one, but my heart is filled with gratitude for their contributions. However, there are several people who were absolutely instrumental in my success, and to whom I would like to express my deepest thanks:

To Ron Hutchins, my Dean at LSSU: Thank you so very much for all of your support and guidance throughout the time I pursued this degree. You helped me to keep going on more than one occasion, and encouraged me to see this through.

To Mary Reynolds-Keegan, LSSU instructor colleague: Thank you for taking on the role of being my DNP mentor. The countless hours you spent meeting and talking with me throughout the whole three years is something I will never forget. You kept "gently" prodding me to rethink my Capstone focus and to look deep in myself and find my passion, as I would live, eat, breathe this project for many years. (I SURE DID). You were simply amazing at helping me in so many ways - I could not have done this without your support and guidance.

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To all the friends and family who supported me, celebrated each good grade and success with me, and tolerated the many times that I had to say, "sorry I can't...got a paper or an assignment due"! Thank you for sticking with me and knowing there would be a light at the end of the tunnel.

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To Dr. Lora Claywell, who also spent numerous hours on the phone helping me to understand the entire research process. Thank you for making sure I really did understand it, so that my Capstone project was reflective of what I was trying to achieve. Thank you for the numerous hours on the telephone, even after the Research class was over, while I have been analyzing data and needing a refresher of what we went over early in my time at Regis.

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Evaluation and Simulated Learning.**Can High-fidelity Simulation Utilizing Standardized Patients Ease Anxiety and Enhance Self-efficacy in Nursing Students Working with Patients Experiencing Mental Illness?
A Pilot Study.**

Simulation experiences facilitate learning by offering a controlled environment for both faculty and students (Dearmon et al., 2013; Fay-Hiller, Bornais et al., 2012; Gore et al., 2011; Kameg et al., 2010; Shepherd et al., 2010; Szpak & Kameg, 2013). Students become active participants and can make errors without unfavorable consequences thus potentially increasing patient safety in the clinical setting as students learn during simulation from the mistakes they make (Alfes, 2013; Bornais et al., 2012; Hammer, Fox & Hampton, 2014; Schlegel et al, 2011). Students are also able to practice and experiment with various approaches during simulation and can choose the approach that works well for them enhancing their confidence when they work with an actual patient (Bambini, Washburn & Perkins, 2009; Choi, 2012; Hermanns, Lilly, & Crawley, 2011; Owen & Ward-Smith, 2014).

Student nurses' interview skills and therapeutic communication can be improved through interviewing standardized patients (SPs) who have been trained to model psychiatric disorders. while at the same time increasing their confidence and decreasing anxiety (Doolen et al., 2014, Williams, Reddy, Marshall, Beovich & McKarney, 2017). Simulations are effective in student learning and have been shown to improve communication, decrease anxiety, increase nursing skills, facilitate understanding of classroom material, develop critical thinking, and facilitate teamwork (Bambini et al, 2009; DeBourgh & Prion, 2011; Cardoza & Hood, 2012; Maruca & Diaz, 2013; Robinson-Smith, Bradley & Meakim, 2009; Wolf et al., 2011).

These are all learning outcomes that can be facilitated through simulation experiences.

Problem Recognition/Definition**Purpose and Appropriateness for Evidence-Based Practice Project**

It is becoming evident that the ways in which nurses were educated during the 20th century are no longer sufficient in providing safe and high-quality health care in the 21st century (Nichols, Davis & Richardson, 2014; Scheckel, 2008). As patient needs and care environments have become more complex, nurses need to attain not only technical knowledge, but also critical thinking and decision making skills that lead to increased patient safety and improved outcomes (Nichols, Davis & Richardson, 2014; Scheckel, 2008). To meet these ever-increasing demands, the Institute of Medicine (IOM) calls for nurses to achieve higher levels of education and suggests that they be educated through new methods that better prepare them to meet the needs of the population they serve (IOM, 2011).

While expectations for nurses are increasing, opportunities for nursing students to obtain real-life clinical practice experiences are decreasing (AACN, 1999; Ironside & McNelis, 2011; Roux & Halstead, 2008; Scheckel, 2008; van Graan, Williams & Koen, 2016). This is especially true for students in rural, isolated areas where there are few health care facilities to begin with, much less opportunities to gain practical, hands-on clinical experience where there is no risk to patient or student safety. A significant challenge facing nursing faculty is the shortage of psychiatric and mental health clinical experiences for nursing students within a practical distance from the university setting (Colley, 2014; Hanrahan et al., 2010). The challenge of having only limited clinical sites for nursing students to have hands on experience is a major obstacle and puts patients at risk from the potential for errors in critical thinking and decision making that can affect patient safety (Galloway, 2009; Rosseter, 2007; WHO, 2009). Lack of placement locations can also be a result of practice limitations placed on clinical staff and students with regard to both patient and student safety. In addition, it also increases student anxiety and a lack of confidence, and often interferes with their ability to apply classroom learning to clinical practice (Avolio-Pierazzo, 2014; Sinclair & Ferguson, 2009).

One reason for student anxiety and a lack of self-efficacy, prior to clinical practice, is that classroom lecture and demonstration of nursing skills are passive educational methods which do not effectively expose students to learning important clinical information, as well as critical thinking skills that are so vital when providing patient care (Avoilio-Pierazzo, 2014; Jeffries, 2005). When working with nursing students in the clinical setting, instructors cannot predict or control the types of patient encounters or conditions they will have the opportunity to experience (McHugh & Lake, 2010). A student may complete an entire baccalaureate nursing program and not experience patients suffering with a serious emotional/mental illness, yet will be expected to deal with these types of patients in a variety of health care settings (Linden & Kavanagh, 2012).

Patients experiencing mental health issues throughout the healthcare system need highly competent nurses who enter the workplace prepared to care for them during their time of distress. Doctor of Nursing Practice-prepared nurses (DNP's) practicing in academia are in a perfect position to study effective teaching methods available to best prepare students to care for these types of patients (Butler, 2012).

Project Purpose

The purpose of the study was based on identified deficits with psychiatric and mental health clinical experiences for Bachelor of Science (BSN) nursing students. It was the intent of this study to investigate the value of using standardized patients (SPs) and simulated clinical experiences. The study was used to evaluate whether the inclusion of this type of educational endeavor would assist in decreasing the anxiety experienced by BSN pre-licensure nursing students and enhance self-efficacy as they prepare to enter their first mental health clinical experience.

Standardized patients are individuals who are trained to act out real-life patient situations, in a consistent manner, and are utilized to assist in educating and evaluating students' skills (Durham

& Alden, 2008). Simulation exercises, utilizing standardized patients, can offer students an active learning method that closely mimics real-life experiences (Galloway, 2009).

During the simulation in this project, students were exposed to a patient experiencing a serious mental health crisis and conditions that they may encounter in “real-life clinical settings,” to study their level of anxiety, as well as their confidence in their ability to use the nursing process and implement the appropriate intervention(s) and care. Simulation has been shown to be a valuable means of practicing the knowledge and skills necessary for professional practice prior to entering a clinical environment. Simulation is beneficial to both faculty and students because it is not always safe, ethical, or practical for inexperienced students to be involved in the care of patients in psychiatric crisis in the clinical setting (Bambini, Washburn & Perkins, 2009; Guise et al., 2012; Hughes, 2008; Stricklin, 2012).

Simulation has been shown to decrease student anxiety, increase self-confidence and satisfaction, and improve cognitive and psychomotor skills, which leads to greater self-efficacy of students as they begin to complete clinical experiences. (Bambini, Washburn & Perkins, 2009; Durham & Alden, 2008; Smith, 2009).

It was expected that the students who participated in this alternative clinical experience study would report an increased level of self-efficacy (self-confidence) related to their ability to provide higher quality care delivered efficiently and accurately and report a decrease in anxiety toward working with patients in psychiatric crisis. The assumption was that an increase in self-efficacy and a decrease in anxiety will lead to better outcomes for patients with mental health conditions, which are important nurse-sensitive patient outcomes (Bambini, Washburn & Perkins, 2009; Reese, Jeffries & Engum, 2010). This study provides the potential for simulated learning, with standardized patients, to become an evidence-based practice model for BSN nursing programs

through the use of modern, innovative educational methods, which is a vital organization-sensitive outcome.

Problem Statement and PICO

There is a lack of illustrated models of simulation implementation within the mental health nursing literature (Guise et al., 2012; Fay-Hiller, Regan, & Gordon, 2007; Kameg et al., 2010; Luctkar-Flude, Keates & Larocque, 2012). Thus, the identification of the problem for research has been organized in the form of a statement using the Problem-Intervention-Comparison-Outcome (PICO) model: P = Patient population, I = Intervention or area of interest, C = Comparison interventions and O = Outcome of interest (Dewey et al., 2010).

The PICO question for this research project is: the population (P) identified is senior pre-licensure BSN students in a rural university taking a community mental health course. The intervention/independent variable (I) is use of clinical simulation employing standardized patients prior to first face-to-face clinical experience. The comparison intervention (C) is usual practice of classroom instruction and case study prior to clinical experience. The outcomes (O) of the project are decreased anxiety and increased self-efficacy of enrolled students.

The research question for this project was: *In senior BSN nursing students in a rural university taking a Community Mental Health Course, does the use of a simulated clinical experience using standardized patients, before first face-to-face interaction with a hospitalized psychiatric patient, help to decrease anxiety and increase self-efficacy? A Pilot Study.*

Project Significance and Scope

The framework of quality nursing care is concerned not only to the supply of nursing staff, but with the skill level and education/certification of health care professionals. With careful examination, experts can measure aspects such as timely and accurate assessment and intervention, as well as registered nurse (RN) job satisfaction and compare it to patient outcomes. In this way, a

determination can be made to see if there is a correlation between the education and skills of nursing staff and the quality of patient outcomes. Those outcomes which improve through better quality nursing care can be considered nursing-sensitive outcomes (ANA, 2014; Lang, 2007).

While the above speaks generically to all types of nursing practice, it can be further specialized to mental health nursing. This project relates to the Doctor of Nursing Practice (DNP) role by seeking to prepare students, through the use of simulation exercises, with standardized participants, during community mental health nursing education courses to be highly competent nurses who can enter the workplace ready to care for patients in psychiatric distress – with or without accompanying health conditions and to determine the value of adding this teaching strategy to the baccalaureate level program.

It was the intent of this pilot project to prove the value of using standardized participants (patients) and simulation exercises in educating nursing students, and implementing simulation as a regular part of community mental health nursing courses, to decrease the anxiety experienced by students and enhance self-efficacy of students as they prepare to enter into their first mental health clinical experiences. This was accomplished through providing them exposure to a variety of mental health crises and conditions that they may encounter in “real-life,” while also increasing their level of confidence in their own abilities for intervention and treatment. It was expected that the students who had access to the usual didactic course activities and this alternative clinical experience would demonstrate the ability to provide higher quality care delivered efficiently and accurately and report a decrease in anxiety toward working with patients in psychiatric crisis, leading to better outcomes for patients with mental health conditions, which are important nurse-sensitive patient outcomes. It is also a long-range goal that this project becomes instrumental in leading the University’s nursing program to become known for its ability to compete with the larger, medically-focused universities

through the use of modern, innovative education methods, which is a vital organization-sensitive outcome.

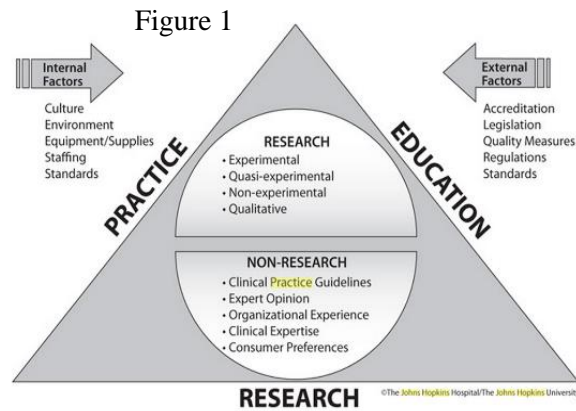
Conceptual Model and Theoretical Frameworks for Project

One conceptual model and two theoretical frameworks appropriate to support this study were selected. These include the John Hopkins Nursing Evidence-Based Practice Conceptual Model, as well as the Concept of Self-Efficacy (CSE) developed by Albert Bandura (1993) as a construct of his Social Cognitive Theory and the Experiential Learning Theory (ELT) devised by David Kolb (1983).

Evidence-Based Practice Conceptual Model

Ingersoll (2000) shares that “evidence based nursing practice is the conscientious, explicit and judicious use of theory-derived, research-based information in making decisions about care delivery to individuals or groups of patients and in consideration of individual needs and preferences” (p. 152). Newhouse et al., (2007) further state that “EBP considers internal and external influences on practice and encourages critical thinking in the judicious application of evidence to care of the individual patient, patient population, or system” and also “supports and informs clinical, administrative, and educational decision making” (p. 4).

Thus, the model chosen that seems to best fit into the context of the Capstone project is the John Hopkins Nursing EBP Conceptual Model and Guidelines (See Figure 1). This model portrays a relationship between practice, education, and research, as well the influences of internal and external environmental factors at any given point. The process for utilizing this model is organized into a series of steps, starting with the practice question, then moving on to the gathering of evidence, and then the translation of the evidence into practice (Newhouse et al., 2007, p. 202), nursing curriculum and clinical experience.



The Johns Hopkins nursing evidence-based model and process overview. In S. Dearholt & D. Dang (Eds.), *Johns Hopkins nursing evidence-based practice: Model and guidelines* (2nd ed.) (p 25). Indianapolis, Indiana: Sigma Theta Tau International.

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model, which features effective, user-friendly tools to guide individuals or groups, is designed specifically to meet the needs of nursing staff. It uses a three-step process called PET: practice question, evidence, and translation, to provide the user with a practical and powerful problem-solving approach to clinical decision-making. The goal of the JHNEBP model is to make certain that the most up-to-date and relevant research findings and best practices are properly incorporated into patient care (Poe, 2010).

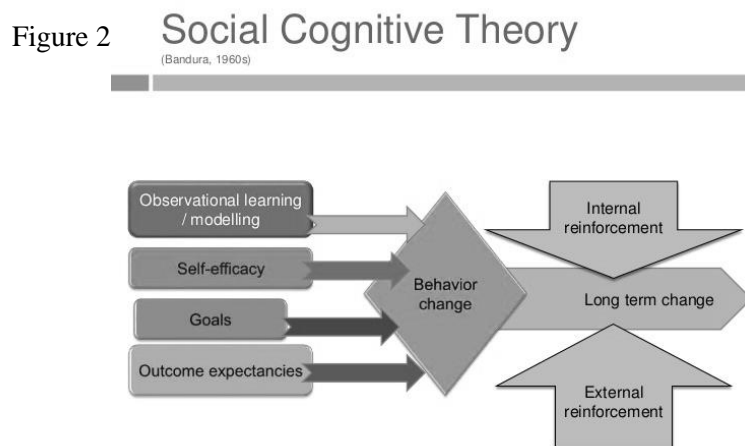
Social Cognitive Theory

The CSE lies at the center of Bandura's social cognitive theory (Bandura, 1993). Bandura's, self-efficacy concept can be expressed as a person's perceived competency to succeed in producing a desired outcome (Bandura, 1993). Bandura's theory emphasizes that an individual's perception of his/her personal efficacy is based upon four different sources: the effects produced by performance, observations of another person's performance, suggestions and judgment voiced by others, and emotions experienced such as anxiety or relaxation (Bandura, 1993).

Bandura (1993) proposed that individuals learn about their ability to perform through direct experience and believed that when individuals experience low self-efficacy, they tend to consider that things are more challenging than they really are. This way of thinking tends to create stress and limits how one would best go about solving the problem. Bandura further posed that individuals

who have a strong sense of efficacy focus their attention and efforts on the situation and are compelled to put forth their best effort to overcome obstacles (Bandura, 1993).

Bandura's theory explains the concept that people are more likely to engage in activities when they perceive themselves to be competent at those activities (Bandura, 1993). With regard to education, this means that learners will work at a challenge and will in turn be successful at activities for which they have a sense of efficacy. When learners do not perform well, it may be because they lack the skills to succeed or because they have the skills but lack the sense of efficacy to use these skills with competence (Dweck, Walton, & Cohen, 2014).



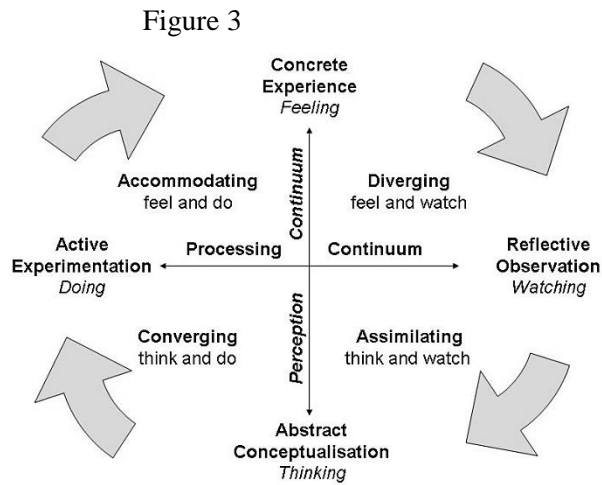
Chai-Eng, T. (2014). *Health behavior and health education for family medicine postgraduates* [PowerPoint slides]. Retrieved from: <https://www.slideshare.net/ChaiEngTan/health-behaviour-and-health-education-for-family-medicine-postgraduates-40155488>

Experiential Learning Theory

David Kolb's Experiential Learning Theory (Figure 1) suggests that that learning of abstract concepts is acquired and can then be applied in a variety of situations. Therefore, the development of new concepts is stimulated through new experiences, leading to increased learning (Kolb & Kolb, 2010).

According to Kolb, effective learning is seen when a person progresses through a cycle of four stages: of (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations

(conclusions) which are then (4) used to test hypothesis in future situations, resulting in new experiences (Kolb & Kolb, 2010).



Experiential Learning Cycle. Adapted from “The Learning Way: Meta-cognitive Aspects of Experiential Learning”, by A.Y. Kolb & D.A. Kolb, 2009, *Simulation & Gaming*, 40(3), 299. Retrieved December 28, 2014, from <http://sag.sagepub.com.dml.regis.edu/content/40/3/297.full.pdf+html>. Copyright 2009 by SAGE Publications.

Kolb theorizes that the focus of learning should shift away from the exclusivity of the classroom (and its companion, the lecture) to the workplace, the family, and the community. The significance of Kolb’s theory for educators, and for the purposes of this project is profound because, among other things, he leads educators away from traditional classroom learning toward increased competence through working knowledge and hands-on experience (Kolb, 1983). Simulations are activities that most closely mimic a real clinical event or environment, and as such, may include procedures, decision-making, role playing, and use of interactive devices such as mannequins or human subjects (Lateff, 2010). Through Kolb’s framework, it is possible to design a specific simulation to deliver a specific content with specific desired outcomes.

This progression is precisely what was anticipated would take place with the simulated clinical experiences in this study. The study gathered evidence as to whether the use of simulated learning could enhance nursing students’ self-efficacy, lower anxiety levels and increase skills in students as they prepare to work with patients experiencing emotional/mental health illnesses.

Students experienced a patient with a serious mental health crisis or condition and worked to treat the patient based upon their current level of learning. After the simulation intervention, students underwent a debriefing reflection activity to process what went well, what did not, what they did right, what they could have done differently, and so on. Through this process it was anticipated they would form conclusions as to the most appropriate methods of care when they encounter such patients in the future. It was anticipated, further, that they would begin to gain the intuitive ability to apply prior nursing knowledge and experience in new situations.

It was expected that the evidence gathered would support that simulated learning is, indeed, beneficial, as the literature supports, and that this information can then be translated into practice by implementing simulated learning into BSN community mental health courses.

Systematic Literature Review

A thorough systematic literature review (SLR) was conducted searching and utilizing numerous databases including: Academic One File; Academic Search Premier; CINAHL; Cochran Library; Google Scholar; Medline; OVID; ProQuest; PsycARTICLES; PsycINFO; PubMed; Science Direct (Elsevier) and Wiley Online Library. The SLR is a summation of the key research findings, within original studies, that examine the focus of limited clinical sites for nursing students, causes of the problem, student-related anxiety and low self-efficacy in working with patients, simulation as a solution, and the possible benefits of instituting simulation, as an enhanced education methodology, into nursing education.

The initial key words searched, alone and in combination, included: mental health; psychiatric health; high-fidelity simulation; standardized participants; standardized patients; anxiety measurement; self-efficacy; self-confidence; nursing; nurses; BSN students; senior baccalaureate nursing students; pre-licensure nursing students; initial clinical experience; effective communication; psychiatric nursing; mental health nursing; critical thinking; therapeutic

communication; clinical practice; clinical skills; nursing education and self-esteem. Key terms were refined, after initial investigation to obtain studies that were closer to the research study focus area. The refined terms include: simulation; standardized patient; anxiety measurement; anxiety; self-efficacy; self-confidence; nursing education; mental health; communication; mentally ill; psychiatric; nurse; nursing; students and teach.

Of the 50 articles reviewed, 37 were identified and selected relating to keywords and were situated in a SLR tool (See Appendix A) that aided in the analytical review of the research design, level of evidence, study purpose, population sample, criteria and power, methods, primary outcomes, measures, results, conclusions, implications, strengths, and weaknesses and relevance to Capstone research study.

The review of the literature suggested that simulation enhances learner self-efficacy and reduces anxiety which equates to improved performance (Bambini, Washburn & Perkins, 2009; Doolen et al., 2014; Gore et al., 2010; Kaddoura, 2010; Pike & O'Donnell, 2010; Szpak & Kameg, 2013).

Table 1 Capstone Literature Reviews Seven Tiered Levels of Evidence						
Level I	Level II	Level III	Level IV	Level V	Level VI	Level VII
1	4	16	1	0	15	0
Source: Rodgers, M., Williams, A., & Oman, K. (2011). Systems for defining and appraising evidence. In J. Houser & K. Oman (Eds.), Evidence-based practice: An implementation guide for healthcare organizations (pp. 139-150). Sudbury, MA: Jones & Bartlett Learning						

Table 1 shows that fifteen of the 37 articles selected correlated with Level VI for evidence and were more descriptive and qualitative in nature. Subsequently, 16 of the 37 were found to correlate with Level III and were well-controlled but non-randomized, four were found to correlate with Level II, which were associated with evidence obtained from at least one well-designed randomized controlled trial (RCT), one correlated with Level IV which was associated with evidence obtained from well-designed cohort studies (non-experimental studies) and one correlated

with Level 1 which were associated with evidence obtained from a systematic review or meta-analysis of all relevant randomized controlled trials (RCT's), or evidence-based clinical practice guidelines based on systematic reviews of RCT's (Rogers, Williams & Oman, 2011). One major theme identified was that there are ample data available regarding the use of simulated learning with medical and health-related conditions; however, there are far less data available on the use and benefits of simulated learning in mental health nursing assessment, interventions, and communication.

Emerging themes uncovered during project literature reviews supported that: simulation is an important and effective teaching & learning strategy (Shepherd et al., 2010; Bornais et al., 2012; Fay-Hiller, Regan, & Gordon, 2012; Dearmon et al., 2013); simulation using Standardized Patients (SP) is an effective instructional modality (Schlegel et al, 2011; Bornais et al., 2012; Alfes, 2013; Hammer, Fox & Hampton, 2014); simulation is effective in decreasing student anxiety prior to patient contact (Gore et al., 2010; Szpak & Kameg, 2013; Doolen et al., 2014); simulation using SPs is effective in increasing student self-confidence, critical-thinking and satisfaction with learning (Hermanns, Lilly, & Crawley, 2011; Choi, 2012; Owen & Ward-Smith, 2014); simulation reinforces classroom theory (Robinson-Smith, Bradley & Meakim, 2009; DeBourgh & Prion, 2011; Wolf et al., 2011; Cardoza & Hood, 2012; Maruca & Diaz, 2013); and more research needed on use of simulation in mental health education (Fay-Hiller, Regan, & Gordon, 2007; Kameg et al., 2010; Luctkar- Flude, Keates & Larocque, 2012)

Simulation in nursing education can range from low fidelity (experiences such as using case studies to educate students about patient situations or using role-play and/or standardized participants to immerse students in a particular clinical situation) to medium fidelity (such as the use of low-technology mannequins to help students practice specific psychomotor skills that are integral to patient care) to high fidelity (such as the use of patient simulators that are extremely realistic and

sophisticated, and provide a high level of interactivity and realism for the learner) (Jeffries, 2005; Shinnick et al., 2011).

There are many advantages of simulation in student learning, including allowing a nursing student to critically analyze their own actions, right or wrong, and reflect on their own skill sets. Students are also given the opportunity to repeat the scenario or simulation, a task which is not possible in an actual clinical or acute care setting. Following the use of simulation, students have reported decreased anxiety and a heightened sense of self-confidence in their psychomotor skill and critical thinking abilities (Bambini, Washburn & Perkins, 2009; Doolen et al., 2014; Gore et al., 2010; Jefferies, 2005; Kaddoura, 2010; Shinnick et al., 2011; Szpak & Kameg, 2013). Increased anxiety levels influence decision making, which is directly related to clinical judgment. The fear of making a mistake is the highest anxiety producing situation for nursing students (Rhodes & Curran, 2005). Removing the consequences of clinical errors increases self-efficacy and reduces the anxiety level of the student and improves clinical judgment leading to increased patient safety and positive patient outcomes (Doolen et al., 2014; Gore et al., 2010; Shinnick et al., 2011; Szpak & Kameg, 2013).

Simulation, using standardized patients, is a teaching method that reproduces realistic clinical situations in a protected environment away from patient harm. With this training students may not only become more confident, but may also become safer and more efficient practitioners (Choi, 2012; Hermanns, Lilly, & Crawley, 2011; Kaddoura, 2010; Leigh, 2008; Owen & Ward-Smith, 2014).

The literature shows that gaps exist in knowledge related to the use of standardized patients in mental health nursing courses (Galloway, 2009). The literature that is available reflects the consensus that using standardized patients in simulation is beneficial to the overall learning experience for students but more research is needed to support this methodology in relation to use in

mental health education (Fay-Hiller, Regan, & Gordon, 2007; Kameg et al., 2010; Luctkar-Flude, Keates & Larocque, 2012). The literature does support the idea that the use of simulation as a teaching modality reinforces classroom theory (Cordoza & Hood, 2012; DeBourgh & Prion, 2011; Maruca & Diaz, 2013; Robinson-Smith, Bradley & Meakim, 2009; Wolf et al., 2011). This supports the need for, and use of, standardized patients in simulation, especially with mental health education. The SLRs identified that more research is needed on the use of simulation in mental health education and it was the aim of this study to determine the impact of utilizing this teaching strategy at a baccalaureate level on nursing students' self-efficacy, knowledge and satisfaction (Fay-Hiller, Regan, & Gordon, 2007; Kameg et al., 2010; Luctkar-Flude, Keates & Larocque, 2012).

Project Plan and Evaluation

Market and Risk Analysis

Health Care Industry.

In the United States, mental health disorders affect some “44 million adults and 13.7 million children” each year (Blumenthal & Kannappan, 2012, para 1, McClain, 2015) which equates out to about one in five adults experiencing a mental health condition (Mental Health America, 2017). The most common mental illnesses in the United States are anxiety and mood disorders. In any given year, about 25 percent of adults experience a mental health issue. Youth mental health depression rates are worsening with statistics showing that in 2011 the rate was 8.5% and in 2014 the rate had risen to 11.1% (Mental Health America, 2017). Of those youth experiencing depression, statistics show that 80% receive insufficient to no treatment for their illness. According to the Centers for Disease Control and Prevention, about 50 percent of Americans will experience some mental health issues over their lifetimes. Yet despite the fact that mental health disorders can be as disabling as other diseases such as cancer, diabetes, or heart disease with regard to lost work

or school time, premature death, and financial hardship, fewer than half of adults and only one-third of children with a diagnosable mental disorder receive treatment (Blumenthal & Kannappan, 2012).

Mental Health.

Mental health remains a challenging health care issue. This topic does not seem to receive as much public attention as other health topics, such as cancer for example, and research is not funded as heavily (Healthy People 2020, 2016). There are many barriers to early diagnosis, treatment, and care, including: a shortage of mental health services and providers; a failure to link physical and mental health care and lack of equality in the way these services are provided; lack of public awareness of effective treatments; lack of health insurance coverage and financial costs; and stigma. In addition to these, and perhaps central to the issue, is the lack of highly skilled health care providers who are prepared to meet the needs of patients with mental illness. In states with the lowest workforce, there's only one mental health professional per 1,000 individuals. This includes psychiatrists, psychologists, social workers, counselors, and psychiatric nurses combined (Mental Health America, 2017). The unmet need for treatment is greatest in traditionally underserved groups, including elderly persons, racial and ethnic minorities, those with low incomes, those without insurance, and residents of rural areas (Russell, 2010). Statistics show that 56% of American adults who have a mental illness will not receive treatment due to a lack of accessible health care (Mental Health America, 2017). Children and youth are more likely to have insurance coverage compared to adults; still, 7.9% of youth had private health insurance that did not cover mental or emotional problems (Mental Health America, 2017). Currently, approximately 1.2 million individuals living with mental illness sit in jail and prison each year. Often their involvement with the criminal justice system began with low-level offenses like jaywalking, disorderly conduct, or trespassing (Mental Health America, 2017).

A position paper by Crowley and Kirschner (2015) discusses how mental health care and substance abuse services need to be integrated into primary care settings in order for patients to obtain quality care in the health system. This is particularly important as the majority of people with poor mental health who do receive services are often receiving this care through only a primary care physician or nursing staff. This has been true for many years.

Health Care Growth and Trends.

As the United States, along with other countries, has shifted the focus of the delivery and coordination of health care services, especially for the chronically ill, to more of a central role through primary health care providers, it is important to consider how to include mental health services into this, and how the implementation of health care reforms could deliver this (Sederer et al., 2007, Shi, L (2012). Achieving this goal, as discussed by Russell (2010), “would make a substantial contribution toward expanding access to mental health services, improving the physical health of people with mental illness and the mental health of people with chronic physical illnesses, and addressing current health care inequalities for people with mental health problems, especially for those who are from racial or ethnic minorities” (p.3-4).

Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis

Prior to beginning a project or a new endeavor, it is important to complete a market analysis (Donius, 2012). A SWOT analysis was conducted (See Appendix B) and found to be valuable in the examination of the PICO question for the Capstone project. The advantage of SWOT analysis is that it takes into account what the strengths and weaknesses are of the organization currently, as well as considers the opportunities for growth and also things that could be potential threats (Fine, 2009). In addition to evaluating the internal factors this method is also able to identify the external factors which could make a difference to the success or failure of a project (Fine, 2009).

The Pilot Project main strengths identified for nursing students consist of the opportunity to reflect and discuss skills during debriefing; and improved knowledge, enhanced self-confidence and reduced anxiety in working with patients with mental illness (Alinier, 2013). The main strengths identified for schools of nursing and communities after successful implementation of simulation with standardized patients are: improved academic program outcomes; improved patient care outcomes and collaboration; and development of supportive networks within the community for health care workers and patients with mental/emotional illness (Alinier, 2013; Personal communication, R. Hutchins, November 11, 2014). Finally, data collection tools used as part of study are validated instruments (White, 2014; Wolters Kluwer, 2015).

Weaknesses identified for nursing students could be simulation buy-in (they do not take the simulations seriously), anxiety and lack of self-efficacy related to working with patients with emotional/mental illness, project data (mental health knowledge test, demographic questionnaire, pre-test and/or post-test surveys) collection skewed by inaccurate responses, potential anxiety related to the simulation and debriefing during intervention activities. Weaknesses identified for schools of nursing could center around small sample size; study implementation at only one academic site; fiscal uncertainties; skills of faculty running and performing the simulation; availability of faculty; faculty time constraints; and costs and time required to train faculty and debriefing. Weaknesses identified for standardized participants(s) relate to cost and time to train individual(s); potential lack of volunteers; lack of simulated scenario consistency; preservation of confidentiality; and ability to provide a realistic and beneficial teaching intervention (Bokken, Rathans, Scherpbier & van der Vleuten, 2008).

Opportunities identified for nursing students center around enhanced capabilities taken from simulation and put into clinical activities and practice; improved interactions with clinical site mentor(s) and staff, along with mental health professionals and patients; support of simulation in

nursing education by the National League of Nursing with the recommendation that up to 50% of clinical experiences can come from simulated experiences (Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries, 2013), and support from local, state and federal agencies that provide grant opportunities for schools of nursing to establish and maintain simulation centers (NIH, 2013).

Potential threats could be the risk of privacy for nursing students working together in a simulation setting; other state universities offering simulation in nursing programs; financial resources; staff, faculty and student engagement; and student accountability.

Driving and Restraining Forces

In exploring forces that drive change, there are two main forces to be considered based on Force Field Analysis which was developed by Kurt Lewin (Kaminski, 2011): These include driving and restraining forces.

There are many forces that drive or restrain change in the health care industry (Saver, 2006). Driving forces are ones that sustain change and restraining forces are those that work against change (Cathro, 2011).

Several factors can be linked to the driving force of using simulation with standardized participants before first face-to-face contact with patients and include the belief that students will be adequately prepared, and emotionally ready, to work optimally with patients and mentors during clinical rotations (Aggarwal et al., 2010; Mileders, 2014). Simulation can be used for remediation when students are struggling with aspects of clinical activities (Evans & Harder, 2013). Simulation has been shown in the literature to be an effective teaching modality that reinforces classroom theory and learning (Cardoza & Hood, 2012; DeBourgh & Prion, 2011; Maruca & Diaz, 2013; Robinson-Smith, Bradley & Meakim, 2009; Wolf et al., 2011). For schools of nursing, having a simulation center offers a modality for increased revenue and means of offering certifications and continuing education opportunities to faculty, staff, and local and state entities (Western University,

2015). Simulation centers also offer the opportunity to augment educational opportunities when clinical sites, faculty and mentors are not able to be utilized due to shortages (Cleary, McBride, McClure & Reinhard, 2009).

Several restraining factors can also be linked to the use of simulation in the education of student nurses. While the nationwide nursing shortage is a factor that works in a university's favor, the economy and student ability to afford higher education remains a challenge (Mason, Isaacs, & Colby, n.d.). Students are looking for affordable ways to obtain a degree that will allow them to enter the workforce and make a livable wage (Policy Link, 2015). While graduating with a nursing degree from an accredited university makes students quite marketable, the challenge is attracting the students and then being able to offer them the educational experiences they seek, especially when clinical opportunities are limited (Culliton & Russell, 2010). A significant challenge facing nursing faculty is the shortage of psychiatric and mental health clinical experiences for nursing students within a practical distance from many rural university settings (Killam & Carter, 2010). These factors may limit the number of students universities are able to admit to their programs which has a significant impact on overall financial resources.

Technology costs of a Simulation Center are another huge consideration (Fletcher & Wind, 2013). With a drop in student admissions comes less financial resources available to manage the day-to-day expenses, order supplies, and maintain facilities and equipment (Hull, 2010). Limited financial resources could also have an impact on simulation staff and standardized participant recruitment, training and retention. It is significantly more difficult to attract qualified staff to universities when they are located in remote, rural sections of the country, as well as to geographic areas which have struggling economic issues overall (Harmon & Weeks, 2012). Despite the challenges presented by the shortage of nursing faculty, the diminishing availability of clinical sites,

and an exponentially growing knowledge base, employers are asking educators to do a better job of preparing students for the real world of nursing (Jeffries, 2005).

Project Need

Nurses often care for patients presenting with mental health problems, but their training regarding mental health treatment varies (Hunter, Weber, Shattel, & Harris, 2014; Sundararaman, 2009). A nurse's communication skills are of particular importance in these interactions, and communication skills training of nurses has been found to improve patients' mental health (McCabe, 2004; Morrissey & Callaghan, 2011). However, many nurses who enter general nursing practice are not fully prepared to meet the needs of patients who are experiencing a mental illness (Theophilos, Green, & Cashin, 2015; Ward, 2011).

It is important to ensure that current and new education and training programs and recruitment and retention programs have a mental health focus that reflects the current and projected needs. Progress toward the better integration of physical and mental health services means that all health professionals need to have adequate training in managing mental health issues (NIMH, 2001). Russell (2010) discusses how "Section 5306 of the Affordable Care Act authorizes funds for mental and behavioral health education and training grants across a broad range of professions, and ensures that some of these grants go to historically black colleges or universities or other minority-serving institutions" (p.11).

There is an identified need to prepare students through the use of simulation exercises, during BSN community mental health nursing education courses in order to educate highly competent nurses who can enter the workplace ready to care for patients in psychiatric distress (WHO, 2009). There is a need to ensure that nursing students working with patients experiencing mental illness, with or without accompanying health conditions, have the opportunity to experience simulated learning, with standardized participants, in order to substantiate the value of adding this

teaching strategy to baccalaureate-level nursing programs (AACN, 2008; Davis & Kimble, 2011). Schools of nursing are experiencing reductions of faculty, clinical teaching facilities, and mentors. In addition to the aforementioned limitations, there may be constraints placed on the activities nursing students are able to carry out while at a clinical facility (i.e., use of electronic medical record (EMR) system; administering medications, patient assessments, patient procedures, etc.) (AACN, 1999). These factors can result in nursing programs struggling to meet specific course objectives needed to effectively prepare students to develop into proficient graduate nurses (Fero et al., 2009; Miller et al., 2014).

Project Resources

The resources needed to conduct the study utilizing simulation with standardized participants involved the use of a simulation lab or that was set up to represent an in-patient psychiatric unit or hospital setting. Although this type of simulated activity could take place in a variety of settings, for the “realism”, it was more effective to utilize an actual simulation lab suited to the needs of the scenario.

In addition to the setting, staff trained in simulation were necessary to prepare the simulation environment and maintain scheduling. School of Nursing faculty experienced with simulation were necessary to conduct simulation intervention and debriefing activities. Two individuals were trained as standardized patients (SPs) and became a very important part of the simulation team. In order to ensure adequate time in the simulation center to plan and carry out project intervention, weekends were utilized.

Equipment needed to carry out the study consisted of: typical office supplies and machines. Technology required to complete simulated experiences consisted of; academic institution computers; a bedside laptop for documentation; and electronic system viewing equipment to allow the Simulation Center specialist to observe students’ interaction with patients from a remote

location in the Center. Appreciation gifts were another consideration in lieu of actual reimbursement for study team participants. All study team participants were presented with a gift basket and thank you card.

Project Sustainability

To achieve sustainability for simulation projects, it is imperative that the academic institution realizes the benefits to the School of Nursing's curriculum, students, patients and communities in which the future BSN students will work. For academic institutions, an adequate number of students in BSN programs is essential to the success of incorporating simulation in to courses. In order to sustain a simulation project, an adequate pool of SPs must be trained and maintained (American Association of Colleges of Nursing, 2016).

Sustainability, at the internal level, requires willingness and commitment from administration, faculty, standardized participants, students, as well as the community in which it will be offered. Each entity must be willing to commit to continued involvement for program success as patient simulation becomes an established part of the academic institution's curriculum (METI, 2008). Sustainability can be further accomplished if all involved regard simulation activities as lining up with institutional and program goals and objectives, as well as contributing to overall success. Sustainability, at the external level, can be accomplished when there is support from local, state and federal government officials, accrediting organizations, and granting agencies, as well as through donors, alumni, and local community members (METI, 2008).

Feasibility, Risks and Unintended Consequences

Feasibility of the use of standardized patient experiences to reduce anxiety, enhance self-efficacy and therapeutic communication skills in undergraduate BSN psychiatric nursing students was achieved by evaluating the learning experiences, perceived benefits, and areas for improvement. In addition to evaluation, feasibility was accomplished by utilizing nursing students

enrolled in a community mental health course facilitating a convenience sampling of participants. Participation by students was voluntary and offered as a clinical activity counting towards required course hours. Costs of conducting the project were minimal as existing resources available through the academic institution were utilized.

To eliminate perceived coercion and study bias, the investigator (course instructor) was removed from study process, once the informational session took place, and a School of Nursing (SON) faculty member, experienced in simulation conducted all pre and post data gathering, as well as conducted the actual study intervention and debriefing activities. Data gathered from the study was not reviewed or analyzed until after all grades for participating students had been entered into electronic academic grading system for the semester.

The study team made every effort to protect student participants' privacy. All responses to the survey questions were kept confidential. All survey information collected contained no identifying information. Any records pertaining to the study were kept private. All survey and study materials were kept in a locked filing cabinet in a locked office and only the investigator had access to the records. In any sort of report the investigator will make public, no information will be included that will make it possible to identify participants as each will be referred to by a specified code letter.

The decision to participate in the study was completely voluntary. Student participants had the right not to participate and could withdraw consent to participate at any time. Students' grade for course was not be affected in any way, nor was any student penalized or treated any differently if he/she decided not to answer survey questions, participate or to withdraw from study.

The investigator believed that the risk from participation was no greater than that encountered in everyday life. However, in the event that the participant did experience mild distress, a debriefing process was put in place to be provided at the end of the simulation to all

participants. Unforeseen outcomes might have consisted of any member, or members, of the team and/or student participants withdrawing from the study and/or equipment malfunction during day of intervention.

Project Stakeholders

The primary stakeholders for the study were senior level BSN nursing students, as it is during this point that they were scheduled to take the community mental health course and complete corresponding clinical rotations. It was anticipated that the goal and desire of the students taking the community mental health course was to attain the education and experience they needed to compete and perform effectively in the current health care industry

A secondary, and equally important stakeholder, could be prospective nursing students with the opportunities offered for mental health and psychiatric nursing being one of the potential deciding factors in their decision to attend an academic institution.

Thirdly, stakeholders could be the patients that the student nurses will work with during their rotation through the community mental health course and during their career upon graduation and successful completion of their National Council Licensure Examination (NCLEX).

Finally, academic institutions, schools of nursing, faculty and the local community could be stakeholders as the use of simulation in the mental health nursing curriculum is the product that will attract new students to the university (Fitzgerald, Kantrowitz-Gordon, Katz, & Hirsch, 2012). Each of the aforementioned entities will benefit from a successful community mental health course where the nursing students emerge as qualified professionals – who will be prepared to work effectively and confidently with patients who present with signs and symptoms of severe mental illness.

What is unique about each of these groups is that, for the students who participated in the study, this was the first time that mental health simulation was utilized, whereas for prospective students, this may be the first time they have encountered the concept of simulation with

standardized patients experiencing mental illness conditions and their perception of its use may affect their decision regarding enrollment. It was the intent of this investigator that the use of simulation, particularly in the area of mental health and psychiatric nursing, would distinguish smaller, rural schools of nursing from larger competitors and offer a superior education to students.

Project Team

The study team was led by the primary investigator (DNP student and course instructor) with assistance provided through DNP Capstone Chair, faculty and on-site DNP mentor. Additional study team members consisted of; University Dean; Simulation Center Director; Simulation Center Specialist and staff; local Behavioral Health Center staff who acted as standardized patients; DNP University and primary investigator's University Institutional Review Board (IRB) Committees; primary investigator's University School of Nursing faculty and BSN nursing students; and project statistician.

Cost-Benefit Analysis

The costs of conducting this study took into consideration the salaries associated with faculty and staff, costs of supplies and equipment, and fees associated with daily Simulation Center operating expenses (utilities, staff, Sim rooms, medical supplies, props, costumes and moulage) (See Appendix C).

The equipment and technology required to carry out the study was estimated to be quite minimal. As standardized patients were utilized for the project intervention, the use of any medium to high-fidelity simulators was not needed.

A conservative estimate related to conduct of the project, including all aforementioned costs, in a Simulation Center or Lab (R. Hutchins, personal communication, November 11, 2014) would be in the approximate range of:

- \$175.00 per hour w/o high-fidelity (HF) simulator use

- \$250.00 per hour with high-fidelity (HF) simulator use (estimated hours would be dependent on number of participants for simulation activity)

Costs related to the implementation of the Project were determined to be minimal due to the use of existing classrooms space, faculty, and designated time for implementation of the use of the simulation laboratory. The benefits of the Project included the collaboration and development of a supportive team approach in the educational setting for the faculty and the nursing students. There was minimal cost to the students who participated in the study intervention.

Study Benefits

As future practicing nurses, no matter what area of nursing, BSN students will undoubtedly work with patients who are experiencing mild to severe mental illness because by the very virtue of being ill, no matter the degree, individuals experience changes in emotional/mental health (Trossman, 2011).

It was anticipated that the study would validate the effectiveness in offering BSN students an experience that simulates an actual situation that is as close to a “real-life” experience as possible prior to participating in assigned clinical experiences and being faced with patients in crisis.

Mission Statement

The mission of the study was to improve the self-efficacy of nursing students through carefully planned and implemented classroom and clinical learning activities based upon nationally recognized initiatives in evidence-based patient care, safety, utilization of resources, leadership, and collaborative relationships with patients, families, healthcare professionals, and the community.

Vision Statement

The vision of the study was to graduate new nurses who are sought after by local, regional, state and national health care systems based upon their ability to enter the workforce fully prepared

to assume a position by demonstrating education and skills superior to new nurses graduating from other institutions.

Project Goals

The primary goal established for the study was to provide senior-level Bachelor of Science (BSN) nursing students with skills that can be transferred into a community mental health clinical setting leading to decreased anxiety, increased self-confidence and improved clinical judgments.

A secondary goal of the Project was to provide evidenced-based practice findings related to the benefit of simulation in mental health nursing education and to implement these findings into nursing education practice. The project was able to meet this goal by setting specific and measurable objectives.

A long-term goal of the study is inclusion of simulated learning into a community mental health course as a result of a demonstrated reduction in anxiety and enhanced self-efficacy in students when faced with a patient's severe emotional/mental health situation.

Project Outcome and Process

The focus of the study was to identify measureable outcomes for senior BSN nursing students and study intervention. For this Project, the outcomes that serve as the main focus are a reported decrease in anxiety and increase in self-efficacy of BSN nursing students as evidenced by a report of enhanced assessment, intervention, and communication skills, and increased self-confidence when faced with a patient's emotional/mental health situation. After conduction of study intervention, the hypothesis supports the inclusion of simulation as a supplemental clinical experience in community mental health nursing program course to further enhance nursing skills. The outcome and process by which students and the intervention were measured is illustrated on Table 2:

Table 2	
<i>Outcomes and Process</i>	
Outcome	Process
To evaluate the equivalency of the student groups based on aggregate analysis of specific demographic variables	Conduct pre-study information session Conduct and evaluate pre-intervention demographic survey
To determine baseline student mental health content knowledge	Administer and compare scores from pre-and post-intervention mental health knowledge test
To determine pre-intervention student-reported anxiety and self-efficacy scores prior to their mental health clinical experience	Administer pre-intervention survey to both control and intervention groups in order to assess anxiety and self-confidence
To determine the effect of a simulation experience on post-intervention student-reported anxiety and self-efficacy scores prior to the mental health clinical experience	Administer post-intervention survey to both control and intervention groups in order to assess anxiety and self-confidence
To compare student-reported anxiety and self-efficacy scores for the intervention and comparison groups of students	Administer and compare scores from pre-and post-intervention survey given to both comparison and intervention groups in order to assess for reduction in anxiety and enhancement of self-efficacy
To determine effect the simulation intervention had on students' preparedness for working with those experiencing mental illness	Evaluate students' perceptions of intervention through debriefing in order to assess for decreased levels of anxiety, enhancement of self-efficacy and therapeutic communication skills

Methodology & Evaluation Plan

The study was a quasi-experimental quantitative study with random assignment to intervention and comparison groups. Investigational studies are usually randomized, as this study was, meaning the subjects were grouped by chance. While not all controlled studies are randomized, all randomized trials are controlled (Institute for Work & Health, 2011). Study consisted of:

1. Pre-study informational session and consent form signing
2. Course didactic experiences
3. Completion of 13- item demographic questionnaire
4. Completion of 20-item mental health knowledge test

5. Completion of 28-item pre-intervention survey to assess anxiety and self-confidence
6. Simulated intervention experience to include debriefing session
7. Completion of 20-item mental health knowledge test and 28-item post-intervention survey to assess anxiety and self-confidence
8. Completion of debriefing to assess course didactic activities and Project intervention effectiveness

Following a pre-study information session, a pre-study informed consent (See Appendix D) for participation in the project was sought. Once consent was determined, those students who agreed to participate completed the project in three segments.

During Segment One of the study, each student, $n = 20$, completed four weeks of classroom didactic experiences. During first four weeks, students' participated in four educational experiences which included: (1) observation of nurse/patient interaction (one positive and one ineffectual); (2) patient case study; (3) Hearing Voices simulated experience and (4) Mock Interview. In the latter part of Week 3 of the course, all students enrolled in the course ($n=20$), completed a modified 13-item demographic questionnaire (See Appendix E) which was developed and validated by White, 2013, (p. 215), a 20-item mental health knowledge test (See Appendix F) which was developed by the investigator utilizing validated questions from Lippincott Williams & Wilkins PrepU, 2009, knowledge test bank. Approval was given to use 20 questions from PrepU test bank at no charge (See Appendix G). In Addition, a 27-item pre-test utilizing the Nursing Anxiety and Self-Confidence with Clinical Decision Making (NASC-CDM) tool (See Appendix H), which was developed and validated by White, 2013, pp. 207-214, to measure anxiety and self-confidence related to caring for a patient with an emotional/mental health issue, was utilized. Permission was granted in written form for principal investigator to use the demographic questionnaire and NASC-CDM tools developed by White (2013) at no charge. The one stipulation for use of the NASC-

CDM tool was that it was not to be published in its entirety. Approval was given to publish a small section of the tool in order to show its content (See Appendix I).

Segment Two consisted of $n = 20$ students being randomly divided into a intervention group and an comparison group. The students in the intervention group, $n = 10$, took part in a mental health simulation, followed by a group reflection and debriefing session with the standardized patient(s) and the Simulation Center Specialist. The students in the comparison group took part in course orientation activities, during the time the intervention was taking place.

During Segment Three, the final phase, all students, $n = 20$, completed a 20-item mental health knowledge test and a 27-item Nursing Anxiety and Self-Confidence with Clinical Decision Making (NASC-CDM) tool post-test identical to the pre-test given in Phase One. Additionally, all students completed a written debriefing to assess student perceived effectiveness of Project intervention and course didactic activities. A planned post-study simulation intervention for the comparison group, $n = 10$, was conducted one week after the intervention group completed the activity, and post-assessment was completed, which was prior to the students beginning their clinical rotations.

Population/Sampling

The study population consisted of $n = 20$ senior-level nursing students in their last semester of a baccalaureate program at a four year university located in a northeastern region of the United States. The study was conducted after receiving the Institutional Review Board (IRB) approval from Regis University and the study university.

The study sample size was a convenience sample determined by the number of BSN senior students enrolled in the community mental health course. The total population consisted of twenty students. Ten students were randomly assigned to the standard delivery plus simulation (intervention) group and ten were randomly assigned to the standard delivery (comparison) group.

Each student was assigned based on a letter A – T that they chose out of a hat. Those students who chose A-J were assigned to the intervention group and those who chose K-T were assigned to the standard delivery (comparison) group. Randomly assigning the students in this manner ensured that the investigator was not aware of who was designated to each group.

Project Setting

The setting for the study pre and post intervention activities took place in the usual assigned classroom and University simulation lab. In order to complete the intervention activity in a one-day time frame, two identical separate rooms were created in the simulation lab to accommodate running two simulations at one time. This allowed all 10 students in the experimental group to complete the intervention and debriefing in real time, during the morning, on the same day, as well as accommodate for other nursing classes to utilize the center for the afternoon.

Permission to conduct the study, utilizing the BSN students and Simulation Center was granted in writing by primary investigator's Dean for the School of Nursing (See Appendix J).

Logic Model

Zaccagnini and White (2014), share their hypothesis that “project ideas typically emanate from a clinical issue or opportunity identified by the nurse who has critical thinking skills” (p. 428). Kellogg (2004) defines the program logic model “as a picture of how an organization accomplishes its effort along with the theory and assumptions underlying the program. A program logic model links outcomes (both short-and long-term) with program activities and processes and the theoretical assumptions and principles of the program” (p. III).

A logic model was developed for the Project depicting a systematic and visual presentation of the relationships among the resources that were available for the project; the activities that were planned and completed; and the results and changes hoped to be achieved (Zaccagnini, 2011). This study fell under the realm of quantitative research, in that the aim was to understand essential

aspects related to the perception of study participants and to uncover beliefs, values, and motivations (Curry et al., 2009). Data gathering at the beginning of the study, followed by a simulated learning experience, and then repeating the same data gathering process after the intervention was the objective. The overall goal was to be able to measure a significant change (increase) in desirable skills, enhanced self-efficacy and decreased anxiety, in study participants and to reveal prevalent trends in thought and opinion.

The Logic Model for this study describes the entire project plan, presents the sequence of activities of the project, and describes the project activities (See Appendix K). The resources (inputs) identified were the senior BSN students, the principal investigator (PI), the University's Simulation Center, its staff, the Simulation Specialist, the standardized patients and the on-site mentor. As the project activities were carried out the outputs (data) provided the information necessary to determine that the expected outcomes were achieved.

Instrument Validity and Reliability

According to Buelow and Hinkle (2008), "a measurement instrument that is reliable is one that is stable or consistent across time" (p. 369). According to Polit and Beck (2004) and Tang, Cui, and Babenko (2014), Cronbach's alpha is used to measure reliability, thus, indicating internal consistency or homogeneity. Projecting ahead to the actual study, Cronbach's alpha will be utilized to determine internal consistency of the pre-test/post-test instrument used to measure self-efficacy and anxiety, as well as the multiple-choice fundamental knowledge examination.

Validity refers to how well the instrument measures what it reports it is measuring (Buelow and Hinkle, 2008; Sullivan, 2011). By using pre- and post-test questionnaires that have been validated the researcher was confident that the data generated was high in internal validity (Deshefy-Longhi, T., Sullivan-Botyai, and A., Dixon, J. (2009). Additionally, information gleaned from this study can be easily generalized to other nursing courses which can be enhanced by

simulation inclusion in the curriculum, with the potential for application to a variety of other fields of study, which denotes a high external validity as well.

The NASC-CDM and questions used for Mental Health Knowledge test were validated for reliability prior to use in study. For this study: all pre-and post-tests were re-created in the Moodle Learning Management System (LMS) using radio buttons for each question.

A modified 13-item demographic questionnaire which was developed and validated by White (2013) (p. 215), a 20-item mental health knowledge test which was developed by the investigator utilizing validated questions from Lippincott Williams & Wilkins PrepU, 2009, knowledge test bank and a 27-item pre-test utilizing the Nursing Anxiety and Self-Confidence with Clinical Decision Making (NASC-CDM) tool which was developed and validated by White (2013) to measure anxiety and self-confidence related to caring for a patient with an emotional/mental health issue were all utilized (pp. 207-214).

The 20-item Mental Health Knowledge test was created using questions from Prep-U which is an adaptive quizzing system that makes learning more efficient by selecting and delivering questions targeted to each student's individual needs (Wolters Kluwer, 2015).

Prep-U developers and item analyzers calculate the point-measure correlation (point biserial) between the observations on an item and the corresponding person measures. This has a range of -1 to +1. Good values are from 0.2 to 0.4. The point biserial is a useful red flag when items are being analyzed; if it's too low, the question is weak, and some students are getting it right that shouldn't. As well, some students are getting it wrong that shouldn't. The point measure correlations for the items are within the acceptable range (Wolters Kluwer, 2015).

Prep-U developers and item analyzers calculate item reliabilities for a subset of data and analysis measure of item reliability, which can vary from 0 to 1 is 0.98 indicates that assessors can reliably separate the difficulties of the items. As a rule of thumb, most experts look for anything

above 0.7 Wolters Kluwer, 2015).

Similarly, the assessors calculated Cronbach alpha (KR-20) as the measure of the internal consistency or reliability of a test score. For this, the measure is 0.77. Based on other analyses, it is likely to be much higher when analyses are run on full dataset of users. (Cronbach alpha is highly sensitive to missing data and so as assessors, they include more students who have answered the same questions and anticipate the score will be even higher.) (Wolters Kluwer, 2015).

The 27-item Nursing Anxiety and Self-Confidence with Clinical Decision Making (NASC-CDM) scale is a 6-point, interval-based, multiple choice tool with two sub-scales. Two samples of pre-licensure associate and baccalaureate nursing students participated in the study. The sample for the pilot phase of the study ($n = 303$) was slightly larger than the sample for the main testing phase ($n = 242$). Construct validity assessment yielded a uniform three-dimension scale using exploratory factor analysis. Convergent validity assessment with two existing instruments produced positive, moderate, and statistically significant correlations of the tool sub-scales (White, 2013).

To calculate the reliability and internal consistency for both the self-confidence and anxiety sub-scales of the NASC-CDM scale, Cronbach's alpha coefficient (Cronbach, 1951) was used. An alpha of 0.70 is considered quite respectable for a newly designed affective scale (DeVellis, 2012; Rust & Golombok, 2009). Results indicated the self-confidence sub-scale of the NASC-CDM $\alpha = 0.98$, and the anxiety sub-scale of the NASC-CDM $\alpha = 0.97$. Appraisal of the item-total statistics for both sub-scales revealed no substantial influence on alpha if any item was deleted (White, 2014).

Reliability was established by investigator using Cronbach's alpha for pre-test/post-test instruments used in study (Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability).

Table 3	
NASC-CDM (Clinical Decision Making) Investigator Reliability Results Both Intervention and Comparison Groups together	
Self-Confidence	Anxiety
Pre-intervention: .986 (what they know before intervention)	Pre-intervention: .960 (what they know before intervention)
Post-intervention: .982 (what they know now – after intervention)	Post-intervention: .927 (what they know now – after intervention)
Pre & Post Intervention Together: .992	Pre & Post Intervention Together: .965

Table 3 represents reliability data for the NASC-CDM Tool and Table 4 represents reliability data for the MHKT.

Table 4
Mental Health Knowledge Test (MHKT) Investigator Reliability Results Both Intervention and Comparison Groups together
Pre-intervention: .614 (what they know before intervention)
Post-intervention: .289 (what they know now – after intervention)
Pre & Post Intervention Together: .656

Validity and Reliability Threats

Cheng et al., (2014) discuss how important it is to “first address potential threats to the internal validity of traditional education research studies, such as subject characteristics, selection bias, history, instrumentation, testing, location, participant attitude, and implementation” (p. 1093). Therefore, one potential threat to the internal validity of the study was that students would begin the study with differing levels of anxiety or feelings (pre-conceived notions and biases about those

suffering with emotional/mental illness) about caring for a patient with an emotional/mental health issue. However, since the aim was to determine if a student's level of self-confidence in treating these patients increased after simulated learning experiences, this was a minimal threat, as long as an increase was shown. Additionally, the choice or development of –appropriate assessment tools was a threat to the internal validity.

With regard to potential threats to the external validity of the study, time and history that the student subjects had spent interacting prior to the study had potential to compromise the “generalizability” of findings to other groups (in this case, students in other nursing courses). The study participants were senior level BSN students within the same cohort, all of whom had been together since the beginning of their nursing school education. This had the potential to reveal different findings than if the sample was comprised of novice nursing students (which speaks not only to history but to maturation), or comprised of all BSN level students but from different cohorts. Another factor that had the potential to affect external validity, as discussed by Polit (2010), was "a high rate of dropouts in a study" (p. 366). The risk for this study was that some of the students decided not to continue with the study at any point during the time it is was conducted.

In an effort to obtain the most accurate outcome data, the principal investigator attempted to address several potential threats to reliability and validity prior to the actual implementation of the study by designing the project to use both a control group and an experimental group, and by total randomization of test subjects. The primary investigator also considered the threat of subject mortality and took every possible step to insure that the minimum number of subjects were lost during the duration of the research project. Research procedures that provide some incentive to continue participation are often desirable (London, Borasky, & Bahn, 2012), and the investigator planned to appeal to the subjects' sense of responsibility in contributing to the important study, as

well offered them access to the valuable results of the study, as incentives to help in completing the project.

One final threat to validity and reliability that was addressed was to remove the investigator from all aspects of the study conduction until after final completion. This methodology helped to eliminate any study bias in which students felt that their final course grade was in any way impacted by participation in the capstone study.

Protection of Human Subjects

Every precaution was taken to protect study participants from any physical or mental harm. Permission to conduct this study was sought and granted, as “exempt” status through the Human Subjects Institutional Review Board (IRB) from both DNP University and principal investigator’s University. All participants were informed, verbally and in writing that their participation was totally voluntary, would have no effect on their course final grade, and that they were required to sign a consent form agreeing to participate in the study. All participants were informed that their responses would be kept anonymous and any identifying information such as name, email address or internet protocol (IP) address would not be collected during study. The investigator successfully completed (2) Human Research Curriculum Basic Collaborative Institutional Training Initiative (CITI) courses (See Appendices L & M) prior to IRB application and study conduction.

The investigator held an information session for all senior level baccalaureate nursing students enrolled in the Fall, 2015 NURS433 – Community Mental Health course. An information session was held and an explanatory consent form was distributed that the students were asked to sign if willing to participate. The students were informed that participation was voluntary and they could choose to withdraw at any time. The students were informed that participation or nonparticipation in the study would have no impact on their grade in the course in any way.

To accomplish comparative analysis and assure anonymity was preserved, each student's chosen letter (A-T) was used and recorded on each data analysis form. Surveys and questionnaires were, and will be, maintained in a locked filing cabinet in the principal investigator's office for a period of three years following the intervention, at which time the questionnaires will be shredded.

Project Timeline

A timeline was a tool utilized to guide the progression of the project. The timeline for study conduction comprised of tasks beginning in Fall 2013 and ending in a revised time frame of Fall 2016 (See Appendix N). The project was submitted to Project Capstone Chair for approval by the investigator in November 2014, followed by institutional review board (IRB) applications being completed December 7, 2014. IRB submission/approval from Regis University (See Appendix O) and project site (See Appendix P) was obtained January, 2015. Data collection was performed September 9 to September 25, 2015. Phase one of study was completed during week 2 of the semester, Phase 2 was completed during week 3 of the semester and Phase 3 was completed during week 4 of the semester.

Project Findings and Results

Levels of measurement used for the Capstone Study are depicted in Table 5 and will be discussed in detail for test(s) pertinent to each of the six objectives.

Table 5 Study Levels of Measurement	
Demographics Questions Survey Objective One	NASC-CDM 26- item scale Objective Three, Four, & Five
<ul style="list-style-type: none"> - Descriptive: Test of Frequency <ul style="list-style-type: none"> - Nominal - Ordinal - Ratio 	<ul style="list-style-type: none"> - Pearson Correlation <ul style="list-style-type: none"> - Interval - Paired-Sample T-Test (pre & post) <ul style="list-style-type: none"> - Interval
Mental Health Knowledge Test Objective Two	Debriefing Objective Six

<ul style="list-style-type: none"> - Descriptive: Test of Frequency <ul style="list-style-type: none"> - Ordinal - Spearman's rho <ul style="list-style-type: none"> - Multi variable correlation - Wilcoxon T-Test (pre & post) <ul style="list-style-type: none"> - Nominal 	<ul style="list-style-type: none"> - Descriptive: Test of Frequency
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Objective One

The goal of objective one was to evaluate the equivalency of the student groups based on aggregate analysis of specific demographic variables and any relation to the dependent variable. This was accomplished by conducting a pre-intervention session with all student participants, ($n=20$), who were enrolled in their final semester of a BSN Nursing program, and then conducting and evaluating the pre-intervention demographic survey.

Following an informational session, informed consent for participation in the project was sought; all 20 students consented to participate in the Capstone Project. These students completed a 20-item demographic questionnaire which was analyzed using descriptive statistics of frequency. Of the 20 demographic questions student participants completed, five questions were expunged due to investigator determination that they did not have statistical relevance to study. Those expunged included: type of educational program enrolled in, current semester, number of times enrolled in NURS433 – Community Mental Health Nursing, content in semester clinical nursing course, and types of previous health illness patient care. Descriptive analyses were performed on the remaining 19 questions which allowed for the aggregation of demographic characteristics.

Demographics data were calculated utilizing the statistical analysis software SPSS version 23 using descriptive statistics of frequency to summarize and determine the number of times (percentages) each independent variable occurred (frequency) in the study between dependent variable (student receiving simulated learning experience {intervention} with a standardized patient assessed between the intervention and comparison groups (Kanji, 2009; Polit, 2010). Frequencies

revealed both the number and the percentage of all participants who selected each response (Kanji, 2009; Polit, 2010). Thus, the investigator used the “valid frequencies” column to determine the number of responses in the intervention and comparison groups and then compared the two groups together to assess for any variables that may have affected study positively or negatively. Based on the demographic questionnaire content, data was determined to fall in the nominal, ordinal, interval, and ratio levels of measurement. Table 6 summarizes data collected:

Table 6	
<i>Demographic Study Measures</i>	
Demographic	Measure
Gender	Nominal
Age	Ratio
Ethnicity	Nominal
GPA	Ratio
Current Professional License	Ordinal
Participation in any type of nursing intern/extern program	Nominal
Previous experience with simulation	Nominal
Types of simulation experience previous to current semester	Nominal
Previous simulation experiences with a standardized patient (live actor)	Nominal
Previous simulation experiences as a standardized patient (live actor)	Nominal
Previous experience working with patients with emotional/mental illness	Nominal
Types of previous mental health experience prior to current semester	Nominal
(Polit, 2010)	

Table 7 shows that the sample consisted of 20 participants with analysis showing 90% as female and 10% as male. In addition, 65% were 25 and under, 5% were ages 26-30, 15% were ages 31 to 35, 10% were ages 36 to 40 and 5% were 41 years of age or older. In the total population, ethnicity was reported to be 90% Caucasian; in addition, one participant reported Native American ethnicity and one reported Caucasian and Native American combined.

With regards to grade point average (GPA), 100% of participants reported maintaining a GPA between 3.0 and 3.9. Student participants reported current licensure to be that of 95% holding

Certified Nurse Assistant (CAN)/Health Care Provider (HCP) and 5% holding a Licensed Practical Nursing (LPN) licenses. Additionally, 30% reported having previously participated in any type of nursing intern/externship program and 70% having not participated.

When surveyed about previous experience working with patients experiencing emotional/mental illness, 90% stated they did have this type of experience and 10% reported no experience with this type of patient. When asked about their experience in taking care of patients with emotional/mental illness prior to the current semester, student participants reported having worked with patients in a variety of health care settings. When surveyed about previous simulation experience as a teaching/learning approach, 100% of the participants stated that they had experience with simulation during their time in the BSN nursing program. Additionally, 100% of participants reported previous experience working with a standardized patient (SP) and 65% reported participating as an SP with 35% having no experience as an SP. When asked about their previous simulation experience prior to the current semester, student participants reported having worked with patients in a variety of health care settings.

Table 7					
<i>Frequencies and Percentages of Demographic Variables (n=20)</i>					
Variable	Frequency	% of Total	Variable	Frequency	% of Total
Gender			Current Licensure		
Male	2	10.0	CNA/HCP	19	95.0
Female	18	90.0	LPN	1	5.0
Age			Previous Nursing Internship/Externship		
22-25	13	65.0	Yes	6	30.0
26-30	1	5.0	No	14	70.0
31-35	3	15.0			
36-40	2	10.0			
41-45	1	5.0			
Ethnicity			Previous Sim. Exp.		
Caucasian	18	90.0	Yes	20	100.0
Native Am.	1	5.0	No	0	0.0
Cauc./NaAm.	1	5.0			

GPA 3.0-3.9	20	100.0	Previous Sim. Exp. Working w/SP Yes No	20 0	100.0 0.0
Previous Sim. Exp. Working as Stand. Pt. (SP) Yes No	13 7	65.0 35.0	Previous Exp. Working w/Pt's w/Emotional/MI Yes No	18 2	90.0 10.0
Variable				Frequency	% of Total
Previous Types Sim. Exp.					
Community/Mental Health				1	5.0
Critical Care /Med-Surg/OB/Peds				1	5.0
Critical Care/Med-Surg/Fundamentals/OB/Peds				8	40.0
Fundamentals/Med-Surg/OB/Peds				4	20.0
Critical Care/Fundamentals/Lead-Mentor/Med-Surg/OB/Peds				1	5.0
Critical Care/Fundamentals/Lead-Mentor/Med-Surg/OB/Peds/MHlth				5	25.0
Previous Types Mental Health Exp. Prior to current Semester					
In-patient (IP)				2	10.0
Residential Treatment Center (RTC)				1	5.0
In-Patient/Emergency Room (ER)				3	15.0
ER/Elder Care Facility (ECF)				2	10.0
In-patient/Elder Care Facility				1	5.0
Elder Care Facility/Educational Setting (ES)				1	5.0
In-patient/RTC/ES				2	10.0
In-patient/ER/ECF				1	5.0
In- patient/ER/ES				1	5.0
In-patient/ER/RTC/ECF				1	5.0
In-patient/Community Care Clinic (CCC)/ER/ECF				1	5.0
In-patient/ER/ECF/ES/CCC				1	5.0
In-patient/CCC/ER/RTC/ECF/ES/Community Setting (CS)				1	5.0
None				2	10.0

Objective Two

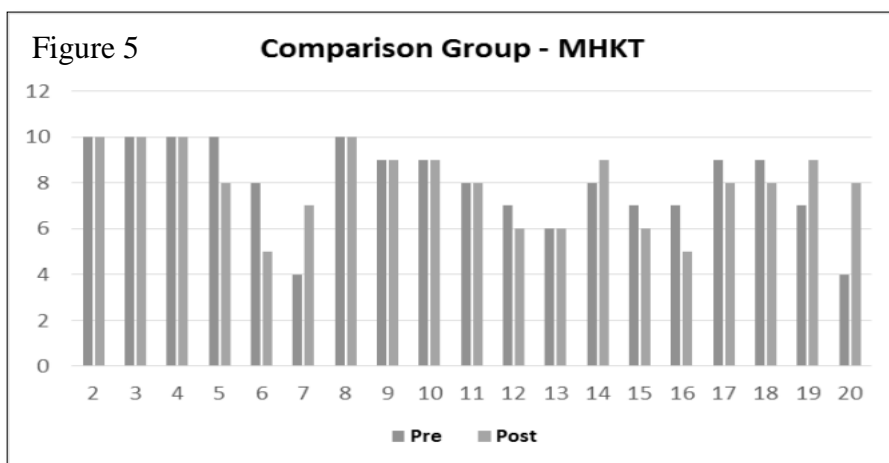
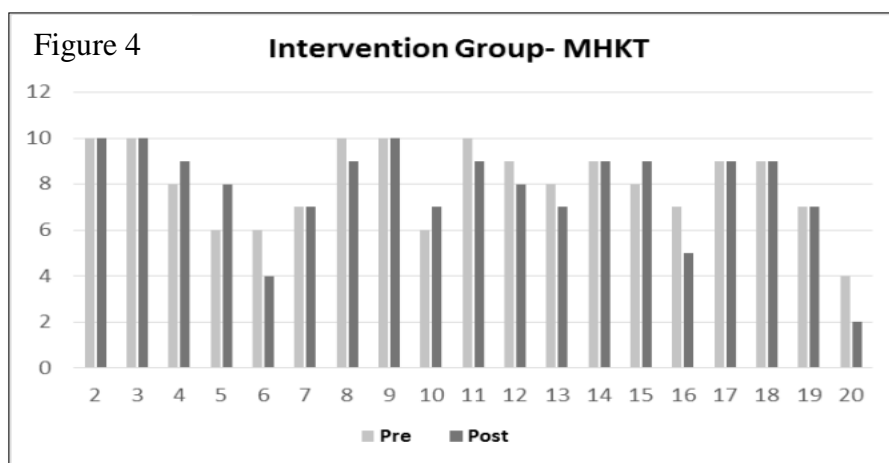
The goal of objective two was to determine baseline student mental health content knowledge. This was accomplished by administering and evaluating a pre-and post-intervention mental health knowledge test to all student participants ($n=20$).

A Mental Health Knowledge Test (MHKT) collected data at the ordinal level of measurement as there was only one correct answer for each of the 20 multiple-choice questions. In ordinal data, one value is greater or larger or better than the other (Kanji, 2009; Polit, 2010). In this case, the correct answer was preferred over the incorrect answer, and therefore the correct response

received a value of 2 and the incorrect response received a value of 1. The mental health knowledge test data was assessed using a variety of methods in SPSS.

The first test run for analysis was the Descriptive Statistics of Frequency. This test can be used to show a greater statistical significance with even one change between pre-and-post responses (Kanji, 2009; Polit, 2010). Descriptive statistics of frequency was used to determine any changes in percentage between intervention (See Figure 4) and comparison (See Figure 5) groups for both pre-and-post-testing sessions.

This test was used to assess for a greater statistical significance for even one change between pre-and-post responses. The investigator utilized the “valid frequencies” column to determine the number of correct and incorrect question responses between the two study groups and then compared the two groups together to see if there were any variables that may have affected study intervention positively or negatively.



The second test used for analysis was the Wilcoxon Related Samples Signed Rank T-test (2 samples) using an alpha level of 0.05 ($p \leq 0.05$). The Wilcoxon Signed Rank test is useful in that it takes into account how big the differences are within pairs of rankings and weights those differences. The test statistic is based on the ranks of the absolute values of the differences between the two dependent variables (Kanji, 2009; Polit, 2010).

Each question was run and analyzed separately in the intervention and comparison groups, pre- (See Figure 6) and post- (See Figure 7) intervention for statistical significance ($p \leq 0.05$) and to assess for any variables within the study intervention and how they may have affected participant responses to MHKT questions positively or negatively. The two groups were compared together (See Table 8) and data run with this test showed that there was no statistical significance in relation to any of the 20 MHKT questions and the intervention, thus, there was no impact on the student participants anxiety level or self-efficacy.

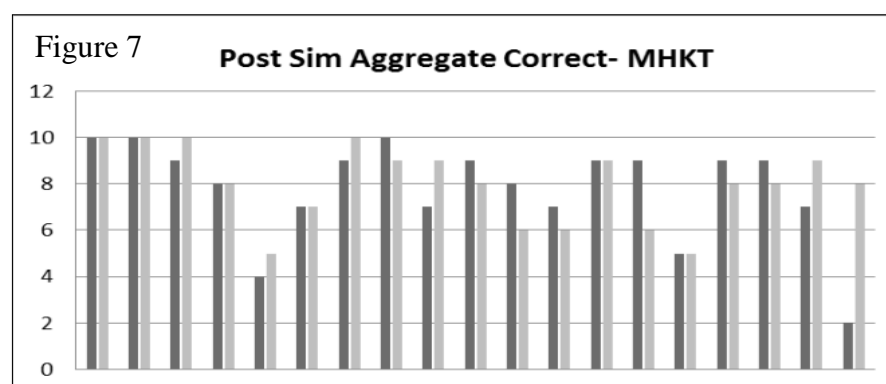
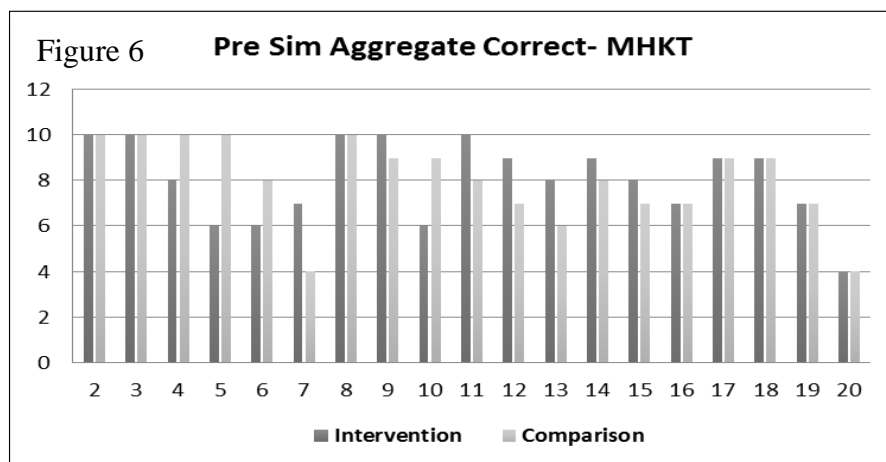


Table 8 <i>Mental Health Knowledge Wilcoxon Paired Samples Test</i>		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	MHPreAGG - MHPPostAGG	2.63200	12.21582	3.86298	-6.10667	11.37067	.681	9	.513

A possibility exists that the results could be due to the small sample size ($n=10$) of participants who completed the intervention and who may have developed different, even skewed levels of feelings, thoughts, comfort, anxiety and/or self-confidence in their ability to work with patients with mental illness post-simulation that changed the way they responded to the questions during pre-and-post evaluation. The possibility also exists that the comparison group ($n=10$) remained the same in their responses pre-and-post simulation because they did not experience the intervention until after the data had been gathered. This could attest to why this test showed some significance but not that the simulation intervention had any positive effect on mental health knowledge.

The third and final test run for analysis, the Spearman's Rank-Order Correlation (ρ), was run in SPSS to test the existence of a correlation between the pre- (See Table 9 and Table 11) and post- (see Table 10 and Table 12) MHKT questions completed by intervention and comparison groups (Kanji, 2009; Polit, 2010).

The investigator used the correlation coefficient and p-value to determine statistical

significance resulting in rejection of the null hypothesis. This was determined by assessing for p-values at or below $<.05$ and correlation coefficients closer to 1.000 (Kanji, 2009; Polit, 2010). Each question was evaluated separately to determine the number of correct and incorrect question responses in the intervention group and the control group and then comparing the two groups together to see if there are any variables within the study intervention may have affected participant responses to MHKT questions positively or negatively.

In Tables 9, 10, 11, and 12, 171 total pairs of MHKT questions were assessed. Based on the results of the Spearman's Rank-Order Correlation test, in Table 6 it was found that 6 of the pairs were found to be statistically significant ($p \leq .05$) and 165 pairs were not statistically significant ($p > .05$).

Data run with this test showed that the intervention and comparison groups remained closely related for both pre-and-post testing. This particular test did not identify statistical significance ($t=.681$, $p=.513$) that the 20 MHKT questions had any difference on student knowledge post-simulation.

Table 9			
<i>Spearman's rho Correlation</i>			
<i>Mental Health Knowledge Pre-test Intervention Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
171	6		.04%
		165	96%
Total			100%

Table 10			
<i>Spearman's rho Correlation</i>			
<i>Mental Health Knowledge Post-test Intervention Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
171	5		.03%

		166	97%
Total			100%

Table 11

*Spearman's rho Correlation**Mental Health Knowledge Pre-test Comparison Group*

Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
171	3		.02%
		168	98%
Total			100%

Table 12

*Spearman's rho Correlation**Mental Health Knowledge Post-test Comparison Group*

Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
171	5		.03%
		166	97%
Total			100%

Objective Three

The goal of objective three was to determine pre-intervention student-reported anxiety and self-efficacy scores prior to their mental health clinical experience. Administer pre-intervention survey to both control and intervention groups in order to assess anxiety and self-confidence

The Pearson correlation coefficient is a measure of the strength of a linear association between two variables and is denoted by r . A Pearson correlation coefficient attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient, r , indicates how far away all these data points are to this line of best fit (Kanji, 2009; Polit, 2010).

The Pearson correlation coefficient, r , can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association; that is, as the value of one variable increases, so does the value of the other variable. A value less than 0 indicates a negative association; that is, as the value of one variable increases, the value of the other variable decreases (Kanji, 2009; Polit, 2010).

The stronger the association of the two variables, the closer the Pearson correlation coefficient, r , will be to either +1 or -1 depending on whether the relationship is positive or negative, respectively. Achieving a value of +1 or -1 means that all your data points are included on the line of best fit - there are no data points that show any variation away from this line. Values for r between +1 and -1 (for example, $r = 0.8$ or -0.4) indicate that there is variation around the line of best fit. The closer the value of r to 0 the greater the variation around the line of best fit (Kanji, 2009; Polit, 2010).

Tables 13, 14, 15, and 16 represent Pearson correlation coefficient results. Of the 388 total pairs assessed, data run with this test did show that there was notable statistical significance in relation to the intervention and comparison groups, with the intervention group showing more self-confidence (See Table 15) and less anxiety (See Table 13) pre-simulation than the comparison group.

Table 13			
<i>Pearson Correlation</i>			
<i>Anxiety Pre-test Intervention Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	114		29%
		274	71%
Total			100%

Table 14

<i>Pearson Correlation</i> <i>Anxiety Pre-test Comparison Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	96		25%
		292	75%
Total			100%

Table 15 <i>Pearson Correlation</i> <i>Self-Confidence Pre-test Intervention Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	287		75%
		94	25%
Total			100%

Table 16 <i>Pearson Correlation</i> <i>Self-Confidence Pre-test Comparison Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	66		17%
		322	83%
Total			100%

Objective Four

The goal of objective four was to determine post-intervention student-reported self-efficacy (self-confidence) and anxiety scores prior to their mental health clinical experience. The investigator administered a post-intervention survey to both comparison and intervention groups in order to assess self-efficacy and anxiety.

Tables 17, 18, 19, and 20 represent Pearson correlation coefficient results. Data run with this test showed that there was some statistical significance in relation to the intervention and

comparison groups; however, there was minimal impact on the student participants' anxiety level (See Table 17 & Table 18). The Pearson correlation coefficient test showed that the simulation intervention did illicit notable statistical significance in relation to the intervention and comparison groups – with the intervention group showing more self-confidence (See Table 19) than the comparison group. However, anxiety levels appeared to be slightly lower in the comparison group but did go up in both groups post-intervention. This particular test did identify statistical significance ($p \leq 0.05$) that the intervention group displayed improved self-efficacy but not that the intervention reduced/improved anxiety level in the participants post-intervention.

Table 17			
<i>Pearson Correlation</i>			
<i>Anxiety Post-test</i>	<i>Intervention Group</i>		
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	69		18%
		319	82%
Total			100%

Table 18			
<i>Pearson Correlation</i>			
<i>Anxiety Post-test</i>	<i>Comparison Group</i>		
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	64		16%
		324	84%
Total			100%

Table 19			
<i>Pearson Correlation</i>			
<i>Self-Confidence</i>	<i>Post-test</i>	<i>Intervention Group</i>	
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	237		61%

		151	39%
Total			100%

Table 20			
<i>Pearson Correlation</i>			
<i>Self-Confidence Post-test Comparison Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
388	44		11%
		344	89%
Total			100%

Objective Five

The goal of objective five was to compare student-reported anxiety and self-efficacy scores for the intervention and comparison groups of students. The investigator administered and compared scores from pre-and post-intervention survey given to both comparison and intervention groups in order to assess for reduction in anxiety and enhancement of self-efficacy

A paired sample t-test was used to compare pre-and-post-test results. Paired sample t-test is a statistical technique that is used to compare two population means in the case of two samples that are correlated. Paired sample t-test is used in ‘before-after’ studies, or when the samples are the matched pairs, or when it is a case-control study (Kanji, 2009; Polit, 2010). In medicine, by using the paired sample t-test, we can figure out whether or not a particular medicine will cure an illness (Lani, 2010).

The paired t-test calculates the difference within each before-and-after pair of measurements, determines the mean of these changes, and reports whether this mean of the

differences is statistically significant. A paired t-test can be more powerful than a 2-sample t-test because the latter includes additional variation occurring from the independence of the observations (Kanji, 2009; Polit, 2010).

Tables 21, 22, 23, and 24 represent paired t-test results. In relation to lowered anxiety levels, what is significant about this paired samples t-test (See Table 21 & Table 22) is that out of 27 pair possibilities – 18 (or 67%) showed statistical significance ($p \leq 0.05$) between both the intervention and comparison groups – pre-to post intervention. The most statistical significance related to Q's 21 & 25 with p values of .000; Q's 3 & 14 with a p value .001; Q10 with a p value .004. Q3 relates to anxiety in ability to identify which pieces of clinical information gathered are related to client's current problem. Q10 relates to anxiety in ability to use active listening skills when gathering information about client's current. Q14 relates to anxiety related to use of knowledge of anatomy & physiology to interpret information gathered about client's current problem. Q21 relates to anxiety in ability to implement one accurate intervention if client is having an urgent problem. Q25 relates to anxiety in ability to speak with client's family/significant other to gather information about current problem.

Table 21			
<i>T-test</i>			
<i>Anxiety Pre & Post – Intervention Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
27	17		63%
		10	37%
Total			100%

Table 22			
<i>T-test</i>			
<i>Anxiety Pre & Post – Comparison Group</i>			

Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
27	1		0.4%
		26	96%
Total			100%

In relation to self-confidence, what is statistically significant about this paired samples t-test (See Table 23 & Table 24) is that out of 27 pair possibilities – 12 (or 44%) showed statistical significance between both the intervention and comparison groups – pre-to post intervention. The most statistical significance related to Q8 with a p value of .001; Q26 with a p value .001; Q14 with a p value .003 and Q's 16, 18 and 19 with a p value of .004. Q8 relates to self-confidence in ability to evaluate if clinical decision improved the client's laboratory findings (not part of intervention). Q26 relates to self-confidence in ability to evaluate if clinical decision made influenced client satisfaction. Q14 relates to self-confidence in ability to use of knowledge of anatomy & physiology to interpret information gathered about client's current problem. Q16 relates to self-confidence in ability to analyze risks of interventions being considered based on client's current problem. Q18 relates to self-confidence in ability to independently make a clinical decision to solve the client's problem. Q19 relates to self-confidence in ability to ask the client additional questions to get more information about the current problem.

Table 23

*T-test**Self-Confidence Pre & Post – Intervention Group*

Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
27	12		44%
		15	56%
Total			100%

Table 24

T-test

<i>Self-Confidence Pre & Post – Comparison Group</i>			
Pairs Total	Statistically Significant	Non-Statistically Significant	Percentage
27	0		0%
		27	100%
Total			100%

Objective Six

The goal of objective six was to determine effect the simulation intervention had on students' preparedness for working with those experiencing mental illness. This was accomplished by evaluating students' perceptions of intervention through written and verbal debriefing in order to assess for decreased levels of anxiety, enhancement of self-efficacy and therapeutic communication skills.

A debriefing questionnaire (See Appendix Q) was created by project investigator and contained questions to elicit feedback from each student participant, in both the intervention and comparison groups, for the purpose of determining effect the Capstone intervention had on students' preparedness for working with those experiencing mental illness. Specifically, the project investigator was looking for feedback on anxiety, self-efficacy (self-confidence) and therapeutic communication.

Student participants ($n=20$) were asked to share their thoughts on if/how the intervention (simulation) activities helped to prepare them for their clinical rotations for Fall 15 semester and if this activity assisted in easing anxiety and enhancing self-efficacy (self-confidence) making it possible to interact with staff at the clinical sites and patients with mental/emotional illness more comfortably. The Investigator was particularly interested in if this activity helped student participants to develop a baseline for him/her in order to aid in developing and being comfortable with therapeutic communication, assessment, collaboration, and critical thinking skills when working with patients with mental/emotional illness.

Based on comments, student participants in both the intervention and comparison groups indicated that the simulation experience decreased their anxiety levels and enhanced their self-efficacy (self-confidence). The students in the comparison group were given the simulation experience once the study was totally completed but before they began their clinical rotation. Additionally, comments from both groups supported that the simulation improved critical thinking, comfort level, therapeutic communication, assessment skills, and helped them to feel more prepared in working with patients experiencing emotional/mental illness.

Student Comments:

- a. *“Overall, I feel that all of these experiences decreased my anxiety, improved self-efficacy, and my ability to critically think not only in situations with mental health clients, but as a health professional in general. In every experience I learned more about what situations made me comfortable, and what ones I felt discomfort with and why, my strengths and weaknesses, and others' perceptions of me. They not only improved my competence as a future nurse, but improved my personal development as well and I truly appreciate this opportunity.”*
- b. *“Simulated experience with mentally ill patient at SIM center was great. The actors were so amazingly believable. It definitely increased my confidence and comfort level speaking with patients with hallucinations/delusions. Having this simulation added to our experience and we had at least one actual encounter before having clinical rotations through clinical sites where we would be seeing this for the first time in our nursing career. This SIM should absolutely be included EVERY SEMESTER.”*
- c. *“In the beginning, directly after the experience, I was confident I had done amazing. However, the "patient" had great feedback on my behavior and actions. I learned about my confidence to go into a situation and what to look for. I was able to assess the*

environment. Her feedback was helpful as I entered into clinical experiences. It goes back to being self-aware. In the experience, I used my personality which is more affectionate to care for, assess and console the patient and I needed to get the information, give needed information and be less emotional. I appreciated the opportunity to receive constructive criticism prior to going into the field. It better prepared me to assess and interact with mentally ill patients.”

- d. *“The SIM experience was great. It helped me with therapeutic communication and developing more confidence in my assessment skills of the mentally ill. Without it I wouldn't of known what to expect.”*
- e. *“This was my favorite experience and probably the most beneficial to me. The way the simulation was set up was very real, and not being able to see the camera helped to keep the environment more natural. The actors were amazing, and helped me to stay in role as a nurse and to take the exercise very seriously. I felt very confident in my nursing skills and was able to do a mental health assessment on my patient with minimal referral to my assessment guide. I really liked the debriefing session after as well with the patient, other students, instructor, and those spectating during the interviews. It helped to answer questions, enhance the situation further, and decrease my anxiety for future patient interactions.”*
- f. *“The experience at the SIM was very valuable as well. It helped decrease my feelings of discomfort going into clinicals and increased feelings that I could be an active, competent member of the health team. It assisted me in identifying my weaknesses and strengths which improved my ability to critically think in assessing and providing care in the later clinicals we had. I really liked the debriefing part.”*

- g. *“Simulation is something that I have done in every clinical rotation. Hearing about participating in a simulated experience for mental health had me excited because simulation in general eases my anxiety before I go out to clinical, and even when I will start my nursing career. These are experiences I can reflect on and look back to see. I love the fact that it is always a "safe" environment and that there is so much learning to be done. I found the mental health simulation, compared to all my other simulations throughout my four year degree to be especially more helpful. Mental health has such a stigma attached to it, and the simulation really assisted me in riding of those stigmas and focusing on what I love to do: nursing. This activity ultimately helped me reduce my anxiety when coming into contact with mental health patients.”*
- h. *“I feel that the simulations were a very beneficial piece of the learning this semester and that it allowed me to gain a better understanding of what would be needed and what to expect prior to having actual interactions with the patients in clinical situations.”*
- i. *“Simulation experience with severely mentally ill standardized patient at LSSU off-site Simulation Center. Wow, how fantastic! I really enjoyed this experience for the opportunity to work with people that actually work in the field. I later learned that they provided me with accurate representations of patients and I felt far more comfortable during clinical for the previous experience.”*
- j. *“Through the simulation it provided me with additional knowledge to apply when assessing and caring of individuals in the mental health community. Being provided with the additional experience that the capstone project provided, I believe, has helped me to become a better nurse and be more prepared to work with the community mental health population.”*

- k. *“This was also a really good activity, as it gave us first-hand experience with plenty of feedback. I learned a lot about how to conduct a mental health interview, and I got valuable feedback that I was then able to use later when I performed my own mental health interviews at clinical.”*

Limitations, Recommendations, and Implications for Change

Limitations

A major limitation was, that although the study did show statistically significant results, they are most pertinent to the investigator at the local university level; but are not statistically significant to the larger population due to the small sample size ($n=10$ intervention group & $n=10$ comparison group). The small sample size was expected due to the single-site/single-cohort study. The data collection was completed during a limited period of time; only one time with one cohort during Fall 2015 semester.

Cohen (2013) proposed rules of thumb for interpreting effect sizes: a “small” effect size is .20, a “medium” effect size is .50, and a “large” effect size is .80 (p. 6). This means that the smaller the sample size, the larger the difference between study groups will have to be in order to achieve statistical significance. If the probability is good (e.g. greater than or equal to a 60% chance), then the sample size is considered adequate. Based on a total sample size of ($n=20$), with an experimental sample group ($n=10$) and a control sample group ($n=10$), and with an effect size of 1.00, using Cohen’s d , and a p value of $<.05$ (Polit, 2010, p. 421), this study sample would achieve a power of .60.

What this investigator was aiming to identify was a significant increase both in knowledge (as evidenced by pre-and post-knowledge testing) and reduction of anxiety and increase in self-confidence (as evidenced by pre- and post-testing results). After running the data, the pre-and-post-mental health knowledge testing did not illicit any statistically significant results, thus the null was

rejected. The NASC-CDM tool given pre-and-post intervention did show improvement in 7 out of 28 areas of self-confidence and 16 of 28 areas of anxiety. Thus, the investigator failed to reject the null hypothesis and concluded that simulated learning did have a statistically significant effect on enhancing confidence and reducing anxiety levels of nursing students with regard to treatment of a patient with emotional/mental health issues prior to first face-to-face experience.

A second limitation was that the Mental Health Knowledge Test (MHKT) was utilized to determine a baseline of student mental health knowledge. The test was created by the investigator from a pre-existing testing program; thus, it did not end up to be a good predictor of mental health knowledge as the questions chosen from the PrepU program did not align well with the intervention content and experience.

Recommendations

A recommendation for this project is to replicate it across several cohorts – across several academic semesters which could provide more in-depth and significant data. A larger population sample could greatly impact results.

A second recommendation could be to restructure the Mental Health Knowledge Test to include content that may facilitate correct responses based on simulation intervention. This could be accomplished by either developing a simulation scenario based on content of Prep U or create questions to meet scenario and send contents to experts in the field of mental health and education (using simulation with standardized patient in mental health) to validate for reliability.

A final recommendation could be to restructure simulation intervention to include content that may facilitate more statistically significant self-confidence and anxiety reduction results.

Implications

Simulated learning has the potential to have a direct effect on increasing the skills of nursing students and allow them to reduce levels of anxiety and gain confidence in their abilities

before working with mentally ill patients. Simulation experiences can offer students methods that can be used to handle situations they may encounter with patients who have serious psychiatric or mental health conditions. Can be an asset in educating students on effective ways to work with mentally ill patients to help improve safety & contribute to better outcomes

Simulation is an effective means of augmenting real-life clinical experiences for undergraduate nursing students. Simulation scenarios are multifaceted, intentional teaching tools which require an understanding of experiential, constructivist, and reflective learning theories to maximize student learning. Simulations are especially useful for helping students to practice and learn nursing care with infrequently encountered or high risk situations (Aebersold & Tschannen, 2013; Deckers, 2011; Giandinoto & Edward, 2014).

Simulation exercises during community mental health nursing education courses could value to the baccalaureate level program as a viable and effective opportunity to practice skills in a safe environment without presenting any danger to patients (Webster, 2014). Nurses in the medical-surgical and emergency room settings commonly encounter patients experiencing psychiatric and mental health problems (Giandinoto & Edward, 2014). Simulation provides a means to practice caring for these patients prior to these encounters. Simulation can be utilized to help students develop critical decision making and communication skills in working with clients experiencing drug or alcohol abuse disorders in the acute care setting (Aebersold & Tschannen, 2013; Giandinoto & Edward, 2014). Simulation should not be thought of as a poor replacement for missing or inadequate clinical experiences; rather, simulation itself is an extremely important resource tool that should be incorporated into all psychiatric and mental health nursing clinical education practices (Murray, 2014).

Simulation offers students the ability to be exposed to a patient experiencing any multitude of behaviors, thoughts, delusions, hallucinations, exacerbations, etc., as well as physical health

issues (Cato, 2013). This type of education offers them a way to learn and develop critical thinking and coping skills in a safe environment without risking themselves or the patient (LaMartina & Ward-Smith, 2014). Many students do not have the opportunity to encounter patients with mental illness and, thus, do not have the needed skills to work effectively with patients (Anonymous, 2014).

Summary

Limited clinical sites for nursing education and the advancement of technology are the implications for change in nursing education by implementing simulation. These situations place pressure on nursing programs to adopt simulation to meet the clinical objectives of their nursing students. The introduction of high-fidelity simulation in nursing education provides a solution for clinical education outside of the acute care facility. This study and other current research show simulations to be an appropriate, innovative, beneficial, and a sound technological teaching strategy.

Shrinking resources require the development of innovative ways to educate nurses to meet the demands of the profession, in ways that are relevant, effective, and ethical (Izumi, 2013). Despite the many potential pedagogical and practical benefits of simulation described in this study, there is a continuing lack of reported research into its effectiveness as a teaching and learning tool and its impact on practice, particularly in a long-term context (Lateef, 2010). Such research is therefore much needed.

The results of this study contribute to nursing educators' understanding of the learning processes associated with the use of high-fidelity simulation. It is recommended that further research be conducted in both the innovative use of simulation in nursing education and also the application of metrics to simulation learning outcomes. This will assist nursing educators and administrators to determine the best, most cost effective methods of evaluating and preparing

nursing students for competent, safe clinical practice

It is anticipated that the results of this study will support the inclusion of simulation with standardized patients to decrease anxiety and increase students' self-efficacy and decrease when working with patients who are experiencing mental illness. Results could then be used to support further expansion of simulation into all nursing education content areas as a viable and effective opportunity to practice skills in a safe environment without presenting any danger to patients.

Confident, skilled new nurses will be readily-employable, which will help them to achieve their goals in nursing practice, but will also be an asset to the health care system and organizations in which they practice (Hughes, 2008; Moore, Everly & Bauer, 2016). Successful clinical experiences prior to patient interactions.....can translate into successful performance as a new nurse (Aebersold, M., & Tschannen, D. (2013).

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Appendix A

Systematic Review Evidence Table

Format adapted with permission from Thompson, C. (2011). Evidence table format for a systematic review. In J. Houser & K.S. Oman (eds.). *Evidence-based practice: An implementation guide for healthcare organizations* (p. 155). Sudbury, MA: Jones and Bartlett.

Article/Journal	Investigating the Use of Simulation as a Teaching Strategy <i>Nursing Standard</i>	The Impact of high Fidelity Human Simulation on the Self-Efficacy of Communication Skills <i>Issues in Mental Health Nursing</i>
Author/Year	Chew Kim Shepherd Margaret McCunnis Lynn Brown Mario Hair 2010	Kirstyn Kameg John Clochesy Ann. M. Mitchell Jane M. Suresky 2010
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Mental Health	Informa Healthcare Simulation; Communication; High Fidelity
Research Design	Student-participated, longitudinal, comparative, quantitative quasi-experimental. Qualitative.	Non-random, quasi-experimental.
Seven Tiered Levels of Evidence	III	III
Study Aim/Purpose	The purpose of this study was to compare performance within two groups of 3 rd year nursing students which would show evidence that would assist in the selection of effective teaching methods and allocation of funds for resources used in simulation for clinical skills instruction. Specifically, the authors' reason for conducting this study is to determine if one type of simulation (manikin) is more effective than another (standardized patient) in facilitating student learning in the areas of : knowledge, understanding, decision-making, problem solving, as well as motor and affective skills.	The purpose of this study was to compare the effectiveness of two educational delivery methods, traditional lecture and high-fidelity human simulation (HFHS) with regard to nursing students' competence and confidence in their communication skills with patients experiencing mental illness.
Population/Sample size Criteria/Power	<u>Pre-phase</u> : 5 students outside of main study participants Originally: 28 students: Site A ($n = 18$) and Site B ($n = 10$) were invited to participate. <u>Phase 1</u> (initial trial): 28 student participants.	38 pre-licensure nursing students enrolled in psychiatric nursing course.

	<p><u>Phase 2</u> (following six months of clinical experience): 24 students / Site A (n = 15) and Site B (n = 9) - {4 declined to continue}.</p>	
<p>Methods/Study Appraisal Synthesis Methods</p>	<p>Study completed at two separate sites.</p> <p>Scenarios were used that incorporated problem-solving and all three domains of learning (cognitive, motor and affective) in order to compare student participant's performance in the area of assessment in a simulated environment.</p> <p>Percentages were assigned for each student to facilitate comparisons. 100% was possible score with 25% assigned to each of four areas (knowledge & understanding; decision making & problem-solving; motor and affective).</p> <p>During Phase 1: one standardized participant patient volunteer was enlisted at Site A. Site B utilized high-fidelity simulation manikin as patient participant. Student performance was videotaped for evaluation by two external assessors with experience in clinical skills assessment.</p> <p>During Phase 2: students were assessed for any changes to performance of nursing skills after completion of six months of clinical practice.</p> <p>Participant approval was sought through the University's ethics committee and an "opt-in" form was completed during initial recruitment, as well as signed consent form prior to participation.</p> <p>Pre and post simulation experience confidence and anxiety self-assessments were completed at both Site A and B.</p> <p>Statistical data using independent sample t-test was gathered and provided for all five performance areas for Site A and B and Phase 1 and 2.</p> <p>For data analysis: the videotapes were divided randomly, from both Site A & B, between the two external assessors.</p> <p>Quantitative data dissemination was completed by a statistician and qualitative data was accomplished by the researchers.</p>	<p>Use of Bandura's self-efficacy theory for structure.</p> <p>Use of traditional lecture (communication skills) and HFHS</p> <p>Participation in study was voluntary. For those who participated, an informed consent letter was provided at the first meeting.</p> <p>IRB board approval was sought and granted. Consent to participate was solicited before study began. Students divided into 2 groups: Group 1: (n=21 & Group 2: (n=17). Students were assigned to Group 1 (community health course) or Group 2 (psychiatric nursing course) and then changed groups' mid-term.</p> <p>Of the 38 student participants: 10.5% (n = 4) male and 89.5% (n = 34) females; 5% (n=2) African Am./Black & 95% (n=36) European Am./White; 100% (n=23) average age.</p> <p>Student identification was accomplished with the use of a four digit code was written at top of each tool.</p> <p>At first meeting: Students completed the General Self-Efficacy Scale; Single-item Visual Analogue Scale (VAS) and Sample Descriptors Questionnaire. Completion of these tools indicated consent to participate in the study.</p> <p>For data analysis: the videotaping of the simulation was conducted and used in debriefing sessions.</p>
<p>Study tool/instrument validity/reliability</p>	<p>Validated and piloted assessment tool used to measure all three learning domains, as well as a self-assessment of confidence and anxiety. Self-report assessments are typically strong in reliability and are a common type of data collection used in nursing studies (Polit and Beck, 2010, p. 351).</p>	<p>Sample Descriptors Questionnaire.</p> <p>Single-item Visual Analogue Scale (VAS): acceptable test-retest has been reported in many single-item measures within nursing</p>

	<p>Student's performance was videotaped as well.</p>	<p>research surveys. There is support for the validity and sensitivity of change in the phenomenon of study for this tool.</p> <p>General Self-Efficacy Scale (GSES): Likert-type scale was created by researchers and shown to have an internal consistency, as measured by Cronbach's alpha tool, ranging from 0.76 – 0.90 with the majority in the high 0.80s.</p> <p>Simulation Evaluation Survey (SES): 4-point Likert-type. Internal consistency, as measured by Cronbach's alpha tool, was 0.87 which suggested its reliability.</p> <p>Data was entered and coded using SSPS</p> <p>A coding system was created by the researchers.</p> <p>Dependent t-test was used to analyze changes in self-efficacy between Time 1 and Time 2.</p> <p>Cronbach's alpha tool was used to determine internal consistency on the GSES and SES.</p> <p>Pearson correlation was used to assess for any relationships between scores on GSES and reported self-efficacy in relation to communication during Time 1.</p> <p>Descriptive statistics was used to analyze SES responses.</p>
<p>Primary Outcome Measures/Results</p>	<p>Quantitative Results</p> <p>Phase 1: Both Site A & B: For all 3 domains assessed, mean scores for the overall total and for each domain were found to be similar with no significant difference shown for either site. In relation to Confidence and Anxiety, both were shown to be slightly higher in Site A and Site B participants but were not considered to be statistically significant.</p> <p>An analysis of covariance was completed to determine if existing confidence and anxiety had an effect on test scores. No significant difference was shown between either site ($F(1,24) = 0.03$, $P=0.863$). There was a significant negative correlation between pre-test anxiety and change in anxiety ($r=0.683$, $P<0.01$) and change in confidence and anxiety after the test ($r=0.572$, $P<0.01$).</p> <p>Phase 2: Both Site A & B: For all 3 domains assessed, mean overall total scores were higher for Site A. Cognitive scores were similar; however</p>	<p>Both qualitative and quantitative findings are reported concurrently.</p> <p>Group 1: 100% ($n = 21$) & Group 2: 88.2% ($n = 15$) reported prior experience with human patient simulation.</p> <p>Group 1: 810% ($n = 17$) & Group 2: 88.2% ($n = 15$) reported prior exposure to individuals with mental illness.</p> <p>Group 1 and Group 2: ($n = 38$): results of dependent t-test on self-efficacy after simulation $m(\text{VAS 1}) 48.58$; $m(\text{VAS 2}) 59.20$; $t -3.936$. Scores are significant at ($p = .000$).</p> <p>Time 1: ($n = 21$): $m(\text{VAS 1}) 50.90$; $m(\text{VAS 2}) 64.20$; $t -3.183$; $p=.005$</p> <p>Time 2: ($n = 17$): $m(\text{VAS 1}) 45.71$; $m(\text{VAS 2}) 55.20$; $t -2.290$; $p=.036$</p>

	<p>Site A scored higher in both motor and affective domains. Between both sites, there was a significant difference in mean affective scores ($t_{22}=2.39$, $P<0.05$) with Site A significantly higher. A 95% confidence interval, at 95%, for affective domain, shows the mean at Site A to be 0.4 and 5.64 greater than Site B.</p> <p>Qualitative Results – both Phase 1 and 2: <u>Cognition</u>: vital sign changes suggesting patient deterioration were recognized by all student participants. All students were able to make appropriate intervention choices. <u>Cognition and Motor</u>: Manual dexterity differed between sites with Site B students unable to demonstrate competence and confidence these domains. Most students in both groups demonstrated difficulty in what equipment to use for vital sign assessment. <u>Affective</u>: Most students in group with manikin were unable to communicate effectively. Additionally, many students incorrectly assessed respiratory rate.</p>	<p>Cronbach's alpha of GSES was .852 (indicating reliability).</p> <p>Group 1: GSES mean score was 3.1381 & Group 2: was 2.7353. Indicating Group 1 was stronger in self-efficacy.</p> <p>Pearson correlation between GSES and self-efficacy r/t communication at Time 1 showed a moderate correlation ($r = .419$, $p = .009$) between variables for all 38 students.</p> <p>Group 1: significant and moderately strong correlation between GSES and self-efficacy r/t communication at Time 1 ($r = .578$, $p = .006$) and Group 2: non-significant correlation ($r = .274$, $p = .288$).</p> <p>Simulation Evaluation Survey (SES) (n=38): found that the simulation experience was valued as an effective learning experience by all participants. <u>Results from this survey reported</u>: Help with better understanding of nursing concepts $m=3.53/SD .506$; valuable learning experience $m=3.63/SD .489$; helped to stimulate critical thinking $m=3.50/SD .507$; realistic simulation $m=2.84/SD .594$; knowledge can transfer to clinical setting $m=3.58/SD .500$; nervous during simulation $m=3.18/SD .609$; less nervous after simulation $m=2.97/SD .636$; simulation can substitute for hospital experience $m=1.92/SD 1.024$; Simulation should be in curriculum $m=3.58/SD .500$.</p>
Conclusions/Implications	<p>Conclusion: Study showed that in two of the domains (cognition and motor), students had similar outcomes in relation to use of manikin and standardized participant. In affective domain, the students functioned better with the standardized participant.</p> <p>Of great concern to the researchers was that the senior students at both Site A and B, in both phases, were unable to assess manual vital signs correctly. Furthermore, students rated poor in areas of areas of knowledge, understanding, decision-making and problem solving.</p> <p>Implications for Practice: 1) Students, and practicing nurses, have become too reliant on automated assessment equipment which can result in an inability to recognize a deteriorating patient facilitating a potential safety issue. 2) It is important for nursing students to be skilled in the use of both manual and automated assessment equipment. 3) The type of simulation choice is important to nurse educators when choosing learning opportunities for students based on overall goal. 4) Choice of simulation resources is imperative to student learning, as is training for educators using simulation as a teaching modality.</p>	<p>This study concludes that the use of simulation to increase nursing students' confidence in communicating with patients who are experiencing mental illness is quite effective. The results of this study are consistent with other studies conducted regarding the use of simulation having a positive effect on student satisfaction with learning and/or improved self-confidence. Despite the finding of this study, there continues to a lack of research available validating the use of high fidelity human simulators in relation to effectiveness on student learning outcomes. Further research evaluating student's use of therapeutic and nontherapeutic communication techniques would provide more information on the use of HFHS and student learning outcomes in relation to therapeutic communication</p>

Strengths/Limitations	<p>Strengths: very informative, comparative study of use of simulation with manikin or standardized participant.</p> <p>Limitations: small sample size for study.</p>	<p>Strengths: multiple surveys/tools used which included qualitative and quantitative research methods.</p> <p>Limitations: 1. Inability to see non-verbal cues (facial expressions) on manikin. 2. Time required to learn simulation technology. 3. Small sample population. 4. Inability of students to take simulation experience as serious as they would with a “live” patient, thus; an inability to increase confidence and communication skills. 5. Potential researcher bias (instructor who provided lecture also provided simulation activity).</p>
Funding Source	Not published, therefore; unknown.	Not published, therefore: unknown.
Comments	<p>This is a very informative study even with the small sample size. The purpose of this study was to compare the performance of nursing students who utilized two different methods of simulation in clinical experience, to obtain evidence as to the most appropriate teaching methods so that nursing students graduate competent in necessary skills. I believe it did that successfully.</p> <p>This research identified the need for me to utilize/develop a strong pre and posttest self-evaluation tool incorporating all three domains of learning. For optimal student success, I find it important to offer learning opportunities that meet the needs of each student’s learning style. I will also consider doing a survey of participants’ learning styles.</p>	<p>Even with the small sampling of students, and the potential bias, I feel this was a good study as it provided some beneficial information regarding the use manikins as a means for a simulated learning experience. The questions used in the Simulation Evaluation Survey, as well as the reported open-ended responses from this survey could be valuable as I prepare to move forward with my Capstone Project.</p>
Article/Journal	<p>Communication and Patient Safety in Simulation for Mental Health Nursing Education</p> <p><i>Issues in Mental Health Nursing</i></p>	<p>Human Patient Simulators: A New Face in Baccalaureate Nursing Education at Brigham Young University</p> <p><i>Journal of Nursing Education</i></p>
Author/Year	<p>Theresa M. fay-Hillier Roseann V. Regan Mary Gallagher Gordon</p> <p>2012</p>	<p>Carolyn S. Bearnson Kathleen M. Wiker</p> <p>2005</p>
Database/Keywords	<p>Informa Healthcare</p> <p>Simulation; Effective Communication; Nursing; Mental Health</p>	<p>Academic Search Premier</p> <p>Simulation; Communication; High Fidelity; BSN</p>
Research Design	<p>Systematic Literature Reviews (qualitative and quantitative) by authors</p> <p>Qualitative: Phenomenology</p>	<p>Exploratory, descriptive</p>
Seven Tiered Levels of Evidence	VI	VI
Study Aim/Purpose	The purpose of this study was to examine how the implementation of a simulation experience for nursing students taking a mental health course	The purpose this study was to explore the benefits and limitations of using a computer controlled mannequin simulation as substitute for one day of actual clinical experience for nursing

	could be used to support their practice of patient and professional communication, as well as, collaboration skills with a patient-centered approach designed to reduce medical errors resulting from ineffective communication.	students who were completing their first hospital rotation and had been working with postoperative patients. The aim was to assess learning outcomes in the areas of student knowledge, ability, and confidence in medication administration.
Population/Sample size Criteria/Power	9 BSN students taking Mental Health course at University.	Two groups of Junior nursing students (participant size not reported) and their instructors ($n=2$).
Methods/Study Appraisal Synthesis Methods	<p>Five literature reviews utilizing Jeffries Nursing Education Simulation Framework (NESF) on relevant nursing research surrounding simulations in medical/surgical settings <u>conducted by authors before qualitative study</u> was conducted with BSN students. Studies focused on health care education utilizing simulation, both with manikins and standardized participants, and benefit to students in areas of communication, collaboration and patient safety.</p> <p>A gap was found to exist in the literature on the use of simulation to increase patient safety by enhancing effective communication skills in mental health care providers. Further, gaps were found in literature investigating the use of hand-off reporting tools/methods (esp. SBAR) to optimize patient safety through effective shift reporting.</p> <p>Based on these gaps, authors established a simulation experience, utilizing standard participants (SP), for mental health nursing students that would focus on enhancing patient safety through therapeutic communication and use of a peer evaluation tool (SBAR) for structured communication post-simulation experience.</p> <p>Over the course of two days, the nursing students ($n = 9$) were rotated between being a nurse interviewer with a SP and then an observer completing peer evaluation with a standardized tool (SBAR). All SPs were trained by one author for this simulation study (# used not reported). Each time a switch was made a new mental health scenario was utilized.</p> <p>Each student was given either a peer evaluation checklist (SBAR) {observer} or a patient interview guide {interviewer}. SBAR provided objective and qualitative evaluation and constructive feedback.</p> <p>Debriefing was conducted after all nine students had completed the interviewing process.</p>	<p>Informed consent obtained for use of collected student data.</p> <p>Human patient simulator (HPS) Version 6 utilized for study.</p> <p>During 2-hour clinical session, three different preprogrammed simulated patient scenarios were used with each group of students.</p> <p>Survey completed at end of simulation experience by all student participants. One-half of students wrote journal entries about their simulation experience.</p> <p>Experience assessed in three separate ways: Brief Survey Instrument and student responses based on open-ended questions survey and SPSS tool used to evaluate four positive statement survey.</p>
Study tool/instrument validity/reliability	Standardized peer evaluation tool – SBAR Patient Interview Guide Debriefing Guide	SPSS Version 11 Brief survey using a Likert-type scale from 4 to 1 with inclusion of additional three open-ended questions.

Primary Outcome Measures/Results	Positive simulation experience helpful in reinforcing communication, assessment, peer evaluation and collaboration skills as reported by nursing students. 100% ($n = 9$) reported that SBAR as a communication format was a positive tool for enhancing patient safety. Peer evaluation and debriefing were reported as positive aspects of enhancing patient care and communication skills through honest feedback not usually given by patients during clinicals.	<p><u>Brief survey (Likert-type)</u>: working with HPS.....</p> <ol style="list-style-type: none"> 1. Increased knowledge of medication side effects ($m = 3.13$) 2. Increased knowledge of differences in patients' responses ($m = 3.31$). 3. Increased ability to administer medications safely ($m = 3.06$). 4. Increased confidence in medication administration skills ($m = 3.00$). <p><u>Open-ended questions survey</u>: overall general consensus by all students was that simulation session was a valuable experience but they did not believe it should take the place of a regular clinical experience but could be used to augment their clinical learning.</p> <p><u>SPSS</u> based on four positive statement survey: all students chose appropriate pain medication from provided list; reported an increase in medication effects and patient response to medications knowledge; and learned the importance of working as a team member.</p>
Conclusions/Implications	It was indicated that mental health nursing simulations using SPs and standardized communication techniques (SBAR), can effectively support nurse patient communication skills, team communication skills, and peer evaluation skills. Traditionally, students receive feedback from clinical faculty, but might not have the opportunity to receive structured feedback from peers. SPs give feedback that real patients do not, helping students learn better communication and assessment skills. In addition, while simulations with a high-fidelity computerized mannequin can teach lessons in patient safety and health team communication, the standardized patient simulation more effectively teaches nurse patient communication skills due to more in-depth feedback from the SP. Furthermore, simulations may provide an opportunity for faculty to better assess student communication skills.	The study concludes that human patient simulators (computer controlled mannequins) offer safe and effective experiential learning for nursing students, especially because it is possible for the simulation to provide experience with a wide variety of situations that may not be encountered by students within the limitations of traditional clinical field placement.
Strengths/Limitations	<p>Strengths: informative on how simulation experiences with standardized participants and effective feedback can enhance nursing skills in the areas of therapeutic communication</p> <p>Limitations: small participant sample size; unknown standardized participant pool demographics – could there be a bias?</p>	<p>Strengths: aim of study was met. Study showed the need for continued use of HPS for clinical experiences.</p> <p>Limitations: did not state actual number of student participants.</p>
Funding Source	Not published, therefore; unknown.	Not published, therefore: unknown.
Comments	This is a very informative study even with the small sample size. This qualitative study supports the use of standardized participants in	Good article for information but not a strong qualitative study. I can use this information as I move forward with my Capstone

	simulation as an important aspect for enhancing therapeutic communication skills. Not strong research from quantitative perspective.	Project. This supports my project goal of augmenting clinical experiences with simulation for optimal nursing student learning.
Article/Journal	The perceptions of undergraduate student nurses of high-fidelity simulation-based learning: A case report from the University of Tasmania <i>Nurse Education Today</i>	
Author/Year	Theresa M. fay-Hillier Roseann V. Regan Mary Gallagher Gordon 2007	
Database/Keywords	CINAHL High-fidelity Simulation; Effective Communication; Nursing; Mental Health	
Research Design	Qualitative: Phenomenology Case-based pilot research study	
Seven Tiered Levels of Evidence	VI	
Study Aim/Purpose	The purpose of this study was to investigate the value to nursing students to practice nursing activities through simulation in a safe environment prior to clinical placement, with regard to increasing student confidence and the transfer of learning into effective practice in the field.	
Population/Sample size Criteria/Power	Stage 1: 21 2 nd years undergraduate BSN students Stage 2: 20 2 nd years undergraduate BSN students Stage 3: academic instructors (<i>n</i> = unknown)	
Methods/Study Appraisal Synthesis Methods	Ethics approval garnered through the Tasmanian Social Science Human Research Ethics Committee. Prior to study: students had no previous experience with high-fidelity simulation-based learning. Laerdal Vital Sim: Nursing Kelly and Nursing Anne utilized for simulations <u>Stage 1:</u> verbal feedback provided immediately after simulation with 5 minutes offered for debriefing and questions. Data from simulator was stored in a database and used for further feedback. <u>Stage 2:</u> consisted of willing students from Stage 1 group who agreed to participate in two separate focus groups used to gather data about	

	<p>student perceptions of simulation experience. Focus groups were audiotaped and transcribed. <u>Focus Group 1</u>: took place three days after initial simulation experience. <u>Focus Group 2</u>: took place eight weeks after simulation experience and five weeks after course clinicals were completed.</p> <p><u>Stage 3</u>: consisted of focus group with academic program instructors to discuss perceptions of pedagogical applications of high-fidelity simulation.</p>	
Study tool/instrument validity/reliability	<p>Automated simulation feedback data sheet: per scenario</p> <p>Focus Groups: qualitative interviews</p>	
Primary Outcome Measures/Results	<p>Student performance was successfully gathered and analyzed. Students responded positively regarding objective data gathered on performance during, and debriefing following, simulation experience. Students reported that they felt the simulation experience increased confidence and helped for better clinical setting preparation.</p>	
Conclusions/Implications	<p>The study found that nursing students felt more confident during their first clinical placement experience, and reported increased engagement and motivation in learning because it felt more authentic. Students felt that hands-on practice was of more value in retaining what they learned than just reading it. The study demonstrated the important role that high-fidelity simulation-based learning may play in transferring nursing knowledge and skills into practice. However, there are a number of implications which indicate a need for further research. Simulation has great potential for reshaping clinical assessment in nursing. It is important to investigate further how effectively learning transfers from the simulated environments to actual performance in the clinical setting.</p>	
Strengths/Limitations	<p>Strengths: informative on how simulation experiences with standardized participants and effective feedback can enhance nursing skills in the areas of therapeutic communication</p> <p>Limitations: small participant sample size; unknown standardized participant pool demographics – could there be a bias? Data not systematically analyzed</p>	
Funding Source	Not published, therefore; unknown.	
Comments	<p>This is a very informative study even with the small sample size. This qualitative study supports the use of standardized participants in simulation as an important aspect for enhancing therapeutic communication skills. Not strong research from quantitative perspective.</p>	
Article/Journal	<p>Computer-Based or Human Patient Simulation-Based Case Analysis: Which Works Better for Teaching Diagnostic Reasoning Skills?</p> <p><i>Nursing Education Perspectives</i></p>	<p>Using Clinical Simulation to Enhance Psychiatric Nursing Training of Baccalaureate Students</p> <p><i>Clinical Simulation in Nursing</i></p>

Author/Year	Rebecca D. Wilson James D. Klein Debra Hagler 2014	Melinda Hermanns Mary LuAnne Lilly Bill Crawley 2011
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Mental Health	Google Scholar Simulation; Communication; High Fidelity; Psychiatric; Nursing; BSN
Research Design	Quasi-experimental crossover	Qualitative – Phenomenological
Seven Tiered Levels of Evidence	I	IV
Study Aim/Purpose	The purpose of this study was to determine whether a difference exists in nursing student performance based upon based on the method of case presentation, specifically, cases presented using a simulated electronic medical record (computer-based) or a human patient simulator (simulation-based).	The purpose of this experience was to utilize one way of addressing the significant variability that exists in the nursing students' clinical experience. Some students were found to be having profound clinical experiences while others were found to be gaining relatively little useful experience. In addition, sometimes when students were on the unit when a potentially dangerous or volatile situation was taking place, they were not allowed to remain on the unit for their safety, thus missing out on valuable experience. So, in an effort to increase student exposure to an array of psychiatric mental health clinical events, faculty members selected a menu of simulations designed to immerse students into a realistic clinical situation, promote critical thinking and team functioning during crisis, and maintain the group's focus on key aspects of caring during anxiety provoking events. A suicide attempt was selected as the initial clinical event for development.
Population/Sample size Criteria/Power	54 students ($n = 54$) in final semester of BSN Program. Participation was voluntary. Reported participants' demographics ($n = 39$) consisted of: Typical age 25 years ($m = 25.08/SD = 6.26$, range = 21 to 45 years) & female (92.3%).	Convenience sample of 10 undergraduate, second-semester, baccalaureate student nurses in psychiatric mental health course. Nursing faculty. Clinical specialist.
Methods/Study Appraisal Synthesis Methods	Data gathered consisted of both qualitative and quantitative methods. Students were placed in clinical groups of three to five, through randomization, prior to the semester beginning. Each group had the same experience with both computer-based simulation (CBS) and human patient simulation (HPS). Three groups participated in CBS experience first then HPS and the other three groups participated in HPS first and then CBS.	Simulation consisted of a patient in a psychiatric crisis who attempted suicide. Exercise took place in University skills lab with nursing students' in clinical group. Students were briefed that they would encounter a clinical scene and were to verbalize to faculty and clinical expert, as well as each other, through all aspects of care scenario until directed otherwise.

	<p>Students were required to review patient care study guide, which included health care conditions that would be addressed, prior to clinical simulation experience. Simulation consisted of one patient who experienced three separate acute care health issues.</p> <p>Study consisted of two phases, four hours each, which were completed, by both groups, in the same day. For the CBS, one extra hour was required pre or post simulation.</p> <p>At the conclusion of the simulation experience, all students participated in debriefing session where videotapes of simulations were reviewed with faculty. Students completed SBAR and satisfaction questionnaire. SBAR was chosen because it has a high quality reputation for data gathering and reporting. SBAR format report was measured using a rubric designed by the researchers for the purpose of this study. Course faculty reviewed rubric and made change suggestions which were carried out prior to the beginning of the study.</p> <p>Data collection focused on:</p> <ul style="list-style-type: none"> *Participant Performance *Diagnostic Reasoning Skills (patient) <ul style="list-style-type: none"> *Situation *Background *Assessment *Recommendations 	<p>Scene enacted was that of a patient who attempted suicide by hanging. Students found patient (140-lb low-fidelity manikin) in room hanging from a door with a sheet around the neck.</p> <p>Cues, both verbal and non-verbal were provided to students during simulation. Faculty acted as coaches posing questions and providing feedback throughout simulation to prompt student nurse critical thinking, reasoning, communication, insight and team work.</p> <p>The simulation continued with new orders to contact emergency staff and prepare to move patient from hanging position to safe position for care and stabilization.</p> <p>Socratic questioning was utilized and students actively participated in verbalizing with each other during each of the steps needed to care for and stabilize patient.</p>
Study tool/instrument validity/reliability	<p>SBAR communication tool.</p> <p>Researcher-designed rubric.</p> <p>Cronbach's alpha.</p>	<p>Article identifies an assessment tool was used but specific type was not reported.</p>
Primary Outcome Measures/Results	<p>Based on data collected, students were shown to have performed skills, especially assessment, with better accuracy when utilizing HPS vs CBS. This could be due to the fact that HPS offers more cues (i.e., alarms) which can help draw attention to need areas. CBS relies on more independent assessment skills.</p>	<p>Student participants rated simulation to be effective as reported through ratings on descriptive assessment tool. Simulation was perceived to have been beneficial in helping students to become more detailed thinkers and assessors. Students reported that having faculty there to help prompt them was beneficial to their learning as they may have missed many important aspects of the care for this type of patient situation.</p>
Conclusions/Implications	<p>The study concluded that both human patient simulation and computer-based case presentations were valuable in teaching diagnostic reasoning skills to nursing students. However, human patient simulation seems to provide increased competence in diagnostic reasoning skills, as measured through problem assessment and recommendations. Computer-based case studies appear to increase the implementation of more detailed verbal description of data both in collection and analysis.</p>	<p>The suicide simulation provided students an opportunity to learn crisis management and psychiatric interventions in a calm and positive learning environment. Students were challenged to actively engage with faculty and peers, allowing learning to occur through interactive and social processes. Likewise, faculty members were able to provide students with an opportunity to refine their psychiatric and emergency medical skills that they are</p>

	By understanding how students interact with each of these two formats, faculty can more effectively design cases to challenge students while also supporting their learning.	likely to encounter once they enter their own practice. Also of note, this simulation, as well as many others, may be adapted and/or replicated by staff development professionals in both medical and nonmedical settings in order to help professionals recognize and deal with suicidal individuals.
Strengths/Limitations	Strengths: good participant sample Limitations: verbal problem-solving during simulation could be a distractor and hinder performance, as well as cause confusion for patient and family. Full functioning of the manikin was not realized due to mechanical issues during simulation experience. Pre-testing of knowledge base was not completed.	Strength: Limitations: very small sample size. This study was basically focusing on a clinical experience evaluation. Although there was some reported data, it did not appear to have statistical significance to the overall research goal. basically
Funding Source	Not published, therefore; unknown.	Author's reported that they received no extramural funding and no commercial financial support for this research.
Comments	This article is relevant to my capstone Project focus. I am interested in the SBAR tool as a means of assessment and I will be doing further research on how the tool may be of benefit to my data collection.	This is a very good article for relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a strong research article but did contain some great information.
Article/Journal	Behind the Door: Simulated Crises Implemented in Psychiatric/Mental Health Nursing Education <i>Journal of the American Psychiatric Nurses Association</i>	Using Simulated Clinical Scenarios to Evaluate Student Performance <i>Nurse Educator</i>
Author/Year	Melinda Hermanns Mary LuAnne Lilly Bill Crawley 2011	Lisa Wolf Kim Dion Erin Lamoureux Cara Kenny Margaret Cumin Mary Ann Hogan Joan Roche Helene Cunningham 2011
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Mental Health	CINAHL Simulation; Communication; High Fidelity; Evaluation; Students
Research Design	Qualitative – Phenomenological	Qualitative – Phenomenological
Seven Tiered Levels of Evidence	VI	VI

Study Aim/Purpose	<p>The purpose of the study was to focus on developing students' critical thinking skills in real life situations. The faculty realized that students are often not exposed to some types of critical experiences because they have limited clinical time in psychiatric settings and some critical experiences may never occur during their clinical time.</p> <p>The aim is to expose students to a variety of unpredictable occurrences that they may encounter in the real world of nursing while taught in a safe, controlled, and supportive learning environment. For the purpose of the study, a scenario of an attempted patient suicide by hanging was utilized.</p>	<p>The purpose of the study was to evaluate the usefulness of simulated clinical scenarios in student learning and evaluation. Currently, much simulation used in nursing education is in the area of basic skills, and not so much is allocated to addressing high stress scenarios that will assess the students' use of critical thinking and making accurate clinical judgments. Thus, faculty developed an evaluation tool for simulated clinical scenarios which, among other things, was adapted to match the changing expectations for evolving novice nursing students.</p>
Population/Sample size Criteria/Power	Nursing students but no specific sample number reported.	N/A.
Methods/Study Appraisal Synthesis Methods	<p>Author's developed and implemented a simulation educational program: "Behind the Door" to offer nursing students the opportunity to respond to patients in psychiatric crisis in a safe and controlled environment for optimal learning. A low-fidelity manikin was utilized for this training.</p> <p>The first part of the training focuses on critical thinking skills development for working with patients in psychiatric crisis, plus introduces them to the crash cart and the second training builds on new knowledge, plus use of crash cart in one of four simulation scenarios.</p> <p>Further goal of training is to allow students to identify personal emotions when faced with a patient situations and find ways to effectively work through those emotions while providing care.</p> <p>Debriefing took place after trainings were completed in the form of "guided discovery" to help them, in a positive manner, identify and problem-solve any issues that arose during the simulation.</p>	<p>Simulation, begins for nursing students, at this University, during the first semester of their junior year in Fundamentals course and continues as a part of successive courses throughout entire program. Final simulation experience end with Capstone clinical course during their final semester. During the Capstone course, students are assigned to two HFS manikin patients in order to facilitate critical thinking, decision-making and prioritizing skills. Students must pass Capstone course to pass overall Program.</p> <p>Initiation of simulation in fundamental course focuses on more of a teaching methodology and progresses, with each successive course, to using simulations for more evaluative purposes.</p> <p>During each new course, students are provided with assignments, prior to simulation experience, to help prepare them for the clinical situation they will be encountering during the simulation.</p> <p>Debriefing or reflective discussion is completed with students after each simulation experience. Debriefing and evaluation takes place in two ways:</p> <ul style="list-style-type: none"> *Small group and instructor session in all courses up to Medical/Surgical course. *Beginning with Med/Surg course, students are videotaped during simulation and, for debriefing, are given the DVD and a blank scoring sheet. Once the view the DVD and rate themselves, they return to debrief with faculty. <p>Faculty worked together to develop a simulation grading tool that addresses the clinical course objectives. Grading is completed using a one point per assessment item scoring method. There is a total of 32 points and students must earn at least 24 to pass.</p>

		<p>Regardless of score, certain delineated areas must be met in order to pass successfully. In Capstone course, points are increased and students must achieve a 73% (C) to pass.</p> <p>Faculty does not grade their own clinical groups using Simulation Grading tool. It is used for teaching and learning purposes only. An evaluator (other faculty or Sim Specialist) uses the tool to complete grading.</p>
Study tool/instrument validity/reliability	Suicide Clinical Simulation Evaluation tool.	<p>Videotaped simulation</p> <p>Self-scoring tool (student)</p> <p>Simulation Grading tool (faculty): tool is utilized for research and evaluator has no personal knowledge of the participants {students' vs new nurses}. The same is believed to be true for grading students for clinicals.</p>
Primary Outcome Measures/Results	Author's reported that this type of simulation activity appeared to be an effective learning opportunity for the students.	<p>Primary focus of article was on Simulation Grading tool.</p> <p>Author's report that the tool has shown 95% interrater reliability when used for research.</p> <p>Tool validity was accomplished by looking at three validity aspects:</p> <ul style="list-style-type: none"> Face validity Criterion-related validity Predictive validity <p>Future plans to assess strength of tool will be accomplished by comparison with Lasater's Clinical Judgment Rubric.</p>
Conclusions/Implications	The authors found the simulation to be a useful and effective learning opportunity for students. They felt strongly that the exposure to this simulated suicide will help prepare the, not only psychologically for such a crisis, but also help them to react quickly, predictably, and reliably. They firmly believe that psychiatric/mental health-simulated crises are needed for nursing education.	It is of great importance for clinical faculty to be able to accurately determine competence in nursing student performance, and thus, the use of a standard process and a valid and reliable tool for evaluating student performance in simulation is necessary. The use of such a tool helps faculty to ensure a more objective and fair process for student evaluation. As the evaluation tool evolves, the evolution process will require a continuous evaluation of the educational goals for nursing students and the teaching methods by which we plan to facilitate achievement of those goals.
Strengths/Limitations	<p>Strengths: good information.</p> <p>Limitations: no sample size reported.</p> <p>Not a strong research study. More descriptive.</p>	<p>Strengths: Thorough review of evaluation as a tool for assessing student competency in clinical skills when utilizing simulation as a means of learning.</p> <p>Limitations: The author's report that using evaluation in simulation can present some major barriers.</p>
Funding Source	Authors received no financial support for research, authorship, and/or publication of article.	Not published, therefore; unknown.

Comments	This is an interesting article with relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a strong research article but did contain some good information.	This article has relevance to my Capstone Project in that I will be very cognizant of the type of evaluation tool I use and who I chose as evaluators.
Article/Journal	Exploring Experiences of Psychiatric Nursing Simulations Using Standardized Patients for Undergraduate Students <i>Asian Nursing Research</i>	
Author/Year	Yun-Jung Choi 2012	
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Psychiatric; Nursing	
Research Design	Qualitative – inductive, interpretive and constructionist.	
Seven Tiered Levels of Evidence	VI	
Study Aim/Purpose	The purpose of this study was to explore the experiences nursing students had with psychiatric simulation using standardized patients and to identify the value of using such simulations in clinical practicums.	
Population/Sample size Criteria/Power	11 ($n = 11$) nursing students, chosen by theoretical sampling, who had completed 90 hours of a clinical practicum after a four hour psychiatric simulation with standardized participants exhibiting a major psychiatric illness, were approved as participants. Sampling consisted on ten ($n = 10$) females and one ($n = 1$) male.	
Methods/Study Appraisal Synthesis Methods	Pre-simulation: Participants were interviewed, between 50 to 90 minutes, individually regarding previous psychiatric nursing simulation experience. Each interview was recorded and transcribed for post analysis. Content in transcripts were examined for themes and subthemes.	
Study tool/instrument validity/reliability	Pre-simulation face-to-face interview Thematic content analysis	
Primary Outcome Measures/Results	Four themes and nine subthemes resulted from thematic content analysis of nursing students' psychiatric simulation experience with SPs.	

	<p>Four major themes that resulted from study were;</p> <ol style="list-style-type: none"> 1. Learning practice without fear 2. Gaining confidence in clinical practicum 3. Being embarrassed by the gap 4. Being in need of further simulation <p>Students reported simulation with standardized participant as a valuable experience.</p>	
Conclusions/Implications	<p>The study concludes that simulations using SPs help students gain confidence with handling psychiatric situations. In a safe, controlled environment, students can practice how to approach and communicate with psychiatric patients, which leads to a more effective learning experience. Of course, simulations will never fully replace actual, contextual human patient care experiences in nursing education; however, they provide a reasonable facsimile to patient care that can help students to predict situations and tailor their reactions appropriately.</p>	
Strengths/Limitations	<p>Strength: Authors discussed the questions asked during pre-simulation data collection interview.</p> <p>Limitation: small sample.</p> <p>Participants were primarily female – potential bias.</p> <p>Weak research. Specific tool(s) were not developed or used for this study.</p>	
Funding Source	Not published, therefore; unknown.	
Comments	<p>Informational article which is applicable to my Capstone Project.</p> <p>This was not a strong research article, but possessed some great information on evaluation of simulation using standardized participants in psychiatric patient education.</p>	
Article/Journal	<p>Simulation Decreases Nursing Student Anxiety Prior to Communication With Mentally Ill Patients</p> <p><i>Clinical Simulation in Nursing</i></p>	<p>Using Clinical Simulation to Teach Prelicensure Nursing Students to Minimize Patient Risk and Harm</p> <p><i>Clinical Simulation in Nursing</i></p>
Author/Year	<p>Janene Luther Szpak Kirstyn M. Kameg</p> <p>2013</p>	<p>Gregory A. DeBourgh Susan K. Prion</p> <p>2011</p>
Database/Keywords	<p>Academic Search Premier</p> <p>Simulation; Effective Communication; BSN Students; Mental Health; Standardized Participants; Clinical Skills</p>	<p>CINAHL</p> <p>Simulation; Communication; High Fidelity; Psychiatric; Nursing; BSN</p>

Research Design	Quantitative, non-randomized, quasi-experimental	Quasi-experimental, pre-post test
Seven Tiered Levels of Evidence	III	III
Study Aim/Purpose	The purpose of the study was to examine whether or not the use of high-fidelity human simulation experiences during nursing education decreased student anxiety prior to clinical experience and interacting with mentally ill patients.	The purpose of the study was to determine if simulation experience improved the first-year pre-licensure nursing students' abilities in the area of patient safety.
Population/Sample size Criteria/Power	$n = 44$ undergraduate senior nursing students enrolled in nursing care of psychiatric clients course. $n = 48$ was original participant pool.	Convenience sample $n = 294$ nursing students enrolled in pre-licensure clinical course. Participants were divided into four simulation cohorts which completed SLEs over 15 month period: $n = 77$ $n = 76$ $n = 86$ $n = 25$
Methods/Study Appraisal Synthesis Methods	<p>Study was conducted three times with three different groups over two semesters in 2010.</p> <p>Students were required to attend a 2-hour lecture on therapeutic communication skills, participate in simulation activity and attend a debriefing activity.</p> <p>Simulation consisted of either a depressed patient or a patient suffering with alcohol abuse and anxiety. Independent variable was the High-fidelity human simulation (HFHS) and dependent variable was level of student anxiety prior to interaction with simulated mentally ill patient.</p> <p>Participants completed a series of pre-experience questionnaires which, also, indicated consent to participate in the research study (Time 1).</p> <p>A four digit code, assigned to each participant, was written on each questionnaire for identification.</p> <p>Next, two days later, the student participants were orientated to the HFHS and were given a patient status report.</p> <p>The instructor, who was in another room used a wireless microphone to project the "patient's" voice during participant/patient interactions. How the instructor (patient) responded was based on impromptu and spontaneous dialogue and depended on how student (nurse) communicated with the patient.</p> <p>Each simulation experience, conducted with SimMan, was recorded and later used with debriefing with instructor and peers.</p>	<p>Analogical reasoning case studies were developed to facilitate students' learning regarding safety with patients at high risk for falls. Standardized patients (SPs) (live student actors) were used from various genders, ages, and different diagnoses to give as "real" of an experience as possible.</p> <p>A Faculty Simulation Manual was created by the researchers and served as a faculty development tool and offered a way to ensure consistency in how the instructional design of SLE was designed and carried out.</p> <p>Student actors (SPs) were given preparatory readings regarding falls and character briefs ahead of time which allowed them to "create" their character and practice how they were to communicate and respond physically.</p> <p>At the completion of each SLE, all nursing students and SP participated in debriefing using post-simulation learning experience debriefing questionnaire.</p> <p>$n = 264$ students, from four different cohorts, participated on a single SLE and completed pretest, posttest and evaluation surveys (response rate of 89.8%).</p> <p>Paired two-tailed t test and Cohen's d were used for analysis.</p>

	Once debriefing took place, students were then given post-experience questionnaires (Time 2).	
Study tool/instrument validity/reliability	<ol style="list-style-type: none"> 1. Participants Demographics Questionnaire (included experience with simulation and mental illness) 2. State-Trait Anxiety Inventory(STAI): {Self-Evaluation Questionnaire Y1 = pretest used to measure subjective feelings of stress response) and (Self-Evaluation Questionnaire Y2=posttest used to measure one's general feelings or proneness to anxiety) {40-item Likert-type survey 3. Single-item visual analogue scale (VAS) {to measure post-anxiety after communication lecture and again after HFHS experience} [descriptive] 4. Simulation Evaluation Survey used for students to report perceptions of HFHS experience {nine questions on a 4-point Likert-type scale} 	<p>Risk and harm reduction simulation 10-item pre and posttest questionnaire</p> <p>Post-simulation learning experience debriefing questionnaire</p> <p>SLE open-ended questionnaire</p> <p>End-of semester survey</p>
Primary Outcome Measures/Results	The results of this study indicate that nursing students' ($n = 44$) experience with HFHS helped to decrease the level of anxiety (as measured by the STAI Y-1 and the VAS). Additionally, the Simulation Evaluation Survey revealed an overall positive rating on the simulation experience.	<p>Analyses showed that students had significant differences between pretest and posttest scores.</p> <p>Qualitative data collected from students and instructors revealed that the SLE was deemed to be an effective teaching/learning opportunity and strategy.</p> <p>End-of-semester surveys offered the most valuable</p>
Conclusions/Implications	Student confidence will result in greater effectiveness in establishing a therapeutic relationship with the patient and also may encourage the pursuit of psychiatric mental health nursing as a career option.	The study suggests that students' participation in a simulated learning experience that is focused on patient safety promotes acquisition and application of the knowledge, skills, and attitudes that are essential for safe and effective nursing practice. It is not enough to teach the principles of patient safety and quality, we must also provide learning experiences that engage students in opportunities to develop and apply advanced reasoning, decision making, and response to clinical situations that affect patient safety.

Strengths/Limitations	<p>Strengths: Both qualitative and quantitative data gathered for overall stronger study.</p> <p>Limitations: Small sample size. Possible limitations reported include: VAS's self-report and limited randomization. Lack of standardization for HFHS experience as role-play was dependent on spontaneous dialogue. Use of a HFHS instead of "live" human standardized participant had the potential to change how the students interacted and communicated, as well as the lack of non-verbal communication which is very important in working with patients with mental illness.</p>	<p>Strength: Strong participant sampling. Use of quantitative comparison.</p> <p>Limitations: Various study design features.</p>
Funding Source	Not published, therefore; unknown.	Not published, therefore; unknown.
Comments	This article is relevant to my capstone Project focus. I am very interested in the limited EBP research to support HFHS use in helping to decrease anxiety and assist students with developing inter-personal skills prior to working with patients who suffer with varying degrees of mental illness.	This article is extremely relevant to my Capstone Project focus area of simulation used in mental health education for nursing student population. In offering my students the opportunity to build their skills in a structures environment before working with live patients, my goal is to give them the tools to provide care which will minimize risk and harm to patients.
Article/Journal	<p>Evaluating the Use of Standardized Patients in Undergraduate Psychiatric Nursing Experiences</p> <p><i>Clinical Simulation in Nursing</i></p>	<p>Collaborative Learning in Nursing Simulation: Near-Peer Teaching Using Standardized Patients</p> <p><i>Journal of Nursing Education</i></p>
Author/Year	<p>Gale Robinson-Smith Patricia K. Bradley Colleen Meakim</p> <p>2009</p>	<p>Amy M. Owen Peggy Ward-Smith</p> <p>2014</p>
Database/Keywords	<p>CINAHL</p> <p>Simulation; Standardized Patient (SP); BSN Students; Mental Health; Nursing</p>	<p>Academic Search Premier</p> <p>Simulation; Communication; High Fidelity; Evaluation; Students; Peers</p>
Research Design	Qualitative – Descriptive	Qualitative – Phenomenological
Seven Tiered Levels of Evidence	VI	VI
Study Aim/Purpose	The purpose of this project was to evaluate nursing students' satisfaction with a simulated psychiatric clinical encounter in which students performed a mental status exam and suicidal risk assessment.	The purpose of this project was to evaluate the use of upper-level nursing students as live patients in a simulation exercise in providing useful feedback and the satisfaction of lower-level students with the experience.

Population/Sample size Criteria/Power	$n = 112$ junior-level undergraduate nursing students	$n = 152$ lower-level, first-semester nursing students plus 18 upper-level nursing students participated over a two semester time frame
Methods/Study Appraisal Synthesis Methods	<p>Data collected over three semesters.</p> <p>Experience replaced day of clinical psychiatric nursing rotation.</p> <p>Three data survey forms were created by researchers (instructors):</p> <p>Means calculated through three subscale surveys</p> <p>Adult Learning Theory utilized for conceptual framework.</p> <p>Formative evaluation used during SP clinical experiences to allow instructors to provide effective written and verbal student feedback.</p> <p>SPs were recruited from University's Communications Department (CD). Faculty from CD created a 1-credit course offered over a weekend to train SPs (students) on "acting" as patients. Role-playing was a part of training.</p> <p>Nursing student preparation consisted of theory (classroom) and completion of Student Preparation Survey form.</p>	<p>Jeffries' simulation program planning guided SIM experience development.</p> <p>Faculty and near-peer SPs (upper level nursing students) participated in four brainstorming sessions to develop SIM experience and data collection forms.</p> <p>Near-peer SPs were provided with pre-SIM experience training orientation sessions.</p> <p>Students participated in SIM experience and debriefing session with SPs and pertinent faculty.</p> <p>SIM manikin was prepared to give as real of a "live" patient experience as possible.</p>
Study tool/instrument validity/reliability	<ol style="list-style-type: none"> 1. Student Preparation Form (student use to prepare for SIM) 2. Student Interview Findings Form (student report during SIM) 3. Observation Form (utilized by SPs during SIM) 4. Likert-type scale adapted from NLN utilized by students after SP SIMs}: <ol style="list-style-type: none"> a. Satisfaction With Learning Through SPs b. Self-Confidence in Learning Through SP Care Scenarios c. Effect of SP Care Scenarios on Critical Thinking 	<p>On-line evaluation (anonymous)</p> <p>Descriptive Reflective Journal (on-line)</p> <p>Post-SIM Evaluation Survey</p>
Primary Outcome Measures/Results	<ol style="list-style-type: none"> a. Satisfaction With Learning Through SPs ($M = 4.60$) b. Self-Confidence in Learning Through SP Care Scenarios ($M = 4.28$) c. Effect of SP Care Scenarios on Critical Thinking ($M = 4.56$) <p>Majority of students reported that SIM with SP was a highly satisfying experience in providing a "real" patient experience that will help them be prepared for working with patients with psychiatric illness.</p>	<p>Student feedback was positive that simulation experience using live SPs will prepare them better for working with their patients.</p> <p>Students reported that the SIM experience helped to enhance communication skills.</p> <p>Students did state that they became anxious and unable to work effectively and did not know how to react when patient (SP) was acting uncooperatively or became combative during scenario.</p> <p>Survey post-scenario, discussed during debriefing, showed a need to offer better orientation to SIM lab and equipment.</p>

Conclusions/Implications	It was found that use of simulated scenarios provided students opportunities to practice communication and psychiatric nursing assessment and intervention skills in a safe setting, while providing educators with useful feedback for adjusting the nursing curriculum and their teaching. Instructors were able to identify what things the students were learning well and where clinical weaknesses occurred, as well as helping to identify students who need further education and experience to prepare them for clinical patient interactions.	Near-peer teaching and learning, coupled with standardized patients in a first semester simulation, met the learning outcomes for all students involved. Students demonstrated cognitive and skill development. This collaborative learning experience helped students to gain authentic experience with a “real” patient in a controlled setting, which increased their confidence and allowed them to apply their skills while receiving near-realistic feedback.
Strengths/Limitations	Strengths: good participant sample Limitations: includes only one university and convenience student sample population in study. Limited SP training. Interrater reliability not established for one form.	Strengths: sample size. Published post-evaluation. Faculty active involvement during SIM helped to keep SPs on task and not add in any additional actions, thus – this kept each scenario experience static for all students. Limitations: not a strong research study. No tool specifically developed. Sample from one agency only. Not all upper-level students were able to participate as near-peers so were unable to earn clinical hours.
Funding Source	Intramural funding from Villanova Institute for Teaching and Learning.	Not published, therefore; unknown.
Comments	This is an interesting article with relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a strong research article but did contain some good information.	This article has relevance to my Capstone Project in that I will be very cognizant of the type of SPs I choose, evaluation tool I use and how evaluation is conducted.
Article/Journal	Using Standardized Patients to Teach Therapeutic Communication in Psychiatric Nursing <i>Clinical Simulation in Nursing</i>	
Author/Year	Debra Webster 2014	
Database/Keywords	CINAHL Simulation; Communication; BSN; Students; Psychiatric; Nursing; SP	
Research Design	Quasi-experimental, one-group, pre-post evaluation.	
Seven Tiered Levels of Evidence	III	
Study Aim/Purpose	The purpose of this project was to examine the effectiveness of the use of simulation with standardized patients to teach therapeutic communication skills in psychiatric nursing students.	

Population/Sample size Criteria/Power	<p>$n = 89$ senior BSN nursing students, voluntarily recruited, enrolled in psychiatric nursing clinical course. Ages ranges from 20 y.o. to 60 y.o.</p> <p>$n = + 78$ Caucasian; $n = 5$ African-American; $n = 6$ other ethnicity.</p> <p>$n = 81$ female and $n = 8$ male. $n = 27\%$ second-degree and $n = 73\%$ traditional students.</p>	
Methods/Study Appraisal Synthesis Methods	<p>Qualitative approach, where all participants were video-recorded for debriefing and evaluation, by peers and faculty, post-SIM experience.</p> <p>Participants were provided with study purpose and all signed consent to participate. Participants were able to withdraw at any time during study.</p> <p>$n = 10$ SPs ages 20 to 70 y.o. were recruited for study and included individuals from local acting group, university theater and communication arts major students and retired nurses.</p> <p>Psychiatric nursing faculty constructed scripts plus other educational activities and were responsible for training SPs. Four trainings over a two month period were conducted. Scenarios consisted of patients who could be suffering with paranoid schizophrenia, bipolar mania, depression w/suicidal ideation, obsessive-compulsive disorder, borderline personality disorder, dementia, or posttraumatic stress disorder.</p> <p>SP randomly selected case scenario for student experience. Students did not receive any pre-scenario preparation.</p> <p>Nursing students participated in two separate SIM experiences – one at the beginning (formative feedback) and one at the end of the semester (summative feedback).</p>	
Study tool/instrument validity/reliability	<p>Descriptive 14 point (5-point Likert scale) checklist, developed by faculty, to assess student activity during SIM – which would be used to provide debriefing post-SIM activity.</p> <p>SPSS version 20.</p>	
Primary Outcome Measures/Results	<p>Mean scores were computed for each evaluation criteria</p> <p>t-test scores for independent samples were used by faculty for evaluation. Researchers reported that 12 of the 14 evaluation criteria showed significant differences.</p> <p>Data showed a decrease in students' anxiety, as well as improvement in safety assessment, overall care of patient, therapeutic communication, confidence and comfort from pre to post-SIM experience.</p>	

Conclusions/Implications	This study found that the use of standardized patients was beneficial to teach and assess undergraduate nursing students' use of therapeutic communication skills. Students reported satisfaction with the learning experience and described an overall decrease in anxiety during interactions with individuals with mental illness. Students appreciated the opportunity to gain experience communicating with a patient with a diagnosis that they were not previously able to within their clinical psychiatric setting.	
Strengths/Limitations	Strength: Convenience sample utilized. Limitation: small sample size. Participants were not randomly selected. Confounding variables could have elicited bias in study. Evaluation tool reliability was not established.	
Funding Source	Not published, therefore; unknown.	
Comments	Informational article which is applicable to my Capstone Project. This was not a strong research article, but possessed some great information on the use of simulation using standardized participants in psychiatric patient education.	
Article/Journal	Do students develop better motivational interviewing skills through role-play with standardized patients or with student colleagues? <i>Medical Education</i>	Evaluating Undergraduate Nursing Students' Learning Using Standardized Patients <i>Journal of Professional Nursing</i>
Author/Year	Anne L. Mounsey Viktor Bovbjerg Laura White John Gazewood 2006	Judy A.K Bornais Janet E. Raiger Ryan E. Krahn Maher M. El-Masri 2012
Database/Keywords	Google Scholar Simulation; Effective Communication; BSN Students; Mental Health; Interview; Role-Play	CINAHL Simulation; Communication; High Fidelity; Psychiatric; Nursing; BSN; SP; Education
Research Design	Randomized, controlled trial (RCT)	Qualitative – comparative design
Seven Tiered Levels of Evidence	I	VI
Study Aim/Purpose	The purpose of the study was to determine whether using standardized patients to teach the skill of motivational interviewing to third year medical students would be more effective than using student role-plays.	The purpose of this study was to examine the effectiveness of using standardized patients in improving health assessment skills among first-year nursing students.
Population/Sample size Criteria/Power	$n = 93$ family medicine clerkship students in third year of medical school $n = 46$ control group $n = 47$ intervention group No statistical significance between group's age, gender or ethnicity.	108 (72%/ $n = 150$) first-year undergraduate BSN students Varied standardized participants' pool

	Control group had greater male sampling.	
Methods/Study Appraisal Synthesis Methods	<p>Comparison of using SPs vs nursing student role-play in enhancing student motivational interviewing skills.</p> <p>Study conducted over one school year period.</p> <p>All student participants completed a Demographics Questionnaire.</p> <p>Students were randomized based on a computer-generated random number assignment into two groups:</p> <ol style="list-style-type: none"> 1. Intervention group: students interviewed SP 2. Control group: students interviewed peer <p>Psychologist with expertise in motivational interviewing (MI) assisted in creating role-play and training sessions.</p> <p>Principal coder, along with principal investigator, after attending three day MITI user's course in order to assess interrater reliability, independently reviewed 10% (n = 10) of the interviews.</p> <p>SPs and role-play students were given identical scenarios (smoker in pre-contemplation stage of change). Students had an opportunity to practice MI with patients during four week clerkship prior to simulated experience. On the last day of clerkship simulation experience was conducted.</p> <p>MI simulated experience was conducted in groups of 12 for 10 minutes each:</p> <ol style="list-style-type: none"> 1. Peer-interview group consisted of three students per scenario experience with each student rotating through the role of: interviewer, patient and observer. 2. SP interview group consisted of two students per scenario experience with each student taking the role of interviewer and provider of feedback. SPs changed per scenario to avoid intervention group interviewing same SP. 	<p>Comparative design was conducted on a convenience sample of nursing students from two separate campuses (university and community college) in same health assessment course: University $n = 84$ Community College $n = 24$</p> <p>All participating student participants were randomly assigned to either a control or educational intervention lab groups. To avoid perceived bias, lab instructors and examiners were blinded to participants' identity.</p> <p>All participants completed demographic questionnaire at beginning of study process.</p> <p>Baseline assessment of knowledge and skills was measured using a multiple-choice 100-question test and OSEC scoring checklist developed and tested by nursing faculty teaching health assessment courses.</p> <p>Post-intervention assessment was completed using 150-question multiple choice test and OSEC scoring checklist.</p> <p>All standardized patients were administered OSEC and were trained to respond to subjective data assessment questions from students, as well as portray certain objective presentations.</p> <p>Data was analyzed using Predictive Analysis Software. A two-tailed alpha of .05 was used to determine statistical significance.</p> <p>Student t-tests were performed to compare both randomized groups on baseline and post-intervention scores (theory and OSCE). Analysis of covariance was conducted to determine if post-intervention theory and OSEC mean scores were varied between students practicing on SPs or peers after adjusting for baseline knowledge (theory) and skills (OSEC).</p>
Study tool/instrument validity/reliability	<p>Motivational Interviewing Treatment Integrity (MITI) Assessment Tool (six criteria):</p> <ol style="list-style-type: none"> a. Empathy and understanding b. MI spirit (autonomy, evocation and collaboration) c. MI adherence (asking permission, affirmation, emphasis of control and support) d. MI non-adherence (advice, confrontation and direction) e. Open or closed questions method used f. Number of reflections made 	<p>Faculty-developed multiple-choice test</p> <p>OSCE (objective structured clinical exam) scoring</p> <p>Predictive Analysis Software (Version 18)</p> <p>Two-tailed alpha test</p>

	<p>a and b above measured on 7-point Likert scale. c through f are measured through behavior counts</p> <p>Sensitivity is MITI is established through detecting change in behaviors in pre- and post-training in MI.</p> <p>Audio-taping of student performance for post-scenario debriefing.</p>	
Primary Outcome Measures/Results	<p>Interrater reliability assessment identified a need for additional training in order for more effective coding of data collected. More training was conducted which resulted in a positive change in data between pre- and post-coding education.</p> <p>SPs, primary coder, and principal investigator were all blinded to students' group assignments.</p> <p>Intervention and control groups demographic information was compared using: chi-squared test to assess categorical variables <i>t</i>-test to assess continuous variables</p> <p>MITi subscales resulted in no significant differences between group 1 or 2.</p>	<p>Baseline demographic data reported that, of the study participants: <i>n</i> = 90 were female <i>n</i> = 88 spoke English as first language <i>n</i> = 93 enrolled in nursing program directly from high school <i>n</i> = 84 received education in the university setting Mean age for all participants was: Control group: 20.71 Intervention group: 20.72</p> <p>The intervention group showed higher unadjusted post-intervention OSEC mean scores even after adjusting for baseline differences.</p> <p>Covariance analysis showed that after adjusting for baseline differences, the intervention group had higher objective structured clinical examination mean scores than the control group.</p> <p>Results did not show a difference for the two groups in relation to theory score.</p>
Conclusions/Implications	<p>The results showed that the medical students developed similar motivational interviewing skills, whether they role-played with one another and received feedback from colleagues or role-played with standardized patients from whom they received feedback,. This indicates that the two methods are equally effective for teaching basic motivational interviewing skills, thus for this application the use of standardized patients is no more beneficial than other strategies.</p>	<p>The findings suggest that undergraduate nursing students who practice health assessment skills on standardized patients perform better on their objective structured clinical examinations (OSCEs) than students who practice on peers. As educators search for better ways to improve the teaching of clinical competence, standardized patients may be a valuable addition to the nursing curriculum.</p>
Strengths/Limitations	<p>Strengths: randomized, controlled design; use of valid and reliable instrument by blinded observers and achievement of high levels of inter- and interrater reliability using assessment tool.</p> <p>Limitations: MITI tool may not be effective in evaluating brief behavioral change in counselling skills which could affect some overall scores. Student satisfaction was not assessed.</p>	<p>Strength:</p> <p>Limitations: study conducted in BSN program only. Small participant study. There seems to be minimal statistical significance.</p>
Funding Source	Funded by a grant from the Health Resources and Services Administration (HRSA).	Not published, therefore; unknown.
Comments	This article was interesting but not very relevant to my capstone Project focus. I am interested in the MITI tool as a means of assessment and I will be doing further research on how the tool may be of benefit to my data collection.	This article was interesting but not very relevant to my capstone Project focus. It is not a strong research article but did contain some interesting information.

Article/Journal	Fusion of Psychiatric and Medical High Fidelity Patient Simulation Scenarios: Effect on Nursing Student Knowledge, Retention of Knowledge, and Perception <i>Issues in Mental Health Nursing</i>	Outcomes of Clinical Simulation for Novice Nursing Students: <i>Communication, Confidence, Clinical Judgment</i> <i>Nursing Education Research</i>
Author/Year	Kirstyn M. Kameg Nadine Cozzo Englert Valerie M. Howard Katherine J. Perozzi 2013	Deborah Bambini Joy Washburn Ronald Perkins 2009
Database/Keywords	CINAHL High-Fidelity, Simulation; Effective Communication; BSN Students; Mental Health; Knowledge	CINAHL Simulation; Communication; High Fidelity; Evaluation; Students, Confidence; Critical Thinking
Research Design	Non-randomized, repeated-measures quasi-experimental	Integrated, quasi-experimental, repeated measures
Seven Tiered Levels of Evidence	III	III
Study Aim/Purpose	The purpose of the study was to assess if High Fidelity Patient Simulation (HFPS) improved nursing student knowledge and retention.	The purpose of this study was to evaluate simulated clinical experiences as a teaching/learning method to increase the self-efficacy of nursing students during their initial clinical course in a four-year baccalaureate degree program.
Population/Sample size Criteria/Power	$n = 37$ senior level nursing students $n = 32$ females and $n = 3$ males Group 1: ($n = 20$) traditional students who had already taken psychiatric nursing course in previous semester participated in Spring semester Group 2: ($n = 15$) second-degree students participated in Summer semester following Group 1.	$n = 224$. 112 BSN students in first semester of required undergraduate maternal-infant clinical rotation. $n = 112$ students completed pretest and posttest $n = 20$ students completed follow-up survey along with pretest and posttest.
Methods/Study Appraisal Synthesis Methods	Theory of Experiential Learning was utilized for the research study. Researchers developed three medical-surgical scenarios infused with psychiatric mental health concerns: a. care of patient experiencing acute alcohol withdrawal b. care of patient experiencing trauma r/t intimate partner violence (IPV) c. care of patient experiencing postpartum depression Pre-briefing activities were assigned pre-experience which included reading journal articles and textbook on pertinent scenario mental health issues.	Convenience sample of nursing students preparing for first required simulation clinical experience. Study took place over four semesters. Simulation consisted of a three hour experience in clinical lab setting rotating through eight stations high and medium-fidelity manikins. To assure each participant's anonymity, as well as for validity of tests and survey, each was numbered and generated in a different color. All three (pre- and posttest + surgery) were clipped together and placed in a blank envelope. Pre- and posttest was placed back in envelope and student took it to a dropbox located within the

	<p>Directly before scenario experience, students were given a pre-test, scenario information in the form of a nursing report and were assigned to particular part to be acted out during simulation. Family member participant was provided with a script.</p> <p>Each simulation experience lasted 30 minutes and was followed by a debriefing session using Debriefing for Meaningful Learning Model.</p> <p>Laerdal 3 G SimMan and Laerdal SimBaby were used for simulation scenarios.</p> <p>Evaluation consisted of 30-item customized post-test A and an on-line simulation evaluation survey being administered at the end of simulation experience. Twelve weeks later students completed 30-item customized post-test B to assess retained knowledge.</p>	<p>school for submission. Follow-up surveys were collected and returned to each student after they had their first actual clinical experience.</p> <p>Faculty member was in room away from students and viewed simulation via closed-circuit cameras.</p> <p>Debriefing was completed post-simulation with students and faculty to reinforce effective practices and discuss and brain-storm ways to correct misconceptions.</p> <p>Due to small percentage of participants who completed follow-up survey, analysis was not conducted for this data collection method.</p> <p>Content validity was determined by faculty experienced in obstetrics nursing and/or education.</p> <p>Qualitative information on survey served to boost content validity.</p>
Study tool/instrument validity/reliability	<p>30-item Elsevier HESI Custom Exam Simulation Evaluation Survey (5-point Likert scale)</p>	<p>Three surveys, each with six questions using a 10-point scale, were developed for study:</p> <ul style="list-style-type: none"> a. pretest b. posttest (included three open-ended questions) c. follow-up survey (included three open-ended questions) <p>Wilcoxon matched-pairs signed-ranks test Cronbach's alpha test <i>t</i>-test</p>
Primary Outcome Measures/Results	<p>Of the 37 original participants, 35 completed the full study. Two students were excluded for non-participation post-test activities conducted at week twelve.</p> <p>Pre-test and post-test examinations used to assess student learning through HFPS was determined to be parallel and reliable based on psychometric measures, including average point biserial correlation coefficient (PBCC), level of difficulty, and reliability.</p> <p>Results were consistent with the mean HESI test score decreasing following the simulation experience. ANOVA indicated that the difference was not statistically significant ($p = .297$).</p> <p>Student participants responded supportively to simulation experience as an effective learning opportunity.</p> <p>Internal consistency was determined by Cronbach's alpha.</p>	<p>Pre- and posttests were scored using a summative method (50% response rate)</p> <p>Internal consistency on pre-and posttests was realized utilizing Cronbach's alpha (pretest, 0.817 and posttest, 0.858)</p> <p><i>T</i>-test analysis was utilized to complete a summative pretest and posttest means comparison to assess for changes in student self-efficacy skill after simulation.</p> <p>Wilcoxon matched-pairs signed-ranks test was utilized to analyze changes in self-efficacy for various nursing skills completion.</p> <p><u>Quantitative:</u> pairwise comparison analysis on self-efficacy scores revealed a significant increase in student confidence post-simulation.</p>

	<p>Students who were identified as “at-risk” were found to have a statistically significantly improvement in simulation experience post-test scores.</p>	<p>Results from surveys indicated that students experienced a significant increase in confidence for all skills addressed.</p> <p><u>Qualitative:</u> data suggested that students found simulation experience to be a valuable learning experience that helped to increase confidence in the clinical setting.</p> <p>Three themes were identified from qualitative student comments:</p> <p>a. <u>communication</u> { verbal & nonverbal}: students learned how important it is to work with, not only the patient, but significant others as well.</p> <p>b. <u>confidence in psychomotor skills & patient interactions</u>: student comments reflected that simulation experience gave them confidence in assessment and problem-solving skills.</p> <p>c. <u>clinical judgment</u>: students reported that they learned prioritizing, especially with assessment.</p> <p>Data analysis suggests that clinical simulation experience scan be effective in increasing student self-efficacy in clinical skills performance.</p> <p>Core competency themes for nursing, identified in study were:</p> <p>a. communication b. confidence c. clinical judgment</p> <p>Study provides support for the use of simulation in preparation for clinical experiences.</p>
Conclusions/Implications	<p>The study concluded that although there was not an overall statistically significant difference in knowledge gained following the simulations, students who were identified as “at-risk” prior to the simulations had a statistically significant improvement in test scores following the simulation experiences. Additionally, students indicated that the HFPS experience “helped them to better understand nursing concepts.”</p> <p>Research of this type is warranted and should be administered with a larger sample size and completion of post-test on a different day when students are rested and have and have time to process experience in order to give the most effective feedback.</p>	<p>The results of the study were divided into two categories:</p> <p>Quantitative data analysis of the postpartum exam self-efficacy scores revealed a significant increase in student confidence in performing a postpartum exam after the simulation. Qualitative data suggested that the students found this simulation valuable as it increased their confidence in what to expect and how to conduct themselves in the clinical setting.</p>
Strengths/Limitations	<p>Strengths: information gathered consisted of both qualitative and quantitative data.</p> <p>Researchers observed the most current simulation EBP recommendations and standards.</p> <p>Researchers used valid and reliable test instrument.</p>	<p>Strengths: Anonymity maintained throughout study</p> <p>Limitations: small sample size gathered from one university Data gathered from student self-reports (social-response bias) Study validity was threatened due to no participant selection control Scenarios varied slightly due to participant activity</p>

	<p>Researchers incorporated debriefing which is very important to the learning process.</p> <p>Researchers were experienced in all aspects of conducting simulation learning activities.</p> <p>Limitations: rapport is difficult to achieve with a non-human simulator (manikin) as non-verbal behavior, which is an essential learning component for psychiatric nursing, is missing.</p> <p>Use of HFPS inhibits maintenance of a controlled environment secondary to extraneous variables.</p> <p>Each scenario can change due to student response to situation presented which does not offer a static experience for all participants (bias potential).</p> <p>Small, convenience sample which resulted in an under-powered study.</p> <p>Factors with a potential to alter student responses on post-testing, thus non-support of Kolb's Theory of Experiential Learning was realized.</p>	
Funding Source	Greater Research Council provided \$1.000 for content reviewers.	Not published, therefore; unknown.
Comments	This is an interesting article with relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is an interesting research article which contained some good information.	This article has relevance to my Capstone Project in that I will be very cognizant of the type of evaluation tool I use and who I chose as evaluators.
Article/Journal	Comparative Study of Baccalaureate Nursing Student Self-Efficacy Before and After Simulation <i>CIN: Computers, Informatics, Nursing</i>	
Author/Year	Maureen P. Cardoza Patrice A. Hood 2012	
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Psychiatric; Nursing; Self-Efficacy	

Research Design	Qualitative – Descriptive correlation	
Seven Tiered Levels of Evidence	VI	
Study Aim/Purpose	The specific aims of this study were to examine senior baccalaureate nursing students' reported self-confidence in providing care using a preprogrammed high-fidelity patient simulator (manikin) at the beginning of a pediatric course and then again 7 weeks later at the conclusion of the course.	
Population/Sample size Criteria/Power	Convenience sample of ($n = 52$) senior BSN students in maternal-child/pediatric course	
Methods/Study Appraisal Synthesis Methods	<p>Three factors were examined during this study:</p> <ul style="list-style-type: none"> a. relationship between senior BSN students' reported self-efficacy (belief in abilities) on Day 1 before (T1) and after (T2) 8-hour simulation activity b. relationship between senior BSN students' reported self-efficacy at four data points c. comparison of (Group 1) and (Group 2) senior BSN students' reported self-efficacy before and after simulation exposure (T3 & T4) <p><u>General Self-Efficacy (GSE) Scale</u> was designed and used to measure participants' self-efficacy. Scale was completed on Day 1 during course semester before simulation case scenario experience (T1). Scale was completed at the conclusion of simulation (T2). Scale was completed one final time, at week seven post-simulation, during one additional simulation experience (T3 {pre} & T4 {post}).</p> <p><u>Cronbach's alpha</u> was used to prove reliability.</p> <p><u>Analysis of Variance (ANOVA) Model</u> used to determine if self-efficacy scores differed between the two groups of student participants before and after simulation experience.</p> <p>Study was performed in university simulation center which was set up to resemble a critical care hospital room with a high-fidelity interactive pediatric manikin which was programmed, with a nursing-faculty designed scenario, by two simulation technicians.</p> <p>All student participants had three previous semesters of course education in nursing skills and had no prior simulation experience prior to study.</p> <p>To prevent sharing of simulation scenario specifics, each group was separated from all others until all simulation experiences had been completed.</p>	

	<p>Students' participated in two different scenarios during simulation experience. As a part of each 10 minute experience, the following skills were addressed:</p> <ol style="list-style-type: none"> therapeutic communication interviewing physical assessment medical surgical fundamental skills <p>To facilitate a near-real experience, simulation technicians used a microphone to portray patient's verbal responses which were based on student participants' actions (therapeutic and non-therapeutic).</p> <p>Simulations were videotaped for debriefing purposes. Faculty and student participated in 20 minute post-simulation debriefings were held after completion of each group activity.</p> <p>Seven weeks after initial simulation experience, plus the addition of course lectures and five (5) hospital-based clinical experiences, the same groups completed an additional simulation experience.</p>	
Study tool/instrument validity/reliability	<p>General Self-Efficacy (GSE) Scale (10-item psychometric scale). Analysis of Variance (ANOVA) Model Cronbach's alpha</p>	
Primary Outcome Measures/Results	<p>On Day 1 (beginning of semester) both groups exhibited a decrease in GSE scores following simulation experience.</p> <p>Group 1 reported a high level of self-efficacy at T1 and a marginal decrease at T2. Self-efficacy at T3 was higher than at T1 and T2 with an increase at T4.</p> <p>Group 2 reported high level of self-efficacy at T1 but a significant decrease at T2. Self-efficacy at T3 showed a moderate rise with a higher level of self-efficacy at T4.</p> <p>In this study: nursing students' causal self-belief increased over time, which could be based more on realistic self-analysis.</p> <p>This study supports the need for establishment and utilization of high-fidelity simulation experiences throughout students' nursing school program in order to improve learning outcomes, as well as technical skill building and critical thinking and analysis skills.</p> <p>The outcomes of this study demonstrate a need for nursing students to engage in simulated clinical experiences that are structured to meet the needs of current level of knowledge and skill base.</p>	

Conclusions/Implications	The results of this study show that human simulation is an effective teaching and learning modality in conjunction with traditional lecture and testing. One important finding was that BSN students are not aware of any inability to recall previously acquired nursing knowledge and to successfully identify changing patient conditions and respond with appropriate nursing actions. A secondary finding is that nursing faculty has the assumption that student nurses can actively recall and transfer previously validated knowledge from one situation to another. What this means is that nursing curriculum should provide methods of education students that allow nursing students to identify, interpret, and modify behaviors with regard to a patient's acute and chronic changing conditions, and the use of simulation can address that.	
Strengths/Limitations	Strength: N/A Limitation: Small participant sample that were not randomized. Use of convenience sample which can show different results with larger groups. Study tool shows that no causality can be inferred. Preexisting conditions could be a causal factor for any group differences in relation to dependent variable. Study results may not be generalized to all populations.	
Funding Source	1. New York Institute of Technology: a. Institutional Support for Research and Creativity grant 2. Center for Teaching and Learning with Technology: 2008 Enhancing Nursing Education Through Technology – Pediatric Simulation grant. 3. University faculty member was approved for 2011 NLN Scholarly Writing Retreat sponsored by NLN Foundation of Nursing Education and funded by Pocket Nurse.	
Comments	Informational article which is applicable to my Capstone Project. This was not a strong research article, but possessed some great information on evaluation of simulation using standardized participants in BSN education.	
Article/Journal	High-Fidelity Simulation: Factors Correlated with Nursing Student Satisfaction and SELF-CONFIDENCE <i>Nursing Education Perspectives</i>	Examining the impact of high and medium fidelity simulation experiences on nursing students' knowledge acquisition <i>Nurse Education in Practice</i>
Author/Year	Sherrill J. Smith Carol J. Roehrs 2009	Tracy Levett-Jones Samuel Lapkin Karry Hoffman Carol Arthur Jan Roche 2011
Database/Keywords	CINAHL	Academic Search Premier

	Simulation; High-Fidelity; Self-Confidence; Effective Communication; BSN Students; Mental Health	Simulation; Communication; High Fidelity; Psychiatric; Nursing; BSN; Knowledge
Research Design	Qualitative – Descriptive, correlational	Quasi-experimental
Seven Tiered Levels of Evidence	VI	III
Study Aim/Purpose	The purpose of this study was to examine the effects of a simulation experience on student satisfaction and self-confidence, as well as student demographic and simulation characteristics.	The study aimed to measure and compare knowledge acquisition in nursing students exposed to medium or high fidelity human patient simulation manikins.
Population/Sample size Criteria/Power	(n = 72), 68 junior nursing students in traditional BSN program, enrolled in first medical/surgical course following Fundamentals course	(n = 204) 84 third-year BSN students in Australian School of Nursing
Methods/Study Appraisal Synthesis Methods	<p>Nursing Education Simulation Framework utilized for this study.</p> <p>Five research questions were the focus of this study:</p> <ol style="list-style-type: none"> 1. How satisfied are bachelor of science (BSN) nursing students with an HFS scenario experience? 2. What is the self-reported effect of an HFS scenario experience on BSN student self-confidence? 3. How do BSN nursing students evaluate an HFS scenario experience in terms of how well five simulation design characteristics are present in the experience? 4. Is there any correlation between the perceived presence of design characteristics and reports of satisfaction and self-confidence of BSN nursing students who take part in an HFS experience? 5. Is there any correlation between demographic characteristics of BSN nursing students and reports of satisfaction and self-confidence after an HFS experience? <p>As part of course all students participated in mandatory simulation experience, during weeks 9 and 10, but were not required to participate in research study.</p> <p>During each scenario, each of the three participating students took on the role of nursing student or observer (2). Scenario lasted a maximum of 20 minutes.</p> <p>At the completion of the scenario, a debriefing session took place where participating students filled out research study instruments.</p> <p>Content validity for both research instruments (5-point Likert scales) was achieved through a review consisting of 10 medical/surgical nursing course experts, as well as utilization of Cronbach's alpha.</p>	<p>Data for this study was collected at three different points in time: Pre-simulation; post-simulation and 2 weeks after study.</p> <p>All scores were summarized using the mean and standard deviation. Data from Focus Groups were manually transcribed and analyzed. Thematic content analysis was conducted.</p> <p>To control the variable (number of prior simulation experiences previous to study period), students were placed into two groups based on when clinical placements were scheduled.</p> <p>Based on HSRT scores, students were placed into matched pairs for simulation experience. Pairs were then randomly assigned to either a control or experimental group.</p> <p>All simulation sessions were carried out in a two bed simulation unit either using medium or high fidelity method.</p> <p>Student participants were given an orientation to SIM environment and equipment but no other instruction was provided pre-simulation.</p> <p>Each scenario was carried out over a 20 minute time period with a 20 minute debriefing following each simulation.</p> <p>Scenario was reviewed by an expert panel in order to ensure face and content validity.</p>

	<p>Prior to analyzation of data, all entries were reviewed for outliers and data entry errors. All errors were corrected using SPSS (version 15.).</p> <p>Descriptive statistics and then statistical analysis were used to complete research data information.</p>	<p>Pre- and post-testing was used to measure knowledge achievement.</p> <p>Students completed a 21 item multiple choice (TestGen) pre and post experience, plus one additional time two weeks after initial study.</p>
Study tool/instrument validity/reliability	<p>Researcher-designed qualitative demographic survey.</p> <p>NLN-designed Student Satisfaction and Self-Confidence in Learning Scale (13-item)</p> <p>NLN-designed Simulation Design Scale (SDS) {20-item}</p> <p>Cronbach's alpha</p> <p>SPSS (version 15.)</p> <p>Mann-Whitney U Test</p>	<p>Health Sciences Reasoning Test (HSRT) - pre- and posttest <i>t</i>-test</p> <p>Analysis of covariance (ANCOVA)</p> <p>TestGen (validated commercial test item bank)</p>
Primary Outcome Measures/Results	<p>90% of participants were female with an average age of 23.4 y.o. (SD=5.4).</p> <p>Analysis from this study revealed that a combination of demographic and design characteristics accounts for half the variance in satisfaction and self-confidence when using HFS.</p> <p>However, only the design characteristic of Objectives and Problem Solving emerges as significant factors in a model predicting the outcomes of both satisfaction and self-confidence.</p> <p>No demographic characteristics were found to be significant.</p>	<p>No statistically significant difference was identified between the control group (high-fidelity) and experimental group (medium fidelity) in Test 1, 2 Or 3.</p> <p>Some improvement in knowledge scores was found in both groups, it was not significant.</p> <p>Differences in mean knowledge scores for Test 2 adjusted for Test 1 were not statistically significant. Differences in mean knowledge scores for Test 3 adjusted for Test 1 were not found to be significant.</p>
Conclusions/Implications	<p>Results indicated a large variance in student outcomes based upon the specific research question being evaluated. Accordingly, design characteristics, especially clear objectives and an appropriately challenging problem to solve, were significantly correlated with student satisfaction and self-confidence. Therefore, when designing simulation faculty must give careful consideration to a variety of factors surrounding the design in order to make it useful and effective.</p>	<p>The results of this study brought up questions about the value of investing in expensive simulation with high fidelity manikins when the increased costs associated may not be justified by a resulting increase in learning outcomes. This study also suggested that multiple choice questions, although convenient, may not be the most appropriate measure of simulation effectiveness. It is suggested that evaluation methods should be more closely aligned with the learning objectives of simulation sessions and directly target the assessment of higher order skills such as critical thinking and clinical reasoning that are necessary in nursing practice.</p>
Strengths/Limitations	<p>Strengths: N/A</p> <p>Limitations: small sample size.</p> <p>Limited variability in study participants.</p> <p>Not an experimental design.</p>	<p>Strength: N/A</p> <p>Limitations: most of study sample were women.</p> <p>Small sample population.</p>

		Multiple choice questions used in this research study may have been weak predictors of cognitive functioning and critical thinking skills.
Funding Source	Not published, therefore; unknown.	Not published, therefore; unknown.
Comments	This article was interesting and somewhat relevant to my capstone Project focus. It does not seem to be a strong research article but did contain some good information.	This article was interesting and somewhat relevant to my capstone Project focus. It does not seem to be a strong research article but did contain some good information.
Article/Journal	Simulated Clinical Experience: Nursing Students' Perceptions and the Educator's Role <i>Nurse Educator</i>	Effectiveness of Simulation-Based Orientation of Baccalaureate Nursing Students Preparing for their First Clinical Experience <i>Journal of nursing Education</i>
Author/Year	Anne M. Schoening Barbara J. Sittner Martha J. Todd 2006	Valorie Dearmon Rebecca J. Graves Sue Hayden Madhuri S. Mulekar Sherry M. Lawrence Loretta Jones Kandy K. Smith Joseph E. Farmer 2013
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Mental Health; Education; Educator's; Instructors	CINAHL Simulation; Communication; High Fidelity; Evaluation; Students; Clinical; Nursing; BSN
Research Design	Non-experimental pilot evaluation	Mixed-method, quasi-experimental
Seven Tiered Levels of Evidence	IV	III
Study Aim/Purpose	This study was designed to identify and refine simulation learning activities, learning objectives, and student perceptions of the experience.	This study evaluated the effectiveness of a two-day, simulation-based orientation for baccalaureate nursing students preparing to begin their first clinical experience.
Population/Sample size Criteria/Power	$n = 60$ BSN students in second semester of junior year $n=59$ female $n=1$ male Average age: 22 y.o.	($n = 57$) Convenience sample of 50 BSN students from foundation clinical course (first time taking course). $n = 9$ male $n = 41$ female Group 1: ages 19 to 28 y.o. Group 2: ages 29 to 55 y.o. $n = 22$ (44%) had previous health care work experience
Methods/Study Appraisal Synthesis Methods	During last two weeks of clinical rotation, student participants took part in simulated clinical experience (SCE).	Study consisted of a two day simulation orientation for student participants preparing to begin their first clinical; experience.

	<p>Students rotated between a problem-based SCE during one part of simulation day and the other part was spent in traditional hospital-setting.</p> <p>Each clinical group consisted of seven to eight students.</p> <p>The same faculty member acted as both the SCE and hospital clinical facilitator.</p> <p>Joyce and Wells 4-phase teaching model for simulation was used to develop procedures for the study.</p> <p>Each SCE was videotaped for debriefing method.</p> <p>Simulation experience was carried out in three phases plus debriefing:</p> <ol style="list-style-type: none"> orientation participant training simulation operations participant debriefing <p>In order to carry out the SCE scenario, students needed to utilize previously learned critical thinking and use of nursing process skills, as well as demonstrate proficiency in the use of technical nursing skills.</p> <p>After each SCE, a debriefing session was held with the clinical group and facilitator.</p> <p>At the conclusion of the SCE, participants completed a confidential 10-item survey that was developed by faculty authors (study) and peer reviewed by two Doctorate of Nursing Practice (DNP) educators. Narrative questions were also used to elicit student feedback on how they felt SCE helped them to increase confidence, improve skills, and/or increase knowledge.</p> <p>Weekly student course journals were included in study and were de-identified by removing student's name and assigning each comment a pseudonym.</p> <p>Content analysis procedures were used to analyze data.</p>	<p>Standardized participants were used to offer the students an experience that was as realistic as possible.</p> <p>Study was fully explained to students and written consent was obtained from those opting to participate.</p> <p>Students repeating the course were eliminated from the study.</p> <p>Seven students did not consent to participating in the study.</p> <p>After initial orientation to study, ten of the study participants took part in two separate Focus Groups.</p> <p><u>Overall study research focus was:</u></p> <ol style="list-style-type: none"> 1. Does a simulation-based orientation facilitate knowledge attainment? 2. Does a simulation-based orientation decrease anxiety? 3. Does a simulation-based orientation improve self-confidence? 4. What is the relationship between self-confidence and anxiety? <p>Pretest and posttest scores were compared using <i>t</i> tests.</p> <p>All scores were summarized using mean and standard deviation.</p> <p>Data gained from Focus Groups were manually transcribed and analyzed. Thematic content analysis was conducted.</p>
Study tool/instrument validity/reliability	<p>Simulation Objectives and Student Perceptions Survey (10 item - 4-point Likert Scale).</p> <p>Descriptive : Weekly Reflective Clinical Journals</p>	<p>Descriptive Demographic Survey – posttest</p> <p>Faculty-developed Knowledge Assessment (KA) Tool</p> <p>Faculty-developed Self-Confidence Assessment (SCA) Tool</p> <p>Perceived Stress Scale (PSS)</p> <p>State-Trait Anxiety Inventory for Adults (STAI)</p> <p>Pearson's correlation coefficient and regression analysis</p> <p>Wilcoxon Tests</p> <p>JMP Software</p>

Primary Outcome Measures/Results	<p>Qualitative data reflected that:</p> <p>Students perceived SCE as a positive experience that provided them with a safe learning environment to enhance hands-on clinical skills.</p> <p>Students reported that the SCE allowed them to gain more confidence and self-efficacy which carried over into their hospital clinicals and helped them to be more confident and comfortable when working with actual patients.</p> <p>Students reported that SCE allowed them to experience a realistic clinical scenario and allowed them to develop and use critical thinking and decision-making skills.</p> <p>Students reported that as an observer, watching the SCE helped them to critical think on ways that they would do things differently.</p> <p>Students reported that the SCE help with team building skills and developing an awareness of how important it is to be a team member.</p> <p>Data presented from study indicates that SCEs may help to better prepare new graduate nurses to work with their patients.</p> <p>Themes that emerged from this study validate earlier work on teaching with simulation.</p>	<p>Study reported that there was a statistically significant increase in knowledge, satisfaction and self-confidence in needed clinical skills plus a decrease in anxiety following simulation orientation activity.</p> <p>Students reported a positive viewpoint about interacting with real patients, faculty, and fellow students during simulation.</p> <p>This study revealed the value of using simulation as a teaching modality utilizing standard participants in BSN Programs.</p> <p>This study revealed that knowledge achievement scores were not influenced by manikin fidelity. This makes one wonder if there is a need to purchase the more expensive high-fidelity simulation models when medium-fidelity models could be just as effective.</p> <p>Study results support that large cohorts and replication of study would strengthen credibility of findings.</p> <p>Study results support that repeated use of assessment tools would allow predictive validity.</p>
Conclusions/Implications	<p>High-fidelity simulators are a costly investment that many institutions may not be able to afford. Researchers must continue to investigate the potential benefits of this method of instruction. Future research should focus on measuring knowledge such as increased self-efficacy, skill mastery, and transferability as compared with traditional instruction methods of lecture and testing with reliable and valid tools.</p>	<p>This study confirmed the value of simulation-based learning in providing opportunities for students to practice expected clinical behaviors, as well as for faculty to observe student performance. The study supports the use of clinical simulation as an effective strategy to enhance knowledge acquisition. A simulation experience occurring in a non-threatening environment can help to lessen the anxiety of students preparing for their first clinical experience and increase self-confidence in their ability to perform expected clinical behaviors. Determining the effectiveness of a traditional lecture orientation compared with a simulation-based orientation will help to inform educators as to which teaching strategy is most appropriate for orientation of students to their first clinical experience.</p>
Strengths/Limitations	<p>Strengths: author-developed tool used for study has content validity Limitations: convenience sample of students was small Author-developed tool used for study does not have identified reliability or content validity. Not all students responded to every question on the questionnaire. Three students did not complete evaluation form. Study focused on evaluation of student perceptions but not on outcomes.</p>	<p>Strengths: Instruments used to assess participant knowledge and self-confidence were developed by faculty with expertise in area of study. Limitations: small sample size.</p>

	Unclear of any learning took place was a result of SCE.	
Funding Source	Not published, therefore; unknown.	Not published, therefore; unknown. Authors did comment that “on receipt of funding to support the project...!”
Comments	This is an interesting article with a small amount of relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a strong research article but did contain some good information.	This article has relevance to my Capstone Project in that I will be very cognizant of the type of evaluation tool I use and who I chose as evaluators.
Article/Journal	An Evaluation of Mental Health Simulation with Standardized Patients <i>International Journal of Nursing Education Scholarship</i>	
Author/Year	Jessica Doolen Michelle Giddings Michael Johnson Gigi Guizada de Nathan Lysander O Badia 2014	
Database/Keywords	CINAHL Simulation; Communication; BSN Students; Psychiatric; Mental; Health; Standardized Participants; Patients; Nursing	
Research Design	Qualitative – constructivist Formative assessment	
Seven Tiered Levels of Evidence	VI	
Study Aim/Purpose	The purpose of this study was to determine if interviewing standardized patients (SPs) trained to model psychiatric disorders can promote student nurses’ interview skills and therapeutic communication, increase their confidence, and decrease anxiety.	
Population/Sample size Criteria/Power	(<i>n</i> = 94) undergraduate nursing students in mental health course Standardized participants: <i>n</i> = 2 females and <i>n</i> = 1 male	
Methods/Study Appraisal Synthesis Methods	Constructivist worldview of learning was the focus of this project. In preparation for simulation project: faculty from mental health course and two simulation faculty met to design simulation learning outcomes and course design.	

	<p><u>Three case studies</u> were chosen for simulation learning experience:</p> <ol style="list-style-type: none"> Bipolar disease Schizophrenia Anxiety <p><u>Overall goals of each scenario</u> were for student to:</p> <ol style="list-style-type: none"> recognize and assess signs and symptoms of disorder maintain a focused mental health patient assessment identify risk factors that would minimize harm to patients implement interventions to promote patient safety <p>Simulation Program Standardized participants were selected, trained, rehearsed and utilized based on California Consortium for the Assessment of Clinical Competence best practices for SP education in medical education and were modified to meet the needs of formative assessment for nursing student participants.</p> <p>Training for SPs consisted of two four-hour group rehearsals carried out by lead SP Educator, including debriefing skills. A big part of the SP training involved making sure each one could portray the patient case scenario with chosen mental illness effectively.</p> <p>During each 20 minute simulation experience, videotaping was accomplished and used in debriefing sessions. Faculty was responsible for 20 minute debriefing sessions.</p> <p>At the end of the simulation activity, student participants completed a qualitative SP Simulation Student Feedback Questionnaire.</p>	
Study tool/instrument validity/reliability	Standardized Participant Student Feedback Questionnaire	
Primary Outcome Measures/Results	<p>Overall, the study showed that student evaluations reported overwhelmingly positive comments and confirmed that students found simulation experience to be helpful in reinforcing course objectives, enhancing decision-making skills and in preparing them for patient encounters in both inpatient and outpatient mental health settings.</p> <p>Author's reported that students comments supported that SP simulation experience held them to enhance:</p> <ol style="list-style-type: none"> signs and symptoms recognition and assessment in relation to three mental health disorders focused on in study development of interviewing and therapeutic communication skills promotion of patient safety a decrease in fear if interviewing live patients suffering with a mental illness competency and performance preparation for course clinical rotation 	

	<p>Students, in the study, took the opportunity to make constructive suggestions on how to improve future SP simulation experiences for optimal learning potential.</p> <p>Two big suggestions were to offer simulation experience closer to the beginning of the semester and offer a longer interview time with SP.</p>	
Conclusions/Implications	The findings confirmed that the use of mental health simulation with SPs, did indeed promote interview and communication skills, and gave students a greater sense of confidence. Students reported that learning occurred and that it was realistic. They also felt more confident in their abilities. Further, the use of cases covering a variety of mental health issues previously not experienced serves an important dual purpose in addressing not only the gap between declining undergraduate mental health clinical placements, but also the increasing need for competent mental health nurses.	
Strengths/Limitations	<p>Strength: good study sample feedback</p> <p>Limitation: small sample size</p>	
Funding Source	Not published, therefore; unknown.	
Comments	Informational article which is very applicable to my Capstone Project. This was not a strong research article, but possessed some great information on utilization and evaluation of simulation using standardized participants in psychiatric patient education.	
Article/Journal	Development of a Mental Health Nursing Simulation: Challenges and Solutions <i>Journal of Interactive Online Learning</i>	Does simulation enhance undergraduate psychiatric nursing education? A formative assessment <i>Advances in Dual Diagnosis</i>
Author/Year	Lori I. Kidd Karyn I. Morgan John R. Savery 2012	Annette T. Maruca Desiree A. Diaz 2013
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Mental Health	Google Scholar Simulation; Communication; High Fidelity; Psychiatric; Nursing; BSN; Education; Assessment
Research Design	Qualitative: Descriptive	Qualitative – Formative
Seven Tiered Levels of Evidence	VI	IV

Study Aim/Purpose	This paper examines the challenges associated with providing virtual clinical experiences and environments rich in diversity and exposure, yet safe for experimentation and learning of mental health nursing students.	The aim of this study was to create a simulation for psychiatric nurses in an educational setting that focused on the recognition of alcohol withdrawal syndrome (AWS) and initiation of appropriate treatment and management of AWS.
Population/Sample size Criteria/Power	BSN students in junior-level mental health course: number of participants not reported	(<i>n</i> = 128) 38 nursing students in undergraduate BSN program taking psychiatric mental health course. <i>n</i> = 32 females <i>n</i> = 6 males
Methods/Study Appraisal Synthesis Methods	<p>Author's discussed study initiation, challenges and progression for using virtual world learning as a means for educating nursing students in mental health illness interactions with patients:</p> <ol style="list-style-type: none"> team assembly program details/activities participation <p>Two faculty members in the mental health nursing program took the lead in formulation of learning objectives and activities.</p> <p>Second Life (SL) Virtual simulation scenario was set up for students' to provide as follow-up mental health visit to a recently hospitalized client. Two different patient scenarios were used:</p> <ol style="list-style-type: none"> schizophrenia with auditory hallucinations major depression with suicidal thoughts <p>Nursing student participants were responsible for creating their own avatar who was to represent him/her as a professional nursing student in all aspects, as well as set up a time and date for visit.</p> <p>Students were provided with learning objectives which included:</p> <ol style="list-style-type: none"> patient safety assessment (in home environment) demonstrate therapeutic and effective communication skills conduct mental status exam <p>Once student participants' entered SL, they went to University "island" and then teleported to the client's home they were assigned to. For this study, the course instructor took on the role of the client. Interviews lasted 45 to 60 minutes with a debriefing session, at a Welcome center away from the client home, following client interaction.</p> <p>Student participants were allowed "release time" of six to eight hours for simulation and submission of a written report of their client assessment/interaction.</p>	<p>A formative assessment teaching strategy was utilized, using a self-report survey, to evaluate the development and implementation of a high-fidelity simulation (HFS) on alcohol withdrawal syndrome. This was initiated at the end of the simulation scenario and debriefing experience.</p> <p>Students took part in CIWA simulation experience with the aim of providing an opportunity to learn to:</p> <ol style="list-style-type: none"> recognize potential for alcohol withdrawal syndrome integrate theory with practice in a safe environment active alcohol withdrawal symptom(s) identification demonstrate an enhancement of critical thinking and clinical reasoning skills <p>The author's reported that Jeffries Framework was utilized to help provide guidelines for the development and implementation of simulation learning experiences.</p> <p>The CIWA simulation scenario was created by a faculty member with expertise and certification in mental health nursing. The template used was borrowed, with permission, from the National League of Nursing (NLN) and Laerdal Medical.</p> <p>Each group of nursing students (3 to 6) participants completed a 10 to 15 minute simulation scenario. Once the simulating was over, debriefing took place. Then self-report survey was completed. Questions were designed to elicit evidence of student learning.</p> <p>The authors analyzed all surveys for the use of content specific language, frequency of positive or negative statements about to the HFS experience, frequency of positive or negative responses related to the learning process, and anecdotal comments on student's reflection of their learning. The two rater process of evaluation provided a form of "inter-rater" reliability.</p>
Study tool/instrument validity/reliability	Second Life Virtual Simulation Program Evaluative Data Survey Questionnaire (created by Honors Program nursing student) SPSS (version 19.0)	Clinical Institute Withdrawal Assessment for Alcohol (CIWA) Scale CAGE Screening Tool Qualitative Self-Report Survey

		Jeffries Framework
Primary Outcome Measures/Results	<p>The author's, at the time of written report, communicated that the SL simulation had been utilized over three semesters. Data on perceived effectiveness and technical difficulty, for this time period, was gathered through survey questionnaire and disseminated for two semesters only (n = 126). Qualitative data analysis was performed using SPSS.</p> <p>The author's reported that student participants' responses include both positive and negative comments about the SL simulation experience</p> <p>The author's reported that there were some roadblocks and setbacks during the development phase. One major problem was that the Welcome Center merged all student chat logs together if they were all in the Center at one time. This was corrected by having students move to another meeting area.</p> <p>The author's reported that findings from this study corresponded with previous literature regarding technical issues in downloading, learning and navigating the SL Program on personal computers were major causes of student dissatisfaction.</p>	<p>All 38 students reported that the HFS was beneficial in integrating and synthesizing classroom content with clinical practice. Student's commented that the simulation was effective in helping them practice what they learned during class time.</p> <p>Survey results showed that the HFS scenario reinforced the classroom theory on addiction and mental disorders while translating and supporting students learning to clinical practice.</p> <p>The author's reported that there was a gap in the development and use of standardized simulation for mental health and substance abuse scenarios as a teaching strategy in nursing programs.</p> <p>The results of this study supported using HFS as an educational strategy and set the stage for future complex simulations such as dual diagnosis and clients with comorbidities.</p>
Conclusions/Implications	<p>The paper concludes that virtual reality simulation is a good fit in a practice profession such as nursing. It provides virtual clinical experiences and environments rich in diversity and exposure that students are often unable to access in traditional clinical settings, yet safe for experimentation and learning for mental health nursing students.</p>	<p>The feedback from nursing students who evaluated the simulation was positive. Survey results showed that the HFS scenario reinforced the classroom theory on addiction and mental disorders while translating and supporting student's learning to clinical practice. The HFS provided opportunity for students to practice skills when they had not had this experience during the clinical rotation. Only about 10% of students felt uncomfortable with decision making and initiating treatment after the simulation. The results of this study support using HFS as an educational strategy and also set forth implications to use in future complex simulations such as dual diagnosis and clients with comorbidities.</p>
Strengths/Limitations	<p>Strengths: N/A. Chat was utilized as a means to communicate in order to assure all students could participate. Chat program allowed for saving all simulation communication for alter review.</p> <p>Limitations: this study did not identify how many students participated in the study. Access to computer and audio equipment needed to work effectively in program. Student dissatisfaction with virtual education</p>	<p>Strength: N/A</p> <p>Limitations: small student cohort sample from only one university</p>
Funding Source	<p>Part of funding came from College of Nursing and remaining from University of Akron (authors' University).</p>	<p>Not reported - therefore, unknown.</p>

Comments	This article is not relevant to my capstone Project focus. I am interested in the SL Program as a means of simulation education but I will not be doing any further research on this teaching method.	This was an informational article with relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a strong research article but did contain some great information.
Article/Journal	Use of a Therapeutic Communication Simulation Model in Pre-Licensure Psychiatric Mental Health Nursing: Enhancing Strengths and Transforming Challenges <i>Nursing and Health</i>	The Effect of High-Fidelity Simulation on Nursing Students' Knowledge and Performance: A Pilot Study <i>National Council on State Boards of Nursing (NCSBN)</i>
Author/Year	Marjorie Hammer Sylvia Fox Michelle DeCoux Hampton 2014	Frank D. Hicks Lola Coke Suling Li 2009
Database/Keywords	CINAHL Simulation; Therapeutic Communication; BSN; Students; Mental Health	Google Scholar High-Fidelity; Simulation; Communication; Evaluation; Knowledge
Research Design	Qualitative – Phenomenological	Qualitative – Pilot Study Randomized controlled design with repeated measures of pre- and post-treatment
Seven Tiered Levels of Evidence	VI	III
Study Aim/Purpose	This manuscript describes an innovative pedagogical model developed for teaching therapeutic communication skills to pre-licensure nursing students through the use of simulation.	The goals of this study were to examine the differences between traditional clinical experience and simulation as teaching methods in pre-licensure nursing education, and analyze how simulation training may impact knowledge, clinical performance and confidence levels of undergraduate students and compare this with traditional clinical experience.
Population/Sample size Criteria/Power	Psychiatric mental health nursing (PMHN) pre-licensure students.	All students in two separate cohorts of senior baccalaureate nursing students (n=92) enrolled in a required critical care nursing course. A total of 58 (cohort 1=23; cohort 2=25) participated in the study.
Methods/Study Appraisal Synthesis Methods	Faculty teaching in PMHN course, along with simulation experts, joined to design a low-fidelity simulation (LFS) experience that could be duplicated and offered as part of PMHN course each semester in order to enhance students' assessment, nursing role and therapeutic communication skills. Students participated during PMHN simulation experience in three roles: a. patient	Measurements of knowledge attainment and retention, and self-confidence were taken before beginning the didactic portion of the course and after clinical or simulation experiences, while assessment of clinical performance was taken after clinical or simulation experiences. Simple random selection was used to determine group composition to one of the three practicum experiences:

	<p>b. nurse c. observer</p> <p>Students were provided with a Mini Mental Status Exam (MMSE) tool to assess the patient. Once the simulation experience was complete a debriefing session with students and faculty took place, utilizing the Debriefing Assessment for Simulation in Healthcare (DASH) model.</p> <p>Students completed PNCI Simulation Effectiveness Tool (SET) at the end of LFS.</p>	<p>1. Clinical without simulation (30 hours of clinical preceptorship with a critical care nurse.</p> <p>2. Simulation without actual clinical experiences (30 hours of simulation).</p> <p>3. Simulation plus clinical experience (15 hours of simulation and 15 hours of clinical without simulation).</p> <p>Clinical performance was assessed based on the students' performance on providing care during three patient care scenarios, which were portrayed by standardized patients.</p> <p>Each scenario was run for approximately five to 15 minutes, during which time the students were able to ask questions of the patient; perform assessments and provide interventions. Student performance during each scenario was tape recorded for a debriefing session that followed each scenario for discussion of the case, including critical thinking, group coordination and decision making. To implement the simulation scenarios, relevant factors that facilitated effective simulation-based learning were adopted. The factors included providing feedback; allowing repetitive practice; offering scenarios that were with a range of difficulty levels and clinical variations; using multiple learning strategies in a controlled environment; defining outcomes or benchmarks prior to implementing scenarios; and using simulators with high-fidelity.</p>
<p>To ensure confidentiality, code numbers were assigned to each subject. Only the code number appeared on the questionnaires and records. A master list of names, addresses and code numbers were maintained separately from the collected data, in the event that follow-up was needed. This list was available only to the investigators and was destroyed following completion of the</p>	<p>To ensure confidentiality, code numbers were assigned to each subject. Only the code number appeared on the questionnaires and records. A master list of names, addresses and code numbers were maintained separately from the collected data, in the event that follow-up was needed. This list was available only to the investigators and was destroyed following completion of the study. Confidentiality was also guaranteed in that data were reported as</p>	<p>To ensure confidentiality, code numbers were assigned to each subject. Only the code number appeared on the questionnaires and records. A master list of names, addresses and code numbers were maintained separately from the collected data, in the event that follow-up was needed. This list was available only to the investigators and was destroyed following completion of the study. Confidentiality was also guaranteed in that data were reported as</p>

study. Confidentiality was also guaranteed in that data were reported as		
Study tool/instrument validity/reliability	Qualitative Self-Reflection Questionnaire PNCI Simulation Effectiveness Tool (SET) Therapeutic Communication Evaluation Tool	Cronbach's alpha Student-based pre and post written exams Self-Confidence Scale Questionnaire
Primary Outcome Measures/Results	<p>The PMHN simulations were reported to be a valuable alternative to on-site clinical placement as this pedagogical modality which provides an intensive learning experience for the student as well as the faculty.</p> <p>Students were able to examine their own self-efficacy (emotional, intellectual, behavioral, professional); the role of the nurse, including personal challenges related to diagnosis, therapeutic communication and the nursing process; and the experience of the client as an individual who suffers from mental illness, utilizes a variety of treatments, and engages with mental health personnel and institutions.</p> <p>Simulation can offer students the opportunity to face their fears of making a mistake and enhance their understanding of the levels of responsibility of the nurse in practice, while developing their technical skills. The simulation experience engages not just knowledge and teamwork, but also creativity and role-play.</p> <p>Students reported that the simulations clarify and reinforce what they are learning in the theory section of the course and strongly agree that the scenarios can improve professional role performance in real life situations through critical thinking and decision making practice in a safe learning environment.</p> <p>Students stated that having the opportunity to observe their peers and be actively involved as patient or provider built team work, trust, confidence, and assessment and therapeutic communication skills, allowing for "mistakes without fear of patient harm or distress". Students reported a better understanding of how a client may feel, think or experience the clinical milieu and practice of providers.</p>	Based on written examinations on the content taught in the critical care course, students in all groups had statistically significant lower scores on the post-examinations ($p < .000$) after a two week period of practicum. At the end of simulation and/or clinical experiences, the students retained, on average, 86.3% of the knowledge gained in the didactic portion of the course. The simulation group appeared to retain the least (82.9%) and the clinical group the most (88.5%). However, no significant multivariate differences in change of knowledge were found between the groups.
Conclusions/Implications	This project found simulation to be a useful to because students engage in uncertainty about situations and self with the guidance of experts. There is time for challenging patterns of thinking, feeling, behaving and knowing; which leads to personal and professional growth before students enter the field. The students also experience the patients' perspective, which leads to a deeper awareness of how an illness is experienced and how effective communication can enhance management of the illness.	The findings of this study concluded that the overall differences between the three groups were not statistically significant. Students in the combo and clinical groups were consistently rated higher on knowledge and retention by faculty reviewing the videotapes than students in the simulation group. However, students in the simulation and the combo groups had a statistically significant increase in their self-confidence level in taking care of patients with acute changes in condition after clinical/simulation experiences, as opposed to those in the clinical group.

Strengths/Limitations	Strengths: Limitations: Student participant sample size unknown. Having PMHN simulation early in the course is a challenge because students do not have the knowledge gained through didactic lecture as well as observation/experience at the clinical site, and thus would not be able to so readily apply this knowledge to the role play.	Strengths: Limitations: Small sample size. No inter-rater reliabilities were established. Study was designed as a randomized trial but it was not double blind.
Funding Source	Not published, therefore; unknown.	Not published, therefore; unknown.
Comments	This is an interesting article with relevance to my Capstone Project focus area of simulation used in mental health education for nursing student population. It is not a research article but did contain some good information.	This article has relevance to my Capstone Project in that I will be very cognizant of the type of evaluation tools I use.
Article/Journal	Nursing Alumni as Standardized Patients: An Untapped Resource <i>Clinical Simulation in Nursing</i>	
Author/Year	Celeste M. Alfes 2013	
Database/Keywords	CINAHL Simulation; Effective Communication; BSN Students; Psychiatric; Nursing; Alumni	
Research Design	Qualitative – Phenomenological	
Seven Tiered Levels of Evidence	VI	
Study Aim/Purpose	The focus of this study is in recruiting nursing alumni, rather than hired actors, for standardized participant (SP) simulation experiences.	
Population/Sample size Criteria/Power	$n = 92$ sophomore BSN nursing students enrolled in psychiatric mental health course.	
Methods/Study Appraisal Synthesis Methods	One month before the first SP session, a roll call went out to all SPs who matched the patient characteristics for the clinical scenario being offered. An initial group of six retired alumni from the school of nursing were recruited as SPs for the purpose of evaluating a simulated patient interaction with sophomore nursing students in a psychiatric mental health course. Two weeks before the encounter, alumni selected for the clinical scenario attended a 2-hour training session for their designated scenario led by an experienced SP trainer.	

	<p>Student preparation involved attending a lecture followed by role-play experiences prior to any interaction with an SP. A group of five psychiatric mental health nursing faculty developed two clinical psychiatric mental health scenarios based on the guidelines in the Diagnostic and Statistical Manual of Mental Disorders by the American Psychiatric Association.</p> <p>The training of the SPs involved a 2-hour session focused on accurately portraying the mental health patient. After detailed instructions were shared, alumni practiced their SP role with psychiatric mental health faculty. The last part of the session focused on training alumni to give students constructive feedback on their communication skills.</p> <p>All SP experiences were video recorded with consent obtained by both students and SPs. Faculty also designed a 17-item Skills Competency Checklist to evaluate the mental health interaction. After each video-recorded SP student interaction, the 17-item checklist was completed by three evaluators: the SP, the student, and the student's clinical faculty instructor. The student exited the interview room and scored his or her own performance using the checklist while the SP scored the student's performance with the same checklist. Faculty were able to privately view each student's video-recorded interaction from their offices and score student performance using the checklist. Students were then assigned a 30-minute appointment to view their videos and engage in a debriefing session with the clinical faculty observing their nurse-patient interaction.</p>	
Study tool/instrument validity/reliability	Skills Competency Checklist (faculty-designed)	
Primary Outcome Measures/Results	<p>Student responses and performance outcomes exceeded author's expectations, and responses from participating alumni were extremely positive. Enthusiasm surrounding the SP experience generated interest from both undergraduate and graduate faculty to develop similar experiences for their programs.</p> <p>Two grant applications have been submitted to secure funding to conduct research projects on the use of alumni as SPs for prelicensure and graduate-level education.</p>	
Conclusions/Implications	<p>Since the development of this SP program, a pilot study was put into process to identify student outcomes of knowledge, skills, and attitudes from two learning strategies: SP and role-play. The purpose of this pilot is to determine which strategy is most effective when training students to deliver safe, patient-centered care to psychiatric mental health patients. Outcomes of this study may affect the time and resource allocation for future learning experiences. Results may help to validate the effectiveness of using nursing alumni as SPs, which may be valuable to</p>	

	other nursing schools who are interested in the development of an SP program.	
Strengths/Limitations	Strength: N/A Limitation: small sample size. Qualitative more than quantitative study.	
Funding Source	Not published, therefore; unknown.	
Comments	Informational article which is applicable to my Capstone Project. This was not a strong research article, but possessed some great information on evaluation of simulation using standardized participants in psychiatric patient education.	

Appendix B

SWOT Analysis	
<p>Strengths:</p> <ul style="list-style-type: none"> •Personal student support and faculty involvement with students •Small class sizes •Expert faculty who is approachable and friendly •Documented need for enhancement in educational strategies on this topic •Dedicated Capstone Chair and Project Mentor in providing guidance •Diverse student body including Hispanic, Native American, and international (Canadian) students •Recently developed high-fidelity Simulation Center •Utilization of the high-fidelity simulators •Nursing students have the opportunity to reflect and discuss skills •Improved BSN nursing student knowledge and self-confidence, plus reduced anxiety •Increase faculty participation in the use of simulation with standardized patients •Successful implementation of simulation with standardized patients could improve academic program outcomes •Successful implementation of simulation with standardized patients could improve patient care outcomes •Stakeholders include: University, administration, faculty, staff, students, healthcare organizations, nursing workforce, patients in healthcare settings •Collaboration and development of supportive networks within the community for health care workers and patients with mental/emotional illness •Data collection tools are validated instruments 	<p>Weaknesses:</p> <ul style="list-style-type: none"> •Limited resources for faculty and staff development •Sim Center fiscal uncertainty •Intervention skills of faculty, staff and SPs •Temporary, inadequate simulation facility •Limited evening and weekend Sim Center availability •Student simulation buy-in •Limited clinical sites for health care programs •Student anxiety and lack of self-confidence related to working with patients with mental/emotional illness •Student anxiety and lack of self-confidence related to simulation experience •Project data collection skewed by student responses
<p>Opportunities:</p> <ul style="list-style-type: none"> •Improved nursing student participation during clinical experiences with mentally ill patients •Improved nursing student interactions with clinical site mentor and staff •Improved student interactions with mental health professionals •Support from the National League of Nursing (NLN) •Nursing students have the opportunity to improve their self-confidence before working with patients with mental/emotional 	<p>Threats:</p> <ul style="list-style-type: none"> •Other State Universities offering Simulation in nursing program •Training time for standardized patients •Financial Resources •Staff & Faculty engagement •Student accountability •Student Privacy/comfort

SIMULATION AND EVALUATION

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illness	
•Nursing students have the opportunity to decrease anxiety before working with patients with mental/emotional illness	

Appendix C

Project Budget and Resources

Project Resources	Resources Costs	Total Budget
SIM Center Manager	\$12.00/hour = \$96.00 (based on 8 hour SIM day)	\$150.00
SIM Center Assistant	\$10.00/hour = \$80.00 (based on 8 hour SIM day)	\$ 100.00
Faculty Member Assistant (run all aspects of simulation, debriefing and pre & post testing)	\$27.00/hour = \$216.00 (based on 8 hour SIM day)	\$250.00
Faculty Member Assistant (run usual case study activity for control group)	\$23.00/hour = \$184.00 (based on 8 hour SIM day)	\$200.00
SIM Center: videotaping equipment; space; utilities	\$75.00/hour (use of existing Center) = \$600.00 (based on 8 hour SIM day)	\$650.00
Equipment: University computers; printer; paper; toner, pens, pencils, staples	\$200.00	\$250.00
SIM Intervention Day Lunch for Participants	\$40.00	\$50.00
Standardized Patients	In-kind (theater program students)	In-kind
Total Costs	\$1,416.00	\$1,650.00

Appendix D

Study Consent to Participate

Informational Sheet and Consent Statement for Participation in a Capstone Project StudyDescription of the Capstone Study and your Participation:

You are being given the opportunity to voluntarily participate in a project conducted through Regis University & Lake Superior State University (LSSU). You are being asked to participate in this study because you are registered to take the NURS433 – Community Mental Health course for the Fall 2015 semester.

Principal Investigator:

This study is being conducted by Sandra A. King, DNPc, RN, LSSU Assistant Professor in the School of Nursing.

Project Title:

Evaluation & Simulated Learning: Can Simulation Utilizing Standardized Patients Ease Anxiety and Enhance Self-efficacy in Nursing Students Working with Patients Experiencing Mental Illness? A Pilot Study.

Capstone Project Issues:

- Lack of quality and consistency of mental health clinical placements
- Lack of evidence-based practice literature on the topic
- Students report anxiety when working with mental health patients
- Students report lack of self-confidence when working with mental health patients

While expectations for nurses are increasing, opportunities for nursing students to obtain clinical practice are decreasing (Ironside & McNelis, 2011). This is especially true for students in rural, isolated areas where there exists a deficit in health care facilities to begin with, much less opportunities to gain practical, hands-on clinical experience in a controlled environment where there is no risk to patient or student safety. The challenge of having only limited clinical sites for nursing students to have hands on experience is a major obstacle to nursing faculty (Rosseter, 2007). Consequently, the lack of adequate, effective clinical experience results in not only the potential for errors in critical thinking and decision making that can affect patient safety, but also in anxiety and a lack of confidence for many students. Anxiety is frequently reported by nursing students and often interferes with their ability to apply classroom learning to clinical practice (Sinclair and Ferguson, 2009).

One reason for this anxiety is that classroom lecture and demonstration of nursing skills are passive education methods which do not expose students to learning important clinical information and the associated critical thinking skills that are so vital when providing patient care (Jeffries, 2005). When working with nursing students in the clinical setting, instructors cannot predict or control the types of patient encounters or conditions they will have the opportunity to experience. A student could complete

an entire BSN program and not experience patients suffering with a serious emotional/mental illness, yet they will be expected to deal with these types of patients in a vast amount of health care fields.

Capstone Project Purpose:

- Enhance BSN student mental health clinical experience
- Student-reported decrease in anxiety
- Student-reported improvement in self-efficacy (self-confidence)
- Prepare BSN students for career
- Provide quality EBP data

The purpose of this Capstone Study is based on deficits of psychiatric and mental health clinical experiences for BSN nursing students. While this can be attributed simply to a lack of placement locations within a practical distance, it can also be a result of limitations placed on clinical staff and students with regard to both patient and student safety (Patzel et al., 2007). Guise et al., (2012) discuss how simulation is a valuable means of practicing the knowledge and skills necessary for professional practice prior to entering a clinical environment. Simulation is beneficial to both faculty and students because it is not always safe, ethical, or practical for *inexperienced* students to be involved in the care of patients in psychiatric crisis in the clinical setting. There is ample material available regarding the use of simulated learning with health care and health-related conditions, however, there is far less information available on the use of simulated learning for mental health interventions, crises, and communication and even less on incorporating standardized patients.

Description And Length of Participation:

You will be asked to participate in the following manner:

1. Pre-study informational session
2. Course didactic sessions
3. Completion of 13- item demographic questionnaire
4. Completion of 20-item mental health knowledge test
5. Completion of 28-item pre-intervention survey to assess anxiety and self-confidence
6. Simulated intervention experience to include debriefing session
7. Completion of 20-item mental health knowledge test and 28-item post-intervention survey to assess anxiety and self-confidence

During Phase One of the study, each participant will complete four weeks of classroom lecture. During first four weeks, participants will also participate in two educational experiences which will include: (1) patient case study and (2) observation of nurse/patient interaction. In the latter part of Week 3 of the course, all participants enrolled in course will complete a demographic questionnaire, mental health knowledge test, and a pre-test to measure anxiety and self-confidence related to caring for a patient with an emotional/mental health issue.

Phase Two will consist of participants being randomly divided into a control group and an experimental group. The participants in the experimental group will be taking part in a mental health simulation, followed by a group reflection and debriefing session with a standardized patient(s) and the Simulation Center Specialist. The participants in the control group will take part in a case study activity, with the course instructor, during the time the simulation is taking place.

During Phase Three, the final phase, all participants will complete a post-test identical to the pre-test given in Phase One.

A planned post-study intervention for the control group will be conducted at a later date before the clinical rotations begin.

Risks and Discomforts:

There are no known foreseeable risks or discomforts associated with this research study. However, there may be minimal risks which are currently unforeseeable.

Conflict of Interest:

To eliminate perceived coercion and study bias, the investigator (course instructor) will be removed from Study process and a LSSU School of Nursing (SON) faculty member, experienced in simulation, will conduct all pre and post data gathering, as well as conduct the actual study intervention and debriefing activities. Data gathered from the study will not be reviewed or analyzed until after all grades for participating students have been entered into LSSU grading system for the Fall 2015 semester.

Potential Benefits:

As future practicing nurses, no matter what area of nursing, you will undoubtedly work with patients who are experiencing mild to severe mental illness because by the very virtue of being ill, no matter the degree, individuals experience changes in emotional/mental health.

It is anticipated that the study will validate the effectiveness in offering you an experience that simulates an actual situation that is as close to a “real-life” experience as possible prior to going out for your clinical experiences and being faced with patients in crisis. Simulation has been shown to decrease student anxiety, increase self-confidence and satisfaction, and improve cognitive and psychomotor skills, which leads to greater self-efficacy of new nurses as they enter the workforce. (Vandrey and Whitman, 2001; Alinier et al, 2006).

Protection of Confidentiality:

The research team will make every effort to protect your privacy. All your responses to the survey questions will be kept confidential. All survey information collected will contain no identifying information. The records of this study will be kept private. All survey materials will be kept in a locked filing cabinet in a locked office and only the investigator will have access to the records. In any sort of report the investigator make publics, no information will be included that will make it possible to identify you - you will be referred to by a code number.

Voluntary Participation:

The decision to participate in this research study is completely voluntary. You have the right not to participate and you may withdraw your consent to participate at any time. Your grade for

NURS433 will not be affected in any way. You will not be penalized in any way, or treated any differently, should you decide not to answer survey questions, participate or to withdraw from this study.

Fair Treatment and Respect:

LSSU and Regis University want to make sure you are treated in a fair and respectful manner. If you have any questions or concerns at any time during the study, or if any problems arise, you may contact Prof. Sandra A. King, Primary Investigator, at 906.440.6651. If you have any questions about your rights as a research subject, and/or the IRB process, for this Project, please contact Lake Superior State University's Institutional Review Board Chair at 906.635.4426 or Regis University's Institutional Review Board at (303) 458-4206 or by email at irb@regis.edu..

This form was approved for use on ----- and will remain active for a period of one (1) year from date signed.

Participant Consent Statement:

I have been given and read the information contained in this consent form. I have been given the opportunity to ask questions about this study and its risks and benefits, and those questions have been answered to my satisfaction. I am at least 18 years of age, and I freely give my consent to participate in this project. I understand that I will receive a copy of this form after it has been signed by me and the Principal Investigator.

Participant Name (PRINT)

Date

Participant Signature

Date

Primary Investigator Signature

Date

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY REGIS UNIVERSITY'S AND LAKE
SUPERIOR STATE UNIVERSITY'S INSTITUTIONAL REVIEW BOARD.

Appendix E

Demographic Questions Survey

Question # 1

Response is required

What is your Letter (identifier)?

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F
- ☐ G
- ☐ H
- ☐ I
- ☐ J
- ☐ K
- ☐ L
- ☐ M
- ☐ N
- ☐ O
- ☐ P
- ☐ Q
- ☐ R
- ☐ S
- ☐ T

Question # 2

Response is required

Gender

- ☐ A. Male
- ☐ B. Female

Question # 3

Response is required

Age

- ☐ <18
- ☐ 18-21
- ☐ 22-25
- ☐ 26-30
- ☐ 31-35
- ☐ 36-40
- ☐ 41-45
- ☐ >45

Question # 4

Response is required

Ethnicity (Check all that apply).

- ☐ African American
- ☐ American Indian
- ☐ Asian American
- ☐ Caucasian
- ☐ Native American
- ☐ Alaska Native
- ☐ Hispanic/Latino
- ☐ Native Hawaiian/Pacific Islander

Question # 5

Response is required

In what type of educational program are you enrolled?

- ☐ Practical Nurse (PN)
- ☐ Associate Degree (ADN)
- ☐ Baccalaureate Degree (BSN)

Question # 6

Response is required

GPA.

- ☐ 4.0
- ☐ 3.0 to 3.9
- ☐ 2.0 to 2.9
- ☒ <2.0

Question # 7

Response is required

Semester.

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior

Question # 8

Response is required

Number of times enrolled in NURS433 - Community Mental Health Nursing?

- ☐ 1
- ☐ 2

Question # 9

Response is required

Are you currently licensed as.....?

- ☐ Licensed Practical Nurse (LPN)
- ☐ Health Care Provider (HCP)
- ☐ Associates Degree in Nursing (ADN)

Question #10

Response is required

Previous Experience with Simulation?

- ☐ Yes
- ☐ No

Question # 11

Response is required

What types of simulation experience have you had previous to this semester?

(Check all that apply)

- ☐ Community
- ☐ Critical Care
- ☐ Fundamentals
- ☐ Leadership/Mentorship
- ☐ Medical/Surgical
- ☐ Obstetrics
- ☐ Pediatrics
- ☐ Psych/Mental Health

Question #12

Response is required

Have you had any previous experience working with patients with emotional/mental illness?

- ☐ Yes
- ☐ No

Question #13

Response is required

What types of previous mental health experience have you had prior to this semester?

(Check all that apply)

- ☐ In-patient
- ☐ Community Care Clinic
- ☐ Emergency Room
- ☐ Residential Treatment Center
- ☐ Elder Care Facility
- ☐ Educational Setting

Question #14

Response is required

What types of health illness patient care have you had experience with previous to this semester?

(Check all that apply)

- ☐ Diabetes
- ☐ Cancer
- ☐ Chronic Pain (Fibromyalgia, ect.)
- ☐ Cardiac
- ☐ Respiratory (COPD, CF, etc.)
- ☐ Seizures
- ☐ Neurological (MS, ALS, Stroke, etc)
- ☐ Drug/Alcohol Use/Abuse/Addiction
- ☐ Amputee
- ☐ Gastrointestinal (ostomy, gastric bypass, Chron's, Celiac, etc.0
- ☐ Paralysis
- ☐ Disfigurement
- ☐ Veteran
- ☐ Burns
- ☐ HIV/AIDS
- ☐ Skin/Connective Tissue (Scleroderma, etc.)

Appendix F

Mental Health Knowledge Test

Mental Health Knowledge Test

What is your Letter (identifier)?

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ E
- ☐ F
- ☐ G
- ☐ H
- ☐ I
- ☐ J
- ☐ K
- ☐ L
- ☐ M
- ☐ N
- ☐ O
- ☐ P
- ☐ Q
- ☐ R
- ☐ S
- ☐ T

Question # 2

Response is required

The student nurse is beginning her first day of clinical in a mental health unit. The nurse realizes that therapeutic communication can occur even if the nurse is not certain of how to initiate the conversation. This is because?

- ☐ It does not matter what you say to the client.
- ☐ Sincerity, honesty, respect, and caring are the most important elements in communication and will overcome anything you may say that could be non-therapeutic.
- ☐ Psychiatric-mental health clients do not really understand what you say most of the time anyway.
- ☐ Clients in most mental health settings are cognitively impaired.

Question # 3

Response is required

While completing a rotation in a mental health facility, the nurse observes a client who is becoming increasingly agitated. He begins yelling at other clients and then picks up a chair and throws it against a wall. The nurse is asked to write a note about what she witnessed. Which of the following would be the most appropriate documentation?

- ☐ Client is engaging in attention-seeking behavior, is argumentative, and is disruptive.
- ☐ Client is acting crazy by yelling at other clients and throwing objects.
- ☐ Client is displaying aggression including yelling at other clients and throwing a chair.
- ☐ Client is a psycho, is argumentative, aggressive, and disruptive.

Question # 4

Response is required

The nursing student is completing a history on a newly admitted client. Which of the following clients would be appropriate for the student to interview independently and without supervision?

- ☐ A client with mania and psychosis
- ☐ A client with mild anxiety
- ☐ A client with borderline personality disorder
- ☐ A suicidal client

Question # 5

Response is required

When providing care for mentally ill clients, it is important to remember that.....

- ☐ Listening to the clients is more important than talking
- ☐ Your primary goal is helping to make the clients well
- ☐ Most forms of mental illness are a result of traumatic childhood experiences
- ☐ Violent behavior is a common occurrence and must be always expected

Question # 6

Response is required

An instructor is teaching a class about the concept of self-awareness. Which of the following statements by a student would indicate a need for further education?

- ☐ "Self-awareness means that I am an individual, apart from others."
- ☐ "Self-awareness means that I have private thoughts."
- ☐ "I should try to be less self-aware when working with clients, because my focus should be on them."
- ☐ "I will focus on personal strengths and weaknesses in becoming more self-aware."

Question # 7

Response is required

In order to best communicate with a psychiatric client, the nurse must first establish the foundation based on....

- ☐ Self-awareness of any personal biases
- ☐ The effectiveness of the nurse–client relationship
- ☐ The awareness of the information contained in the client's chart related to psychiatric diagnosis
- ☐ Explaining the importance of honest communication to the client

Question # 8

Response is required

A client is exhibiting anxiety after being told that her husband has sustained a heart attack. The nurse's response to the client is "Everything will be okay." Which of the following types of non-therapeutic communication techniques is being exhibited by the nurse?

- ☐ Failure to listen
- ☐ Judgmental attitude
- ☐ False reassurance
- ☐ Giving advice

Question # 9

Response is required

A psychiatric nurse tells her client that she will return in 15 minutes to talk with him. She goes to a meeting that runs overtime and returns in an hour, apologizing for being late. This behavior may have an impact between the nurse and her client in the area of.....

- ☐ establishing confidentiality.
- ☐ establishing boundaries on the therapeutic relationship.
- ☐ establishing trust in the introductory phase of the relationship.
- ☐ getting through the working phase of the relationship.

Question # 10

Response is required

When speaking with a client who has a diagnosis of major depression, the nurse has placed his hand lightly on the client's shoulder when responded to one of the client's statements of hopelessness. Which of the following principles should underlie the nurse's use of touch when communicating with clients?

- ☐ The nurse should explicitly ask permission before touching a client in any capacity.
- ☐ Physical touch should be used solely with clients of the same gender as the nurse.
- ☐ Touch can be a powerful therapeutic tool, but it must be used with caution.
- ☐ Touching a client or patient is inappropriate and opens the nurse to legal action.

Question # 11

Response is required

Which behavior of the nurse indicates that the nurse has a therapeutic relationship with the client?

- ☐ The nurse asks the client whether he likes the nurse.
- ☐ The nurse speaks with the client on topics such as fashion and sports.
- ☐ The nurse expresses sympathy to a client who has recently lost his son in an accident.
- ☐ The nurse gives her phone number and asks the client to give a call whenever needed.

Question # 12

Response is required

During the mental status assessment, the client expresses the belief that the CIA is stalking him and plans to kidnap him. The best response by the nurse would be...?

- ☐ "That makes no sense at all."
- ☐ "You can tell me about that after I finish asking these questions."
- ☐ "What kinds of things have been happening?"
- ☐ "Why would the CIA be interested in you?"

Question # 13

Response is required

The priority reason the psychiatric nurse is careful to maintain professional boundaries with clients is to avoid ...

- ☐ The loss of therapeutic effectiveness
- ☐ The possibility of losing control of the milieu

- ☐ Likelihood of a client becoming too dependent on the nurse
- ☐ The possibility of inappropriate sexual tension developing

Question # 14

Response is required

A nurse is caring for a client in the health care facility. The nurse tells the client, "You are scheduled to attend therapy sessions every morning at 9:00 a.m. Please make sure that you complete your morning routine, such as using the restroom, bathing, and eating breakfast, before you come for the sessions." Which phase of the nurse client relationship does this communication indicate, according to the Peplau's model?

- ☐ Orientation phase
- ☐ Identification phase
- ☐ Exploitation phase
- ☐ Termination phase

Question # 15

Response is required

When discussing the details of anorexia, the nurse maximizes the client's likelihood of understanding the information by.....

- ☐ Presenting the information using language and terms the client will understand
- ☐ Interacting with the client in a nonthreatening, respectful manner
- ☐ Being careful not to overload the client with too much information at one time
- ☐ Giving the client ample opportunity to ask questions

Question # 16

Response is required

Which of the following statements by the nurse reflects the use of therapeutic interaction techniques?

- ☐ "You look upset. Would you like to talk about it?"
- ☐ "I'd like to know more about your children. Tell me about them."
- ☐ "I understand your husband passed away. I couldn't bear that."
- ☐ "You look very sad. How long have you been this way? Have you been taking care of yourself?"

Question # 17

Response is required

During client assessment, the nurse asks the next question as soon as the client finishes answering the previous question. What might this indicate to the client? Choose the best answer.

- ☐ The nurse may be able to resolve the client's concerns.
- ☐ The nurse may be able to complete the assessment in less time.
- ☐ The nurse may not be able to understand the client's concerns.
- ☐ The nurse may gain information about the client without wasting time.

Question # 18

Response is required

A client expresses worry about her child's aggressive behavior. The nurse says, "If I would have been in your situation, I too would worry about my child." What does this nurse's statement indicate?

- ☐ The nurse is comforting the client.
- ☐ The nurse is empathizing with the client.
- ☐ The nurse is sympathizing with the client.
- ☐ The nurse is showing genuine interest in the client.

Question # 19

Response is required

While providing care to a psychotic client, the psychiatric nurse uses communication initially for the purpose of.....

- ☐ Eliciting the client's cooperation through the establishment of trust
- ☐ Establishing mutual expectations for nursing interventions
- ☐ Facilitating the assessment process and the collection of a database
- ☐ Providing the client contact with a caring professional health care provider

Question # 20

Response is required

Nurses are encouraged to be very observant of a psychiatric client's non-verbal communication behavior primarily because....

- ☐ People tend to have less control over that type of reactions
- ☐ Psychiatric disorders generally affect a client's ability to communicate verbally
- ☐ Clients are more guarded about what they say than their facial expressions and gestures
- ☐ Psychiatric disorders are more likely to affect thoughts than physical behaviors

Appendix G

Approval of PrepU Knowledge Test Bank for
Pre-Post-Intervention Mental Health Knowledge Test

April 20, 2015

Sandy,

Wolters Kluwer gives Regis University & Lake Superior State University (LSSU) permission to use 20 questions from the PrepU application for mental health knowledge test in the voluntary study of students registered in the NURS433 – Community Mental Health course for the Fall 2015 semester.

Please let me know if there are any questions.

Regards, Pete

Pete Darcy

Director NCLEX

Health Learning, Research & Practice

Wolters Kluwer

351 West Camden Street

Baltimore, MD 21201

+1 (410) 528-4140 tel

Peter.Darcy@wolterskluwer.com

www.wolterskluwerhealth.com

Appendix H

Nursing Anxiety and Self-Confidence with Clinical Decision Making Scale (NASC-CDM)
Tool (at request of author, NASC-CDM not printed in its entirety)

1. What is your Letter (identifier)?

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T

2. I am ___ self-confident and ___ anxious in my ability to easily see important patterns in the information I gathered from the client.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

3. I am ___ self-confident and ___ anxious in my ability to identify which pieces of clinical information I gathered are related to the client's current problem.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

4. I am ___ self-confident and ___ anxious in my ability to see the full clinical picture of the client's problem rather than focusing in on one part of it.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

5. I am ___ self-confident and ___ anxious in my ability to recall knowledge I learned in the past that relates to the client's current problem.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

6. I am ___ self-confident and ___ anxious in my ability to implement the 'best' priority decision option for the client's problem.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

7. I am ___ self-confident and ___ anxious in my ability to interpret the meaning of a specific assessment finding related to the client's problem.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

8. I am ___ self-confident and ___ anxious in my ability to evaluate if my clinical decision improved the client's laboratory findings.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

9. I am ___ self-confident and ___ anxious in my ability to recognize the need to talk with my clinical nursing instructor to help sort-out client assessment findings.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

10. I am ___ self-confident and ___ anxious in my ability to use active listening skills when gathering information about the client's current problem.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

11. I am ___ self-confident and ___ anxious in my ability to assess the client's nonverbal cues.

SC: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

A: 1 = *Not at all*; 2 = *Just a little*; 3 = *Somewhat*; 4 = *Mostly*; 5 = *Almost totally*; 6 = *Totally*

Appendix I

Study Tools Permission Letter



September 24, 2014

Dear Ms. King,

Thank you for your interest in the *Nursing Anxiety and Self-Confidence with Clinical Decision Making* (NASC-CDM) scale. This letter is written to acknowledge your request to utilize the NASC-CDM scale in your DNP project research study. You are granted permission to use the scale and modify the demographic questions to best accommodate the intent of your study.

One condition does exist in relation to the permission to use the NASC-CDM scale. The scale may not be printed in its entirety in any documents related to your study or in any subsequent publications which may commence upon the completion of this research study.

Please use the following notation when writing a sample of items:
Used with permission, Krista A. White PhD, RN, CCRN, CNE.

Best wishes with your upcoming research.

Sincerely,

A handwritten signature in cursive script that reads "Dr. Krista A. White RN".

Krista A. White, Ph.D., R.N., CCRN, CNE
Instrument developer
Lancaster, PA
kawhite4288@gmail.com

Appendix J

Project Conduction Approval Letter



October 10, 2014

Patsy Cullen, PhD, PNP-BC
Professor and Director
Doctor of Nursing Practice and Nurse Practitioner Programs
Loretto Heights School of Nursing
Rueckert-Hartman College for Health Professions
Regis University
3333 Regis Blvd. (G-8)
Denver, Colorado 80221-1099

Dear Dr. Cullen,

This letter is written in support of the project proposed by Sandra King, "*Can Simulation Utilizing Standardized Patients Ease Anxiety and Enhance Self-efficacy in BSN Students Working With Clients Experiencing Serious Mental Illness*". The proposed project has been reviewed by the Lake Superior State University School of Nursing and is acceptable with the following changes: 1) Research activities, i.e. simulations, debrief, and surveys will be conducted by a qualified faculty member who has no part in student assessment related to course grade and, 2) collected research data will not be analyzed by Prof King until the student cohort course grades have been posted by the registrar. We look forward to her completion of this research and the potential of improving student outcomes.

Sincerely,

Ron Hutchins, EdD(c), MSN, RN

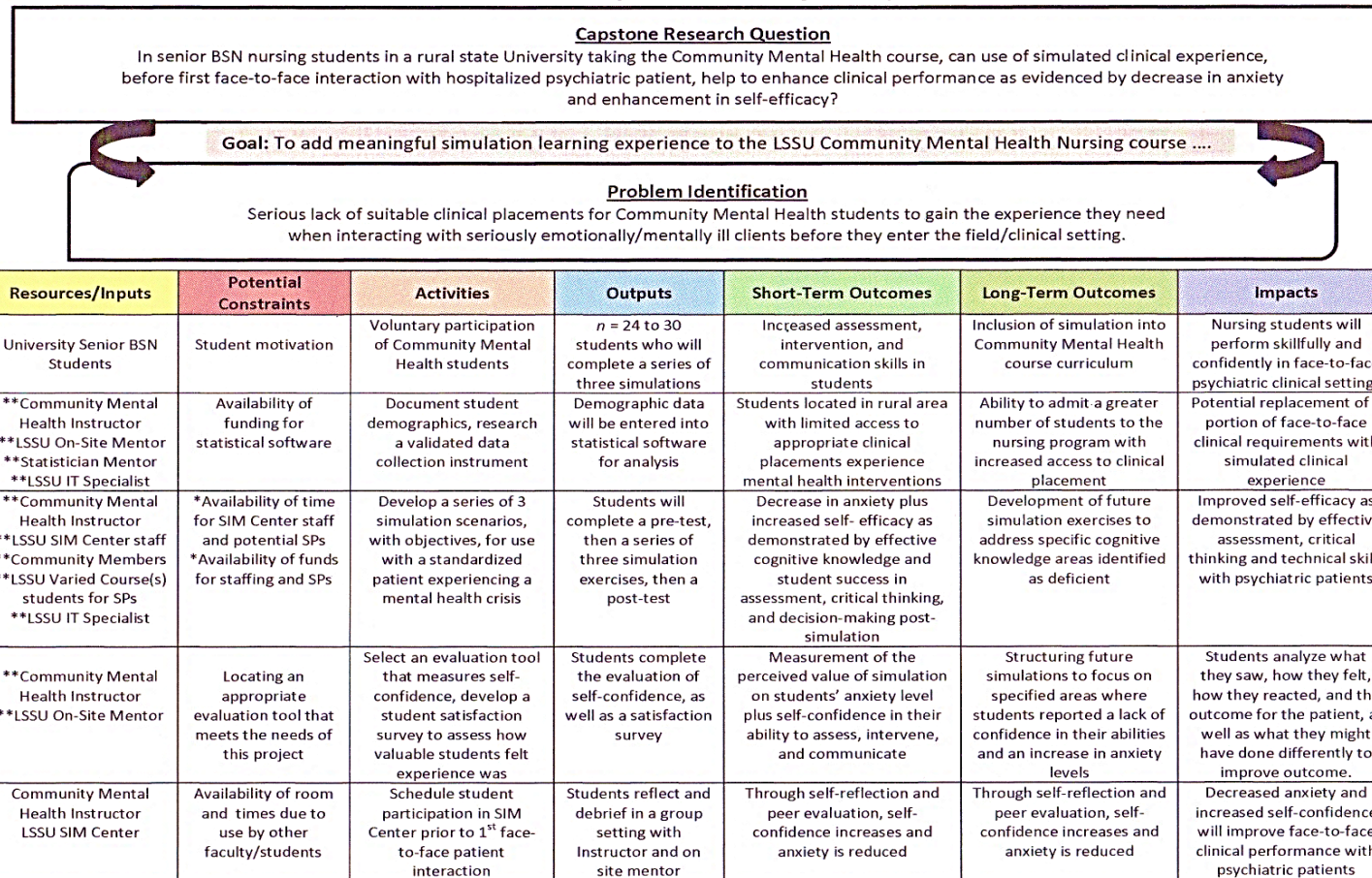
Dean: School of Nursing and Health Sciences

650 W. Easterday Ave., Sault Ste. Marie, MI 49783
Telephone: 906-632-6841 · Fax: 906-635-2111
www.lssu.edu

Appendix K

Logic/Concept Model

Simulation in Community Mental Health Logic/Conceptual Model



Appendix L

Citi Training: Human Research

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)
HUMAN RESEARCH CURRICULUM COMPLETION REPORT**
Printed on 06/08/2014

LEARNER	Sandra King (ID: 4195308)
DEPARTMENT	School of Nursing
EMAIL	king733@regi.edu
INSTITUTION	Regis University
EXPIRATION DATE	05/07/2017

SOCIAL BEHAVIORAL RESEARCH INVESTIGATORS AND KEY PERSONNEL

COURSE/STAGE:	Basic Course A
PASS/ED ON:	05/08/2014
REFERENCE ID:	13158352

REQUIRED MODULES	DATE COMPLETED
Introduction	05/08/14
History and Ethical Principles -SBE	05/08/14
The Regulations -SBE	05/08/14
Assessing Risk -SBE	05/08/14
Informed Consent -SBE	05/08/14
Privacy and Confidentiality -SBE	05/08/14
Regis University	05/08/14

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid independent learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul B. Ganschweiler Ph.D.
Professor, University of Miami
Director, Office of Research Education
CITI Program Course Coordinator

Collaborative Institutional
Training Initiative
at the University of Miami

Appendix M

Citi Training: Conflicts of Interest

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)**CITI CONFLICTS OF INTEREST CURRICULUM COMPLETION REPORT**

Printed on 06/08/2014

LEARNER	Sandra King (ID: 4195308)
DEPARTMENT	School of Nursing
EMAIL	king733@regt.edu
INSTITUTION	Regt University
EXPIRATION DATE	05/07/2018

CONFLICTS OF INTEREST

COURSE/STAGE:	Stage: 1/1
PASSED ON:	05/08/2014
REFERENCE ID:	13158354

REQUIRED MODULES

CITI Conflicts of Interest Course - Introduction	05/08/14
Financial Conflicts of Interest: Overview, Investigator Responsibilities, and COI Rules	05/08/14
Institutional Responsibilities as They Affect Investigators	05/08/14

DATE COMPLETED

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid independent learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul B. Ganschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Program Course Coordinator

Collaborative Institutional
Training Initiative
at the University of Miami

Appendix N

Project Timeline

DNP Project Process Model: Steps (p. 474)	Activities to Meet Model Steps	Timeframe to Completion
Step I: Problem Recognition	Identification of Project need Project problem statement developed PICO question formulation Systematic review of literature completed	Initial: August, 2013 – October, 2013 Revision: October, 2013 – December, 2013
Step II: Needs Assessment	Identify project population and community to be served Mentor chosen Identification of stakeholders Organizational assessment completed Available resources assessment Anticipated outcomes planning	Initial: August, 2013 – October, 2013 Revision: October, 2013 – December, 2013 January, 2014 – May, 2014 May, 2014 – July, 2014 August, 2014 – December, 2014
Step III: Goals, Objectives, and Mission Statement	Project goals development Process/outcome objective developed Mission & Vision statements development Project team selection	May, 2014 – July, 2014
Step IV: Theoretical Underpinnings	Practice/Theories Framework Project Theories Identification	Initial: August, 2013 – October, 2013 Revision: October, 2013 – December, 2013
Step V: Work Planning	Project proposal development Project management tool(s) review and selection Final objectives development Project Timeline development Cost-benefit analysis development Budget development	October, 2013 – December, 2013 May, 2014 – July, 2014 August, 2014 – December, 2014
Step VI: Evaluation Planning	Evaluation plan development Logic Model development	May, 2014 – July, 2014 August, 2014 – December, 2014
Step VII: Implementation	Threats and Barriers identification Oversee Project implementation phase Project completion/conclusion	Planned timeframe: September, 2015
Step VIII: Interpretation of the Data	Quantitative Data Qualitative Data	Planned timeframe: January, 2016 – May, 2016
Step IX: Utilization and Reporting of Results	Written Project delivery Oral Project delivery Electronic Project delivery	Planned timeframe: May, 2016 – August, 2016 Revised: November 2016
Zaccagnini, M., & White, K. (2014). <i>The Doctor of Nursing practice essentials: A new model for advanced practice nursing</i> (2nd ed.). Burlington, MA: Jones & Bartlett Learning.		

Appendix O

Regis IRB Letter



Academic Grants

3333 Regis Boulevard, H-4
Denver, CO 80221-1099303-458-4206
303-964-5528 fax
www.regis.edu

IRB – REGIS UNIVERSITY

December 31, 2014

Ms. Sandra King
P.O. Box 441
Pickford, MI 49774**RE: IRB #: 14-366**

Dear Ms. King:

Your application to the Regis IRB for your project, "Evaluation & Simulated Learning: Can Simulation Utilizing Standardized Patients Ease Anxiety and Enhance Self-efficacy in Nursing Students Working With Patients Experiencing Mental Illness? A Pilot Study", was approved as an exempt study on December 31, 2014. This study was approved per exempt study category of research 45CFR46.101.b(#1 and #2).

The designation of "exempt" means no further IRB review of this project, as it is currently designed, is needed.

If changes are made in the research plan that significantly alter the involvement of human subjects from that which was approved in the named application, the new research plan must be resubmitted to the Regis IRB for approval.

Sincerely,

Patsy McGuire Cullen, PhD, PNP-BC
Chair, Institutional Review Board
Professor & Director
Doctor of Nursing Practice & Nurse Practitioner Programs
Loretto Heights School of Nursing
Regis University

Appendix P

Organization (LSSU) IRB Letter



January 8, 2015

Sandra A. King, DNPc, RN
School of Nursing
Lake Superior State University

Professor King,

Your research proposal, "*Evaluation & Simulated Learning: Can simulation utilizing standardized patients ease anxiety and enhance self-efficacy in nursing students working with patients experiencing mental illness? A pilot study.*", LSSU IRB proposal #010815A has been approved as exempt. Good luck with your project. Should you have questions regarding this approval, please do not hesitate to contact me at rhutchins@lssu.edu

Sincerely,

Ron Hutchins, Chair
LSSU IRB Committee

650 W. Easterday Ave., Sault Ste. Marie, MI 49783
Telephone: 906-632-6841 · Fax: 906-635-2111
www.lssu.edu

Appendix
Q

Study Debriefing Survey

As A recap, the below information will help to refresh you on the Capstone project for DNP.

Project Title:

Evaluation & Simulated Learning: Can Simulation Utilizing Standardized Patients Ease Anxiety and Enhance Self-Efficacy in BSN Nursing Students Working with Patients Experiencing Mental Illness? A Pilot Study.

Capstone Project Issues:

- Lack of quality and consistency of mental health clinical placements
- Lack of evidence-based practice literature on the topic
- Students report anxiety when working with mental health patients
- Students report lack of self-confidence when working with mental health patients

While expectations for nurses are increasing, opportunities for nursing students to obtain clinical practice are decreasing. This is especially true for students in rural, isolated areas where there exists a deficit in health care facilities to begin with, much less opportunities to gain practical, hands-on clinical experience in a controlled environment where there is no risk to patient or student safety. The challenge of having only limited clinical sites for nursing students to have hands on experience is a major obstacle to nursing faculty. Consequently, the lack of adequate, effective clinical experience results in not only the potential for errors in critical thinking and decision making that can affect patient safety, but also in anxiety and a lack of confidence for many students. Anxiety is frequently reported by nursing students and often interferes with their ability to apply classroom learning to clinical practice.

One reason for this anxiety is that classroom lecture and demonstration of nursing skills are passive education methods which do not expose students to learning important clinical information and the associated critical thinking skills that are so vital when providing patient care. When working with nursing students in the clinical setting, instructors cannot predict or control the types of patient encounters or conditions they will have the opportunity to experience. A student could complete an entire BSN program and not experience patients suffering with a serious emotional/mental illness, yet they will be expected to deal with these types of patients in a vast amount of health care fields.

Capstone Project Purpose:

- Enhance BSN student mental health clinical experience

- Decrease student-reported anxiety
- Improvement in student-reported self-efficacy (self-confidence)

The purpose of this Capstone Study is based on deficits of psychiatric and mental health clinical experiences for BSN nursing students. While this can be attributed simply to a lack of placement locations within a practical distance, it can also be a result of limitations placed on clinical staff and students with regard to both patient and student safety. Research has shown that simulation is a valuable means of practicing the knowledge and skills necessary for professional practice prior to entering a clinical environment. Simulation is beneficial to both faculty and students because it is not always safe, ethical, or practical for *inexperienced* students to be involved in the care of patients in psychiatric crisis in the clinical setting. There is ample material available regarding the use of simulated learning with health care and health-related conditions, however, there is far less information available on the use of simulated learning for mental health interventions, crises, and communication and even less on incorporating standardized patients.

During Phase One of the study, each participant will complete four weeks of classroom lecture. During first four weeks, participants will also participate in three educational experiences which will include: (1) observation of nurse/patient interactions (videos); (2) patient mock interview activity; and (3) Hearing Voices simulated activity. In the latter part of Week 2 of the course, all participants enrolled in course will complete a demographic questionnaire, mental health knowledge test, and a pre-test to measure anxiety and self-confidence related to caring for a patient with an emotional/mental health issue.

Phase Two will consist of participants being randomly divided into a control group and an experimental group. The participants in the experimental group will be taking part in a mental health simulation, followed by a group reflection and debriefing session with a standardized patient(s) and the Simulation Center Specialist.

During Phase Three, the final phase, all participants will complete a post-test identical to the pre-test given in Phase One.

A planned post-study intervention using the same Simulation experience for the control group will be conducted at a later date before the clinical rotations begin.

Fall 15 - NURS433 - Course Activities Narrative

Given that my goal for the activities I created for you for this semester were put into place to help prepare you for your clinical rotations in NURS433, please provide a thorough narrative about the below experiences, which took place during the first 30 days of Fall 2015 in NURS433 Community Mental Health Nursing. Your thoughts will assist me in assessing the perceived effectiveness of the course didactic activities and simulation intervention.

Please share your thoughts on if/how the above activities helped to prepare you for your clinical rotations this semester and if these activities assisted in easing your anxiety and enhancing your self-efficacy (self-confidence) making it possible to interact with staff at the clinical sites and patients with mental/emotional illness more comfortably. I am particularly interested in if these activities helped you to develop a baseline for yourself in order to help you in developing and being comfortable with therapeutic communication, assessment, collaboration, and critical thinking skills when working with patients with mental/emotional illness. Essentially: did all of these activities benefit you and add to successful and fulfilling clinical experiences.

1. Observational Videos (2) of patient with mental illness being seen by nurse for assessment.
2. Mock Interview activity where you were given the opportunity to assess and interview a "patient" with a mental/emotional illness.
3. Hearing Voices simulation activity to help you understand what a patient who hears voices experiences plus what it is like for them to function in daily activities while voices are present. Additionally, sensory- altering glasses were added to this activity to help you to have an understanding of how people with visual deficits struggle to complete daily activities.
4. Simulation experience with severely mentally ill standardized patient at LSSU off-site Simulation Center
5. General Comments about the Whole 30 days of Experiences: