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**The Effectiveness of Targeted Education on Improving Nurses' Self-Efficacy in Caring for
Psychiatric Patients on Medical Surgical Units**

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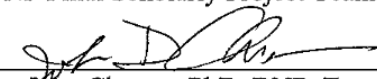
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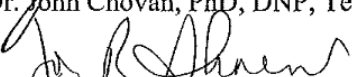
In Partial Fulfilment of the Requirements for the Degree

Doctor of Nursing Practice


DNP Final Scholarly Project Team:



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Abstract

Individuals with mental illness are occasionally hospitalized on medical units, specifically medical-surgical units. Nurses working on medical-surgical units may find patients with mental illness more challenging due to the complexity of care they sometimes require. Nurses' perceived ability to provide quality care for these patients is reduced in comparison to their perceived ability to care for patients without mental illness. Consequently, low self-efficacy can result in the provision of a lower quality of care for this population. The purpose of this quality improvement project was to improve the care that patients with mental illness receive while hospitalized on medical-surgical units. This study utilized a quasi-experimental single-group, pre-test-post-test design to examine the impact of a targeted educational presentation and simulation on nurses' knowledge and self-efficacy in caring for psychiatric patients on medical-surgical units. Each participant completed a pre-intervention self-assessment using the Nursing Care Self-Efficacy Scale (NCSES) and a quiz to test knowledge. Each participant also attended one of two educational sessions that included a presentation and a simulation. Six weeks following the educational session, the participants completed a post-intervention quiz to test knowledge and a self-assessment using the NCSES. The scores of the pre-intervention assessment and quiz were compared to those of the post-intervention assessment and quiz. The mean score of the posttests were 4% higher than the pre-tests, and the self-assessment scores were inconclusive due to an instructional misinterpretation. In conclusion, the intervention was successful at improving knowledge while the effect on perceived self-efficacy is unknown. Recommendations include ways to promote greater participation and provide more clear instructions.

Keywords: self-efficacy, acute care nursing, psychiatric patients, mental illness, medical-surgical, education, training

The Effectiveness of Targeted Education on Improving Nurses' Self-Efficacy in Caring for Psychiatric Patients on Medical Surgical Units

Patients with mental illnesses that require inpatient hospitalization may be admitted to a medical acute care unit as an alternative to a psychiatric unit or facility. These admissions are necessary when the patient has concurrent psychiatric and medical diagnoses that need immediate treatment, or when there are no available psychiatric beds. Nurses on medical-surgical units caring for these patients are often in charge of a team of four or more patients depending on acuity. One study determined that the average nurse-to-patient ratio on medical-surgical units is 6.3 with larger teaching hospitals experiencing higher staffing ratios compared to smaller nonteaching hospitals (Lasater et al., 2021). Nurses caring for a psychiatric patient and four or more medical patients may feel increased strain due to the complexity of the care that psychiatric patients often require. The purpose of this project is to determine nurses' perceived level of knowledge and self-efficacy pertaining to caring for adult psychiatric patients admitted to medical-surgical units.

An organizational assessment was conducted on a medical surgical unit in a 248-bed Midwestern suburban hospital located outside of a major urban area. On this unit, the nurse-to-patient ratio is usually 5-6 patients per nurse, and the charge nurse often has a full team of patients. The nurse manager and unit staff were interviewed to determine their perception of psychiatric care in the medical setting. Management expressed that the nurses required more education on identifying manipulative behaviors, medication management, suicidal patients, and how to approach a situation that requires immediate action. The nurses voiced concerns regarding feeling insufficiently trained, not knowing how to therapeutically communicate with psychiatric patients, lack of sufficient patient history, poor medication administration, judgment of patients by staff members, and lack of time and resources.

Problem Statement

The following PICO question was developed to facilitate the review of literature and overall development of this project: For (P) registered nurses working in an acute-care medical-surgical unit, how does (I) an

educational intervention and simulation compared to (C) no educational intervention and simulation influence (O) their knowledge about and self-efficacy in caring for psychiatric patients on their units (T) after six weeks?

Background

The promotion of mental health and the treatment of mental illness is common within the realm of healthcare. Mental illness can be defined as any mental, emotional, or behavioral disorder (U.S. Department of Health and Human Services [HHS], n.d.). According to the National Institute of Mental Health (NIH) (2022), in 2020 it was estimated that there were approximately 52.9 million adults with at least one mental illness, with prevalence of any mental illness being highest among females (25.8%) and adults that report two or more races (35.8%). Individuals with mental illness may seek treatment from various healthcare settings including inpatient medical units. It is estimated that patients with mental illness account for approximately 4% of patients on adult medical-surgical units (Foye et al., 2020). Furthermore, nearly 46% of the U.S. population will experience mental illness in their lifetime, 68% of those with a mental illness have at least one medical condition, and approximately 30-50% of patients in acute care medical settings have comorbid mental and physical illness (Avery et al., 2020). In 2014, of 1.8 million inpatient hospitalizations for mental and/or substance use disorders, 84.2% involved a comorbid physical condition, and of 27.8 million inpatient medical stays, 42.4% involved a comorbid mental and/or substance use disorder (Owens et al., 2018). While often treated as separate entities, mental health and physical health are correlated.

Poor physical health may have a negative effect on mental health and vice versa. The incidence of physical illness is higher among individuals with mental illness compared to the general population with an estimated 15-to-20-year mortality gap between the two (Foye et al., 2020). Additionally, individuals with severe mental illness have higher rates of admission to acute inpatient medical units, higher rates of readmission, worse experiences of care, and poorer outcomes than the general population (Foye et al., 2020). While hospitalized, patients with mental illness may require closer observation, additional

medications, and more interventions than patients admitted for a medical illness (Foye et al., 2020). Due to this need for additional care, this patient population may be more challenging to care for than patients with predominantly medical illnesses. Consequently, the growing number of patients with comorbid psychiatric and medical conditions as well as a greater incidence of diagnoses of neurocognitive disorders is negatively affecting costs of care and safety of patients (Pudalov et. al, 2018). The complexity of care required by psychiatric patients necessitates improved education and training for nurses.

The treatment of psychiatric patients in the acute care medical setting may be hindered by insufficient staff training, poor education regarding mental illness and psychopharmacology, and a negative perception of psychiatric disorders. Non-psychiatric nurses report a lack of knowledge and self-efficacy because they do not believe that they have been given the proper training to provide quality care to patients with mental illness (Blair et al., 2018). Currently, patients with mental illness do not receive the same quality of care as non-psychiatric patients due to stigmatization and a lack of training and education for nursing staff (Foye et al., 2020). As a result, patients with mental illness are more susceptible to adverse outcomes and less likely to receive evidence-based treatment when receiving medical and surgical care compared to the general population (Reeves et al., 2018). Improving the education and training that nurses receive may result in improved quality of care for psychiatric patients in the inpatient medical setting.

Literature Review

A review of literature was conducted to gain a greater understanding of the influence of self-efficacy in nursing. The electronic databases included in the search include APA PsychArticles, APA PsychINFO, CINAHL, Cochrane Library, MEDLINE, Psychology and Behavioral Sciences Collection, and the Otterbein University Library database. Additionally, web searches were conducted to gain further insight on possible theoretical and conceptual frameworks. The search terms used include self-efficacy, quality improvement model, Bandura, PDSA, and nursing theoretical frameworks. The Boolean phrase “and” was utilized in the search to connect the terms and yield related results. A literature review

summary table can be found in Appendix A. All literature in this review is peer-reviewed and published within the last five years.

As a result of the gap in current literature, many studies conducted on the topic of increasing self-efficacy in nursing focus on nursing students rather than registered nurses (RNs) in the clinical setting. A 2017 study, "Applying Integrative Learning Strategies and Complexity Theory to Design Simulations for Care of Complex Patients," used a quasi-experimental pre-posttest design and a convenience sample of 194 senior-level nursing students in a Bachelor of Science in Nursing (BSN) program to investigate the impact of simulation on the students' self-confidence (Dunn & Riley-Doucet, 2017). The researchers used the Jefferies Theory consisting of five major components - teacher, student, educational practices, design characteristics and simulation, and outcomes – as a guide for designing, implementing, and evaluating the simulations (Dunn & Riley-Doucet, 2017). Instruments used included the Mental Health Nursing Clinical Confidence Scale (Mental Health NCCS) and the Medical-Surgical Clinical Confidence Scale (Med/Surg NCCS) to measure confidence and the student Perception of Effective Teaching in Clinical Simulation Scale (SPETCSS) to measure the student's perceptions of the effectiveness of the simulation (Dunn & Riley-Doucet, 2017). Results yielded statistically significant increases in both mental health and medical-surgical competencies including increased self-confidence in communication skills, assessment skills, medications, and patient education (Dunn & Riley-Doucet, 2017). Dunn & Riley-Doucet (2017) found that simulations and role play allowed students to practice their communication and technical skills in a safe and controlled environment. Although self-confidence and self-efficacy differ, the results of this study are applicable to this project in regard to the efficacy of simulation at improving clinical skills.

As previously stated, simulations provide an interactive learning experience that allows participants to test their skills in a safe manner. A 2022 study by Mahmoud Al-Kalaldeh and Safa'a Al-Olime examined the effectiveness of using high-fidelity simulation (HFS) education at improving nurses' self-efficacy in advanced cardiac life support (ACLS). HFS is "...simulation that incorporates a computerized full-body manikin that can be programmed to provide realistic physiological response to student actions" (Cant & Cooper, 2010, pg.4). The study used a quasi-experimental design with a single-

group, pretest-posttest method (Al-Kalaldeh & Al-Olime, 2022). Participants included 62 nurses with at least one year of experience in critical care in the American Heart Association (AHA) ACLS course from September 2019 to January 2020 at an accredited training center in Amman, Jordan (Al-Kalaldeh & Al-Olime, 2022). Instruments used for this study included a demographic and work-related questionnaire and the Resuscitation Self-Efficacy Scale (RSES) (Al-Kalaldeh & Al-Olime, 2022). The results yielded a significant increase in self-efficacy following the simulation ($t=4.89$, $p<.001$, confidence interval [-12.7, -5.33]) (Al-Kalaldeh & Al-Olime, 2022).

The effectiveness of education non-psychiatric nurses' perceived self-efficacy regarding the assessment and inquiry of suicide risk and prevention strategies was investigated in a 2018 study in Connecticut (Blair et al., 2018). This quality improvement project employed a single group pretest-posttest method with a sample of 50 RNs on a neuro-trauma inpatient unit in a 780-bed acute care hospital (Blair et al., 2018). Bandura's (1986, 1997) self-efficacy theory was used as the theoretical framework for this project (Blair et al., 2018). The primary intervention entitled "Suicide Prevention and Care in the Acute Care Medical Setting" was an educational class that included participants asking one another if he or she was thinking about suicide, video clips of experts speaking about suicide prevention and their experiences, the instructor acting as a "supportive cheerleader," and an educational curriculum designed to improve knowledge of suicide (Blair et al., 2018, pg. 45). The findings included a statistically significant increase in the nurses' self-efficacy following the educational intervention (Blair et al., 2018). The recommendations for the next steps include implementing mandatory standardized education about suicide to all healthcare professionals (Blair et al., 2018).

Project Description and Design

Framework

Theoretical Framework. Self-efficacy is an important attribute for acute care nurses to possess. Albert Bandura's Theory of Self-Efficacy (1977) coincides with this project's focus on improving the

self-efficacy of acute care nurses. This theoretical framework and the term “self-efficacy” were first introduced in 1977 to help explain and predict how different types of treatment illicit psychological changes (Bandura, 1977, pg.191). According to Bandura (1977), “...expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended and how long it will be sustained in the face of obstacles and aversive experiences” (pg. 191). For example, if a nurse believes that she will not be able to successfully administer medication to a combative patient, then she will be less likely to put forth the necessary effort. In contrast, a nurse that believes she will be able to successfully administer the medication to the same patient will view the task as something to be mastered and will not give up as easily. Clinical self-efficacy is fundamental to providing safe care and following evidence-based practice (EBP) guidelines. Self-efficacy was measured using the Resuscitation Self-Efficacy Scale (RSES) which is a 17-item questionnaire that is based on a 5-point Likert-type scale and consists of four parts: recognition, debriefing and recording, responding and rescuing, and reporting (Al-Kalaldehy and Al-Olime, 2022). In this study, nurses exhibited marked improvement in their self-efficacy, understanding, and performance of ACLS following HFS education (Al-Kalaldehy & Al-Olime, 2022). Kirkpatrick et al. (2018) also used Bandura’s theory in their study of intraprofessional HFS’s impact on advanced practice and Bachelor of Science in Nursing (BSN) student self-efficacy. Self-efficacy was measured using a 17-question Likert-item posttest that was compared to a pretest with questions about role identification and collaboration (Kirkpatrick et al., 2018). The study resulted in improved intraprofessional communication, understanding of the importance of collaboration in the advanced practice role, and leadership skills (Kirkpatrick et al., 2018). Regarding this project, Bandura’s theory was used as a guide for the examination of nurses’ perceived self- efficacy in caring for psychiatric patients on medical surgical units before and after a targeted educational presentation and simulated situation.

Quality Improvement Model. The Plan Do Study Act (PSDA) model for quality improvement was also used as a guideline for this project. Each cycle consists of four steps: plan, do, study, and act. Step 1 (Plan) is to state the objective of the test or study, make predictions on the outcomes with rationales, and to develop a plan on how to execute the test (Institute for Healthcare Improvement

(IHI, n.d.). For this project, a need for improved education on mental illness and the treatment of psychiatric patients on medical surgical units was identified. Based on evidence from the literature, it was hypothesized that an educational presentation and simulation will increase nurses' self-efficacy in caring for psychiatric patients on medical surgical units. The next step (Do) is to carry out the test, document observations and problems, and begin to analyze the data (IHI, n.d.). Two educational sessions were held to accommodate for any scheduling conflicts. Nurses voluntarily chose between one the two sessions based on their availability. Each educational session included a presentation and a simulated scenario. Step three (Study) is to finish analyzing the data, study the results, and summarize and reflect on the findings (IHI, n.d.). The effectiveness of the educational sessions was evaluated by comparing pre- and post- quiz and self-assessment scores. The final step (Act) is to modify the test as needed and plan for the next cycle (IHI, n.d.). At the end of the educational sessions and following the posttest, participants completed a survey to evaluate the ease of the process and provide any suggestions for improvement.

Project Objectives

The goal of this project was to improve clinical practice and self-efficacy among nurses providing care to psychiatric patients on medical-surgical units. The objectives of this project were:

1. Determine the self-efficacy of nurses on medical-surgical units regarding acute inpatient psychiatric care.
2. Use evidence-based practice guidelines to provide education on mental illness and psychopharmacology via an educational presentation and simulated situation.
3. Compare the pre- and post- implementation findings after six weeks using the Nursing Care Self-Efficacy Scale (NCSES) and a quiz to test the nurses' actual knowledge.
4. Using a SWOT analysis format, provide project conclusions, identified barriers, and recommendation for continuation to the participants, key stakeholders, and leaders.

Methodology

This study used a quasi-experimental, single-group, pre-test – post-test design to examine the impact of a targeted educational presentation and simulation on nurses' self-efficacy and knowledge about caring for psychiatric patients on medical-surgical units. A convenience sample of 3 registered nurses (RN) that work on a medical-surgical unit in a 248-bed hospital in a Midwestern suburb was utilized. Quantitative data that was measured include scores from the pre- and post-intervention knowledge quiz and self-efficacy assessment tool. Qualitative data consists of the participant evaluation of the study and suggestions for improvement.

Participants

The target population for this project was nurses on a 36-bed medical-surgical unit at a suburban hospital. The typical nurse to patient ratio on this unit is 5:1 with a free-float charge nurse. However, the nurses may have a flexed team of six patients, and the charge nurse may also have a full team of five patients.

The inclusion criterion was any RN whose home unit is the specific medical- surgical unit chosen for this project. All other non-RN employees on the unit, RN managers, and RNs from other units of the hospital were excluded. At the time of the study, there were 28 staff RNs employed on the unit.

An informational sheet posted in the break room on the unit and sent to the work email of all RNs on the unit stating the purpose of the project, inclusion criteria, exclusion criteria, and dates of the educational sessions (see Appendix D). The participants signed up for one of the two educational sessions via a link in the email or a QR code on the sheet posted in the break room. Each session had 14 open spots to facilitate an even distribution of group members. One nurse participated in session one and two nurses participated in session two. No personal identifiers of participants were shared. All responses on the quizzes and self-efficacy assessments were anonymous. All participants signed a waiver of informed consent (as presented in the Otterbein University Institutional Review Board (IRB) guidelines) stating

that they participated in the study voluntarily, and that their demographic information may be used as part of the data collection and analysis (See Appendix B). Demographics used in the study included age, race, gender, amount of time employed on the unit, length of time as an RN, and primary shift. All data collected through the sign-up link, quizzes, and assessments including demographics and question responses was stored in a Microsoft Excel file without any personal identifiers.

Instruments & Data Collection

Tools. The Nursing Care Self-Efficacy Scale (NCSES) was used pre- and post-intervention to measure nurses' self-efficacy in caring for psychiatric patients on medical-surgical units. The NCSES is a 16-item questionnaire used to measure nurses' perceptions of their self-efficacy in providing patient care (Welsh, 2014). This scale was adapted to specify the care of psychiatric patients on medical-surgical units. Each question was answered on a scale of 1-10 with 1 being "I cannot do at all" and 10 being "I am certain I can do." Regarding reliability, Cronbach's co-efficient for the NCSES and its sub-scales ranged from 0.87 to 0.94 in Welsh's assessment of 150 registered nurses (Welsh, 2014).

Nurses' knowledge of carrying for mentally ill patients was assessed using a 25-question quiz comprised of five categories each containing five questions. The five categories were medication administration, identifying behaviors, acute events, suicide, and diagnosis. Each question was worth one point for a total of 25 points.

Intervention. The educational presentation covered the five categories included on the pre- and posttest. The presentation was approximately one to two hours in duration and consisted of a combination of videos and a PowerPoint presentation with time for questions and answers at the end. The simulation was a mock case study with a live actor. The simulation also tested nurses' skills in the five categories. A debriefing and question and answer session was held following the simulation.

Project Team

The project team consisted of this researcher, Otterbein University faculty, an actor for the simulation, and leadership at the healthcare institution. This researcher was the project leader and managed recruitment, the educational sessions, data collection, data analysis, and dissemination of findings. An Otterbein University faculty member acted as the team leader. A volunteer actor with no affiliation to the healthcare organization was used for the simulated situation. Members of leadership at the healthcare facility included the nurse manager of the medical-surgical unit and the director of patient care services. The role of leadership was to promote participant engagement, aid in the organization of educational session times and locations, and help collaborate with other institutional personnel regarding the use of institution owned supplies such as audiovisual equipment and materials needed for the simulation.

Timeline

This project originated from a clinical problem identification following a literature review and organizational assessment regarding psychiatric care in the medical setting. The obtained information was used to develop a project proposal and gain approval from the Otterbein University Institutional Review Board (IRB) and the healthcare institutions research committee (See Appendix C). Following approval from both institutions, the implementation process began in January of 2023 with the recruitment and participation agreement of participants, pre-test and NCSES, and educational sessions. The process concluded March of 2023 following the completion of the posttest and NCSES. Data analysis began immediately following the conclusion of the implementation process. The findings were organized and evaluated to be disseminated to the healthcare institution's leadership at the conclusion of this project. The final presentation of the results of the DNP FSP occurred in the spring of 2023.

Budget

The primary cost of this project was the time of the project leader including literature review, the preparation and implementation of the educational sessions, communicating with key stakeholders, outcomes management, and data analysis. A specific breakdown of the monetary project budget can be viewed in Appendix E. Each education group was entered into a drawing for a \$50 gift card as an incentive for participation. Additionally, each educational group was provided food and refreshments as an incentive for participation. Sign Up Genius was the platform used to create the sign-up link. This platform charged \$29.99 per month for services. The original total for the expenses requested by the Otterbein Student Research Fund (SRF) was \$272.49; however, JASP was used as a free alternative to SPSS which costs \$50, and the original requested amount for Sign Up Genius was incorrect. The total awarded by the SRF was \$230. Of the awarded amount, \$204.93 was requested at the conclusion of the project. Typeform was used to generate the quizzes and post-education survey at an out-of-pocket cost of \$29 per month for three months. The total cost of the project was \$291.93.

Outcomes and Evaluation

Quantitative Data

Data analysis was performed using descriptive statistics to compare demographics and pre-test and post-test quiz and self-assessment scores. Regarding a self-assessment tool, if the test is internally consistent, then nurses with higher self-efficacy will generally give high ratings, and those with low self-efficacy will generally give low ratings on a scale of 1-10. The same concept applies to the quiz as well. Nurses with greater knowledge will generally score higher, and those with lower knowledge will generally score lower. The external validity was determined by examining any confounding or extraneous variables that may have influenced the results. Regarding the validity of the self-assessment, during the post-intervention stage, participants admitted to unintentionally scoring each topic as they would in the

context of caring for medical patients as opposed to psychiatric patients in the medical setting when completing the pre-intervention self-efficacy assessment.

Results

Demographics. Demographic information, as seen in Table F4, was collected immediately following the educational session through an anonymous survey. Of the three participants, 100% were female and work primarily dayshift. The mean number of years worked as a nurse is 6.3 years, and the mean number of years worked on the medical-surgical unit is 4.17. The majority of nurses (67%) were between the ages of 35-49, and 33% were aged 25-34. The majority of the participants (67%) identified as White, and 33% identified as Asian.

Pre-intervention. Prior to the start of the educational sessions, participants completed the pre-test and self-efficacy assessment. As seen in Table F3, Participant 1 answered 17 (68%) of the pre-test questions correctly, Participant 2 answered 20 (80%) correctly, and Participant 3 answered 16 (64%) correctly. As seen in Table F1, the minimum pre-assessment score on a 1-10 Likert scale for Participant 1 was 4.000 and the maximum was 10.000. The minimum pre-assessment score for Participants 2 and 3 was 5.000 and the maximum was 10.000. The mean pre-assessment score for Participant 1 was 8.000, Participant 2 was 8.500, and Participant 3 was 8.750. The standard deviation for Participant 1 was 1.633, Participant 2 was 1.317, and Participant 3 was 1.238. The median pre-assessment score for Participant 1 was 8.000, Participant 2 was 8.500, and Participant 3 was 9.000.

Post-intervention. Six weeks following the educational sessions, participants completed the posttest and self-efficacy assessment. Participant 1 answered 17 (68%) of the posttest questions correctly, Participant 2 answered 22 (88%) correctly, and Participant 3 answered 18 (72%) correctly. As seen in Table F2, the minimum post-assessment score on a 1-10 Likert scale for Participant 1 was 7.000 and the maximum was 10.000. The minimum post-assessment score for Participant 2 was 4.000 and the

maximum was 10.000. The minimum post-assessment score for Participant 3 was 5.000 and the maximum was 10.000. The mean post-assessment score for Participant 1 was 9.125, Participant 2 was 6.000, and Participant 3 was 8.500. The standard deviation for Participant 1 was 0.885, Participant 2 was 1.932, and Participant 3 was 1.211. The median post-assessment score for Participant 1 was 9.000, Participant 2 was 5.500, and Participant 3 was 9.000.

Interpretation

The mean quiz score increased by 1 point (4%) following the educational session. For Participant 1, the minimum score increased by 3.000 for the post-assessment while the maximum score remained the same, the mean score increased by 1.125, the standard deviation decreased by 0.748, and the median score increased by 1.000. For Participant 2, the minimum and maximum scores decreased by 1.000 for the post-assessment, the mean score decreased by 2.500, the standard deviation increased by 0.615, and the median score decreased by 3.000. Finally, for Participant 3, the minimum and maximum scores remained the same, the mean score decreased by 0.250, the standard deviation decreased by 0.027, and the median score remained the same.

Outcomes

The outcomes of the project were determined by project objectives listed above. The project outcomes include:

5. Determine the self-efficacy of nurses on medical-surgical units regarding acute inpatient psychiatric care.
 - Outcome: Self-efficacy of nurses on medical-surgical units regarding acute inpatient psychiatric care was determined using a pre-and post-intervention quiz and assessment.
6. Use evidence-based practice guidelines to provide education on mental illness and psychopharmacology via an educational presentation and simulated situation.

- Outcome: An educational session was developed using evidence-based guidelines to provide education on mental illness and psychopharmacology.
7. Compare the pre- and post- implementation findings after six weeks using the Nursing Care Self-Efficacy Scale (NCSES) and a quiz to test the nurses' actual knowledge.
 - Outcome: On average, posttest quiz scores were greater than pre-test scores, and NCSES scores were inconclusive.
 8. Using a SWOT analysis format, provide project conclusions, identified barriers, and recommendations for continuation to the participants, key stakeholders, and leaders.
 - Outcome: Conclusions and recommendations were made based on the results of the pre- and post-intervention quizzes and self-assessments. This information and identified barriers can be found below.

Barriers and Facilitators

The success of the project was determined by the effectiveness of the intervention at improving posttest scores and ultimately knowledge and self-efficacy. Barriers included a lack of participation by nursing staff, participants not realizing the pre-intervention self-assessment was to be scored in regard to caring for psychiatric patients, and high management turnover on the chosen unit. Facilitators included familiarity with the nursing unit and the hospital system.

Conclusions and Recommendations

The data are limited due to the small sample size. The posttest scores indicate some increase in knowledge following the educational sessions. With a larger and more diverse participant population, more conclusive data on the effectiveness of the targeted education may be attainable. Increased support from hospital leadership, more extensive advertising, and improved compensation, such as being paid hourly, may improve participation in future studies. Data from the self-efficacy assessment is unreliable

and inconclusive due to the nurses admitting to not realizing that the focus of the self-assessment was on caring for psychiatric patients in the medical setting. Explaining the expectations of the assignments in greater detail and bolding keywords in the self-assessment instructions may prevent this mistake in future studies. To improve nurses' knowledge and self-efficacy in caring for psychiatric patients on medical-surgical units, the project leader recommends incorporating psychiatric education into annual education.

Summary

In conclusion, the project goal was to increase nurses' self-efficacy when caring for psychiatric patients on medical-surgical units. Bandura's theory was used as the theoretical framework, and the PDSA cycle was the quality improvement model. An educational presentation and simulation served as the intervention. The success of the study was determined by comparing pre-intervention and post-intervention quiz and self-assessment scores. Following an analysis of the data, the results were shared with participants, leadership, and all other relevant parties.

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Appendix A

Literature Review Summary

Authors	Origin	Purpose	Research Design	Conceptual/theoretical framework	Target Population	Major themes
Al-Kalaldeh and Al-Olime (2022)	Jordan	To determine the impact of HFS on self-efficacy	Pre-test posttest quasi-experimental	N/A	RNs enrolled in ACLS course	Improving self-efficacy HFS
Blair et al. (2018)	USA	To improve nurse's self-efficacy regarding suicide care and prevention	Quality improvement – single group pretest-posttest	Bandura (1986, 1997) self-efficacy theory	RNs on a neuro-trauma unit	Self-efficacy Suicide
Cziraki et al. (2020)	Canada	Impact of leader empowering behavior on self-efficacy	Analytical – cross-sectional	Conger and Kanungo's (1988) process model of empowerment	Nurses with 3+ years of experience	Self-efficacy Leadership
Dunn and Riley-Doucet (2017)	USA	Improve self-confidence through simulation	Pre-post quasi-experimental	Wilson's complexity theory	Senior-level nursing students	Simulation Self-confidence
Foye et al. (2020)	UK	To explore experiences of staff dealing with psychiatric patients	Retrospective chart review	Bronfenbrenner's (1979) Ecological Theory	Acute care and mental health staff	Mental health Medical-surgical setting
Kirkpatrick et al. (2018)	USA	Impact of HFS on self-efficacy in students	Pre-post quasi-experimental	Bandura Social-Cognitive Theory	BSN and APN students	Self-efficacy HFS
Pudalov et al. (2018)	USA	To assess inpatient clinicians' perceptions of the need for specific behavioral services on a medical psychiatric unit	Cohort study	N/A	Clinicians on a medical psychiatric unit	Collaborative care, medical psychiatric units, psychological services, integrated care, inpatient psychiatry
Reeves et al. (2018)	Australia	Examine evidence about safety service users with SMI	Systematic review	N/A	Patients with SMI admitted to medical-	Bipolar disorder, hospitals, mortality,

		compared to those without on medical-surgical units			surgical units	safety, Schizophrenia Spectrum and Other Psychotic Disorders
Reis and Tsai (2022)	USA	To assess prevalence of psychiatric diagnoses in a community hospital and the percentage seen by the psychiatric service.	Retrospective chart review	N/A	Adult psychiatric patients admitted to a community hospital inpatient medical unit.	Comorbidity, psychiatric nursing, medical-surgical nursing, SUD, referral, consultation, hospital psychiatric department
Wittink et al. (2020)	USA	To assess the impact of a specialized unit that uses a comprehensive biopsychosocial model of care for patients with SMI.	Nonrandomized controlled trial	N/A	Adult patients with severe mental illness admitted to an acute medical center.	Specialized care, severe mental illness, inpatient medical treatment, coordination of care

Note: ACLS – advanced cardiac life support; APN – advanced practice nurse; BSN – Bachelor of Science in nursing; HFS – high-fidelity simulation; RN – registered nurse; SUD – substance use disorders; SMI – severe mental illness; UK – United Kingdom; USA – United States of America.

Appendix B**Informed Consent Form****Informed Consent Form**

The Department of Nursing at Otterbein University supports the practice of protection for human subjects participating in research. The following information is provided for you to decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time without penalty.

We are interested in studying the effects targeted education and training on nurses' self-efficacy in caring for patients with mental illness on medical-surgical units. You will be participating in one of two sessions that will involve filling out some questionnaires, sitting in for a PowerPoint presentation, talking with the researcher, and participating in a live actor simulation. It is estimated that this will take no more than three hours of your time. Although it is not likely, there is a chance that you might feel slightly uncomfortable with some of the questions and parts of the presentation simulation. Although participation may not directly benefit you, we believe that the information will be useful in evaluating the effects of education and training on self-efficacy.

Your participation is solicited although strictly voluntary. We assure you that your name will not be associated in any way with the research findings. The information will be identified only by a code number.

If you would like additional information concerning this study before or after it is complete, please feel free to contact me by email.

Sincerely,

Rachel Shirey, Principal Investigator
Email: Shirey1@otterbein.edu

By clicking on the (Next/Submit/>>>/I agree) button below, I consent to be in this study and affirm that I am at least 18 years of age.

Appendix C

Institutional Review Board Approval Letter



INSTITUTIONAL REVIEW BOARD

- ☒ Original Review
☐ Continuing Review
☐ Amendment

Dear Dr. Chovan,

With regard to the employment of human subjects in the proposed research:

HS # 22/23-17**Chovan & Shirey: The Effectiveness of Targeted Education on Improving Nurses' ...**

THE INSTITUTIONAL REVIEW BOARD HAS TAKEN THE FOLLOWING ACTION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Approved | <input type="checkbox"/> Disapproved |
| <input type="checkbox"/> Approved with Stipulations* | <input type="checkbox"/> Waiver of Written Consent Granted |
| <input type="checkbox"/> Limited/Exempt/Expedited Review | <input type="checkbox"/> Deferred |

*Once stipulations stated by the IRB have been met by the investigator, then the protocol is APPROVED.

1. As Principal Investigator, you are responsible for ensuring all individuals assisting in the conduct of the study are informed of their obligations for following the IRB-approved protocol.
2. It is the responsibility of the Principal Investigator to retain a copy of each signed consent form for at least four (4) years beyond the termination of the subject's participation in the proposed activity. Should the Principal Investigator leave the university, signed consent forms are to be transferred to the IRB for the required retention period.
3. If this was a limited, exempt, or expedited review, there is no need for continuing review unless the investigator makes changes to the proposed research.
4. If this application was approved via full IRB committee review, the approval period is one (1) year, after which time continuing review will be required.
5. You are reminded you must promptly report any problems to the IRB and no procedural changes may be made without prior review and approval. You are also reminded the identity of the research participants must be kept confidential.

Signed: Noam Shpancer Date: 10-19-2022
IRB Chairperson

Appendix D

Recruitment Letter

Learning Opportunity

My name is Rachel Shirey. I am a psychiatric and mental health nurse practitioner as well as a Doctor of Nursing Practice student at Otterbein University. For my Doctor of Nursing Practice Final Scholarly Project, I am examining the effect of targeted education and training on nurses' self-efficacy in caring for psychiatric patients on medical-surgical units. I am looking for RN volunteers on 3N to participate in my project.

Project Purpose: Improve the care that patients with mental illness receive while hospitalized on medical-surgical units.

Project Aim: Improve nurses' self-efficacy in caring for patients with mental illness on medical-surgical units.

What to Expect: Participation will entail a pre-assessment and a quiz, an educational session consisting of a presentation and an interactive simulation, and a post-assessment and quiz. Each educational session will last approximately 2-3 hours. Participants will choose one of two sessions based on their availability.

Incentives: Snacks will be provided for the education sessions, and two random participants will receive a \$50 Amazon gift card for participation.

Sign up via the QR code or the link in your email!

***Participation is voluntary, and participants may opt out at any time. Please note that all assessment, quiz, and survey answers will be anonymous, and all personal identifiers will be omitted from published findings.**



Appendix E

Expenses

Expenses	Calculation	SRF Request	Additional Funding Needed	Total
Incentive Gift Cards	\$50*2	\$100	\$0	\$100
Participant Meal	\$50*2	\$100	\$0	\$100
Sign Up Genius	\$29.99	\$29.99	\$0	\$29.99
Totals		\$230	\$0	\$229.99

Appendix F

Table F1

Pre-Intervention Self-Assessment

	Valid	Mode	Median	Mean	Std. Deviation	Variance	Minimum	Maximum
Participant 1	16	8.000	8.000	8.000	1.633	2.667	4.000	10.000
Participant 2	16	8.000	8.500	8.500	1.317	1.733	5.000	10.000
Participant 3	16	9.000	9.000	8.750	1.238	1.533	5.000	10.000

Table F2

Post-Intervention Self-Assessment

	Valid	Mode	Median	Mean	Std. Deviation	Variance	Minimum	Maximum
Participant 1	16	9.000	9.000	9.125	0.885	0.783	7.000	10.000
Participant 2	16	4.000	5.500	6.000	1.932	3.733	4.000	9.000
Participant 3	16	9.000	9.000	8.500	1.211	1.467	5.000	10.000

Table F3

Quiz Scores

Participant	Pre-Education	Post-Education
1	17	17
2	20	22
3	16	18

Appendix F Continued

Table F4

Demographics

Variable	Value (<i>N</i> = 3)
Age <i>n</i> (%)	
25-34	1 (33)
35-49	2 (67)
Race <i>n</i> (%)	
White	2 (67)
Asian	1 (33)
Gender <i>n</i> (%)	
Female	3 (100)
Male	0 (0)
Primary Shift <i>n</i> (%)	
Days	3 (100)
Nights	0 (0)
Length of time as a nurse, mean (SD), y	6.3 (2.31)
Length of time on the unit, mean (SD), y	4.17 (2.36)

Note: *N* – participants; SD – standard deviation; y – years