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This doctoral project, directed and approved by the candidate's committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice



Dr. Joey Cope, Dean of the College
of Graduate and Professional Studies

Date: 1/11/2020

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School of Nursing

Reducing Gaps in Knowledge About Electroconvulsive Therapy

Among Mental Health Nurses

A doctoral project submitted in partial satisfaction

of the requirements for the degree of

Doctor of Nursing Practice

by

Janice L. Edmonson

January 2020

Dedication

In dedication to my mother, Wanda Almon, who has departed this life but not my memory.

Acknowledgments

“Trust in the LORD with all your heart, and do not lean on your own understanding. In all your ways acknowledge Him, and He will make your paths straight.” (Proverbs 3:5-6, New American Standard Bible).

The completion of this DNP degree would not have been possible without the faithful companionship of my Lord and Savior, Jesus Christ, inspiration from The Holy Spirit, and guidance from our Heavenly Father.

I acknowledge my husband, Chuck, for his many sacrifices on my behalf, which allowed me the freedom and time to commit to the rigors of this program. I will support you, Chuck, as you finish your graduate degrees. I acknowledge my dad, children, and grandchildren for their understanding, support, prayer, and encouragement. May God continue to bless you all.

I am very grateful for the gift God gave me in Dr. Linda Gibson, chair of my DNP project committee. The kind and professional guidance I received through our many conversations always calmed my anxieties and encouraged me to press on. Dr. McGee, my DNP committee, and the graduate faculty of ACU have role-modeled high standards and expectations, which increased the value of this doctoral degree.

Mere words of gratitude are not enough for the hours of encouragement, counseling, bereavement support, exploration of technology, Zoom meetings, and dress rehearsal feedback that I received from my mentor and friend, Dr. Tucker. In addition to Dr. Tucker, my colleagues are precious jewels: Mary, who encouraged me to enroll; Kathryn, whom I encouraged to enroll and to persevere with me; and Dr. Killingsworth for her selfless contribution to my successful data analysis. May the Lord richly bless you all, my brothers and sisters.

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Abstract

This DNP study was conducted to identify knowledge gaps about electroconvulsive therapy (ECT) among mental health nurses and to determine the effectiveness of an educational intervention on the knowledge and attitude of mental health nurses about the use of the therapy at a psychiatric hospital. In this study, the researcher sought to build upon an existing knowledge base using principles of adult learning theory to enhance the therapeutic relationship of the nursing staff when caring for ECT patients. A sample of three-quarters ($N = 119$) of the mental health nursing staff employed by the psychiatric hospital consented to participate in the study. An electronic survey was completed before and after a staff development presentation video provided through the hospital's nursing education department. A majority of the participants were female (85%), registered nurses (73%), age 50 and older (51%), had been a nurse for 11 years or more (62.5%), and had 11 years or more experience in mental health nursing (47.6%). The pretest knowledge scores ($M = 0.8978$) revealed a gap in expected knowledge about the purpose, efficacy, side effects, and the nurse's role associated with ECT. Following the video presentation, a significant increase in mean knowledge scores ($M = 1.3521$) was evident. However, no significant change was noted from pretest attitude scores ($M = 3.79$) to posttest attitude scores ($M = 3.52$). Although the presentation was effective in improving the participants' mean knowledge scores about ECT, attitudes toward it among this sample of nurses did not correlate with the change in mean knowledge scores.

Keywords: attitude, electroconvulsive therapy, knowledge, mental illness, nurses, stigma, suicide prevention

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Chapter 1: Introduction

Mental health nurses are not always required to have prior experience in psychiatric patient care or additional training or certification to work in mental health. Undergraduate programs for mental health nursing education seldom include more than a general overview of the use of electroconvulsive therapy (ECT), which leaves nurses to gain their knowledge about ECT through other experiences (Dawood, Selim, & Khalil, 2013; Sharma, Ghai, & Grover, 2017). Standard hospital orientation training and continued staff development programs (SDPs) vary between institutions for health care employees (English, 2016). Informal conversations with nursing staff quickly revealed inaccurate knowledge about the indications for treatment and methods of administration of ECT. Conversations often include potential side effects and stigma (Miller & Jones, personal communication, April 10, 2018), exposing knowledge gaps among nurses. Gaps in knowledge about the use of ECT create barriers to effective treatment for patients with serious mental illness.

Problem of Interest

Very few psychiatric facilities offer ECT in Texas. Of the more than 400 Texas hospitals, there are only 21 facilities with registered ECT devices (Texas Health and Human Services Commission, 2018). In 1993, a mandate by the Texas legislature required physicians and facilities where ECT was administered to submit a quarterly ECT report. While this mandate seemed excessive, the reports provided substantial data validating the efficacy and safety of ECT for patients who are burdened with treatment-resistant depression and other serious mental illnesses (Scarano, Felthous, & Early, 2000). According to the Texas Health and Human Services' (2018) report on electroconvulsive therapy, 17,000 ECT treatments were administered in Texas during 2017. Through research studies and personal testimonies, ECT has been

demonstrated to provide safe and effective treatment for patients of all ages with treatment-resistant, life-threatening mental illness (Dukakis & Tye, 2006; Gavin, 2018; Kellner & Patel, 2018). However, ECT is highly regulated in Texas (Harris, 2006; Livingston, Wu, Mu, & Coffey, 2018) and remains an underutilized treatment for mentally ill patients (Grohol, 2016). In addition to restrictive regulation, a stigma associated with ECT creates a barrier for people who lack accurate information upon which to make effective health care decisions (Ellis & Alexander, 2016). Therefore, the association of knowledge and attitude toward ECT is the problem of interest I addressed in this DNP project.

Background

ECT is considered the treatment of choice for patients of all ages who struggle with serious depression, suicidality, and affective disorders that have not responded to pharmacotherapy, described as treatment-resistant or refractory depression (Kellner & Patel, 2018; Parker & Hunt, 2019). Estimates indicate that one in five mental health patients would be classified as treatment-resistant and would qualify for ECT (Merkel, Heuser, & Bajbouj, 2009). Recent discoveries in neurobiology indicate that observable changes in neuroplasticity following ECT is associated with improvement of depressive symptomology (Sinha, Reddy, Srivastava, Mehta, & Bharath, 2019). However, the lack of understanding about the mechanism of action contributes to the mystery and stigma toward ECT (Sienaert, 2014) and further widens the gap in access to adequate mental health care.

Stigma hinders recovery by creating barriers to effective treatment. A 2001 report from the Committee on the Quality of Health Care in America (CQHCA; as cited in Daniels, England, Page, & Corrigan, 2005) revealed that many patients did not receive current, known, safe, and evidence-based treatment, which could result in death or costly delays of recovery. While this

report was published 18 years ago, it remains relevant to the delivery of health care today. A lack of consistency in the recommended application of treatments, inequity in patient access to quality treatment, and inconsistencies in the training of mental health practitioners remain current concerns that result in costly delays in evidence-based treatment (Sanz-Fuentenebro, 2018). National statistics concerning mental health outcomes have demonstrated a continual rise in the rate of deaths from suicide since 2000, with suicide identified as tenth among causes of death in the United States in 2016 (Hedegaard, Curtin, & Warner, 2018). In addition to safety concerns, the CQHCA report stated that care must be considerate of patients' values and be effective, timely, efficient, and equitable (Daniels et al., 2005). Treatment must not be delayed for patients who would benefit from timely and effective ECT (American Psychiatric Nurses Association [APNA], 2011).

The nurse-patient relationship is important for a successful process of mental health recovery. Gass (2008) questioned the quality and standard of support provided by nursing for patients receiving ECT. Gass identified two roles of nursing relative to the administration of ECT: relational roles and treatment roles. These roles are instrumental in the delivery of care before, during, and after ECT is administered. The nurse-patient relationship must foster trust and respect because the nurse fulfills a vital role in the recovery process for mentally ill patients. Therefore, the nurse's knowledge of and attitude toward ECT is significant and must be evaluated.

Tangible benefits of receiving ECT for the patient, the family, and the institution include the potentially reduced length of hospital stays. Specific costs identified by the Centers for Medicare and Medicaid Services ([CMS], 2016) were related to hospitalization, prescription medication, and ECT treatment, with inpatient psychiatric hospitalization estimated to cost

approximately \$2,700 per day. Lengthy and repeated hospital admissions associated with treatment-resistant mental illness has created a costly burden on the health care system and society, estimated at \$300 billion per year in lost productivity and hospitalization (CMS, 2016). For patients responding favorably to ECT, the duration of an inpatient stay may be reduced by 14 days, with the remaining ECT treatments administered on an outpatient basis. Thus, the reduction in costs of hospitalization could be \$37,000 or more (Gavin, 2018; Kellner & Patel, 2018; Ross, Zivin, & Maixner, 2018). Cost-effective treatment is not the same as cost-saving. ECT treatments are not inexpensive. Alternatively, the potential for an effective recovery and a reduction in relapse and readmission rates improves quality of life and potentially reduces the time a patient suffers through treatment-resistant depression. Through simulated cost analysis of ECT treatment combinations, Ross, Zivin, and Maixner (2018) demonstrated that including ECT in the treatment plan resulted in a 50% to 75% likelihood to be cost-effective while interrupting the cycle of readmission and further suffering.

Purpose of the Project

The purpose of this project was to examine existing knowledge gaps concerning ECT among the psychiatric nursing staff at one psychiatric hospital in Texas. Knowledge gaps can be closed through an effective learning experience that may promote higher-quality nursing care and improve patient outcomes (Dawood et al., 2013). I evaluated the effectiveness of an educational staff development presentation (SDP) presented to all nursing staff that included a pretest and posttest. Poor knowledge about ECT has been found to correlate positively with poor or negative attitudes toward ECT (Sharma et al., 2017). Improving the nurses' knowledge about ECT will likely improve their attitude toward it. Therefore, an improved attitude may, in turn, improve the quality of care for patients with serious mental illness (SMI). Quality improvement

interventions, such as ECT education and training to correct knowledge deficits among the psychiatric nursing staff, is consistent with the recommendations from a report titled *Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders* (Daniels et al., 2005). The report acknowledged the need for patients to receive care; however, patients need to receive equitable care that is effective and efficient in treating their condition and respectful of their values.

Significance of the Problem

As advocates for patients with SMI, nurses are expected to provide holistic, unbiased, evidence-based nursing care to support mentally ill patients and their families by making informed health care decisions with confidence (English, 2016; Soltis-Jarrett, Shea, Ragaisis, Shell, & Newton, 2017). Hansson, Jormfeldt, Svedberg, and Svensson (2013) found that mental health professionals often harbor stigmatized attitudes toward patients who have a mental illness. The negative attitudes were associated with a low level of confidence in the patient's ability to recover and function within society. Moreover, a gap in knowledge about treatments for mental illness among mental health nurses is undermining the care of patients who may need or are receiving treatment for SMI (Pearson et al., 2015). Mental health nurses will seldom take an active role in the ECT administration process, but they will be responsible for the care of patients who are candidates for or who are receiving ECT (Dawood et al., 2013; Gass, 2008).

A pervasive stigma toward ECT is likely to continue unless nurses receive accurate instruction on the current evidence-based practice of ECT. By providing nursing staff with current information about the use of ECT and an opportunity to observe the live administration of an ECT procedure, nurses can confidently promote quality mental health treatment and ECT literacy for their patients (Gass, 2008). Mårtensson, Jacobsson, and Engström (2014) analyzed

the significance of the mental health nurse's attitude toward mental illness and identified familiarity as a strong predictor of positive attitudes. Therefore, increasing knowledge and familiarity with the effectiveness of ECT will likely be associated with positive attitudes toward ECT.

Knowledgeable nurses can improve the quality of patient care by encouraging the active participation of patients in the plan of care and recovery; therefore, enhancing the knowledge of mental health nurses can ultimately improve treatment outcomes for mentally ill patients. When patients are treated with greater personal dignity, recovery concepts will encourage patients to live with a sense of empowerment and greater hope (Zuehlke, Kotecki, Kern, Sholty, & Hauser, 2016).

Nature of the Project

All 164 mental health nurses employed by the psychiatric hospital were invited to participate in this project. Those who agreed to participate in the study used a secure link into SurveyMonkey to access an electronic survey, which served as a pretest for baseline knowledge and attitudes toward ECT. By examining the participant responses on the pretest, knowledge gaps highlighted the content specific to the nurse's educational needs.

A multi-departmental team, including staff development personnel, members of nursing administration, and the medical director of the hospital, contributed to the planning and presentation of the SDP in various stages. The SDP was presented online through the electronic employee learning module to all currently employed registered nurses (RNs) and licensed vocational nurses (LVNs). The presentation included a 30-minute video presentation that discussed the stigma toward ECT, current ECT procedures, indications for treatment, possible side effects of treatment, the efficacy of ECT, and specific nursing care and assessments of ECT

patients. All currently employed nurses had observed a live administration of ECT with a consenting patient before the SDP. A period of reflective debriefing allowed the nursing staff to discuss their observation experience and to identify any stress resulting from the experience. The effectiveness of the SDP was determined by the responses on the posttest electronic survey through a secure link to SurveyMonkey following the SDP. All nurses had 30 days to complete the electronic posttest survey. I conducted the analysis of the survey data using the IBM SPSS Statistics Version 25 (SPSS) to perform a correlational coefficient to determine the relationship between knowledge about ECT and attitude toward ECT among mental health nurses. I used a Mann-Whitney U test to analyze the pretest and posttest data.

PICOT Question

The PICOT format guides the steps of the evidence-based process and encourages additional inquiry by expressing a foreground question to identify the clinical issue (Melnik & Fineout-Overholt, 2014, p. 38). The components of the PICOT question help to clarify the problem of interest, intervention, control for comparison, desired outcome, and a reasonable timeframe. The PICOT question for this project was as follows: Among mental health nurses, how would an ECT SDP affect knowledge and attitude about ECT compared to knowledge and attitudes before the SDP as self-reported on pretest and posttest surveys within 30 days of the SDP?

Population (P). The population was a convenience sample of the 164 RNs and LVNs employed by the psychiatric hospital whom I invited to voluntarily participate in the pretest and posttest surveys about ECT knowledge and attitude.

Intervention (I). A 30-minute PowerPoint presentation about ECT was developed and converted to MP4 video as an educational intervention for the nursing staff. The content included

indications for treatment with ECT, the effectiveness, benefits, and side effects of ECT treatment, current method of administering ECT treatment, contraindications or restrictions for ECT treatment, and specific nursing assessments and protocols for ECT patient care.

Comparison (C). The comparison component of the PICOT was the nurses' knowledge before the educational staff development program as identified in the pretest survey.

Outcome (O). Following the SDP video, the expected outcomes for mental health nurses included having more accurate knowledge of ECT treatments, improved confidence in caring for patients receiving ECT, improved attitude toward ECT, and an improvement in the quality of treatment for patients with SMI, as identified on the posttest knowledge and attitude survey.

Time (T). The posttest survey was completed within 30 days following the SDP to evaluate knowledge gains and attitude changes toward the use of ECT.

Research Questions

RQ 1. Is there a significant relationship between knowledge about and attitude toward ECT among mental health nurses?

RQ 2. How will a staff development educational presentation affect knowledge about and attitude toward ECT among mental health nurses?

Definition of Key Terms

Electroconvulsive therapy (ECT). ECT is a treatment procedure conducted under anesthesia and a muscle relaxant that stimulates the patient's brain by using a low dose of electricity to cause a seizure. While no claims have been made asserting the mechanism of action, recent clinical research has observed significant neurobiological changes using comparison MRI studies that support the efficacy of ECT for SMI. ECT is effective in all age

categories, with contraindications associated with anesthesia and not with the ECT procedure (Jewell et al., 2017).

Mental health nurse. Mental health nurses are licensed RNs, LVNs, advanced practice registered nurses, academic faculty, or scientific and clinical researchers who work in the psychiatric mental health setting providing individualized care to patients of all ages (APNA, 2011).

Stigma. Stigma is a negative belief about others that are associated with prejudice, humiliation, or scorn that results in feelings of rejection (Corrigan, 2018).

Scope and Limitations of the Project

Psychiatric mental health providers include both professionals and nonprofessionals in the daily provision of patient care. This project was limited to all of the licensed mental health nurses of one psychiatric hospital to determine the effectiveness of a nursing SDP. All invitees who participated in the knowledge and attitude surveys before and after the SDP were RNs and LVNs. The posttest survey was available for 30 days after the opening of the SDP to measure knowledge gained and any change in attitude toward ECT. The scope of this project does not intend to imply that other mental health staff would not benefit from the SDP. After the successful implementation of this scholarly project, the hospital education department will determine the ability and feasibility of including other mental health providers in ECT training as a standard new-hire orientation.

Theoretical Framework

Specific knowledge for the specialized care of mentally ill patients may positively influence nurses' attitudes toward mentally ill patients and thus improve patient care. Learning experiences for nurses employed in mental health care often focus on aspects of care within the

psychiatric facility or hospital. Therefore, a theoretical framework based on concepts of andragogy that view the nurse as an adult learner was appropriate for this intervention project using an SDP to address current practices in ECT. Knowles is credited with identifying five assumptions about adult learners that impact the learning experience. These assumptions include adults develop a maturing self-concept, adults' life-experiences are valuable resources, adult learners are motivated by social roles, adult learners develop a mature perspective, and maturity leads to an internal motivation for learning (Bradshaw & Lowenstein, 2014; Knowles, Holton, & Swanson, 2015; Leigh, Whitted, & Hamilton, 2015). Principles of andragogy that provided support for this project suggest that the adult learner demonstrates more interest when the subject matter has more relevance to the learners' work or life (Knowles et al., 2015). This SDP incorporated content specifically to meet the nurses' work-related learning needs according to the principles of adult learning theory.

A review of the literature examining the use of andragogy in nursing revealed the relevant application of adult learning theory to continuing professional education in health care. The experience for adult learners is enhanced when the setting is in the real environment, as opposed to a learning lab (Draganov, Andrade, Neves, & Sanna, 2013; Leigh et al., 2015). Studies have shown that a lack of knowledge can influence attitude and result in a lack of confidence in the use of ECT. But an underlying stigma attached to ECT caused by prior life experiences and dominant sociocultural perceptions may also affect attitude and confidence (Sharma & Malik, 2013; Sharma et al., 2017; Sienaert, 2014; Tee & Özçetin, 2016).

Chapter Summary

Mental health nurses share in the active process of their patients' mental health recovery through assessment, teaching, role modeling, and collaboration. As a specialty within nursing,

mental health nurses are expected to be knowledgeable of current treatments, safe care, and accurate teaching associated with mental health needs of patients of all ages. To ensure that mental health care is provided with unbiased professionalism, it is necessary to identify and address knowledge gaps and stigmatized attitudes among mental health nurses. Nursing SDPs must ensure that the knowledge and attitude of mental health nurses toward the clinical and psychological effects associated with ECT are factual, current, and based on evidence to ensure the safety and quality of care for mentally ill patients.

Chapter 2: Literature Review

A literature search began with a focus on the problem of interest, which states that a gap in knowledge about ECT among mental health nurses is undermining the care of patients who need ECT for serious mental illness. Search terms included *barriers*, *electroconvulsive therapy*, *ECT*, *knowledge and attitude*, *mental illness*, *nurses' role*, and *stigma*. OneSearch, through Brown Library, produced an unfiltered result list of 140,171 articles. The search was originally filtered for full text, scholarly peer-reviewed sources, and a date range limited from 2013 to the present. The list included 112 articles using advanced and Boolean search terms such as AND *stigma*, AND *teaching*, OR *education*. Analyzing articles for inclusion in the review and rejecting articles that were not relevant reduced the list to 61 articles from databases, including CINAHL, EBSCO, Google Scholar, Mendeley, and PubMed. Descriptive studies, international studies, randomized clinical trials, dissertations, and meta-analyses contributed to this review.

Review of the Literature

The purpose of this literature review was to examine quantitative and qualitative studies for current evidence-based practice associated with the use of ECT in psychiatric mental health care. ECT is a safe and effective treatment of SMI, as reported by leaders in the field of psychiatry. However, a universal stigma toward ECT continues to accompany any mention of this treatment and hinders access for patients who would benefit the most (Balhara & Mathur, 2012; Grohol, 2016; Soltis-Jarrett et al., 2017; Wilhelmy et al., 2018). Multiple studies have found ECT to exceed the effectiveness of pharmacotherapy and to rapidly reduce symptoms of depression (Balhara & Mathur, 2012; Kellner & Patel, 2018; Park et al., 2017; Yroni et al., 2018). The effectiveness of ECT remains superior to newer methods for symptom relief of depression, including repetitive transcranial magnetic stimulation, when measured on the

Hamilton Depression Rating Scale (Aarre, Dahl, Johansen, Kjønniksen, & Neckelmann, 2003). Also, numerous researchers have examined stigma toward mental illness and ECT to determine its relationship to the quality of patient care (Balhara & Mathur, 2012; Dawood et al., 2013; Sharma et al., 2017). Sources reviewed provided scientific support for a practice-based intervention improving nurses' knowledge of and attitude toward ECT. The literature has also identified the current role of nurses caring for patients who receive ECT (Gass, 2008; Miele, 2014; Navidian, Ebrahimi, & Keykha, 2015; Soltis-Jarrett et al., 2017).

Description of the Problem

Although ECT is reported internationally as being highly effective in the treatment of serious mental illness (SMI), ECT is underutilized. Studies identify ECT as a highly effective treatment of choice for patients struggling with suicidal thoughts (Kellner & Patel, 2018; Merkl et al., 2009; Parker & Hunt, 2019; Yroni et al., 2018) or who present with life-threatening manifestations such as malignant catatonia (Park et al., 2017). SMI presents unique challenges for patients, their families, and communities at large. From a public health perspective, numerous etiologies end with risks for suicide, invoking public health initiatives identifying suicide prevention as a priority focus (Jacob, 2016). Documentation in 1941 reported ECT was utilized for the treatment of depression and suicide prevention (Gass, 2008). However, a decline in the use of ECT followed the development of psychotropic medication treatment in the 1970s (Dawood et al., 2013).

Stigma toward the negative origins of ECT and inaccurate portrayals through sensational media for entertainment perpetuate the underutilization of this highly effective treatment. Stigmatization of mental illness and ECT is an international concern (Ellis & Alexander, 2016; Goodwin, 2014; Li et al., 2015; Sharma & Malik, 2013; Sienaert, 2016; Wilhelmy et al., 2018).

Fear and distrust of mental health care often result in varying degrees of anxiety (Keykha, Mahmoodi, & Keykha, 2016; Navidian et al., 2015; Saeed et al., 2017). Anxiety has a negative effect on the treatment experience, which reduces compliance and may prevent access to effective treatment, delaying potential recovery (Ellis & Alexander, 2016; Goodwin, 2014).

Access to ECT as an effective treatment procedure for patients who struggle with SMI is further impeded by policies that convey a pervasive attitude of danger. ECT is recommended for the treatment of many psychiatric disorders, yet state regulations differ from unregulated ECT to heavily regulated, as it is in Texas (Harris, 2006; Joseph, Cooper, & Brakel, 2018; Livingston et al., 2018). Regulations in Texas continue to restrict ECT for children less than 16 years of age (Electroconvulsive Therapy [ECT], 2019; Shorter, 2013). Knowledgeable psychiatric mental health nurses who work with interdisciplinary teams recognize the effectiveness of ECT in mental health care, and that restriction on access for adolescents within state regulations is not supported by research (APNA, 2011; Harris, 2006; Mental Health America, 2019).

Studies in the Literature

Several studies have examined knowledge and attitude toward ECT among health care providers (Aki, Ak, Sonmez, & Demir, 2013; AlHadi, AlShahrani, Alshaqrawi, Sharei, & Almousa, 2017; Kinnair, Dawson, & Perera, 2010; Sharma et al., 2017) and have identified the need for specific education about the indications for use, specific treatment procedures, and side effects of ECT. Health care provider education has been shown to improve the delivery of evidence-based mental health care and reduce the stigma surrounding ECT (Kinnair et al., 2010).

Knowledge and attitude of student nurses toward ECT. Sharma, Ghai, and Grover (2017) used a descriptive cross-sectional analysis of 183 student nurses in the first and third year of nursing training in India. Sharma et al. examined the relationship between knowledge and

attitude toward ECT using a 32-item knowledge questionnaire and a 16-item attitude questionnaire. The authors evaluated knowledge and attitude scores using Pearson's correlation coefficient and compared mean scores using ANOVA. There were no significant differences in mean scores between the groups of students. However, the authors identified the correlation between total knowledge and total attitude scores was statistically significant, $r = -0.596$, $p < .001$, indicating a positive correlation between greater knowledge and an improved attitude toward ECT among participants of both groups. Responses to the attitude questionnaire revealed that 60.8% of participants identified sources of information about ECT as coming from media portrayals (Sharma et al., 2017). The study did not include an intervention but served to highlight a gap in knowledge about ECT as it related to the negative cultural attitudes toward ECT within the media.

Knowledge and attitude of physicians toward ECT. Similarly, AlHadi, AlShahrani, Alshaqrawi, Sharei, and Almousa (2017) reported results of a quantitative, observational, cross-sectional study analyzing knowledge and attitude toward ECT among a group of 126 (29% response rate) psychiatrists and family physicians. Of family practice physicians, 5% reported they had referred patients to receive ECT, and 57.5% would consider having ECT if needed. Approximately 80% of the psychiatrists reported having referred patients for ECT and would agree to receive ECT if needed. Responses to a knowledge and attitude questionnaire were used to gather data, which revealed that psychiatrists had both better knowledge and attitude toward ECT than family practice physicians. The study revealed false understandings associated with knowledge about procedures and side effects (AlHadi et al., 2017).

AlHadi et al. (2017) used an additional questionnaire to gain an understanding of individually held beliefs about ECT and the sources of prior information. Physician responses to

the attitude questions identified false beliefs about ECT that were influenced by media portrayals of ECT as being unpleasant, painful, and used as torture. AlHadi et al. (2017) also revealed a significant positive correlation of attitude to knowledge ($r = 0.375, p < .0001$).

Knowledge and attitude of caregivers toward ECT. In a quantitative, descriptive, cross-sectional study, Kumar and Eugin (2017) examined the knowledge and attitude of 120 caregivers of patients receiving ECT from one facility. Analyzing caregiver knowledge and attitude toward ECT is rare in the literature. Using the questionnaire of knowledge and attitude developed by Kinnair and Dawson (as cited in Kumar & Eugin, 2017), the authors found a significant positive correlation between the knowledge about and attitude toward ECT ($p = .0213$) and a significant correlation between education level and knowledge about ECT ($p = .043$), where significance was achieved at $< .05$.

Results from these three studies confirm a correlation between knowledge and attitude toward ECT. However, knowledge deficits about the facts related to the use of ECT persist, even among medical professionals. These findings support the need for an improvement of education for all health care providers about the facts, indications for treatment, and side effects of ECT to reduce stigma and barriers to this sophisticated treatment for SMI.

Perpetuating stigma. Media sources have taken liberties with public emotion, portraying the mentally ill as criminally inclined and ECT treatments as barbaric or punishment at the hand of sinister medical personnel (Sharma & Malik, 2013). The fear and distrust perpetuated through false representations as entertainment has furthered the gap between those in need and those who offer effective treatment.

Sharma and Malik (2013) qualitatively analyzed media scenes to determine the prevalence of bias and false information influencing public opinion toward ECT. Comparing

Bollywood, the entertainment industry in India, to Hollywood, Sharma and Malik (2013) reported the portrayal of mental illness as mad, frightening, and dangerous. ECT was depicted as painful and used for behavior control. Negative media influence has done much damage to the integrity of ECT and psychiatric hospitals. Fear and suspicion were the reactions when ECT was mentioned by psychiatrists (Sharma & Malik, 2013).

Knowledge gaps among health care professionals have been associated with barriers to mental health care. Alexander, Ellis, and Barrett (2016) reviewed the literature and found that nurses within medical-surgical settings experienced discomfort and negative perceptions when providing care for patients with comorbidities. This pervasive stigma toward patients with a psychiatric disorder contributes to the obstacles restricting access to effective treatment for mental illness. Awareness of stigma is the first step in reducing gaps in knowledge and eradicating barriers to mental health care (Miele, 2014; Mignone, Zufferey, & De Anstiss, 2018). Nine studies examined by Alexander et al. (2016) revealed that medical-surgical nurses' care of comorbid psychiatric patients did not meet acceptable standards. All nine studies identified a lack of adequate knowledge, skill, and training necessary for nurses providing mental health care. The authors admonished nurses to cultivate a positive perception of patients with mental illness. Reactions from other people and low expectations for recovery among health care professionals add to the suffering of mentally ill patients. Barriers impact mental health patient's general health and tend to be linked individually, environmentally, and institutionally (Alexander, Ellis, & Barrett, 2016). However, the single greatest barrier to effective mental health care is stigma (Alexander et al., 2016; Miele, 2014). The authors offer their literature review to guide nurses toward interprofessional approaches for patients' stable mental and physical health recovery.

Theoretical Framework Discussion

Knowles, Holton, and Swanson's (2015) theory of adult learning provided the framework for the intervention in this study. Poore, Cullen, and Schaar (2014) conducted a literature review highlighting several theories used to support experiential learning, which included Benner's novice-to-expert model, Kolb's experiential learning model, and Knowles's andragogy—adult learning theory. Although all three theories have application in the continual education of nurses, concepts associated with adult learning theory provided the framework for this implementation project. Relevant concepts of adult learning theory integrate motivation to learn and the influence of prior experience. Nurses are adults and are motivated to learn when the content directly relates to their work or life (Knowles et al., 2015). Nurses develop personal perspectives on the care of mentally ill patients, which has often been based on prior experience. Nurses' perspectives on the use of ECT may have been influenced by public opinion because the opportunities for working with patients receiving ECT are few. Therefore, I used Knowles's theory to guide an SDP for mental health nurses in this project and allowed the nurses as self-motivated learners to participate in approaching a practical problem that has meaning to their work (Knowles et al., 2015).

Education is key to producing nurses with current evidence-based knowledge about ECT and collaborative skills. Undergraduate nursing education designs often lack effective inclusion of principles of interprofessional collaboration, leading to students learning in silos. Inconsistency or gaps in nurses' training in mental health transfers the responsibility to psychiatric/mental health facilities for nursing staff ECT education. SDPs in health care settings provide learning opportunities to develop and strengthen efforts to provide integrated, evidence-

based care to close the gap between available services and underserved patient populations (Brown & Bostic, 2016; Pearson et al., 2015).

Conceptual Framework Discussion

In addition to knowledge, psychiatric mental health nurses must develop interpersonal communication skills through which nursing knowledge is translated into patient care. The conceptual framework for this study blended concepts of Knowles et al.'s (2015) adult learning theory and Peplau's (1991) theory of interpersonal relations. Figure 1 illustrates the significant principles of adult learning theory associated with nursing education and how the improved knowledge influences the interpersonal relationship between the nurse and the patient.

Nurse's knowledge about ECT. As the mental health nurse engages in the educational experience from a professional frame of reference, a personal desire to gain knowledge about ECT patient care is created. Although external motivation may be to satisfy a learning mandate, as self-directed learners, mental health nurses generally develop a readiness to learn when they believe there is a need to know more about the ECT process and patient care. Additionally, their maturity through life and work experiences contributes to their understanding and deeply held beliefs about ECT.

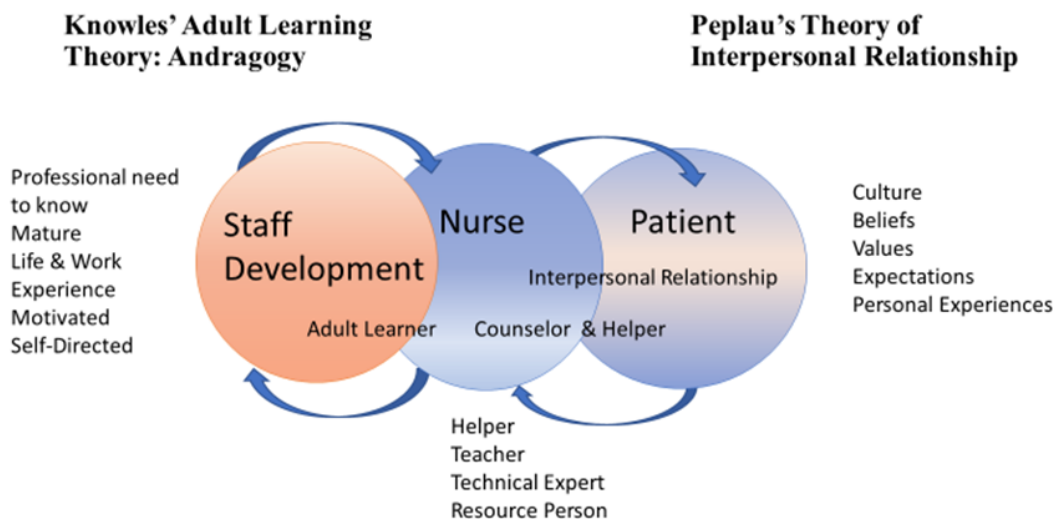


Diagram developed by Janice Edmonson

Figure 1. Conceptual framework blending principles of adult learning theory and theory of interpersonal relations.

The interpersonal nurse-patient relationship respects differences between culture, beliefs, and values. While the nurse offers technical knowledge and self as a resource for patients who are receiving ECT or who would benefit from treatment with ECT, the patient offers a personal perspective from which the nurse will gain understanding and respect for patients as partners in the recovery process.

Nurse's supportive role in ECT. Knowledge and skill without the caring component leave much to be desired. Peplau's (1991) psychiatric nursing theory gives support to concepts that encourage a relationship in which trust and respect are foundational. Caring qualities are not as much learned as they are developed. Peplau's theory of interpersonal relations offers the mental health nurse a model that allows the relationship to grow and mature in knowledge and attitude. Concepts include reciprocal communication and the mutual identification of outcomes between the patient and the nurse. Peplau's theoretical active learning approach is compatible

with the concepts of Knowles's adult learning theory, as in this project, I sought to analyze changes in knowledge and attitude through an active learning intervention (D'Antonio, Beeber, Sills, & Naegle, 2014).

Nurses are essential members of the treatment team, usually providing more hours of care than other mental health professionals. Care provided before, during, and following ECT treatments requires knowledgeable nurses to anticipate the patient's response to treatment. Cognitive status assessments are necessary throughout the course of treatments to document changes and to address potential temporary side effects. The nurse-patient relationship involves giving information, supporting the patient, sustaining the relationship, and facilitating the patient's recovery. Being sensitive to the waiting period before treatment is necessary to facilitate a calming effect for the patient. When the nurse is knowledgeable of the ECT process, sensitivity toward the patient's feelings becomes a priority (Gass, 2008; Jewell et al., 2017).

Nurses who maintain a negative perception of ECT can negatively impact the quality of patient care and how patients perceive ECT. Many nurses react to the mention of ECT with disbelief that this procedure is currently in use for mentally ill patients. When nurses gain accurate knowledge about the treatment process of ECT, indications for its use, mechanisms of action, and possible side effects, research has shown a corresponding improvement in personally held beliefs and attitudes toward ECT. A nurse who possesses accurate knowledge and an appreciation for ECT is more likely to have a positive effect on the patient in reducing anxiety and promoting a positive experience for patients and families (Balhara & Mathur, 2012; Kavanagh & McLoughlin, 2009; Saeed et al., 2017).

Nurses who are confident in teaching patients and families about ECT are important in successfully meeting the needs of patients receiving psychiatric care. The nurse's role in ECT

includes accurate patient teaching and supportive care (Kavanagh & McLoughlin, 2009). Providing mental health nurses with experiential learning opportunities about ECT, with clear instructions for the pre-, intra-, and post-procedure nursing responsibilities, will likely improve the nurse's confidence and ability to support the patient in the ECT process (Burke, 2010). A confident nurse will model hope and increase the potential for a positive patient experience (Keykha et al., 2016; Tee & Özçetin, 2016). Nurses who improve the mental health experiences for patients receiving ECT and who will confront false information and stigma may be instrumental in improving access to ECT, a valuable treatment that saves lives and improves the potential for recovery (APNA, 2011).

Chapter Summary

Mental and physical health are not mutually exclusive components of human life. Physical health affects mental health, and mental health is foundational to whole health. (McLoughlin, 2017). Therefore, the American Psychiatric Nurses Association (2017) published a position paper embracing the statement that “whole health begins with mental health” (p. 1). Barriers to effective mental health recovery have been linked to the universal stigmatization of ECT and the deleterious effects of media representations of unmodified ECT (Alexander et al., 2016; Kinnair et al., 2010; Sharma & Malik, 2013). Research supports the efficacy of ECT in the treatment of mental illness (Li et al., 2015) and has shown that ECT reverses life-threatening mental illness and lifts suicidal depression (Dukakis & Tye, 2006; Kellner & Patel, 2018).

Chapter 3: Research Method

This chapter describes the project design and the methodology I used in this study, which includes the population and method of data collection. Additionally, I present criteria for participation or exclusion, a description of the data collection tool, and ethical considerations for this study.

Methodology

In coordination with the hospital administration and the nursing staff development department, I conducted a cross-sectional descriptive correlational study during June 2019 among the licensed nursing staff (RNs & LVNs) of a psychiatric hospital in East Texas. I developed and presented an educational SDP through the hospital's education department and evaluated the effects of the SDP by pretest and posttest surveys administered electronically to promote maximum participation. Demographic data gathered about the nursing staff were compared to the Texas nursing workforce distribution. I analyzed the pretest and posttest survey scores and examined them for changes in knowledge and attitudes about ECT.

Practice Setting for the Project

The hospital specialized in the care of patients with mental illness across the lifespan and consisted of dedicated patient units for children, adolescents, adults with acute, chronic, or treatment-resistant mental illness, forensic, chemical use disorders, and geriatric mental health disorders. In addition to patient care units, the hospital included a medical clinic and an ECT department. The hospital was one of 22 facilities in the state of Texas qualified to offer ECT treatments for SMI. All nurses were expected to provide evidence-based care to all patients in the psychiatric hospital.

Purpose

The purpose of this study was to identify gaps in the knowledge about and attitude toward ECT among mental health nurses employed at one psychiatric hospital and to determine the impact of an ECT SDP on nurses' knowledge and attitude toward ECT. Studies have shown that stigma continues toward ECT (Kinnair et al., 2010; Miele, 2014; Sharma et al., 2017; Shorter, 2018), and that knowledge gaps among nurses concerning the use of ECT for mental illness continue to undermine the care patients need (Brown & Kazer, 2014; Tee & Özçetin, 2016).

IRB Approval

Although no funding was received for this project, the university and hospital policies required that this study comply with all ethical standards of research and ensure the safety of all participants according to the federal guidelines overseen by an institutional review board (IRB). This non-research intervention study received approval from the Abilene Christian University IRB and the Texas Department of Health and Human Services IRB for exempt status (see Appendices A and B). The study design utilized only survey procedures to gather data, and the information collected did not readily identify the participants. The investigator was not directly involved in the survey process. Also, any disclosure of study responses outside the research did not place participants at risk of losing employment status or benefits and did not result in participants being at risk of civil or criminal liability or damage to participant's reputation. This study included no special populations or the handling of biochemical specimens.

I used an electronic program to create the survey administered for this study. SurveyMonkey provided a statement to accompany the IRB application, specifically permitting me to conduct research using SurveyMonkey. The statement identified the investigator's ability

to create, deploy, and analyze surveys through the electronic format for academic research purposes (SurveyMonkey Inc., 2018, April 11). The SurveyMonkey privacy policy states that “data collection and coding are designed so that visitors may look up and view TechFacts without collecting any personal information” (SurveyMonkey Inc., n.d.).

Interprofessional Collaboration

Interprofessional relationships throughout the hospital supported a truly collaborative atmosphere and allowed discussions and concerns to develop into a clear problem of interest that was shared by the administrative hospital staff. During October 2018, the hospital superintendent, the medical director, and the chief nursing officer engaged in strategic discussions concerning the feasibility of the project and the need for IRB approval. All hospital administrators contributed to the discussion and preliminary planning of the project design and methodology with unanimous support verbalized. The cost-effective nature of this project was appealing to the administration. A letter of support (see Appendix C) and the internship memorandum of understanding (see Appendix D) secured the IRB approvals needed to implement the intervention and the pretest and posttest surveys.

Through a collaborative process with key nursing employees, including the director of the ECT department, the director of the nursing education department, and the interim chief nursing executive, the project team created a timeline for completion. The survey was developed for the electronic format through SurveyMonkey during January 2019. The nursing educational intervention was developed as an SDP with input from the project team from February through March 2019. After receiving the IRB approvals in April and May 2019, the SDP was converted to MP4 format and uploaded to the hospital’s technology system. The interim chief nursing executive drafted an email letter to all nursing staff (see Appendix E) on May 31, encouraging

them to participate in the DNP project surveys. A follow-up email letter (see Appendix F) to remind the nursing staff of the opportunity to participate in the DNP survey was sent during the second week of the survey period. The survey was open from June 1 through July 2, and the analysis process began during July 2019.

Feasibility and Appropriateness

ECT orientation for the nursing staff at this hospital has been a routine component of staff development to date. Every nurse receives an orientation to the hospital upon employment and an annual staff development refresher that includes a brief orientation to ECT. Occasionally, topics of special significance are provided for enrichments in nursing education, categorized as “just in time training.” An online MP4 video format was utilized to deliver the PowerPoint presentation for the convenience of the nurses who work different shifts. Employees participating in this SDP and the surveys incurred no significant cost. A nominal fee for a SurveyMonkey subscription for data collection and analysis was an appropriate and reasonable expense for this project.

Target Population

After receiving IRB approval, all licensed nursing staff of the psychiatric hospital were invited to participate in a survey of knowledge and attitude toward ECT. Nurses working in the psychiatric hospital were expected to possess the knowledge and skills necessary to provide quality care for patients with mental illness. Because nurses employed in psychiatric mental health care often come from a variety of nursing settings and are not required to hold specialized training or education certificates, it is necessary to ensure mental health nurses have adequate knowledge about ECT to provide appropriate care for patients who may receive ECT treatments. I surveyed and presented the SDP to this population sample of psychiatric hospital nurses.

Risk to Participants

Any risk to participants was perceived to be minimal and no more than a person would expect from engaging in computer activities. All nurses employed at the hospital are familiar with electronic health records and have demonstrated the ability to navigate through an electronic documentation system. Nurses who have strongly held attitudes toward the use of ECT may have experienced some degree of emotion while answering the survey questions. However, participation was voluntary, and every nurse who consented to participate was able to withdraw at any time for any reason.

Benefit of Participation

Any benefit to nurse participants who consented to answer the survey pretest and posttest would be the satisfaction of participating in a study that had meaning to each nurse working with mentally ill patients. Otherwise, no benefit was expected from participating in the survey, and no benefits were implied.

Instrument Measurement Tool

Following the consent to participate, a brief social and demographics section of the survey provided an understanding of the study population. The pretest and posttest survey included two sections: one measuring knowledge about ECT and the other measuring attitudes toward ECT. With permission from Kinnair (see Appendix G), I obtained the items used to construct the electronic survey from the tool designed for a study of medical students' knowledge and attitude toward ECT (Kinnair et al., 2010). Reliability and validity of the knowledge and attitude tool was established in a variety of national settings, including Saudi Arabia, India, Egypt, South Africa, and the UK (AlHadi et al., 2017; Balhara, & Mathur, 2012; Dawood et al., 2013; Kinnair et al., 2010; Mausling, Macharia, & Jordaan, 2017). The modified

assessment tool was compatible with an electronic format and used to study mental health nursing staff (see Appendix H). The knowledge items about ECT required multiple correct responses and reflected current practices in the general administration methods of ECT, preparation of patients receiving ECT treatment, and expected patient responses to ECT treatment. Following the knowledge items, the survey addressed 13 attitude statements, which required the participant to choose answers on a five-point Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Data Collection and Management

An electronic data collection and management format was used to design the knowledge and attitude pretest and posttest surveys, communicate the purpose of the study and the privacy practices, and to obtain informed consent from participants. On Friday, May 31, 2019, the interim chief nursing executive notified every nurse by email (see Appendix E) informing them of the opportunity to participate in a DNP project study, but that employees were under no obligation to participate. The letter stated the hospital's support for doctoral students who choose to conduct research projects within the organization and encouraged each nurse to consider participating in the survey. Personal information gathered did not include identifying information, and the responses were anonymous. A secure electronic link to the survey, provided through the staff development department, was emailed to every nurse employed at the psychiatric hospital. A follow-up letter (see Appendix F) from the interim chief nursing executive was sent out two weeks later as a reminder to complete the SDP with encouragement to participate in the DNP project surveys.

A timeline of events (see Table 1; Appendix I) illustrates the coordination and planning that was necessary to ensure the successful implementation of the DNP project. A span of seven

months occurred between the verbal support of key stakeholders and receipt of the final IRB approval letter in May, allowing for the collaborative development of the mandatory SDP for all the nurses and the creation of the online surveys. The surveys were closed on July 2, 2019, and the analysis of the data began.

Table 1

DNP Project Timeline of Events

Date of Activity	Project Activity
September 2018	NIH Human Subjects Protection Training Chapters 1–3 completed
October 2018	Permission to use the survey tool received Presented project idea to key administrators
November 2018	Letter of support received
November 2018	Met with DNP committee for recommendations and approval of DNP proposal
November 2018 – January 2019	Created a project team
December 2018	Documents for Affiliation Agreement submitted to facilities Phone consultation with SurveyMonkey survey designer Project Proposal Defense presented and approved by DNP committee
December 2018	Ethics Core Training Completed
December 2018	IRB Applications submitted to ACU-IRB and facility IRB
December 2018 – March 2019	Completed and submitted documents for IRB and follow-up communication
January – March 2019	Created SurveyMonkey account Finalized development of surveys with a consent form in SurveyMonkey Developed SDP intervention PowerPoint with the project team
February – March 2019	Finalized Project Intervention and submitted for IRB-2 Exempt approval
March 2019	Received Facilities' Agreement Internship MOU
April 2019	Received ACU IRB Approval
May 2019	Received hospital IRB Approval Worked with the project team: facility staff education department and nursing supervisor to convert PowerPoint presentation to MP4 format Developed an email announcement to all nurses to complete the SDP (Project Intervention) Provided SurveyMonkey link to nursing supervisor Developed an email announcement to all nurses from nursing supervisor to encourage participation in DNP project surveys
June – July 2019	Opened Surveys–Pretest and Posttest
June 2019	Drafted a reminder notice for the nursing supervisor to send to all nurses
July 2019	Closed Surveys–Pretest and Posttest
July – October 2019	Collected data from SurveyMonkey and began the analysis process Analysis of data, and met with a statistician for guidance with SPSS
October 2019	Analysis of data and completion of Chapters 4 and 5 Corrections to DNP paper according to feedback from ACU writing center and DNP committee members DNP paper submitted
November 2019	Developed DNP final defense presentation PowerPoint Scheduled Final Project Defense Successfully Defended DNP Project
December 2019	Presented findings to hospital administrators

Analysis Plan

I conducted data collection and analysis through SurveyMonkey, and the raw dataset was downloaded to SPSS for descriptive and correlational comparisons. SurveyMonkey provided a variety of data analysis options for displaying and comparing data. Descriptive statistics for the sociodemographic data and knowledge and attitude toward ECT was expressed in frequencies, means, and standard deviations.

Chapter Summary

Prioritized planning and administrative support contributed to the successful implementation of this educational project. A cross-sectional survey of knowledge and attitudes about ECT was conducted before and after an SDP for the mental health nurses at one psychiatric hospital. IRB approval ensured the anonymity and confidentiality of the participants. Concepts of adult learning theory guided the development of the SDP to improve the nurses' knowledge about the use and efficacy of ECT and the nurses' role in ECT patient care.

Chapter 4: Findings

I implemented this DNP project to identify and reduce knowledge gaps among the mental health nurses about ECT for patients at a U.S. psychiatric hospital who struggle with treatment-resistant depression and SMI. In addition, I examined the impact of an educational intervention on the mental health nurses' knowledge and attitudes about ECT. An analysis of the data collected via electronic pretest and posttest surveys is presented in this chapter.

One hundred sixty-four nurses employed at a 200-bed psychiatric hospital received an invitation from the nursing supervisor through their employee email to participate in the electronic survey titled "Knowledge and Attitude Toward Electroconvulsive Therapy [ECT]"; see Appendix H). A total of 119 of the 164 nurses consented to participate in the survey, yielding a 72% response rate. The two-part survey was administered before and after a 30-minute SDP, "Electroconvulsive Therapy: Current Practice and Implications for Mental Health Nursing." The SDP, designed for the hospital nursing staff, addressed current nursing responsibility and care of patients receiving ECT, current procedural methods involved in the administration of ECT, efficacy and side effects, and stigma-related barriers to ECT treatments.

Discussion of Demographics

A hospital-wide convenience sample of mental health nurses (RNs and LVNs) was invited to participate in the two-part electronic survey of knowledge and attitude toward ECT during June 2019. A secure link provided each participant access to the pretest survey from the employee's home or workstation computer, and the participants had 31 days to complete the pretest survey, the associated SDP, and the posttest. The survey (see Appendix H) was constructed through SurveyMonkey and included informed consent for participation before beginning the surveys. Participants were assured of anonymity and confidentiality and could

discontinue their participation at any time. Demographic information collected for this study included the participant's current nursing license, gender, age range, years of experience as a nurse, and years of experience in mental health nursing. No personal identifying information was collected about the participants, and both pretest and posttest surveys were identical.

The average time to complete the pretest was six minutes, and posttest survey completion averaged four minutes. I conducted data analysis using SurveyMonkey analytics and exported the survey data for analysis using IBM SPSS version 25. Descriptive analyses of the demographic data (see Table 2) revealed that although 119 nurses consented to participate, some survey items were skipped, leading to fewer total responses. Seventy-six (73%) participants identified their current license as RNs and 28 (27%) as LVNs. A majority of participants were female (85%), age 50 and older (51%), had been a nurse for 11 years or more (62.5%), and had 11 years or more experience in mental health nursing (47.6%). The median age of RNs and LVNs within this sample population was 50+ years, slightly older than the average age of nurses among the Texas nursing workforce (44.5 years). The gender distribution in this sample of nurses was as follows: 14% of the participants were men ($n = 15$) and 85% were women ($n = 87$). This gender distribution was comparable to the Texas nursing workforce statistics for men (12.5%) and women (88.5%), according to the *Texas Center for Nursing Workforce Studies Serves as Nursing Workforce Data Resource* (Texas Board of Nursing, 2017) report.

Table 2

Demographics of Participants

Variable	Response	<i>n</i>	%
Current license	RN	76	73
	LVN	28	27
Gender	Male	15	15
	Female	87	85
Years as a nurse	1–5 years	24	23
	6–10 years	15	14
	11+ years	65	63
Years as a mental health nurse	1–5 years	38	37
	6–10 years	16	16
	11+ years	49	48
Age range	20–29 years	5	5
	30–39 years	15	14
	40–49 years	31	30
	50+ years	54	51

Following the demographic items, participants were asked to identify the source of their first knowledge about ECT. No categories were provided from which to choose; therefore, the participants received no cue that may have influenced their responses. Among the 98 responses to this question, six general categories were identified, which included work/hospital/employee orientation, nursing school, movies/media, work with a psychiatrist, work as a nurse educator, and family member received ECT. One participant's response was a comment about ECT (see Table 3). Participants identified work-related sources in over 60% of the responses, specifically mentioning employee orientation and on-the-job experience. Nursing school was the second most frequent response, with 28 (28.5%) participants receiving some introduction to ECT while in nursing classes or psychiatric nursing clinical experiences. Movies or media were reported as

the source of the participant's first knowledge about ECT in seven (7%) responses representing six female RNs (one was under 40 years of age) and one male LVN (30–39 years of age).

Table 3

Q7: Sources of First Knowledge of ECT

Category	Response examples (“ ”)	%	<i>n</i>
Work-Hospital	Psychiatric hospital; Work history; Work; OJT; NEO; Training video; On the unit; Psychiatric nursing practice; Worked in ECT 15 years; Hospital in another state; Observed with my patient; Different psychiatric hospital; Work 10 years; after working in a mental health facility	59.18	58
Nursing School-Student	Nursing school training; school; a psychology course	28.57	28
Movies/Media	Movies, Media, <i>One Flew Over the Cuckoo's Nest</i>	7.14	7
Work with a Psychiatrist	Psychiatrist I worked with years ago	2.04	2
Family Member had ECT	As a child, due to a family member having the procedure done	1.02	1
Work-Nurse Educator	Light teaching in nursing school	1.02	1
Not classified	They erase your memory	1.02	1
Totals: Six categories		100.00	98

Note. Participant's responses were analyzed for similarity and grouped into six categories.

Questions Guiding the Inquiry

The study questions guiding this project focused on identifying and resolving knowledge gaps about ECT. Such gaps in knowledge may affect mental health nurses' attitudes toward the use of ECT in one psychiatric hospital. Therefore, the PICOT question guiding this study was the following: Among mental health nurses, how would an ECT staff development presentation (SDP) affect knowledge and attitude about ECT compared to knowledge and attitude before the SDP as self-reported on pretest and posttest surveys within 30 days of the SDP? I expected the findings of this study to answer the following research questions.

RQ1. Is there a significant relationship between knowledge about and attitude toward ECT among mental health nurses?

RQ2. How will a staff development program affect knowledge about and attitude toward ECT among mental health nurses?

Data Analysis

Following the demographic section, the survey included four multiple-choice items to identify the participant's current knowledge about ECT and a section of 13 attitudinal statements associated with ECT, which were measured on a five-point Likert-type scale (see Appendix H). The four knowledge items addressed the indications for using ECT, the procedure for administering ECT, side effects of ECT, and the nurse's role in ECT patient care. Each of the four knowledge items required all correct multiple-choice responses for a correct score (0–4). Thirteen attitudinal items addressed the participant's beliefs about ECT and their willingness to engage patients in discussions about ECT and related patient care. Attitude scores were determined by the mean of the scale values for all 13 items, potentially ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). To achieve a response continuum, the items worded unfavorably to the construct were reversed for congruence with item favorability. Five attitudinal statements within the survey, which included items 12, 13, 14, 17, and 18, were reverse coded for analyzing the mean, median, and mode of the sum of the participant's scores. I used descriptive analyses to determine mean scores for the pretest and posttest groups for knowledge and attitude variables (see Table 4). I paired participant responses for the pretest ($n = 89$) and posttest ($n = 71$) to analyze the group's mean scores. While the groups came from the same nurse population, the data were treated as two independent groups for further analyses, with significance achieved at $p < .05$.

Table 4

Mean Scores for Knowledge and Attitude Toward ECT in Pretest and Posttest Group

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	95% CI for Mean		Min.	Max.
						Lower Bound	Upper Bound		
Knowledge	Pretest	89	.79	.84	.09	.62	.98	.00	4.00
	Posttest	71	1.35	1.06	.13	1.10	1.60	.00	4.00
Attitude	Pretest	89	3.78	.57	.06	3.67	3.91	2.23	4.77
	Posttest	71	3.52	.53	.06	3.39	3.64	2.23	4.31

Note. CI = confidence interval.

To determine the appropriate correlation test for further data analysis, I analyzed the posttest knowledge and attitude mean scores for normality of distribution. A Shapiro-Wilk's test ($p < .001$) indicated the data were not normally distributed. A visual examination of the associated histograms (see Figure 2), normal Q-Q plot (see Figure 3), and box plot (see Figure 4) illustrated a lack of a normal distribution of posttest knowledge and attitude scores.

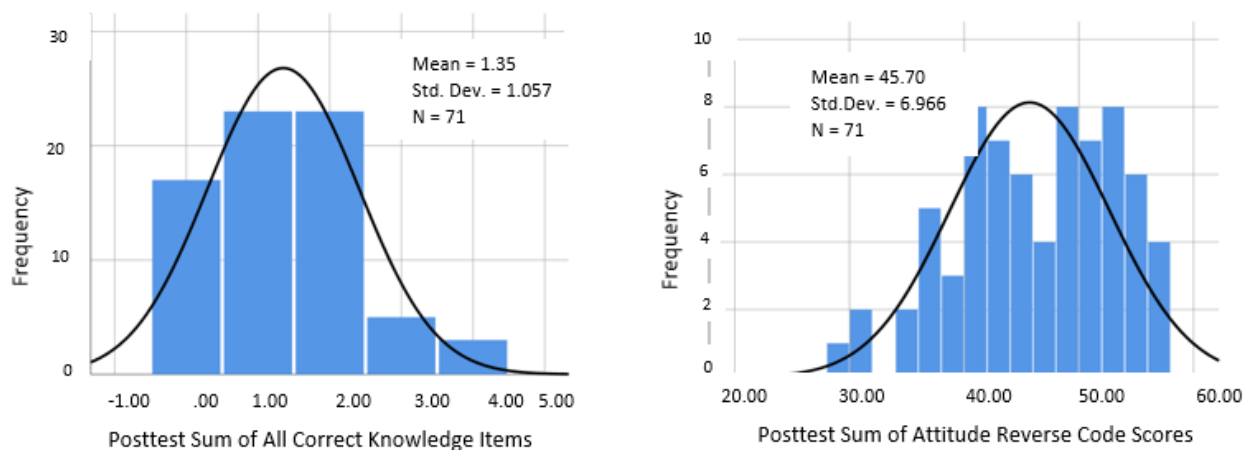


Figure 2. Histograms depicting skewed distribution of posttest knowledge and attitude scores.

A skewness of .514 ($SE = .285$; z -value = 1.80) and a kurtosis of $-.070$ ($SE = .563$; z -value = 0.124) for the posttest knowledge scores and a skewness of $-.397$ ($SE = .285$; z -value = 1.39) and a kurtosis of $-.596$ ($SE = .563$; z -value = 1.05) for the posttest attitude scores indicated that this non-normal distribution was not significant.

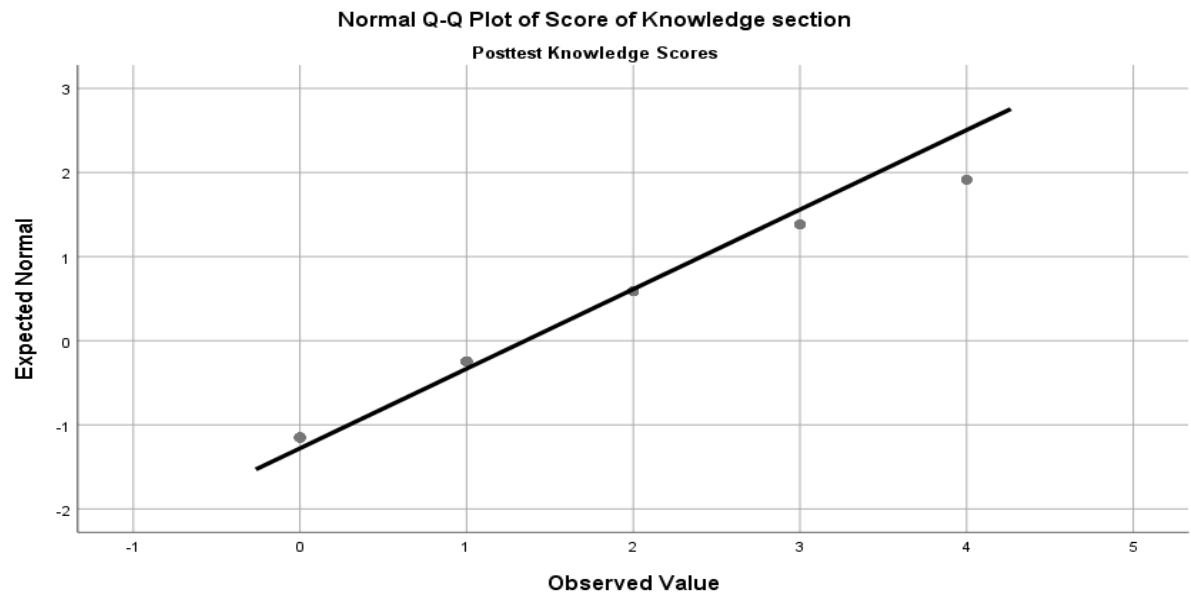


Figure 3. Q-Q plot of posttest knowledge scores illustrating data distribution was not normal.

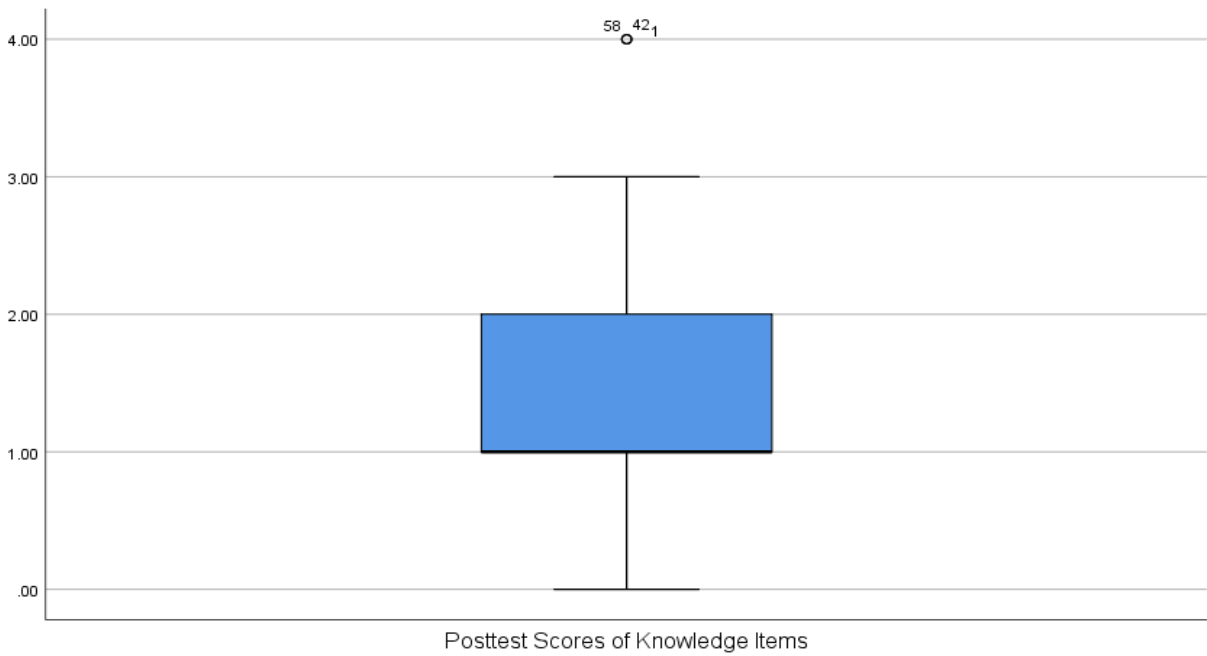


Figure 4. Box plot of posttest knowledge scores depicting non-normal data distribution.

Due to this violation of normality of data distribution, a Spearman's *rho* (see Tables 5 and 6) was performed to answer RQ1, which was to test for a correlation between participants'

pretest and posttest knowledge and attitude toward ECT. Results of the nonparametric Spearman correlation coefficient indicated a moderately positive correlation $r_s(88) = .329, p = .001$ between pretest scores of knowledge and attitude toward ECT. Likewise, there was a moderately significant positive correlation $r_s(71) = .429, p < .001$ between posttest scores of knowledge and attitude toward ECT.

Table 5

Correlation Between Knowledge and Attitude - Pretest

		Pretest Knowledge	Pretest Attitude
Pretest Knowledge	Correlation Coefficient	1.000	.329**
	<i>Sig.</i> (1-tailed)		.001
Pretest Attitude	Correlation Coefficient	.329**	1.000
	<i>Sig.</i> (1-tailed)	.001	

Note. ** Correlation is significant at the 0.01 level (1-tailed); $n = 89$.

Table 6

Correlation Between Knowledge and Attitude - Posttest

		Posttest Knowledge	Posttest Attitude
Posttest Knowledge	Correlation Coefficient	1.000	.429**
	<i>Sig.</i> (1-tailed)		.000
Posttest Attitude	Correlation Coefficient	.429**	1.000
	<i>Sig.</i> (1-tailed)	.000	

Note. ** Correlation is significant at the 0.01 level (1-tailed); $n = 71$.

Pretest and posttest responses were further analyzed to answer RQ2 (How would the SDP affect knowledge and attitude about ECT among mental health nurses?). I conducted a Mann-Whitney U test to analyze the mean rank of the participants' knowledge and attitude scores before and after the SDP. A significant difference was found between the pretest ($n = 89, M =$

69.44) and posttest ($n = 71, M = 94.36$) mean rank knowledge scores ($U = 2175.50, p < .001$). More participants scored higher on the posttest knowledge items compared to the pretest. The results of the pretest ($n = 89, M = 89.62$) and posttest ($n = 71, M = 69.07$) total attitude scores revealed a significant difference ($U = 2348.0, p = .012$), and that more participants scored higher on the pretest attitude section than on the posttest. Mean plots (see Figures 5 and 6) illustrate the change in mean knowledge and mean attitude scores between the pretest and posttest.

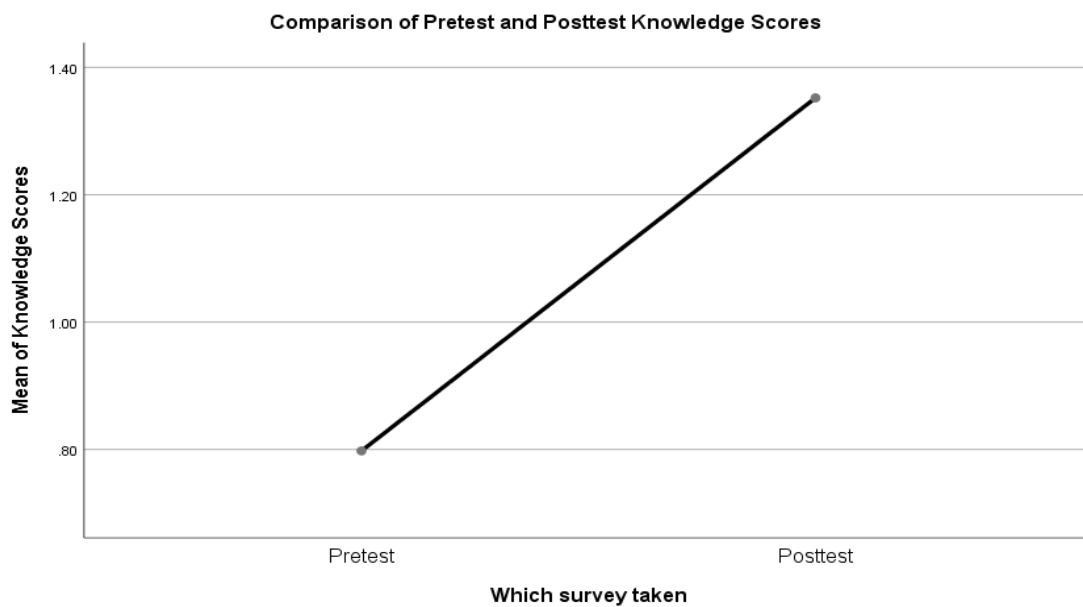


Figure 5. Mean plot—comparing knowledge scores between pretest and posttest.

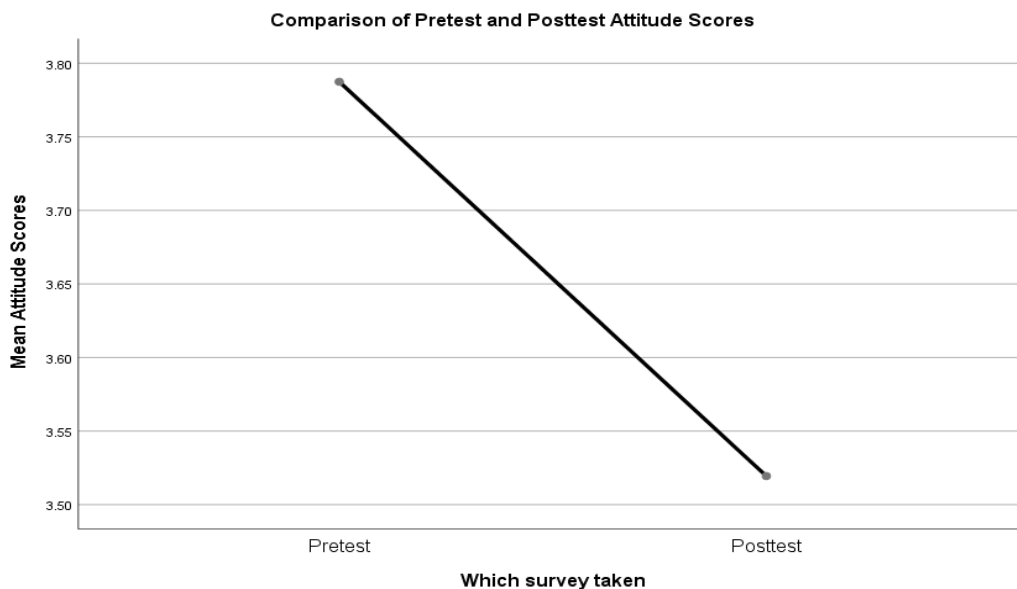


Figure 6. Mean plot—comparing attitude scores between pretest and posttest.

Each of the four knowledge items was scored for marking all correct components of the statement (see Table 7). One participant had a total correct score (= 4) for knowledge items in the pretest ($n = 89$), and three participants had a total correct score for posttest knowledge items ($n = 71$). An examination of individual responses to the knowledge section revealed that participants identified burns, transient ischemic attacks (TIAs), and cerebrovascular accidents (CVAs) as side effects of ECT in approximately 5% of responses on both the pretest and posttest. Personality changes were identified as side effects of ECT by 50% ($n = 89$) of the participants on the pretest and 41% ($n = 69$) of the participants on the posttest. When asked to identify the nurse's role in ECT patient care, little or no difference was found between pretest and posttest scores. Greater than 90% of participants identified monitoring patients for cognitive changes, 68% of participants identified that nurses obtain informed consent, 23.5% identified that nurses make referrals to the psychiatrist, and 9.4% identified ECT as only the psychiatrist's responsibility.

Table 7

Frequency Distribution of Knowledge Scores

Variable	Score	Pretest	Posttest	Total
		<i>n</i> (%)	<i>n</i> (%)	
Valid	.00	36 (22.5)	17 (10.0)	53
Total correct scores for knowledge items by pretest and posttest	1.00	40 (25.0)	23 (14.4)	63
	2.00	9 (5.6)	23 (14.4)	32
	3.00	3 (1.9)	5 (3.1)	8
	4.00	1 (.6)	3 (1.9)	4
	Total	89 (56.6)	71 (44.4)	160

Note. Knowledge scores ranged from 0 to 4. A score required all correct items chosen within each of the four knowledge statements.

A comparison of individual items in the attitude section of the survey identified areas of least and greatest change following the SDP. The greatest change between pretest and posttest responses showed a 12.41% increase for survey item 16, which stated, “ECT can get patients better more quickly than antidepressants.” Whereas 56.73% ($n = 88$) of pretest participants agreed with survey item 16, the posttest responses were 69.14% ($n = 69$) in agreement. Of the posttest responses, 22.22% ($n = 69$) were unsure or disagreed that ECT worked more quickly than antidepressants. Item 24, which stated, “I feel comfortable talking about ECT to patients,” had an increase from 74% ($n = 88$) on the pretest to 82.93% ($n = 69$) on the posttest, for an 8.93% increase in willingness to talk to patients about ECT. Survey item 17 stated, “ECT should be used only in life-threatening situations.” Of the pretest responses, 60.58% ($n = 88$) agreed with this statement compared to 68.67% ($n = 70$) of posttest responses, for an increase of 8.09%.

Reliability and Validity

The knowledge and attitude survey developed for a study of medical students during their psychiatric rotation was used in other studies with various populations of medical professionals, including nursing students (Balhara, & Mathur, 2012; Dawood et al., 2013; Kinnair et al., 2010;

Sharma et al., 2017). Kinnair granted permission (see Appendix G) to modify and adapt the survey as necessary for access through an electronic platform and used with a population of mental health nurses. Although the reliability of the survey tool measuring knowledge and attitude toward ECT was previously determined in other studies, the Cronbach's alpha (.855) confirmed the reliability of the 13 Likert-type questions that included the five reverse-coded responses prior to analysis of survey data for this project.

Limitations

Limitations associated with this study included the narrow population surveyed because of the use of convenience sampling. This study sample only included nurses (RNs & LVNs) from one psychiatric hospital that uses ECT for patients with SMI, and results may therefore not be representative of all nurses or even of all mental health nurses. Additionally, the online survey method limited the ability to control for participants' interactions with others to ensure valid participant responses. This study relied on the nurses' honesty in answering the pretest and posttest surveys. However, this limitation was weighed against the benefit of presenting the hospital-wide nursing staff with the survey before and after the online educational intervention for the nurses' convenience, whether at home or work. Although the electronic format was more convenient for the nursing staff, this design for nursing education does not provide opportunities for meaningful reflection following the SDP of such a controversial topic.

Conclusion

Findings from this project demonstrated that the SDP was effective in reducing the gaps in knowledge about ECT. There was a correlation between knowledge about and attitude toward ECT. Although a majority of the mental health nurses had some accurate knowledge about the use of ECT, the pretest revealed that only one nurse correctly answered all four knowledge items,

three nurses correctly answered three of the knowledge items, and nine nurses correctly answered two of the knowledge items (see Table 7). The reduction in knowledge gaps about ECT among this sample of mental health nurses was indicated by the change in knowledge scores from pretest ($M = 0.79$) to posttest ($M = 1.35$; see Table 4). However, the change in attitude scores from pretest ($M = 3.78$) to posttest ($M = 3.52$) did not correlate positively with the improvement in knowledge about ECT (see Table 4). In conclusion, the SDP was effective in improving participants' knowledge, but it was not significant in effecting a change in attitude toward ECT.

Chapter Summary

This chapter presented an analysis of the mental health nurses' knowledge and attitude toward ECT within one psychiatric hospital. Of the 119 licensed nurses (RNs & LVNs) who participated in this study, there were significant knowledge gaps identified concerning ECT and the patient care responsibilities expected of them. Following the SDP designed for the mental health nurses at this hospital, a significant increase in knowledge scores was evident. However, the corresponding scores for attitude toward ECT were not significantly improved. Despite prior occupational and undergraduate educational introductions to the current practices of ECT, leaders within the mental health programs must not assume that education concerning ECT is standardized or that knowledge implies a supportive attitude. The results of this study provided insight into the existence of knowledge gaps and persistent apprehension about ECT among mental health nurses, and that knowledge had a limited impact on attitude toward ECT. There is a need to develop meaningful SDPs to promote the knowledge of current evidence-based practice for ECT and to reduce stigmatized beliefs concerning ECT within the mental health nursing population.

Chapter 5: Discussion of Findings

The purpose of this project was to identify gaps in knowledge about ECT and to determine the impact of an SDP on reducing the knowledge gaps about ECT among the mental health nurses at one psychiatric hospital in East Texas. Although nursing education introduces current treatment practices of ECT for SMI to nursing students, much of the knowledge acquisition and attitude development of mental health nurses takes place in the work-related setting. To ensure that mental health nurses possess the knowledge and skills necessary to care for patients receiving ECT treatments, effective SDPs must diligently present clear and accurate information. However, an improvement in nurses' knowledge did not guarantee an improvement in attitudes toward ECT. This chapter presents a discussion of the findings based on an analysis of the survey data from this study and how each of the eight essentials of doctoral education were applied to the planning, implementation, analysis, and interpretation of the DNP project.

Interpretation and Inference of Findings

Concepts of adult learning theory (Knowles et al., 2015) and interpersonal relations theory (Peplau, 1991) served as a framework for this DNP intervention study. Mental health nurses spend time with their patients using the therapeutic skills of presence and verbal and nonverbal communication, which help to develop a trusting relationship with patients and their families. The importance of life experiences, maturing self-concept, and social roles are significant concepts of adult learning theory that promotes individual motivation to learn (Knowles et al., 2015). These concepts of adult learning theory enhance the development of the mental health nurse's role as a therapeutic counselor, resource person, teacher, helper, and technical expert (Peplau, 1991). Therefore, the expected learning outcomes for the mental health

nursing staff included demonstrating greater knowledge about ECT and an improvement in attitude and confidence associated with caring for patients who receive ECT treatments.

The outcomes of this project showed the significant role that work-related experience and nursing education have in preparing mental health nurses to care for patients who need and receive ECT. All participants in this study had received an employee orientation about ECT and had observed the administration of ECT to a consenting patient before the SDP. Mean pretest knowledge and attitude scores of 0.79 ($n = 89$) and 3.78 ($n = 71$), respectively, reflected an existing knowledge gap and a pervasive stigma toward ECT. More than 90% of the participants identified some aspects of each knowledge question correctly: ECT as a treatment for severe life-threatening situations, ECT requires an electrical current to stimulate a seizure, memory loss is a side effect, and the nurse's role includes monitoring cognitive changes. However, less than 50% knew that ECT is used to treat catatonic schizophrenia and mania and that nurses may refer patients for an ECT evaluation. A pervasive stigma was evident by incorrect answers: ECT produces a full grand mal seizure, seizures last five minutes, and patients must be awake and restrained.

Unlike the evidence presented in the literature that much of the stigmatized attitude toward ECT is associated with negative media presentations (Kumar & Eugin, 2017; Sharma et al., 2017; Wilhelmy et al., 2018), participants in this study revealed a low association with media as their first knowledge of ECT (see Table 3). Stigmatized attitudes toward ECT among mental health nurses should be explored through further studies.

By crediting work experience, employee orientation, and undergraduate nursing education as their first introduction to ECT, nursing leadership must recognize the need for nursing schools and employee orientation programs to provide effective instruction about current

practices associated with the use of ECT. Additional survey items that explore the nurses' personal experience in caring for patients receiving ECT could help to understand the nurses' perception of ECT. Further information is necessary to gain a clear perspective of the origins of stigma toward ECT among this population of mental health nurses.

Stigma, in the form of discriminatory and prejudiced attitudes (Corrigan, 2018), will continue to create a barrier to effective care and treatment of patients with SMI if no measures are taken to change it. Stigma toward ECT remained evident in the posttest responses despite the improved knowledge among this sample of mental health nurses and was indicated by unfavorable attitudes or apprehension about ECT. Mean plots of knowledge (see Figure 5) and attitude (see Figure 6) scores were compared for differences between the pretest and posttest to determine the impact of the SDP. The negative correlation was quite small, but it is important to recognize that there was no improvement.

Mental health nurses who maintain apprehension or stigmatized attitudes toward ECT will be less likely to accurately assess patients for the few side effects, respond with confidence, or teach in response to patient or family questions. This DNP project identified a correlation between knowledge about and attitude toward ECT. However, the outcomes of this study were not consistent with the literature in which increased knowledge about ECT was associated with improved attitudes toward ECT (Aki et al., 2013; AlHadi et al., 2017; Kinnair et al., 2010; Mausling et al., 2017; Sharma et al., 2017).

Although the nurses in this sample demonstrated a significant improvement in total knowledge scores with a positive correlation in the aggregate for attitude toward ECT, 31% of participants continued to identify apprehensive or negative attitudes toward the efficacy of ECT. By examining the relationship between knowledge and attitude toward ECT before and after the

SDP, the results of this study indicated that stigmatized or deeply held beliefs about ECT were not significantly affected by an educational intervention among the mental health nurses at this psychiatric hospital.

Mean attitude scores were greater on the pretest survey ($M = 3.78$) compared to the posttest ($M = 3.52$). Though it was not possible to identify the cause from the data, the lack of improvement in the mean attitude scores indicated that a pervasive stigma existed. Further support for this interpretation was seen in the number of responses ($n = 30, 37\%$), indicating that participants were unsure about agreeing to have ECT if their doctor recommended it or in recommending ECT to a friend or family member ($n = 23, 28.75\%$).

Years of experience in working with mentally ill patients was not an indicator of better knowledge, nor did experience promote confidence or positive perceptions toward ECT. Nurses who were relatively new to mental health nursing (1–5 years) were as likely to answer the knowledge items correctly as nurses with more experience (11+ years). Responses indicated that 33% would not agree with or felt unsure about a friend or family member receiving ECT. Also, 55% of the participants who had 11 or more years of experience did not agree or felt unsure about receiving ECT if a doctor recommended it. Approximately 15% of the nurses in this survey were not comfortable or felt unsure about talking to patients about ECT. Therefore, familiarity with ECT as a treatment for mental illness did not translate to a positive attitude toward ECT among the participants in this study.

Implications for Leaders

The results of this project demonstrated no positive correlation between knowledge and attitudes about ECT among the participants. Therefore, an effort should be made to consider the impact that stigma has on the nursing staff responsible for providing care to patients receiving

ECT. Because undergraduate nursing education is designed to prepare students for a profession in nursing, academic content and clinical instruction should reflect current practices for the nurse's role in caring for patients with SMI.

Although research has suggested that increasing familiarity will improve attitudes toward stigmatized populations (Mårtensson, Jacobsson, & Engström, 2014), 64% of the participants in this study had six or more years of experience in mental health nursing. It may be helpful to develop, provide, and evaluate improved experiential learning activities that increase nurses' familiarity with the ECT process to ensure that patients receive quality care associated with ECT treatments. Innovative teaching strategies during the orientation of newly hired nurses and during annual nursing education programs that increase familiarity with the ECT process may contribute significantly to an improved attitude among the nurses toward ECT for patients with SMI. While more than 50% of the survey participants were 50 years of age or older, there was no indication that this subgroup possessed greater knowledge or better attitudes toward ECT. Therefore, the knowledge gaps about ECT were not significantly associated with the age of the nurse.

The findings are valuable to a facility that provides ECT for the treatment of patients with SMI. Efforts to raise the standards of nursing care through improved knowledge and attitude toward ECT will reduce barriers to evidence-based practice, which will improve outcomes for patients with mental illness.

EBP Findings and Relationship to DNP Essentials

The completion of this doctoral project demonstrates competence in the eight DNP Essentials for advanced practice nursing. This section presents evidence of meeting each of the Essentials according to *The Essentials of Doctoral Education for Advanced Nursing Practice* (American Association of Colleges of Nursing, 2006).

Essential I: Scientific underpinnings for practice. A conceptual framework based on the scientific underpinnings of nursing theory and adult learning theory supported the preparation, implementation, and analysis of this educational project. Peplau's (1991) theory of therapeutic relations appropriately framed the role and responsibilities of the mental health nurse, while concepts of andragogy (Knowles et al., 2015) guided the development of a nursing SDP to address the learning needs among nurses.

Essential II: Organization and systems leadership for quality improvement and systems thinking. An analysis of the care delivery process for patients receiving ECT involved a multilevel interdisciplinary approach for improving the quality of care for a specific patient population—those receiving or in need of ECT. I demonstrated the systems and organizational leadership skills through the implementation and completion of this quality improvement project. I engaged in a collaborative process with key administrative personnel and nursing leaders to ensure that the problem of interest was ethically presented as a patient care improvement need based upon observations among staff nurses. Unanimous organizational support for the educational project led to IRB approvals from both the university and the hospital.

Essential III: Clinical scholarship and analytical methods for evidence-based practice. Evidence of knowledge gaps about ECT was confirmed by comparing mental health nurses' knowledge and attitude about ECT for patients with SMI to current practices reported in the literature. I developed this DNP project to evaluate the impact of an evidence-based educational intervention designed to reduce knowledge gaps about ECT. The effective use of research methodologies and information technology to collect and analyze the data from this project demonstrated clinical scholarship and competence in using analytical methods to evaluate nursing practice that is evidence-based.

A web-based educational intervention developed for this project was designed to improve the mental health nurses' knowledge and to support quality patient care. It was evaluated using a web-based electronic pretest and posttest survey method. Exercising technical skill in the ability to extract information from a database for analyzing and evaluating the impact of an educational intervention demonstrated competence in meeting the DNP Essential IV.

Essential V: Health care policy and advocacy in health care. The development of this DNP project required an understanding of health care policy and legislative procedures for enacting health care laws. Because state legislators have the authority to determine how laws such as the comprehensive state mental health parity legislation (C-SMHPL) are to be implemented, there are variations from state to state concerning regulations about access for certain mental health treatments. An examination of the Texas Administrative Code revealed the highly regulated use of ECT regarding specific diagnoses, methods of administration, FDA registration of equipment, and restrictions on access for patients age 16 and younger (Electroconvulsive Therapy [ECT] 25 Tex. Admin. Code § 405(E), 2019).

Essential VI: Interprofessional collaboration for improving patient and population health outcomes. The development and implementation of this scholarly project required the use of effective communication and collaboration in leading multidisciplinary team meetings within the facility and through professional conferences with legislators at the state capitol. Collaborative skills were demonstrated through advocacy and education of state legislators for patients needing access to appropriate mental health care.

Essential VII: Clinical prevention and population health for improving the nation's health. The development of this DNP project required an understanding of evidence-based recommendations for mental health care and the leadership skills to organize and implement a

nursing education program to support quality care and health promotion for patients with mental illness. An analysis of the rising national statistics of suicide and the social and financial impact of disabilities associated with mental illness revealed the need to improve clinical knowledge about clinical prevention.

Essential VIII: Advanced nursing practice. Advanced practice skills specialized in mental health care and a systems-thinking approach were used for the implementation of this specialized DNP project. The hospital-wide nursing staff was supported to achieve excellence in their mental health nursing practice by educating all licensed nurses about the nuances of ECT patient care. The improvement in knowledge about ECT patient care will raise the standard of nursing care throughout the hospital and result in better outcomes and patient care.

Recommendations for Future Research

The nurses' personal experience should be included in replications of this study. This survey did not ask the nurses about personal experience in taking care of patients who had received ECT. The perspective of nurses who have directly provided care for ECT patients may be very different than those nurses who have had no direct responsibility for the care of ECT patients. Future studies should consider a theoretical framework based on Lewin's change theory (Shirey, 2013). Change theory can be used to create an awareness of how the standard perception of ECT is a hindrance to a quality recovery for some patients who would benefit from the evidence-based treatment and for this hospital to be recognized for quality evidence-based care.

Future studies concerning knowledge and attitude toward ECT should also include unlicensed personnel such as psychiatric nurse assistants (PNAs) who spend a significant amount of time with the mental health patients who are receiving ECT. Nurses rely on prompt reporting

of the PNA's observations to identify the need for a focused assessment and the potential need for a referral.

Responses to the pretest and posttest surveys provided insight into the current knowledge and attitude level toward ECT among the nursing staff at one psychiatric hospital and can serve as a baseline for measuring changes in knowledge and attitude on future evaluations. The identified knowledge gaps provide direction for future quality improvement initiatives. Interactive learning experiences combined with debriefing allows nurses to dialogue about their perspective, which may have a greater impact on improving the attitude of mental health nurses toward ECT and the patients they serve. Quality educational experiences with opportunities for debriefing could help to determine the difference between knowledge deficits, burnout, and stigma.

Because undergraduate nursing education was noted as a significant source of first knowledge about ECT, adding qualitative questions to the survey could bring greater insight. Future studies should inquire about the content of the undergraduate instruction for nurses concerning ECT. The answers about nursing education can also give direction for undergraduate curriculum and clinical instruction.

Conclusion

Hospitalized mental health patients are accessing mental health services needed for an effective recovery, and mental health nurses are expected to be knowledgeable about ECT as one of the treatments provided to their patients. ECT is effective, safe, and saves the lives of patients who suffer treatment-resistant SMI. But when the nursing staff lacks knowledge or harbors negative attitudes toward ECT, they become the barrier to an effective treatment option for mentally ill patients. This study identified gaps in knowledge about ECT and the persistence of

stigmatized attitudes among the mental health nurses at one psychiatric hospital where regular nursing education about ECT is presented. Although this study demonstrated the effectiveness of an SDP for improving the nurses' knowledge about ECT, the gain in knowledge had less of an impact on stigmatized attitudes toward ECT among the sample of mental health nurses than was expected.

This practice-focused DNP project began with an interprofessional collaborative process, which included presenting the project idea to the medical director and the superintendent of the hospital. Expressing a shared interest in studying the nurses' knowledge and attitude toward ECT, the administrators gave their support for the project, which had the potential of improving patient care outcomes.

The role of the mental health nurse is complex. Care of the mentally ill patient must focus on recovery, with mutual patient goals identified. To achieve this aspect of mental health nursing, nurses must be knowledgeable and confident in the care they provide for patients with SMI. Therefore, the conceptual framework guiding this study combined concepts from adult learning theory (Knowles et al., 2015) and Peplau's (1991) theory of interpersonal relations.

The mental health nurses who participated in this study demonstrated a general knowledge base concerning ECT, but gaps in knowledge were evident. The pretest scores indicated there was a correlation between the knowledge and attitude of the participants concerning ECT. Findings revealed an improvement in the nurses' mean knowledge scores after the SDP. However, the mean attitude scores revealed no positive correlation with the improvement in mean knowledge scores. The findings of this study did not conform to the findings of previous studies. When knowledge is insufficient to improve attitudes toward the use

of ECT, stigmatized beliefs or compassion fatigue may be impacting the nurses' attitudes. Further studies are necessary to analyze the nurses' beliefs and attitudes toward ECT.

Every nurse hired at this psychiatric hospital has observed the administration of ECT to a patient and has witnessed the nurse's responsibilities for patient care. The observation experience will have a different impact on each nurse. Therefore, nursing leaders must encourage nurses to engage in a safe debriefing about the effects of the observational experience because the nurse's attitude will affect the nurse-patient relationship (Bradley, 2019).

Mental health care that focuses on recovery must embrace the use of ECT because it has a successful history of saving lives (AlHadi et al., 2017). Future educational interventions and studies should include a cost analysis of ECT for the treatment of SMI and compare the cumulative costs of mental health hospitalization, readmission, and failed medication treatment for patients with SMI. Mental health nurses who recognize that ECT increases the recovery potential and is associated with improved quality of life and the potential for reducing nonproductivity associated with SMI will be more confident in communicating the facts about the efficacy and efficiency of ECT with their patients (Shaughnessy, Parker, Hollenshead, Clotney, & Rubin, 2017).

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Appendix A: Abilene Christian University IRB Signed Letter of Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885



April 18, 2019

Janice Edmonson

Dear Janice,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Reducing Knowledge Gaps about Electroconvulsive Therapy (ECT) Among Mental Health Nurses",

(IRB# 19-041) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Appendix B: Texas DSHS IRB Signed Letter of Approval



TEXAS
Health and Human
Services

Texas Health and Human Services Commission

Dr. Courtney N. Phillips
Executive Commissioner

5/10/2019

Janice Edmonson

Phone:

RE: Protocol #682-27-1906, *Reducing knowledge gaps about ECT among MH Nurses*

Dear Ms Edmonson,

I am happy to inform you that your initial application for the above-referenced study been reviewed by the DSHS Institutional Review Board (IRB2). Your study has been approved by IRB2 (through expedited review: Category 5 - Research involving materials that were collected for non-research purposes) in accordance with the Code of Federal Regulations 45 CFR 46, Protection of Human Subjects, and the Texas Administrative Code, Chapter 414, Subchapter P, Research in TDMHMR Facilities.

Please note the following expiration date for the IRB2 approval:

Expiration Date: May 10, 2020

As an investigator, you have the following responsibilities:

1. Report any adverse event, adverse reaction, or serious problem - whether anticipated or unanticipated.
2. Report immediately, the death of a subject, regardless of cause.
3. Report promptly any significant findings that become known in the course of the research that might affect the willingness of subjects to participate in the study.
4. Submit any changes(s) to key research personnel along with documentation of education in protection of human subjects for review and approval prior to the implementation of the change(s).
5. Protect the confidentiality of all personally-identifiable information collected; train staff/collaborators on policies/procedures for ensuring confidentiality of this information.
6. Provide appropriate information to allow for an accounting of disclosures

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- of protected health information related to the requested waiver of authorization.
7. Submit any change(s) to the protocol and/or consent document(s) to the IRB for review and approval prior to the implementation of the change(s).
 8. Submit a Continuing Review Application, which will be sent to the principal investigator two months prior to the expiration date (listed above).
 9. Notify the IRB when the study has been completed and submit a final report.

As part of your obligation to protect patients privacy you agree to only report aggregate summary level data and not to report data in such a manner that would conceivably allow identification of any individual research subject.

If you have any questions, please contact contact IRB2 (email: IRB2@dshs.texas.gov).

You are free to proceed with your research.

Thank you.

/s/ Alan Shafer

5/10/2019

IRB2 Chair or Designee

Date

Appendix C: Letter of Support



Texas Health and Human Services Commission

October 8, 2018

To Whom It May Concern:

This letter is written confirmation of my intended support for the project proposed by Janice Edmonson regarding the knowledge gap about ECT in mental health nurses. A survey of the nursing staff of _____ will coincide with a staff development program for nursing care of patients receiving ECT.

ACU's mission is dedicated educating students for leadership and service throughout the world. For this reason, it is my pleasure to support this project which supports the university's mission and will benefit _____ and impact the _____ system in a positive manner. I am confident that the project outline, implementation, and analyses will prove useful for both current and future research in this area.

It is my privilege to support Janice Edmonson in her initiative to engage and develop this capstone project. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Medical Director

Hospital

Appendix D: Internship Memorandum of Understanding

INTERNSHIP MEMORANDUM OF UNDERSTANDING

TEXAS HEALTH AND HUMAN SERVICES
AND
ABILENE CHRISTIAN UNIVERSITY



This **Internship Memorandum of Understanding** (the "MOU") regards the terms and conditions stated herein and applicable to **Abilene Christian University** ("Referring Entity") on behalf of its **School of Nursing**, which refers students attending Referring Entity ("Participants") for placement with the **Health and Human Services Commission** ("System Agency"), at its facility, the ("Facility") located in

IX. Referring Entity and System Agency are collectively referred to herein as the "Parties," and each a "Party."

Article I. PURPOSE

WHEREAS, Referring Entity and System Agency share the common objective of developing and maintaining a clinical field experience (the "Field Experience") for students enrolled in Referring Entity's internship program ("Internship"). The Parties intend for the Field Experience to comprise broad training and education in the care, management, and treatment of individuals with various medical conditions; scientific investigation; and utilization of therapeutic and educational resources.

WHEREAS, System Agency wishes to make its Facility available to Referring Entity as a location for conducting the Field Experience.

Article II. AUTHORITY

The Parties enter into the MOU under the authority of *Texas Government Code*, Chapter 531; *Texas Health and Safety Code*, Chapter 12; and the 2018-19 General Appropriations Act, S.B. 1, 85th Legislature, Regular Session, 2015 (Article II, Special Provisions Relating to All Health and Human Service Agencies, Section 12).

Article III. LIAISONS AND NOTICES

System Agency and Referring Entity will maintain designated liaisons ("Liaison(s)") during the entire term of the MOU for the Field Experience. System Agency and Referring Entity will communicate in writing any subsequent changes in Liaison personnel. The names and contact information for the initial Liaisons are as follows:

SYSTEM AGENCY LIAISON

Name: _____
 Address: _____
 City and Zip: _____
 Contact Person: Dr. _____
 Telephone: _____
 Fax number: _____
 E-Mail Address: _____

REFERRING ENTITY LIAISON

Name: Abilene Christian Univeristy
 Address: 16633 North Dallas Parkway, Ste 800
 City and Zip: Addison 75001
 Contact Person: Dr. Tonya McGee
 Telephone: _____
 Fax number: _____
 E-Mail Address: _____

Article IV. LEGAL NOTICES

Any legal notice by System Agency to Referring Entity required under the MOU will be deemed effective when deposited by System Agency either in the United States mail, postage paid, certified, return receipt requested; or with a common carrier, overnight, signature required, to the appropriate address below:

REFERRING ENTITY

Abilene Christian University - Dallas
Attn: Dr. Tonya McGee
DNP Program Director
16633 North Dallas Parkway, Ste 800
Addison, TX 75001

Legal notice given by Referring Entity to System Agency under the MOU will be deemed effective when received by System Agency at the address below.

SYSTEM AGENCY

Health and Human Service Commission
Attn: Office of the Chief Counsel
4900 North Lamar Boulevard
Austin, Texas 78751

Either Party may change its contact information for legal notice by written notice to the other Party.

Article V. TERM, RENEWAL, AND TERMINATION

- 5.1 Term and Renewal.** The MOU is effective as of **April 1, 2019** and terminates on **March 31, 2020**, unless renewed, extended, or terminated pursuant to the terms and conditions of the MOU. System Agency and Referring Entity, by mutual agreement, may extend the MOU for any period or periods of time no greater than a cumulative total of five years, which five-year period includes the original MOU term. At the sole option of System Agency, the MOU may also be extended beyond all exercised renewal periods as otherwise determined by System Agency to serve the best interests of the state, subject to mutually agreeable terms and conditions of the Parties.
- 5.2 Termination.** Except as otherwise provided herein, either Party may terminate the MOU at any time without cause upon at least sixty (60) days prior written notice, provided that all Participants in good standing and currently enrolled in the Field Experience as of the effective date of the notice of termination will be given the opportunity to complete their Field Experience at Facility, with such completion not to exceed six (6) months from the effective date of the notice of termination. Additionally, either Party may terminate the MOU, effective immediately, if there has been a material breach of the MOU, and the breaching Party fails to cure the breach within 10 days after the effective date of the Notice of Breach sent by the aggrieved Party. The “effective date” of any notices referenced in this Section will be consistent with the criteria identified above in **Article IV**.

Article VI. RIGHTS AND RESPONSIBILITIES OF REFERRING ENTITY

- 6.1 Administration of the Field Experience.** Referring Entity assumes ultimate responsibility for administrating the Field Experience, including, but not limited to: supervising all Participants; curriculum development; competency development of Participants; performance evaluations and grading of Participants; and requirements for Field Experience matriculation, credits, scheduling, and hours.
- 6.2 Standards of Education.** The Parties intend for the Field Experience to comprise broad training and education in the care, management, and treatment of individuals with various medical conditions; scientific investigation; and utilization of therapeutic and educational resources. During the Field Experience at Facility, these goals will be met through the supervision and various presentations by System Agency preceptors. The training and education provided will be of a form and type sufficient to meet the requirements for Referring Entity credits and accreditation by applicable regulatory bodies.
- 6.3 Maintenance of Credentials.** Referring Entity will ensure that Referring Entity and the Participants maintain the required accreditation, licenses, certifications, permits, registrations, approvals, and/or other credentials with the appropriate regulatory bod(y)(ies) during the entire term of the MOU to assume their respective roles and responsibilities contained within the MOU. Referring Entity will be responsible for notifying System Agency of any loss or reduction of required accreditation, licenses, certifications, permits, registrations, approvals, and/or other credentials of Referring Entity and/or any Participant.
- 6.4 Participant Prerequisites and Training.** Prior to participating in a Field Experience term, Participants must complete any prerequisites and training required by the System Agency and Referring Entity that are condition precedents to participation in the Field Experience term. Failure to complete the required prerequisites and training before the commencement of any Field Experience term will bar the Participant from participating in the Field Experience term.

- 6.5 Policies, Rules, and Regulations.** Referring Entity will ensure that, while participating in the Field Experience, all Participants will follow all administrative policies, rules, and regulations of System Agency.
- 6.6 Participant Cooperation with Documentation.** Referring Entity will ensure that Participants cooperate in the prompt preparation of documentation relating to all examinations, procedures, and services performed by them at Facility in accordance with System Agency policy and applicable regulations. The ownership and right of control of all reports, records, and supporting documents prepared in connection with the Field Experience will belong to System Agency.
- 6.7 Insurance for All Private Referring Entities.** If Referring Entity is not a "governmental unit" under *Texas Government Code* Chapter 2259, then upon request by System Agency, Referring Entity will provide to System Agency certificates of insurance demonstrating that Referring Entity is maintaining in effect, during the entire term of the MOU, and at its sole cost and expense, the following insurance types and amounts covering all actions and omissions of Participants while participating in the Field Experience at Facility:
- 6.7.1** commercial general liability insurance on a standard commercial occurrence form with a minimum combined single limit of not less than \$1 million and \$3 million yearly aggregate;
 - 6.7.2** professional liability insurance (errors and omissions) on an occurrence basis with a limit of not less than \$2 million per occurrence or wrongful act and \$4 million yearly aggregate;
 - 6.7.3** Referring Entity will provide notification to System Agency prior to cancellation, termination, non-renewal, or material alteration of any insurance policy referenced above, and;
 - 6.7.4** Failure by Referring Entity to obtain or maintain the required insurance referenced in **Section 6.7** during any period of the MOU will give System Agency the right to terminate the MOU, and System Agency will be entitled to recover from Referring Entity all damages caused by Referring Entity's failure to obtain or maintain the required insurance.
- 6.8 Health and Onboarding Requirements.** Referring Entity will ensure that all Participants participating in the Field Experience at Facility complete System Agency Health/Onboarding Requirements enumerated on the Texas Health and Human Services ("HHS") website at **Jobs at Texas Health & Human Services**, at <https://hhs.texas.gov/about-hhs/jobs-hhs>.
- 6.9 Pre-assignment Clearances.** In accordance with *Texas Government Code* § 411.1103 and *25 Tex. Admin. Code* § 414.504, and any applicable system agency rules, prior to participating in the Field Experience, Referring Entity will require each Participant to obtain a fingerprint based pre-assignment criminal history clearance, nurse aide registry clearance, and employee misconduct registry clearance to ensure that they have not been:
- 6.9.1** listed as revoked in the Nurse Aide Registry or unemployable in the Employee Misconduct Registry maintained by HHS; or

- 6.9.2** convicted of any offense identified as a bar to employment in *Texas Health and Safety Code* Chapter 250.

All costs associated with any required background check/clearance will be paid by Referring Entity or Participants. If the results of the criminal background check show that a Participant has been convicted of or received deferred adjudication for any of the criminal offenses listed in the *Texas Health & Safety Code* § 250.006 or other relevant statutes, such conviction, per HHS policy, will bar the Participant from participation in the Field Experience, and the Facility's premises.

- 6.10 Notice of Disqualifying Circumstances.** Within two (2) days of Referring Entity's receipt of notice of any action, complaint, claim, investigation, or lawsuit involving a Participant that would disqualify the Participant from participating in the Field Experience pursuant to the MOU, Referring Entity will notify System Agency of said action, complaint, claim, investigation, or lawsuit.
- 6.11 Notification of Obligations.** Referring Entity will notify Participants about their obligation to comply with all System Agency policies, procedures, standards, and schedules referenced in the MOU, as well as all state and federal law.
- 6.12 Immunizations; Blood Borne Pathogens; CPR**
- 6.12.1** Referring Entity must certify to System Agency prior to a Participant's participation in the Field Experience that the Participant has received all System Agency required immunizations with the costs for any immunizations paid for by Referring Entity, the Participants, or the Participant's own health insurance.
- 6.12.2** Referring Entity, if applicable to the Field Experience, must be in full compliance with the Occupational Safety and Health Administration ("OSHA") Final Rule for Occupational Exposure to Blood borne Pathogens, which includes relevant training of Participants prior to their participation in the Field Experience at Facility.
- 6.12.3** Referring Entity, if applicable to the Field Experience, will provide evidence to System Agency that every Participant has been certified in the American Heart Association Basic Life Support ("BLS") for Healthcare Providers ("CPR") prior to participation in the Field Experience at Facility.
- 6.13 Proper Work Attire.** Referring Entity will direct Participants to be properly attired when reporting for the Field Experience.
- 6.14 Student Enrollment.** At least 30 days prior to the commencement of each Field Experience term, Referring Entity will provide the System Agency Liaison with the following proposals for the Field Experience term:
- A. Student enrollment figures;
 - B. Field Experience participation days and hours;
 - C. Field Experience start and end dates; and
 - D. Length of Field Experience term.

The approval of these proposals is within the sole and absolute discretion of System Agency.

- 6.15 **Communication Channels.** Referring Entity will follow proper communication channels at the Facility for planning and administrating the Field Experience.
- 6.16 **Weekly Hours Worked.** Referring Entity will require that Participants do not work more hours than are permitted by law in any one work week, with the work week commencing on Sunday and terminating on Saturday.
- 6.17 **Media Releases.** Neither Referring Entity nor any Participant may use System Agency's name, logo, or other likeness in any press release, marketing material, or other announcement without System Agency's prior written approval. Neither Referring Entity nor any Participant are authorized to make or participate in any media releases or public announcements pertaining to the MOU without System Agency's prior written consent, and then only in accordance with explicit written instructions from System Agency.

Article VII. RIGHTS AND RESPONSIBILITIES OF SYSTEM AGENCY

- 7.1 **Coordination of Internship Field Experience.** The System Agency Liaison will have the following responsibilities:
 - 7.1.1 assistance in coordinating the education, supervision, and training offered through the Field Experience;
 - 7.1.2 provisions for adequate orientation of Referring Entity Participants to System Agency philosophies, rules, regulations, policies, programs, facilities, and proper channels for communication;
 - 7.1.3 provisions for adequate exchange of information pertinent to the Field Experience between Participants and System Agency staff;
 - 7.1.4 assistance in evaluating Participant performances and documenting the evaluations;
 - 7.1.5 relay and interpret changes in System Agency policies and programs to Referring Entity; and
 - 7.1.6 assistance to Referring Entity and Participants with completing System Agency required forms or other documentation.
- 7.2 **Right of System Agency to Refuse Participation or Entry onto Premises.** System Agency reserves the right, in its sole and absolute discretion, to refuse entry of any Participant onto Facility premises and from participating in the Field Experience at Facility.
- 7.3 **Removal of Unsatisfactory Participants.** System Agency reserves the right, in its sole and absolute discretion, to remove any Participant at any time from the Field Experience at the Facility, or from Facility premises without the need for prior notice:
 - 7.3.1 whose personal characteristics prevent desirable relationships with System Agency;
 - 7.3.2 whose health status is a detriment to the welfare of any Field Experience Participant, or any patient, client, or resident of Facility;

- 7.3.3 whose performance, after appropriate instruction and counseling, continues to fall below the level required to maintain practice standards;
- 7.3.4 whose behavior is disruptive or detrimental to other Field Experience Participants, or any patient, client, or resident of Facility;
- 7.3.5 who violates the rules and regulations of Facility, including, but not limited to, disclosure, by any Participant, of information that is confidential by law.
- 7.4 **Inspection for Accreditation.** On reasonable request by Referring Entity, System Agency will permit Referring Entity or its accrediting body to inspect System Agency's facilities, records, and other items pertaining to the Field Experience to meet Referring Entity's accreditation requirements.
- 7.5 **Facilities of System Agency.** Upon request by Referring Entity, System Agency will make available to Referring Entity, certain facilities and equipment of Facility necessary to conduct the Field Experience, contingent on the availability of the facilities and equipment. Participants will also have access to Facility's patient, client, and resident records for Field Experience instruction purposes.
- 7.6 **Participant Substitution for Paid Staff Prohibited.** System Agency will not allow Participants to be substituted for paid staff. Participants may not take responsibility or the place of "qualified" staff. After demonstrating proficiency, however, Participants may be permitted to perform allowable procedures with permission and careful supervision.
- 7.7 **Emergency Care for Participants.** In the event any Participant requires emergency medical care for injury(ies) sustained at Facility while participating in the Field Experience, the Participant will have access to emergency medical care through the following mechanism: charge nurse or supervisor at the location of the injury is notified of the injury and makes arrangements for immediate transport of the injured Participant to the nearest hospital for immediate evaluation and treatment. If indicated, the Participant will immediately be provided emergency medical care at Facility. Any costs resulting from such treatment will be the responsibility of the Participant treated.

Article VIII. RIGHTS AND RESPONSIBILITIES OF REFERRING ENTITY AND SYSTEM AGENCY

- 8.1 **Supervision of Participants.** Subject to System Agency's overall supervisory responsibility for client services at Facility, the supervision of all Participants at Facility, including, but not limited to, the welfare, control, discipline, and activities of all Participants at Facility, will be the sole responsibility of Referring Entity, and Referring Entity will make uniform and adequate provisions therefore in accordance with Referring Entity and System Agency policies. However, subject to Referring Entity's overall responsibilities mentioned in this Section, System Agency will assist Referring Entity in providing a supervised learning experience at Facility for Participants in accordance with the learning objectives, skill development areas, and intended learning outcomes mutually determined by both Parties.
- 8.2 **Dismissal of Participants.** System Agency will have no authority to dismiss Students from the Internship. However, System Agency may prohibit, at its sole and absolute discretion, any Participant from participating in the Field Experience at Facility and/or entering Facility premises.

8.3 Forms and Documentation

It is contemplated by the Parties that the completion of forms or other similar documentation ("Forms") other than the MOU may be required to fully satisfy all the requirements of the Field Experience. Each Party will be responsible for circulating their required Forms within their respective organizations for approval and adoption.

If the completion and submittal of any System Agency required Forms is a condition precedent to participation in the Field Experience, then Referring Entity will ensure that Referring Entity or any proposed Participant completes and submits to System Agency said Forms prior to commencement of each Field Experience term. If the completion and submittal of any System Agency required Forms is required during a Field Experience term, then Referring Entity will ensure that Referring Entity or any proposed Participant completes said Forms prior to the completion of the Field Experience term. The System Agency Liaison will timely provide Referring Entity with current versions of all System Agency required Forms.

Referring Entity will timely provide the System Agency Liaison with any Forms that Referring Entity requires System Agency to complete prior to commencement of any Field Experience term. System Agency will timely complete and submit said Forms to Referring Entity.

8.4 Maintenance of Confidential Information

The Parties will respect and conscientiously observe the confidential nature of all information, which may come to either or all of them, individually or collectively, with respect to any records of clients, patients, or residents of Facility. Participants participating in the Field Experience are members of the Facility's workforce for purposes of the Health Insurance Portability and Accountability Act of 1996, as codified at 42 USC § 1320d through d-8 ("HIPAA") and therefore may have access to patient medical information as provided for in the privacy rule of HIPAA. This Section applies solely to HIPAA privacy and security regulations applicable to System Agency and does not establish an employment relationship.

To the extent applicable to the MOU, the Parties will comply with the Health Information Technology for Economic and Clinical Health Act of 2009 (the "HITECH ACT"), and HIPAA and any current and future regulations promulgated under either the HITECH Act or HIPAA, including, without limitation, the federal privacy regulations contained in 45 C.F.R. Parts 160 and 164 (the "Federal Privacy Regulations"), the federal security standards contained in 45 C.F.R. Parts 160, 162, and 164 (the "Federal Security Regulations"), and the federal standards for electronic transactions, all as may be amended from time to time, and all collectively referred to herein as "HIPAA Requirements". The Parties will not to use or disclose any Protected Health Information (as defined in 45 C.F.R. § 164.501) or Individually Identifiable Health Information (as defined in 42 USC § 1320d), other than as permitted by HIPAA Requirements and the terms of the MOU. Participants with direct access to System Agency information resources must execute the HHS Acceptable Use Agreement attached to the MOU as **Attachment A** and comply with the HHS Acceptable Use Policy therein.

8.5 FERPA

Furthermore, the Parties will comply with all applicable provisions of all federal and state laws and regulations, including any applicable Executive Orders, applicable to the operation of Facility and the Field Experience, including, without limitation, employment-related statutes and education-related statutes such as the Family Education Rights and Privacy Act (“FERPA”). Any exchange by the Parties of student record information protected by FERPA will commit the receiving party to limit the use of such information to the purposes for which the disclosure was made, and to impose such limits on any re-disclosure, and the Parties will comply with all applicable statutory and regulatory provisions, including, without limitation 34 CFR 99.31, 99.32, 99.33, 99.34, and 99.35. The Parties will not deny or discriminate on the basis of any legally protected criteria in the provision of any service or benefit, including, without limitation, access to the Field Experience or use of any System Agency facility.

- 8.6 Responsibility for Disclosure of Confidential Information.** System Agency will not be responsible for a Participant’s or Referring Entity’s unlawful disclosure of confidential information. Compliance with relevant Facility policies, laws, and regulations pertaining to disclosure of confidential information is the sole responsibility of Referring Entity and Participants.
- 8.7 Non-Discrimination.** Both Parties, in connection with the Field Experience, will not unlawfully discriminate against any person on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, ethnicity, age, disability, political affiliations or belief. The Parties will comply with Title VII of the Civil Rights Act of 1964, Americans with Disabilities Act (ADA) of 1991, Title IX of the Education Amendments Act of 1972, and Section 504 of the Rehabilitation Act of 1973. The Parties will also comply with Executive Orders 11246 and 13672.

Article IX. Miscellaneous Terms and Conditions

- 9.1 Non-Binding.** Nothing in the MOU will be deemed to create a binding agreement, judicially enforceable contract, association, partnership, or joint venture between System Agency and Referring Entity, but is intended solely to guide any relationship between the Parties.
- 9.2 Entire Agreement.** The MOU sets forth the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements, written or oral, and all other communications between the Parties relating to such subject matter. The MOU may be amended only by mutual written agreement between the Parties, except any alterations, additions, or deletions to the terms of the MOU that are required as a result of changes in federal or state law or regulations are automatically incorporated into the MOU without written amendment hereto, and will become effective on the date designated by such law or by regulation.
- 9.3 Change in Requirements Resulting in MOU Termination.** If federal or state laws or regulations or other federal or state requirements are amended or judicially interpreted so that System Agency cannot reasonably fulfill the purposes of the intended relationship consistent with the MOU, then the MOU will terminate and the Parties will be discharged from any further obligations under the MOU.

- 9.4 **Survival.** Notwithstanding Section 9.3, expiration or termination of the MOU for any reason does not release Referring Entity from any liability or obligation set forth in the MOU that is expressly stated to survive any such expiration or termination, that by its nature would be intended to be applicable following any such expiration or termination, or that is necessary to fulfill the essential purpose of the MOU, including without limitation, the provisions regarding indemnification and confidentiality.
- 9.5 **Counterparts.** The MOU may be executed in counterparts, each one of which will be an original, and different Parties may sign different counterparts, all of which will constitute but one document.
- 9.1 **INDEMNIFICATION. TO THE EXTENT PERMITTED BY THE CONSTITUTION AND LAWS OF THE STATE OF TEXAS, AND WITHOUT WAIVER OF SOVEREIGN IMMUNITY OR ANY OTHER DEFENSE TO WHICH REFERRING ENTITY OR SYSTEM AGENCY IS OR MAY BE ENTITLED TO ASSERT, REFERRING ENTITY SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE STATE OF TEXAS AND SYSTEM AGENCY, AND/OR THEIR OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND/OR DESIGNEES FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS, OR SUITS, AND ALL RELATED COSTS, ATTORNEY FEES, AND EXPENSES ARISING OUT OF, OR RESULTING FROM ANY ACTS OR OMISSIONS OF REFERRING ENTITY OR ITS PARTICIPANTS IN THE EXECUTION OR PERFORMANCE OF THE MOU. THE DEFENSE SHALL BE COORDINATED BY REFERRING ENTITY WITH THE OFFICE OF THE TEXAS ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN ANY LAWSUIT AND REFERRING ENTITY MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE TEXAS ATTORNEY GENERAL. REFERRING ENTITY AND SYSTEM AGENCY AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM.**
- 9.2 **No Waiver of Immunity.** Notwithstanding any other provision of the MOU, nothing in the MOU will be construed as a waiver of sovereign immunity by System Agency. Similarly, nothing in the MOU will be construed as a waiver of any sovereign immunity, rights, or affirmative defenses available to Referring Entity.
- 9.3 **Nepotism Policy.** Referring Entity will ensure that all Participants comply with System Agency's nepotism policy and disclose any family relationship with any System Agency staff on any Field Experience registration form. System Agency's nepotism policy provides, in part, that no manager employed with System Agency will place a relative within his or her chain of command. Failure to disclose any known relationship may subject the Participant to immediate dismissal from the Field Experience.
- 9.4 **Assignability.** The MOU may be assigned by System Agency to any successor state agency or agencies of System Agency. No other assignment of the rights and obligations hereunder will be valid without the written consent of the non-assigning party.
- 9.5 **Governing Law and Venue.** The MOU will be governed and construed in accordance with the laws of

the State of Texas. Venue for any disputes arising out of the MOU will be in Travis County, Texas.

- 9.6 Non-Employees.** Participants are not employees of System Agency. Therefore, System Agency will not:
- A. compensate Referring Entity or any Participant for services rendered in connection with the Field Experience;
 - B. incur any financial obligation to Referring Entity or any Participant in connection with the Field Experience;
 - C. commit to hire any Participants;
 - D. permit Participants to work over the hours authorized by Referring Entity;
 - E. provide any form of insurance coverage to Referring Entity or any Participant;
- 9.7 Discharge of Obligations.** If System Agency is unable to reasonably fulfill the purposes of the intended relationship under the MOU, it will attempt to notify Referring Entity in advance, but will not be liable to Referring Entity or Participants for not being able to fulfill any responsibilities, and further, System Agency will be discharged from any further responsibilities under the MOU.
- 9.8 System Agency Vehicles.** Participants will not be allowed to operate System Agency vehicles. Participants may operate their own vehicles in performance of their duties provided that proof of personal auto insurance and a valid driver's license is presented. It is understood that Participants are required to carry their own auto insurance at all times. Referring Entity and all Participants will hold System Agency harmless from any liability resulting from operation of said vehicles.
- 9.9** Referring Entity may inform Participants that System Agency is an equal opportunity employer and that Participants may apply for suitable posted positions. Referring Entity will not represent to any Participant that a Participant's job training, or unpaid work experience, will result in special consideration or special advantage relative to employment with System Agency should System Agency consider a Participant's application. Note that this provision is not applicable to existing System Agency employees who choose to enroll in an existing System Agency sponsored internship program.
- 9.10 Transportation, Meals, and Expenses.** System Agency has the option, in its sole and absolute discretion, to financially support the Clinical Experience activities of Participants through a financial stipend or other type of subsidy for housing, meal costs, or mileage. Requests for mileage reimbursement must be submitted in accordance with the System Agency travel policy. Such option, if exercised, would not constitute an employer-employee relationship between System Agency and any Participant.
- 9.11 Meetings.** Referring Entity will ensure that appropriate Participants and representatives of Referring Entity attend meetings relevant to the MOU, as required by System Agency. The cost of attending the meetings will be the Referring Entity's or the Participant's sole responsibility.
- 9.12 Records Retention.** Referring Entity will grant access to all books and records pertinent to the provision of Participants for the Field Experience to HHS, the Texas Workforce Commission, the State Auditor of Texas, the U.S. Department of Health and Human Services, the U.S. Department of Labor, and the

Comptroller General of the United States. Unless a longer period is required by applicable law, the Referring Entity will retain legible copies of the MOU and all related documents for a minimum of the longer of the following two periods: (i) seven (7) years after the MOU is completed, expires, or is otherwise terminated; or (ii) seven (7) years after all issues that arise from any litigation, claim, negotiation, audit, open records request, administrative review, or other action involving the MOU and all related documents are resolved.

- 9.13 Use of State Property.** Referring Entity Participants and Personnel are prohibited from using State Property for any purpose other than performing actions consistent with the Field Experience as authorized under the MOU. State Property includes, but is not limited to, System Agency's office space, identification badges, System Agency information technology equipment and networks (*e.g.*, laptops, portable printers, cell phones, iPads, external hard drives, data storage devices, any System Agency-issued software, and System Agency Virtual Private Network (VPN client)), and any other resources of System Agency. Referring Entity Participants and personnel will not remove State Property from the continental United States. In addition, Referring Entity Participants and personnel may not use any computing device to access System Agency's network or e-mail while outside of the continental United States. Use of State Property for a purpose not authorized by the MOU may result in termination of the MOU and the pursuit of other remedies available to System Agency under contract, at law, or in equity.
- 9.14 Damage to Government Property.** Referring Entity will be liable for all damage to government-owned, leased, or occupied property and equipment caused by Referring Entity, its Participants, and/or its personnel. Referring Entity will notify System Agency in writing of any such damage within one (1) calendar day of the damage.
- 9.15 Captions.** The captions contained in the MOU are used solely for convenience and will not be deemed to define or limit the provisions of the MOU.

(Signature Page Follows)

By signing below, the Parties acknowledge that they have read the MOU and all appended attachments and agree to the terms therein, and that the persons whose signatures appear below have the requisite authority to execute the MOU on behalf of the named Party.

SYSTEM AGENCY

REFERRING ENTITY

Signature

Stephen Johnson
Stephen Johnson (Apr 13, 2019)
Signature *JLC*
JLC

Title

Vice President & Chief Administrator
Title

15 April 2019
Date

Apr 13, 2019
Date

THE FOLLOWING ATTACHMENT TO THE MOU IS INCORPORATED BY REFERENCE:

ATTACHMENT A – HHS ACCEPTABLE USE AGREEMENT



Attachment A
Health and Human Services
Acceptable Use Agreement (AUA)
(Formerly known as the Computer Use Agreement or CUA)

Please read the following agreement carefully and completely before signing.

Purpose

The purpose of this document is to inform you of your responsibilities concerning the use of Texas Health and Human Services System (HHS) Confidential Information, HHS Agency sensitive information, and HHS Information Resources.¹ This includes: computer, hardware, software, infrastructure, data, personnel, and other related resources. Your signature is required to formally acknowledge your understanding, acceptance, and compliance of HHS's Information Resource Acceptable Use provisions. This agreement applies to all persons using HHS Information Resources and/or using, disclosing, creating, transmitting, or maintaining HHS Confidential Information or HHS Agency sensitive information, whether employed by an HHS Agency or not, and is based on policy delineated in the HHS Enterprise Information Security Policy (EIS-Policy), and the HHS Enterprise Information Security Acceptable Use Policy (EIS-AUP). Users are further informed of their responsibilities regarding the use of HHS Information Resources when taking the required annual *HHS Enterprise Information Security Acceptable Use Training*.

I understand and hereby agree to comply with the following Information Resource Acceptable Use provisions:

Authorized Use

- Information Resources are intended to be used in support of official state-approved business.
- Limited personal use of Information Resources may be allowed and is described in other policies and procedures of the HHS Agency by which I am employed.
- Proper authorization is required for access to all information owned by HHS Agencies, except for information that is maintained for public access.
- I will not attempt to access or alter any information that I am not authorized to work with in the performance of my job duties.
- I will not enter any unauthorized information, make any unauthorized changes to information, or disclose any information without proper authorization. Unauthorized access to an HHS information Resource, allowing another party unauthorized access to, or maliciously causing a computer malfunction are violations under Chapter 33 of the Texas Penal Code ("Computer Crime Law") and are punishable by fines, jail time, or both.

User Credentials

- I will receive and will be required to use credentials (User ID and Password) to gain access to and to use HHS Information Resources.
- I will employ a difficult to guess password with a minimum of eight characters in length containing upper case alpha, lower case alpha, numerical, and special characters unless further requirements for passwords are issued.
- I will not construct my password from obvious user names or passwords, such as personal information (i.e. telephone numbers, relative's names, pet's names, or passwords used for personal business, etc.).
- Under no circumstances will I allow my credentials to be used by any other individual, nor will I use

¹ As defined in HHS EIS-Definitions document:
 §2054.003(7), Texas Government Code.

Information resources¹ means the procedures, equipment, and software that are employed, designed, built, operated, and maintained to collect, record, process, store, retrieve, display, and transmit information, and associated personnel including consultants and contractors.

And as defined in [44 U.S.C., Sec. 3502], NIST SP 800-53 rev 4,

Information and related resources, such as personnel, equipment, funds, and information technology.



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- credentials belonging to someone else.
- I will be held responsible for any violations of applicable law or agency policy related to HHS Confidential Information, HHS Agency sensitive information, or HHS Information Resources, caused by my acts or omissions, or for any harm, loss, or adverse consequences arising from the use of my credentials, including any unauthorized use by a third party or contractor if such party gains access to my credentials due to my negligence or misconduct. Disciplinary actions up to and including dismissal and civil or criminal prosecution may result from any violations or misuse.
- Transactions initiated under my credentials will be considered as having been authorized and electronically signed by me.
- I will not disclose my password to anyone.

Software

- Only properly licensed software may be used on HHS Information Resources.
- I will use all software installed on HHS Information Resources in a manner that complies with the terms of the applicable software license agreement and all applicable law and HHS Agency policies and procedures.
- I will not install or use any software on HHS Information Resources that has not been approved for use in accordance with HHS Agency policies and procedures.

HHS Confidential Information

HHS Confidential Information includes information from the IRS (Federal Tax Information (FTI)) or the Social Security Administration (SSA), personally identifiable information, such as patient/client identifying health information, employee information, unpublished agency work product, or any information (patient or otherwise) that is classified confidential by applicable law and HHS Agency policy. You may have authority to use or disclose some or all of this HHS Confidential Information only as an authorized person through a computer system, or in paper or oral form or for your work for authorized purposes.

HHS Confidential Information is valuable and sensitive, and is protected by law and by HHS policies. The intent of these laws and policies is to safeguard the information against unauthorized use or disclosure and in support of the organization's mission. As a user of HHS systems and HHS Confidential Information, you are required to conform to applicable laws and HHS policies governing confidential information. Your principal obligations in this area are outlined below. You are required to read and to abide by these obligations.

I understand that in the course of my job, I may have authority to use or disclose HHS Confidential Information related to:

- Individuals' personally identifiable information about patients/clients (such as records, conversations, admissions information, diagnosis, prognosis, treatment plan, financial information, or other identifiers such as name, social security number, benefit plan, etc.) HHS Workforce personally identifiable information including home addresses, home phone numbers, and social security numbers. HHS Workforce includes employees, interns, trainees, volunteers, and staff augmentation contractors.
- HHS Agency functions (such as unpublished or draft financial information, internal reports, memos, contracts, peer review information, communications, proprietary computer software, and procurement information).
- Legal work product or other information deemed confidential under applicable law or HHS Agency policy.
- Contractor or third party information (such as vendor information).

Accordingly, as a condition of my access to HHS Confidential Information, I agree that:

- I will use HHS Confidential Information only as needed to perform legitimate duties. This means, among other things, that:



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- I will only access HHS Confidential Information that I have a need to know;
- I will not in any way create, use, disclose, transmit, maintain, copy, sell, loan, review, alter, or destroy any HHS Confidential Information except as properly authorized within the scope of my duties for HHS;
- I will not misuse or carelessly handle HHS Confidential Information; and
- I will encrypt HHS Confidential Information when appropriate, including when emailing such information and when storing such information on portable storage devices. I will not use confidential individual identifiers in email subject lines because subject lines are never encrypted.
- I will safeguard and will not disclose my user name or password or any other authorization I have that allows me to access to HHS Confidential Information, except as permitted by law and applicable HHS Agency policy.
- I will report activities by any other individual or entity that I suspect may compromise the confidentiality, integrity or availability of HHS Confidential Information to my supervisor and the HHS Privacy Office at: privacy@hhsc.state.tx.us or (877) 378-9869 or the agency's Privacy Office. I will immediately report computer security incidents to the help desk.
- Reports are made in good faith about suspect activities and will be held in confidence to the extent permitted by law, including the name of the individual reporting the activities. Retaliation for a good faith report of a violation of law or policy is prohibited by HHS.
- My obligations under this Agreement will continue after termination of my association with HHS or access to HHS applications until all HHS Confidential Information in my possession, custody or control is returned or destroyed as directed by HHS.
- My privileges hereunder are subject to periodic review, revision, and if appropriate, removal.
- I have no right or ownership interest in any HHS Confidential Information referred to in this Agreement. HHS may revoke my access code or other authorized access to HHS Confidential Information at any time.
- I will, at all times, safeguard and retain the confidentiality, integrity and availability of HHS Confidential Information.
- I acknowledge my responsibility to be aware of, read, and comply with HHS security policy, standards, and controls².

Agency Sensitive Information

Agency sensitive information is information that is not subject to specific legal, regulatory or other external requirements, but is considered HHS sensitive and should not be readily available to the public. Agency sensitive information must be protected even though disclosure is not specifically restricted by legal or regulatory requirements.

Examples of agency sensitive information include but are not limited to:

- HHS-specific legal information such as nondisclosure agreements (NDAs) and contracts.
- Unpublished financial information related to organizational accounting such as balance sheets, purchase orders, contracts and budget information.
- Unpublished financial information related to employee compensation, such as offer letters, salaries, severance, retirement plans, and benefits.
- Internal operational procedures.

Some information, even though it is available to the public, may contain sensitive information. Consequently, I understand it is also my responsibility to protect this information according to its sensitivity, value, and impact to HHS.

I understand that my failure to comply with this Agreement may result in loss of access privileges to HHS applications; disciplinary action, up to and including dismissal; and civil or criminal prosecution.

If I receive a request for the public disclosure of information, I will follow my agency's policies and procedures for the release of public information.

² HHS security policy, standards, and controls can be found at <http://hhscx.hhsc.texas.gov/it/policies-and-guidelines>



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Workforce Nondisclosure and Procurement Integrity Statement

As an HHS workforce member (employee, trainee, intern, volunteer or staff augmentation contractor) of the Texas Health and Human Services Commission (HHSC) or a Health and Human Services (HHS) agency, I may be provided access to HHS Confidential Information or agency sensitive information regarding the proposed work, procurement of goods and services for HHSC or an HHS Agency. As such, I acknowledge that:

- My access to this information is authorized only within my duties as an HHS Workforce Member of HHSC or an HHS Agency;
- My access to this information is solely for the purpose of discharging the duties of HHSC or an HHS Agency regarding the proposed procurement;
- Premature or unauthorized disclosure of this information will irreparably harm the State's interests in the proposed procurement and may constitute a violation of *Section 39.02 of the Texas Penal Code*, the antitrust laws of the United States and the State of Texas, and the *Texas Public Information Act, Chapter 552, Texas Government Code*, and
- The information may represent confidential or proprietary information, the release of which may be restricted or prohibited by law.

In view of the foregoing, I agree that I shall only use, disclose, create, maintain or transmit any information that I receive in my capacity as an HHS workforce member, in any form, whether electronic, paper or oral, formal or informal – for the following authorized purposes only:

- To provide the goods, services and/or deliverables required or requested under this HHSC or HHS Agency procurement in accordance with my assigned duties;
- To provide action, response or recommendation requested by HHSC or an HHS Agency in the course of fulfilling my assigned duties regarding the proposed procurement as prescribed under the resulting contract;
- To evaluate the submissions received from vendors or offerors in connection with the proposed procurements in accordance with my assigned duties;
- To assist HHSC or an HHS Agency in developing any documents, reports, working papers, evaluations, schedules, or instruments necessary to fulfill the requirements of the procurement; or
- As otherwise authorized in writing by HHS.

I further agree that I will regard any such information as confidential and that I will not use, disclose, create, transmit or maintain the information or any summary or synopsis of the information in any manner or any form whatsoever, except under the following circumstances:

- When authorized in writing by an HHSC or HHS employee associated with the respective proposed procurement or my assigned duties at HHS;
- When required by law as determined by HHS Legal Counsel;
- When the information has previously been released to the general public by HHSC or an HHS Agency regarding the respective proposed procurement -provided such release was not inadvertent or unintentional; and
- When required, to brief or inform a manager or supervisor, provided the manager or supervisor is informed of and agrees to the limitations on further disclosure contained in this statement.

In the event I receive a request for information relating to a proposed procurement either during or after the performance of this resulting contract, I agree to do the following:

- Notify HHSC or HHS Agency Information Owner associated with the respective proposed procurement as soon as practical following receipt of the request, who will seek advice from appropriate legal counsel and further instruct me regarding my ability to disclose the information.

The aforementioned statements supersede any other non-disclosure statement related to a proposed procurement or work duties. Any prior authorizations relating to access to information related to a proposed procurement are revoked.

In addition, I agree to notify the HHSC or HHS Agency employee associated with the respective proposed procurement immediately if I learn or have reason to believe that any information covered by this Workforce Nondisclosure and Procurement Integrity Section has been disclosed, intentionally or unintentionally, by any person.



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Physical Security

- I will not use, disclose, transmit, maintain, create or remove Information Resources or HHS Confidential Information or HHS Agency sensitive information from HHS property without proper prior authorization and approval of supervisory HHS staff.
- I will immediately report the loss or theft of any Information Resource or information to the appropriate investigative office in accordance with all HHS Agency policies and procedures.
- I will secure my workstation either by logging off or locking my screen when away from my workstation.
- I will keep HHS Information Resources under my physical control at all times, or will safeguard them when away, such as by keeping my workspace clean, not leaving HHS Confidential Information, HHS Agency sensitive information, or Information Resources in my vehicle unattended and locking Information Resources with a locking cable or a suitable locked container under my control.

E-Mail

- I understand that the state government e-mail system is provided for official HHS business.
- I will limit my incidental, non-official use of the e-mail system to prevent interference with my official duties or cause degradation of network services, in accordance with HHS Agency policy.
- I will not send e-mail that violates HHS Agency policy, such as e-mail that contains malicious, hostile, threatening, abusive, vulgar, defamatory, profane, or inappropriate racial, gender, sexual, or religious content over state government e-mail.
- I will not use personal email accounts (e.g. Gmail, Hotmail, Yahoo etc.) for transmitting or receiving HHS Agency information or conducting agency business.
- I will utilize HHS Agency approved encryption for transmitting HHS Confidential Information.

Internet

- I understand that access to public networks (i.e. the Internet) is for official HHS business.
- I will limit my incidental, non-official access to the Internet to prevent interference with my official duties or cause degradation of network services, in accordance with HHS Agency policy.
- I will not view or attempt to view web content that violates HHS policy, such as sites known to contain malicious, hostile, threatening, abusive, vulgar, defamatory, profane, or inappropriate racial, gender or sexual content, text or graphics.
- I will not utilize unapproved cloud computing resources or storage unless approved by HHS. These include but are not limited to Apple iCloud, Dropbox, Google Docs, or any other commercially available cloud computing service that is not expressly approved by HHSC IT.
- I will not use a personal or public available proxy to circumvent security policies for internet usage.

Social Media

I understand from the HHS Social Media Policy, that incidental, non-work related use of social networking sites such as Facebook, Myspace, Twitter, and video-hosting sites such as YouTube are prohibited. Exceptions for the use of social media sites for approved HHS business purposes must be approved by their agency's Office of Communications or an employee designated by the agency's Commissioner to authorize social media use before establishing each new social media presence on the agency's behalf.

Instant Messaging

I understand that the only approved Instant Messaging (IM) system is HHS provided Instant Messaging from



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Microsoft. Use of other Instant Messaging systems is prohibited except for specific instances approved by an Information Resources Manager (IRM) for HHS Agency business purposes. Policies relating to Instant Messaging can be found in the *HHS Policy for Use of Agency-Provided Instant Messaging*³.

Non-Agency Devices

The following is only applicable if your agency has a Bring Your Own Device (BYOD) program:

I understand the Bring Your Own Device (BYOD) program, if offered by my agency, is an opt-in (voluntary) decision and requires that my agency have certain control over my personal or non-HHS owned device (smartphone, tablet, or laptop) in exchange for access to HHS Confidential Information or Information Resources such as the network and email. I may opt-out of the BYOD program at any time.

I must meet Bring Your Own Device (BYOD) eligibility, device requirements, and obtain management approval in order to participate in the BYOD program.

I understand HHS has no responsibility for my BYOD devices and associated costs, to include, but not limited to, vendor terms and conditions; sufficient data and call plan, service levels, calling areas, service and phone features, termination clauses, and payment terms and penalties. I am also responsible for the purchase, loss, damage, insurance, and/or replacement.

I will notify the help desk immediately if my BYOD device is lost or stolen, if there is a privacy or security incident associated with my device containing HHS information, or if there are plans to replace or sell my BYOD equipment.

I understand that HHS, at its sole discretion, can utilize information on a BYOD device as it determines is required or would be helpful to the organization to gather data on usage of mobile devices; ensure compliance with organization policies; gather information for internal investigations or review; and to respond to informational requests in litigation or government investigations.

I understand that if I am a Fair Labor Standards Act (FLSA) nonexempt employee, performing work under the BYOD or other program or technology that makes accessing work convenient from any location or time, that I am required to log all hours worked as required and prescribed by the applicable HHS's Human Resources (HR) policy.

I understand that if I am a Supervisor of FLSA Non Exempt employee's, I will assure that FLSA Non Exempt employee's performing work under the BYOD or other program or technology that makes accessing work convenient from any location or time will not be required to work after their assigned hours unless directed by their supervisor or manager.

Additional information on employee responsibilities associated with the BYOD program can be found on the IT policy website⁴.

Consent to Monitoring

I understand that HHS has the legal right to monitor use of HHS Information Resources. HHS Confidential Information, and HHS Agency sensitive information and that HHS monitors use to ensure these resources are protected and to verify compliance with applicable law, HHS Policy, security standards and controls. By using HHS Information Resources, or using, disclosing, creating, transmitting, or maintaining HHS Confidential Information or HHS Agency sensitive information, I consent to the monitoring of the use of these resources and information in any form and on any device and understand I have no expectation of privacy.

³ <http://hhsck.hhs.texas.gov/t/policies-and-guidelines>

⁴ <http://hhsck.hhs.texas.gov/t/policies-and-guidelines>



Health and Human Services Acceptable Use Agreement (AUA) *(Formerly known as the Computer Use Agreement or CUA)*

Non-Compliance

I understand that non-compliance with this agreement or violation of the HHS Enterprise Information Security Acceptable Use Policy (AUP) may be cause for removal of access and disciplinary action, up to and including dismissal and/or civil or criminal prosecution. I also understand that I must comply with applicable law and HHS Agency policies, procedures, standards and guidelines over Information Resources, HHS Confidential Information, and HHS Agency sensitive information such as the requirements in the HHS Human Resources Manual, HHS Privacy Policy and HHS Security Policy, as well as any changes to those requirements.

Depending on the severity of the violation, consequences may include one or more of the following actions:

- Immediate suspension of access privileges and revocation of access to HHS Information Resources, HHS Confidential Information or HHS Agency sensitive information;
- Disciplinary action, up to and including dismissal;
- Removal or debarment from work on HHS contracts or projects;
- Civil monetary penalties; and/or
- Criminal charges that may result in imprisonment for misuse of HHS Information Resources or HHS Confidential Information.

USER MUST ACKNOWLEDGE ALL PAGES OF THIS AGREEMENT.

I have read, understand and agree to comply with this agreement.

HHS Employee Signature: _____

HHS Contractor Signature: _____

HHS Employee/Contractor Name Printed: _____

HHS Employee ID: _____

HHS Agency and Department or Division: _____

Date Agreement Signed _____

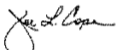


Health and Human Services Acceptable Use Agreement (AUA)

(Formerly known as the Computer Use Agreement or CUA)

For the purpose of this document, "HHS", "HHS Agency", or "HHS Agencies" include the Health and Human Services Commission, Department of Aging and Disability Services, Department of Family and Protective Services, Department of State Health Services, Department of Assistive and Rehabilitative Services, and/or any successor agency or component part thereof.

Definitions can be found in the HHS Enterprise Information Security Definitions (<http://hhscx.hhsc.texas.gov/it/policies-and-guidelines>), HHS Privacy Policies and Procedures and the HHS Human Resources Manual (<http://hhscx.hhsc.state.tx.us/hr/HRM/contents.htm>).

Signature: 

Email: copej@acu.edu

Appendix E: Letter to Nursing Staff Soliciting Participation

This e-mail (including any attachments) may contain information that is private, confidential, or protected by healthcare provider-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.

From: [REDACTED]
 Sent: Friday, May 31, 2019 6:04 PM
 To: DI [REDACTED] LVN <[REDACTED]>; [REDACTED] - RN

Subject: DNP Educational Study

May 31, 2019

Nursing Personnel,

From time-to-time [REDACTED] grants permission to graduate students who are working on requirements for a degree to request our participation in a research study. The student researcher, in this case, is an Abilene Christian University graduate student and serves as a nursing instructor for nursing students at [REDACTED] during the year. This notice is being sent in support of research efforts and in support of a graduate student.

Please note, you are not obligated to participate in the research survey study and your participation will not prevent you from having access to the "Just-in-Time" staff learning presentation. I will not be given any information by the researcher regarding those who choose to participate in the survey. However, the "Just-in-Time" staff learning presentation is a [REDACTED] nursing staff learning requirement for nurses only is not optional and will have a completion date of June 15, 2019.

Please make every effort to take the 5 minute survey before the staff development program. I will be sending another email with the link to the survey and the program. It is extremely important that you do the short pre survey before the program and then the short post survey after the program.

Thank you for your attention to this request.

[REDACTED] RN
 Interim CNE

Appendix F: Reminder Letter Soliciting Nurses' Participation

FW: ECT Video Training Reminder

Wed, Jun 19, 6:45
AM

-----Original Message-----

From: ()

Sent: Monday, June 17, 2019 8:20 AM

To: <XXXXXXXXXX>; XXXXXXXXXXXX Nurses - XXXXXXXXXXXX>

Subject: ECT Video Training Reminder

Nurses,

This is a reminder that watching the mandatory ECT Staff Development Video is due this Friday, June 21. This is in regards to the original email sent to all nurses by XXXXXXXXXXXX, RN on May 31. Please take the pre-survey before watching the video, then follow the pathway stated below to find the video file in our Campus Wide folder. Finally, please take the post survey after watching the video by clicking the second link below. When all is complete, sign the Participation Acknowledgement sheet provided by your Nurse Managers.

Pre Survey Link: XXXXXXXXXXXX

ECT Video Pathway: Departments --> CampusWide --> CampusWide2 -->
ShortTermInfo --> Electroconvulsive Therapy Staff Development Program with Voice-
over

Post Survey Link: XXXXXXXXXXXX

XXXXXXXXXX
Nursing Education

Appendix G: Permission to Use the Survey Tool

Permission to use survey tool

To:

Mon, Oct 1, 2018 at 5:57 AM

Dear Janice

I have no problems with you using and amending the survey tool. Good luck with your project.

Best Wishes

Dan Kinnair

