

EDUCATING PSYCHIATRIC NURSES IN COGNITIVE
BEHAVIORAL THERAPY FOR ADOLESCENT PATIENTS:
A QUALITY IMPROVEMENT PROJECT

by

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of

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in

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ABSTRACT

It is estimated that 20% of adolescents have a diagnosable mental health disorder. However, there is a deficit of providers that are available to treat this population. This gap in care can potentially be mitigated by increasing mental health caregivers' education on therapeutic interventions. Cognitive behavioral therapy (CBT) is considered to be the gold standard of care for the population of adolescent mental health patients. This project set out to educate nurses working on an inpatient adolescent unit on topics of evidence-based CBT and adolescent group therapy. Nurses interacted in a 3-hour educational intervention that reviewed topics of CBT, group therapy with adolescents, and the Creating Opportunity for Empowerment (COPE) program. Additionally, the nurses participated in a role-playing group therapy session to practice implementing CBT interventions to adolescent patient populations. This intervention was utilized to determine the feasibility and effectiveness in educating psychiatric nursing staff on CBT concepts with regard to group therapy for adolescent populations. After participation in the intervention, nursing staff reported benefits and satisfaction with the CBT and group therapy intervention, increased understanding of CBT concepts and interventions, and enhanced preparation for working with adolescent psychiatric patients. It is hoped that this project will guide adolescent-mental-health caregivers in seeking additional education in CBT practices to enhance their education in evidence-based interventions.

CHAPTER ONE

INTRODUCTION

Background

It is estimated that one in five adolescents suffers from a serious mental health disorder, and the majority of mental health disorders develop by age 14 (US Department of Health and Human Services [DHHS], 2018). Specifically, 15–20% of youth suffer from some form of anxiety and an estimated 12.8% of adolescents ages 12 to 17 years in the United States have suffered from at least one depressive episode in their life (Wehry et al., 2015; National Institute of Mental Health [NIMH], 2017). These statistics show the high prevalence of mental illness in adolescent patients; however, there is a shortage of mental health providers within the United States, and only 15% of providers specialize in children and adolescents (Butryn, Bryant, Marchionni, & Shoelevar, 2017). A result of the high number of adolescents suffering from mental health disorders and lack of specialists makes it necessary to have appropriately educated mental health providers to deliver care to this vulnerable population (Butryn et al., 2017).

Identification of the Problem

Salberg, Folke, Ekselius, & Oster (2018) identified nursing care as one of the most important aspects related to symptom reduction. Adolescent psychiatric nurses play a pivotal and distinct role in the care of this population due to the amount of time and treatment they provide to patients (Delaney, 2017). Adolescent psychiatric nurse tasks include: ensuring unit safety, assessing unit tones, de-escalating volatile scenarios, providing psychoeducation, organizing unit

schedules, developing genuine connections, and being both physically and mentally present (Delaney, 2017). One area that has been identified as an opportunity for greater educational training for mental health nurses is how to appropriately provide psychoeducation to adolescent patients (Salberg et al., 2018). In addition to the need for greater knowledge on psychoeducation, McAllister, Happell, & Flynn (2014) found that mental health medical directors are concerned about the specific mental health knowledge of new nurses. Areas for improvement include foundational knowledge of mental health disorders, recovery-oriented skills, and therapeutic strategies (McAllister et al., 2014). Thus, the belief is that knowledge of therapeutic modalities, such as cognitive behavioral therapy (CBT), need to be further addressed in baccalaureate nursing program curricula or through post-graduate education (McAllister et al., 2014). Inoue, Fabbro, & Mitchell (2012) also identified that continuing education is needed to better understand care of adolescent psychiatric patients. In their study, nurses believed that continuing education should be promoted to help promote self-sufficiency, confidence, and understanding of developmental stages in order to work more proficiently with adolescent psychiatric patients (Inoue et al., 2012). In summary, the care of adolescent psychiatric patients is complex and psychiatric staff, including registered nurses, are not provided with adequate training on therapeutic modalities in undergraduate training. Thus, providing additional continuing education would benefit both nursing staff and patients.

The development of this DNP scholarly project was initiated by frequently verbalized frustration of adolescent psychiatric nurses working on an inpatient adolescent psychiatric unit who are expected to perform group therapy, but lack adequate training to be effective. Due to this need on the unit, a literature review was conducted by the unit manager and author of this

project. The goal of this literature review was to identify a solution addressing the need for continued nursing education, enhanced psychoeducation for patients, and aligning patient care with evidence-based practice. Cognitive behavioral therapy was identified as the gold standard of care for adolescent psychiatric patients and led to the discovery of the Creating Opportunities for Personal Empowerment (COPE) program as a basis to address the gap in care for this population. The COPE program is a manualized program that was developed to disseminate CBT concepts specifically to the adolescent population (Melnyk et al., 2014). The psychiatric unit manager hopes to utilize the findings from this project to promote the use of CBT as continuing education for staff members. The unit manager also aims to implement the CBT ideology when developing programming for the unit's newly expanding adolescent unit.

Rationale for Intervention

The purpose of this project was to provide education to adolescent psychiatric nurses at an inpatient facility in western Montana. Psychiatric nurses attended an educational training on the use of evidence-based cognitive behavioral therapy interventions with adolescents. The COPE program, which focuses on CBT, health, and assisting in the promotion of increased mental wellbeing, will be used in a nursing-education intervention. This program has demonstrated feasibility of implementation in both hospital and school settings, has been shown to improve depressive and anxiety symptoms, and to improve healthy lifestyle behaviors in adolescents (Hoying & Melnyk, 2016; Hoying, Melnyk, Arcoleo, 2016). Additionally, education on the COPE model has been successfully utilized for educating psychiatric advanced practice

nursing (APRN) students on the topic of CBT use with children and adolescents (Lusk, Hart Abney, & Melnyk, 2018).

Aim Statements

The aims of this project were: (1) Provide a successful education model for training in child and adolescent CBT for psychiatric nurses. This aim focused on enhancing nurses' knowledge and comfort through a formal education training for use of CBT interventions in an adolescent inpatient psychiatric unit; and (2) Evaluate pre- and post-CBT training comfort of use through the utilization of Qualtrics questionnaires.

Relevance of Project to Psychiatric Mental Health Nursing

The American Association of Colleges of Nursing ([AACN], 2006) reviews the expected role of the advanced practice nurse through eight essential skills. While these essential skills cover a variety of topics, there are core ideas in each that are reflected in this project. These core values include: understanding patient populations and their needs, ensuring quality care for patients, reviewing science research, understanding the need for new healthcare delivery systems, implementing science into a practice, implementing and leading quality improvement projects, working with interdisciplinary care team members, and evaluating therapeutic interventions (AACN, 2006). The development of this project began as an understanding for the need to improve care of an underserved population. The advanced practice nurse should understand the need to eliminate health disparities and promote safety and best practice techniques (AACN, 2006). Upon discovering the problem, it was then necessary to find a program or solution to promote quality care. Advanced practice nurses should describe actions

and advanced strategies to enhance healthcare delivery, evaluate outcomes, and evaluate new practice approaches (AACN, 2006). Cognitive behavioral therapy interventions, specifically the COPE program, have been shown to markedly reduce anxiety and depression levels in adolescent psychiatric patients (Hoying et al., 2016). Advanced practice nurses should develop care delivery approaches that meet the needs of patient populations based on clinical science, ensure accountability for quality healthcare and patient safety for populations they work with, and evaluate cost-effective practice initiatives (AACN, 2006). Lastly, educating psychiatric nurses on this healthcare delivery program promotes quality care for patient education and safety. This scholarly project is relevant to advanced practice psychiatric and mental health nursing because it focused on implementing an evidence-based model that can be utilized by interdisciplinary team members to improve the quality of patient care.

CHAPTER TWO

REVIEW OF LITERATURE

This section reviews the information discovered from research on the topics of furthering psychiatric nursing education, experiences of psychiatric patients, CBT, and the COPE program model.

Search Methods

Databases

Databases reviewed for this project included CINAHL Complete, Cochrane, Dissertations and Theses Global, Library, Web of Science, PsycInfo, PubMed, and Proquest.

Search Terms

To identify relevant resources for this topic the search terms included “continuing education,” “post-graduate education,” “cognitive behavioral therapy education,” “CBT education,” “psychoeducation,” “psychiatric nurses,” “adolescent psychiatric nurses,” “mental health nurses,” and “behavioral health nurses.” For the intervention of CBT, search terms included “cognitive behavioral interventions,” “CBT interventions,” “Creating Opportunity for Personal Empowerment,” “COPE,” and “adolescents.”

Evidence Review

The review of evidence is organized by post-graduate education for psychiatric nurses, educating nurses in CBT, and nurses’ roles in adolescent mental health and nurse-led groups.

Further, the Creating Opportunity for Personal Empowerment (COPE) Program for Adolescents review of the literature is included. Following the review of literature is a discussion on the theory that was selected to serve as a guide for this project.

Post-graduate Education for Psychiatric Nurses

Mental health nursing can be an extremely challenging specialized work environment (McAllister, Happell, & Flynn, 2014). In addition to being a challenging environment, traditional nursing programs often lack adequate mental health theory and clinical content (McAllister, Happell, & Flynn, 2014). Specifically, in the United States, baccalaureate-prepared nurses are allowed to work in the psychiatric setting without additional education or training (Happell & Gaskin, 2013). In other countries, further education is required to work with these populations. For example, the United Kingdom and Australia expect nurses to complete specialized programs in which half of the curriculum is focused specifically on mental health (Happell, 2009). There are several benefits to obtaining further education and specialization in the mental health field. A greater education and knowledge base related to care for psychiatric patients has been found to be a strong predictor for desire to work with mental health patients, and thus improves attitudes towards mental health nursing and promotes high quality psychiatric care (Happell & Gaskin, 2013).

Joubert & Bhagwan (2018) found that inadequate mental health education for mental health nurses leads to feelings of frustration and burnout in their profession. However, nurses that obtain continuing education on mental health topics are more likely to have long-term satisfaction in their position (Joubert & Bhagwan, 2018). Mental health directors have also reported concerns related to inadequate education surrounding mental health topics (McAllister,

Happell, & Flynn, 2014). Researchers found that directors are concerned with inadequate education in various areas including foundational knowledge of mental health and disorders, recovery-oriented skills, physical and mental health skills, therapeutic strategies, resilience, self-development, and advanced skills (McAllister, Happell, & Flynn, 2014).

There is an educational gap that needs to be addressed to ensure proper care of psychiatric patients (McAllister, Happell, & Flynn, 2014). Preparation of nurses to work in psychiatric settings should focus on both knowledge of mental health conditions and skills to work with complex cases (Lethoba, Netswera, & Rankumise, 2006). Additional educational topics that have been deemed necessary to further psychiatric nursing education include crisis intervention, physical safety of patients, medication management, management of psychiatric illnesses, communication and assertiveness skills, problem management, and problem identification (Joubert & Bhagwan, 2018).

Nurses are the largest group of professionals that care for psychiatric patients; thus, there is an essential need to ensure that they are adequately educated in the field of psychiatry (Joubert & Bhagwan, 2018). Better preparation of nurses with further education plays a vital role in the professional development of mental health nurses, particularly when specializing in adolescent patients (Rasmussen, Henderson, & Muir-Cochrane, 2013). Additionally, implementing a culture of practice development on an inpatient mental health unit leads to enhanced safety on the unit, nursing ownership over continued improvement, and education (Vella et al., 2014). Increased levels of mental health education are correlated with higher levels of patient-centered care (Vella, Page, Edwards, & Wand, 2014). Overall, greater education in mental health nursing

results in more favorable attitudes towards mental health nursing, which promotes high quality psychiatric care.

Educating Nurses in Cognitive Behavioral Therapy

The needs of adolescent mental health patients are not being met due to inadequate training provided to nursing staff for this population (World Health Organization [WHO], 2013). One way to improve mental health care for adolescent patients is to improve understanding of psychological theories (WHO, 2013). Cognitive behavioral therapy (CBT) is the gold standard for psychotherapies in child and adolescent populations (Zhou et al., 2015). The demonstrated efficacy of CBT in treatment of child and adolescent psychiatric patients suggests a need for a greater dissemination of knowledge and training in this therapy to healthcare professionals who care for this population, specifically nurses (Zhou et al., 2015; Rakovshik & McManus, 2010). Rakovshik & McManus (2010) identified that increased training of CBT leads to increased competence and positive patient outcomes, which improves overall patient care. Additionally, nurses trained in specific psychosocial interventions, such as CBT, are more likely to utilize these interventions in their practice (Butler, Begley, Parahoo, & Finn, 2013). Butler and colleagues (2013) found that additional education in CBT improved benefits to patients including awareness of relapse indicators, development of coping skills, and fewer repeat admissions to psychiatric units (Butler et al., 2013). Nurses educated in an adolescent-specific CBT program stated that the program improved their understanding of what their adolescent patients were experiencing and how to better adapt CBT to the developmental level of adolescents (Lusk, Hart-Abney, & Melnyk, 2017).

Education in CBT is necessary to improve nurse competency and understanding of this therapy (Muse & McManus, 2013). When educating nurses in CBT, it may be necessary to utilize a variety of methods. Traditional dissemination, such as a lecture with supplemental materials, may be insufficient to produce lasting changes in skills and outcomes (Rakovshik & McManus, 2010). However, supervision by a CBT specialist can assist in solidifying knowledge and competence (Rakovshik & McManus, 2010). When educating nursing staff in CBT, it is also important to evaluate the fidelity of treatment. Often, interventions are not implemented with 100% fidelity, which may affect the overall success of the intervention (Kelly, Oswalt, Melnyk, & Jacobson, 2015). Evaluating fidelity assists in determining if education on the intervention is successful and allows for critiques and improvements of implementation (Kelly et al., 2015). In addition to monitoring fidelity while educating individuals in group CBT programs, it is beneficial to combine basic training with additional consultation from instructors (Eiraldi et al., 2018). This support enhances constructive feedback and allows additional time for questions, thereby improving provider competency and understanding (Eiraldi et al., 2018).

To be successful in providing care to patients and understanding CBT education, skills, and fidelity training, nurses need to have adequate support to continue their education. For this to be successful, nursing leadership must recognize psychosocial interventions as core nursing work, and need to dedicate nursing staff to implement these interventions with utilization of clinical practice guidelines (Butler et al., 2013). Mental health nurses need to be proficient in the utilization of psychoeducation. Supporting nursing staff in further education will help improve nursing knowledge and patient care (Skarsater et al., 2018).

Nurses in Adolescent Mental Health and Nurse-led Groups

Adolescents often experience challenges in their daily lives, such as lack of social understanding and loneliness. These challenges are often compounded by psychiatric symptoms (Ronnegren, Bjork, Haafe, Enmarker, & Auduly, 2018). Adolescent-care nurses play a special role in a psychiatric mental health unit. These nurses provide support and develop connections, which then establish empathetic bridges for the patients' healing process (Delaney, 2017). In addition to developing meaningful relationships with adolescent mental health patients, they also maintain unit structure and schedules (Delaney, 2017). Part of this maintenance includes providing psychoeducation in both individual and group settings. A study by Ronnegren et al. (2018) found that young adults who have experienced challenges with psychiatric symptoms benefit from implementation of a program focusing on interpersonal relationships, coping skills, and cognitive support led by nursing staff. Relationships with nursing staff are important to ensure the success of program implementation (Ronnegren et al., 2018). Nursing staff support has been shown to have benefits for patients including improving social relationships, gaining better coping strategies, implementing healthier lifestyle behavior changes, understanding of their health and illnesses, and utilizing cognitive support (Ronnegren et al., 2018).

Additionally, in a study conducted by Salberg, Folke, Ekselius, & Oster (2018), the authors found that mental health patients ranked nursing staff as one of the most important aspects of their recovery process. When nurses were in charge of leading behavioral groups, patients reported a positive experience, which was helpful in their treatment plan (Salberg et al., 2018). Additionally, patients were more likely to attend groups, had higher levels of satisfaction

regarding group attendance, and reported positive attitudes toward the intervention when the group was led by nursing staff (Salberg et al., 2018).

Adolescent psychiatric nurses need to be supported in utilization and development of skills, which are targeted interventions that support the patients' developmental levels (Bobier, Dowell, & Swadi, 2009). These interventions include psychoeducation on medications, problem-solving skills, relaxation techniques, and physical activity (Bobier et al., 2009). Utilization of nurses for leading adolescent groups in an inpatient setting may assist in furthering patients' healing processes by sharing feelings and developing skills that will make the patients successful in the future (Salberg et. al, 2018; Ronnenberg et al., 2018).

Cognitive Behavioral Therapy for Adolescents

Cognitive behavioral therapy (CBT) is an evidence-based psychotherapy that has several core principles including: psychological problems are related to negative or unhelpful thoughts; unhelpful thoughts often cause negative learned patterns or unhelpful behaviors; and people suffering from psychological problems can learn more positive coping techniques, thereby relieving their symptoms (Beck, 2011). This treatment approach focuses on both cognitive and behavioral components. The cognitive portion focuses on identification of negative thought patterns and cognitive distortions, while the behavioral portion of CBT focuses on development of positive coping skills, facing difficult situations, and improving interpersonal relationships (Beck, 2011). CBT is applied in the adolescent population to help them utilize both cognitive and behavioral aspects, which enhances their awareness of negative thought processes in challenging situations and can guide their response to these situations more positively (Lindblom, 2017).

CBT includes a combination of education, relaxation exercises, coping skills training, stress management, and assertiveness training (Lebow, 2017). Numerous meta-analytic reviews have found that the use of CBT treatment improved symptoms in adolescents with depression (Cheung et al., 2018). Thus, clinical practice guidelines recommend the use of CBT whenever appropriate to enhance goals of patient treatment (Cheung et al., 2018). CBT has also been found to improve anxiety symptoms, clinical response, and remission of anxiety when compared to non-CBT therapies (Pcori, 2017).

One benefit to CBT is that it may be performed in both individual and group settings. Group therapies offer the benefit of social support and experiences of others that may be similar to the patient's experience (Lebow, 2017). Wergeland et al. (2014) found that there was no statistical improvement between group versus individual CBT treatment, but that CBT was an effective treatment for youths with anxiety disorders in comparison to no treatment. In addition to providing adolescents with social tools, CBT may also assist in promoting medication adherence and promote health and wellness in patients with mental illnesses by redirecting dysfunctional beliefs (Pinninti, Hollow, Sangadia, & Thompson, 2006). The benefits of CBT make it an acceptable first line treatment for anxious and depressed adolescents (Cheung et al., 2018).

Creating Opportunities for Personal Empowerment (COPE)

The Creating Opportunities for Personal Empowerment (COPE) program is an evidence-based, cognitive-behavioral, skill-building intervention to improve mental health in adolescents (Kelly, Oswalt, Melnyk, & Jacobson, 2015). COPE is composed of seven sessions designed specifically for working with adolescents ages 13–18 in a group setting (Lusk, Hart-Abney, &

Melnyk, 2017). The session topics include thinking, feelings, and behaving: What is the connection, self-esteem and positive thinking/self-talk, stress and coping, problem-solving and setting goals, dealing with your emotions in healthy ways through positive thinking and effective communication, coping with stressful situations, and putting it all together for a healthy you (Lusk et al., 2017). Participants are provided with a COPE manual that assists with providing structure to the sessions, including agendas, content, skills-building techniques, and homework (Lusk et al., 2017). The COPE sessions are based on cognitive theory by educating adolescents on the relationship between cognitive processes and feelings (Lusk et al., 2017; Melnyk et al., 2015). Cognitive theory suggests that an individual's thoughts influence feelings, emotions, and behaviors (Beck, 2011). This model's foundation implies that if one is aware of negative thoughts and has the ability to change them to more positive thoughts, it allows for more emotionally healthy behaviors, engagement in healthier lifestyle choices, and enhances overall self-concept (Beck, 2011; Melnyk et al., 2015; McGovern, Militello, Arcoleo, & Melnyk, 2018). The cognitive-behavior skill-building activities provided in COPE assist adolescents in strengthening healthy lifestyle beliefs and enhancing positive behaviors (McGovern et al., 2018).

The COPE program is an evidence-based program that has been successfully utilized for treatment of adolescent anxiety and depression in hospital, outpatient, and school settings (Hickman, Jacobsen, & Melnyk, 2014; Kozlowski, Lusk, & Melnyk, 2015; Melnyk, Kelly, & Lusk, 2014). Researchers have found that students exposed to the COPE program have reduced levels of anxiety, depression, disruptive behaviors, and improved self-concept scores in comparison to their baseline levels prior to implementation of the COPE intervention (Hoying, Melnyk, & Arcoleo, 2016). Additionally, participants who scored as anxious, depressed, and low

self-concept on the Beck's Depression Inventory scale were within normal ranges upon post intervention evaluation (Hoying, 2015). Also, students that were found to be high risk for suicide prior to participating in COPE were no longer at risk for suicide after participating in the COPE program (Hoying, 2015).

Marked improvement of healthy lifestyle behavior scores and a marked decrease in anxiety scores over time also occur after implementation of the COPE program (Hoying et al., 2016; Hickman, Jacobsen, & Melnyk, 2014). In a study, children who participated in COPE had increased knowledge of CBT skills and experienced improvement of functioning at school and home (Kozlowski, Lusk, & Melnyk, 2015). Adolescents and parents find COPE to be a highly acceptable intervention (Hickman, Jacobson, & Melnyk, 2014). These factors make COPE a favorable program to assist in nursing education of adolescent-specific CBT.

Theoretical Framework

Theory of Andragogy

Andragogy is defined as the art and science of educating adults (Knowles, 1980). The adult-learning theory of andragogy began its development as far back as 1833 by Alexander Knapp. However, currently andragogy is more often associated with the 1980 theory developed by Malcom Knowles (Loeng, 2018). Knowles's theory was developed in 1980 and amended in 1984 to a set of five assumptions of adult learning. These included: self-concept, adult-learner experience, readiness to learn, orientation to learning, and motivation to learn (Loeng, 2018). The first assumption, self-concept, refers to the idea that, as a person matures, their self-concept shifts from being a dependent personality to a more self-directed personality (Loeng, 2018).

While adults may be dependent in temporary situations, they largely have a need to be self-directed, and it is the responsibility of teachers to foster this independence (Knowles, 1980).

Adult-learner experience, the second assumption, refers to the increasing amount of life experience that acts as a resource for the adult's learning experience (Loeng, 2018). Experience enriches learning; thus, education through experiential techniques, such as laboratory experiments, discussion, and problem-solving cases, should be utilized (Knowles, 1980).

Readiness to learn, the third assumption, states that, as a person matures their goals of learning become oriented towards aspects that are essential to their developmental tasks and social roles (Loeng, 2018). Additionally, learning programs should be centered around life-application and sequenced to the students' readiness to learn (Knowles, 1980). Orientation to learning, the fourth assumption, states that perception of knowledge changes from one of postponed application to one of immediacy of application, which changes their learning orientation from subject-centered to performance-centered (Loeng, 2018; Knowles, 1980). The fifth assumption is that, as a person matures, their motivation to learn becomes internal (Loeng, 2018; Knowles, 1984).

In addition to these five assumptions, Knowles's andragogy theory has four principles (Knowles, 1984). These principles include: adults need to be involved in the planning and evaluation of their instruction, experience provides for the best learning opportunities, adults are most interested in learning subjects that have immediate relevance and impact to their jobs or personal life, and adult learning is problem-centered rather than content oriented (Knowles, 1984).

Knowles's (1984) theory was utilized in this project by implementing the assumptions and principles of adult learning while educating psychiatric nurses on the COPE/TEEN program.

The direct applicability of this program to their positions on the psychiatric unit accompanied by the ample experience of the participants will assist in the teaching of this new information.

Conclusion

Adolescent psychiatric nurses have a niche role in the nursing community (Delaney, 2017). Due to the specialization of their patient population their formal training is often lacking, which can lead to frustration and burnout (Joubert & Bhagwan, 2018). The review of the literature provides evidence-based support that further educating adolescent psychiatric nurses in theories related to CBT could be beneficial for both patients and nurses. This program has potential to help adolescent psychiatric nurses in feel more competent and empowered in their positions. Additionally, it provides the nursing staff with an age-appropriate intervention that utilizes an evidence-based therapy, the combination of which can enhance the effectiveness of their overall patient care.

CHAPTER THREE

METHODS

The purpose of this project was to educate psychiatric nurses on the use of CBT interventions with adolescent patients. This practice was selected due to it being well established for improving adolescent-patient outcomes. The aims of this project were to: (1) Provide a successful education model for training psychiatric nurses in child and adolescent CBT theory and (2) Evaluate pre- and post-intervention understanding of CBT, comfort with CBT interventions, and assessment using Qualtrics questionnaires.

Ethical ConsiderationsApproval

This project was reviewed and approved by the institutional review board (IRB) of Montana State University (Appendix B) and St. Patrick Hospital. It was also reviewed and approved by St. Patrick Hospital's Research/EBP council. Participants were instructed that they can cease participation in the training at any point without penalty. The nurses were compensated at their base hourly salary while participating in the CBT didactic training and while practicing during role-playing group sessions. Questionnaire responses were logged by participant identifiers and all personally identifying information remained confidential. Computerized data were kept secure on a password-protected computer. Participants were assured that information would remain confidential.

Permission from Melnyk

The author of this project obtained permission from the creator of the COPE program, Dr. Bernadette Melnyk, to utilize her program for the educational purposes of this project. Dr. Melnyk was contacted by email and phone, and she supplied verbal and written permission for the use of her program in this study.

Permission from Lusk

Additional permission was obtained from Dr. Pamela Lusk to utilize her educational slides regarding CBT and the COPE program for the didactic portion of this project. Dr. Pamela Lusk was contacted by email; she supplied written permission.

Setting

St. Patrick Hospital is located in a rural state and serves approximately 158 adolescent patients a year (E. Villegas, personal communication, September 10, 2019). This inpatient psychiatric setting is utilized for patients who are considered to be in crisis. The top two admitting diagnoses are suicidal ideation/attempts and depression (E. Villegas, personal communication, September 10, 2019). Other common diagnoses include anxiety, bipolar disorder, psychosis, and oppositional defiance disorder. Psychiatric nurses caring for adolescent patients are expected to perform two to three groups daily. The majority of adolescent psychiatric nurses on this inpatient unit have verbalized that they feel inadequately prepared to provide education or perform group therapy related to CBT concepts with patients and feel that their interventions may be ineffective. A continuing education intervention was deemed necessary by the leadership of the unit to ensure that effective and holistic care is being

delivered. After a literature review was conducted, CBT and the COPE program were assessed as appropriate interventions to meet the unit's needs.

For the educational training, nurse participants met on the adolescent psychiatric unit of the hospital. Educational materials were provided via PowerPoint, a printed COPE manual, additional printed CBT educational materials, and verbal instruction. The follow-up post-knowledge assessment was conducted through a Qualtrics questionnaire that was emailed to the participants one week after the intervention had been completed.

Sample

A convenience sample of adolescent psychiatric nurses was selected for this project. The training was scheduled for nurses to participate in the didactic portion of the intervention. Nurses were notified of the opportunity to participate in the training through emails, flyers, and discussions of the project with the author. No willing participants were excluded from the sample. The total population of adolescent psychiatric nurses for the expanded unit, n=12 nurses, participated in the pre-training questionnaire. All nurses were hired to work specifically with the adolescent patients. Four (n=4) of the participants had previously worked on the inpatient adolescent unit, while n=8 participants were new hires for a planned expansion of the adolescent unit. There was an attrition rate of 25% (n=3) for completing the follow-up post-training questionnaire, for a sample of n=9 participants who completed all aspects of the project. All individuals who participated in the project were registered nurses with varying years of experience in working with adolescent psychiatric patients.

Intervention

Training of COPE Instructor

Once permission was obtained to utilize the COPE program for this doctor of nursing practice scholarly project, the author of this project participated in the COPE2Thrive's instructor training. The didactic portion of the training is an online training for instructors that consists of three hours of instruction followed by a multiple-choice learning assessment. Following the didactic education, instructors perform a practice program-delivery of the COPE program with at least one adolescent participant. This practice ensures that instructors are able to share the material with peers and implement the learnings with adolescents. The author then performed the COPE program with a 12-year-old male (a family member) with his caregiver present to meet this qualification.

Didactic Information for Psychiatric Nurses

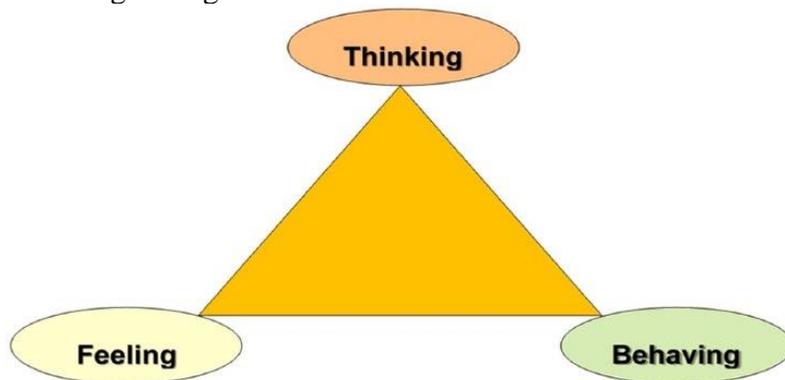
Prior to implementation of the intervention, psychiatric nurses were asked to complete a pre-training Qualtrics questionnaire that assessed their familiarity with CBT, prior training in group therapy, how comfortable they are utilizing CBT with adolescent patients, how comfortable they are leading group-therapy sessions with adolescent patients, and their familiarity with the COPE program (Appendix C). Once the pre-intervention questionnaire was completed, nurses were asked to attend the educational session. As stated above, at the session, they were provided with the 10 CBT essentials educational PowerPoint, COPE Power Point, printed CBT handouts, and the COPE manual.

Nurse participants attended a 3-hour face-to-face training reviewing concepts of CBT and the COPE program. The first hour of training consisted of lecture, discussion, and a PowerPoint presentation that covered the 10 CBT principles highlighted in *Cognitive Behavioral Therapy-Basics and Beyond* (Beck, 2011). The 10 CBT principles were presented in the context of working with adolescent patients and included examples from clinical practice. It also included a brief section on evidence-based group work with adolescents. The second hour of didactic training reviewed principles of the COPE program. Delivery of the seven sessions of COPE were discussed in depth (Table 1). To model an example of the interaction between a nurse and adolescent patient utilizing the COPE program, an example of a psychiatric APRN performing session 3 from the COPE manual with a 12-year-old male and his mother was utilized. This video was pre-recorded and is shared in a COPE instructional video. After observing the example, the author answered nurses' questions on how to perform a COPE session. Once questions were addressed, the attendees were divided into three groups for a role-playing scenario. One participant led the COPE session, while other participants acted as the adolescent patients. The author provided guidance and feedback to the group as these sessions progressed. At the end of the CBT and COPE training, the attendees were emailed a post-training Qualtrics questionnaire (Appendix C). The post-training questionnaire was used to evaluate comfort and knowledge obtained during didactic training.

Table 1. Creating Opportunities for Personal Empowerment Seven Session

Session One: Thinking, Feeling, and Behaving: What is the connection?
 Session Two: Self-esteem and Positive Thinking/Self-talk
 Session Three: Stress and Coping
 Session Four: Problem Solving and Setting Goals
 Session Five: Dealing with Your Emotions in Healthy Ways Through Positive Thinking and Effective Communication
 Session Six: Coping with Stressful Situations
 Session Seven: Activity: Putting it All Together for a Healthy YOU!

Figure 1. Creating Opportunities for Personal Empowerment Sessions and Thinking, Feeling, Behaving Triangle



The Creating Opportunities for Personal Empowerment Thinking, Feeling, Behaving Triangle (Melnik, 2003).

Post-intervention Assessment

After attending the didactic and role-playing sessions, nurses were emailed a link to a Qualtrics questionnaire to assess their level of comfort in utilizing CBT. This questionnaire evaluated comfort with CBT concepts, utilization of CBT interventions, comfort with group therapy, and the COPE program. Additionally, this assessment evaluated nurses' beliefs of the effectiveness of the training and impact on their nursing practice. The questionnaire also allowed nurses to type in free text to share their experience with using the skills that they learned in the educational training.

Data Analysis

Descriptive statistics were utilized to evaluate responses to the pre-intervention demographic and post-intervention questionnaires. The completed sample size was $n=9$, which was the total number of participants who completed both the pre- and post-intervention questionnaires. Baseline data were analyzed for the $n=12$ participants who initiated the project. Data are displayed through the use of descriptive statistics and graphs in Chapter 4.

CHAPTER FOUR

RESULTS

The CBT and COPE training took place on August 19, 2020, and took approximately three hours to complete. The project was arranged to occur during the training week for nurses prior to the opening of the newly expanded adolescent unit; thus, the participant population was comprised of all adolescent psychiatric nurses for this unit. A total of n=12 registered nurses participated in the initial pre-training questionnaire, CBT/COPE didactic training, and role-play group sessions. However, three participants did not complete the post-training questionnaire, which resulted in a sample size of n=9 participants for the post-training questionnaire comparison data. All participants were licensed registered nurses, but their experience working with adolescent psychiatric patients varied due to some of the staff being newly hired for the transition of the upgraded, new adolescent unit. Prior work experiences with the participant population included: working specifically with adolescent psychiatric patients (n=3), solely working with adult psychiatric patients (n=6), medical floor (n=1) nursing experience, and newly graduated nursing student (n=2).

Nurses' Experience with CBT, COPE, and Group Therapy

For this project, participants' prior experience with CBT, group therapy, and the COPE program were measured to help gain an understanding of previous experience on these topics. Results were varied due to the participants' diverse nursing-career experiences. For prior training in CBT, 41.7% (n=5) of participants reported experiencing zero prior CBT trainings, 41.7%%

(n=5) had one prior CBT training, 08.3% (n=1) had two prior CBT trainings, while 08.3% (n=1) reported she had one to three trainings. While some participants had experienced exposure to CBT training prior to this educational session, it was minimal with no greater than three previous CBT trainings. Upon further discussion with participants, it was also reported that the extent of some of their “CBT training” was one didactic class session during their undergraduate program.

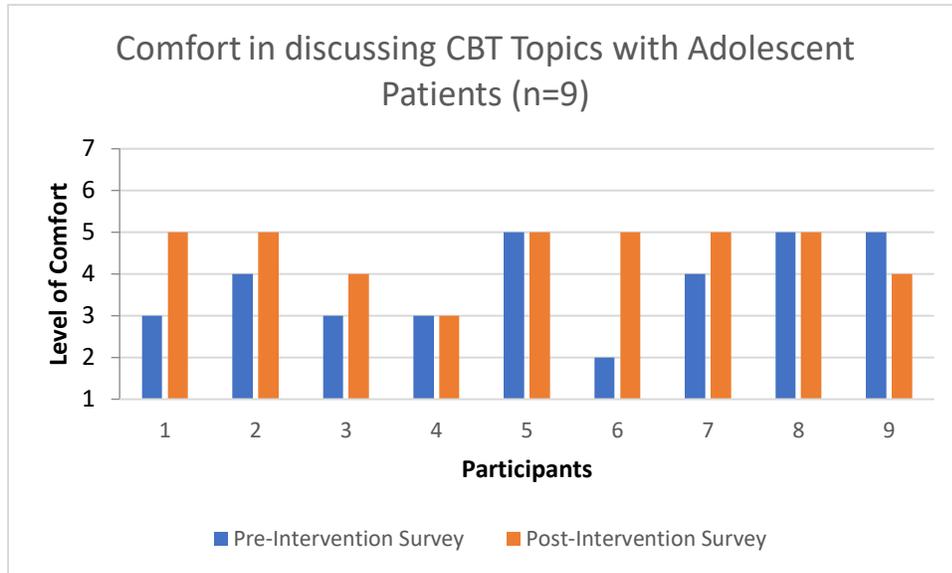
Participants reported varying understanding and experiences with previous use of CBT: 25.0% (n=3) reported they had a clear understanding of CBT and had utilized it with patients; 25.0% (n=3) had a clear understanding of CBT, but had not used it with patients; 41.7% (n= 5) expressed some understanding of CBT, but were unsure of how to utilize it with patients; 8.3% (n=1) reported they had heard of CBT, but did not know what it was; and zero participants had never heard of CBT. As expected, the participants expressed a lesser degree of knowledge related to the COPE program: 33.3% (n=4) had never heard of COPE; 33.3% (n=4) had heard of it, but did not understand details behind COPE; 33.3% (n=4) had some knowledge of the COPE program; and zero participants were familiar with using the COPE program. These results indicate that the COPE program as a specific manualized program for adolescent patients is less recognizable than the psychological theory.

Lastly, the participants reported varied history of training in group therapy with 33.3% (n=4) never having received training on group-therapy techniques; 33.3% (n=4) had received group-therapy training, but not with adolescent patients; and 33.3% (n=4) had experienced specific group-therapy training for adolescents.

Comfort in Discussing and Implementing CBT with Adolescent Patients

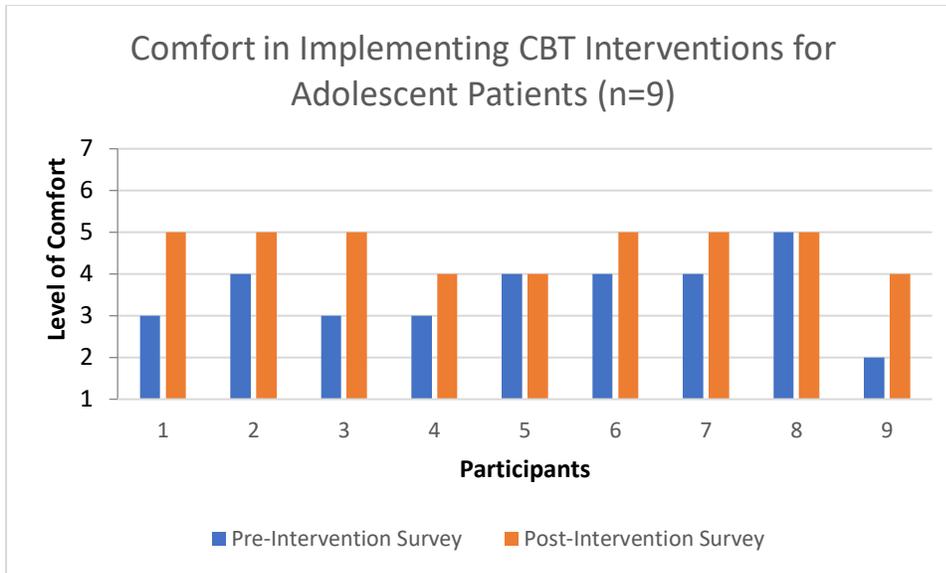
Both the comfort level in utilizing CBT interventions and discussion of CBT topics were evaluated in the pre- and post-training questionnaires. Pre-training questionnaire reports on comfort with discussing CBT topics revealed 33.3% (n=4) felt “moderately comfortable,” 25.0% (n=3) “slightly comfortable,” 33.3% (n=4) “neither comfortable nor uncomfortable,” and 8.3% (n=1) “slightly uncomfortable.” In the post-training questionnaire, participants reported the same level of comfort or improvements in discussing CBT topics with adolescent patients: 66.6% (n=6) “moderately comfortable,” 22.2% (n=2) “slightly comfortable,” and 11.1% (n=1) “neither comfortable nor uncomfortable.” To gain a greater understanding of comfort in discussing CBT topics with adolescent patients, the author also evaluated the pre- and post-training survey scores of each participant. It was found that 55.5% (n=5) reported a greater comfort level in the post-training survey, 33.3% (n=3) reported the same level of comfort in the pre- and post-training survey, and 11.1% (n=1) reported feeling less comfortable about discussing CBT topics with adolescent patients. A comparison of comfort level for each participant is presented in Figure 2.

Figure 2. Comparison of Comfort in Discussing CBT Topics with Adolescent Patients Pre- and Post-Training Survey



Similarly, in the pre-questionnaire, 16.7% (n=2) of participants reported they were “moderately comfortable,” 41.7% (n=5) “slightly comfortable,” 33.3% (n=4) “neither comfortable nor uncomfortable,” and 8.3% (n=1) “slightly uncomfortable” utilizing CBT interventions with adolescent patients, whereas the post-training questionnaire revealed that 66.6% (n=6) participants were “moderately comfortable” and 33.3% (n=3) felt “slightly comfortable.” The author also evaluated each participant’s scores to gain greater insight into differences of comfort levels in implementing CBT interventions with this patient population. In the post-training survey, 77.7% (n=7) reported a greater comfort level and 22.2% (n=2) reported the same level of comfort in the pre- and post-training surveys. These results suggest that this training allowed for an increase or maintenance of levels of comfort after implementation of CBT interventions with adolescent patients. A comparison of comfort level for each participant is presented in Figure 3.

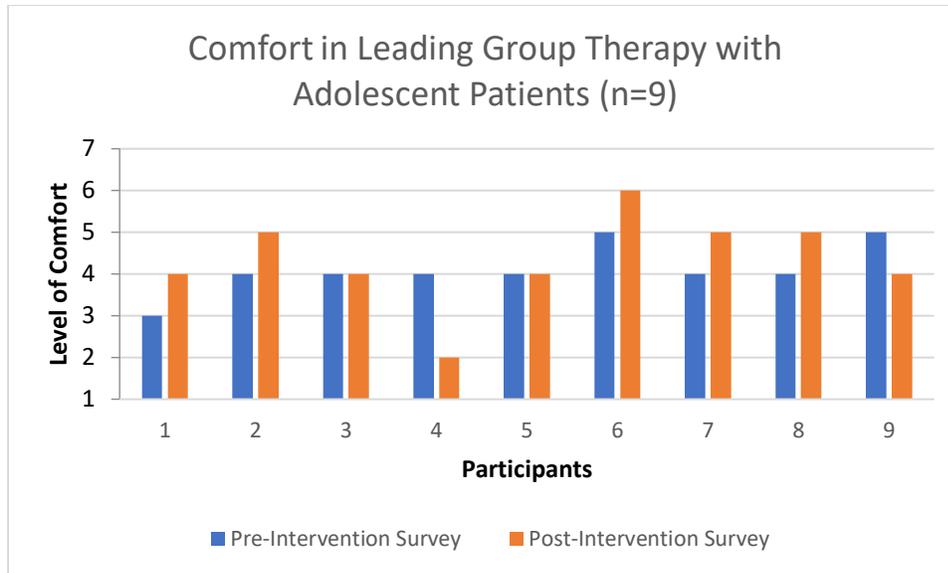
Figure 3. Comparison of Comfort in Implementing CBT Interventions for Adolescent Patients Pre- and Post-Training Survey



Comfort in Leading Group-therapy Sessions with Adolescents

Due to education on adolescent group therapy, practice in group sessions, and the need for nurses to be able to perform group-therapy techniques in their profession, the comfort level of leading group therapy was also assessed. Prior to the training, participants self-reported 33.3% (n=4) “moderately comfortable,” 58.3% (n=7) “slightly comfortable,” and 8.3% (n=1) “neither comfortable nor uncomfortable.” Post-training questionnaire results were: 11.1% (n=1) “extremely comfortable,” 33.3% (n=3) “moderately comfortable,” 44.4% (n=4) “slightly comfortable,” and 11.1% (n=1) “slightly uncomfortable.” Overall, the post-training questionnaire demonstrated improvements with one outlier who experienced a decrease in comfort with leading group therapy with adolescent patients. Figure 4 illustrates the comparisons of each participant’s pre- and post-training survey scores.

Figure 4. Comparison of Comfort in Leading Group Therapy with Adolescent Patients Pre- and Post-Training Survey



COPE as an Educational Model for Training in Concepts of CBT

The post-training questionnaire also evaluated participants' perception of program value. All participants (n=9) stated that the CBT and COPE educational training increased their understanding of how to utilize specific CBT skills and techniques. Similarly, all participants (n=9) reported that participating in the COPE role playing session increased their understanding of the CBT process with adolescent patients. Addressing the aim of utilizing an effective CBT teaching tool, the participants (n=9) also all reported that the CBT/COPE education session was an effective way to educate nursing staff on CBT skills and techniques. Lastly, the participants (n=9) reported that they felt this educational mode for CBT/COPE would assist them in improving the care of their adolescent patients. These data suggest that implementing a CBT/COPE educational for new-hire adolescent psychiatric nurses can be a feasible and beneficial practice for adolescent psychiatric registered nursing staff.

CHAPTER FIVE

DISCUSSION AND SUMMARY

The intent of this project was to provide psychiatric nurses with education on an evidence-based therapeutic and group-therapy intervention for working specifically with the adolescent psychiatric-patient population. The goal was that, with increased training, nurses would feel greater comfort in discussion and utilization of CBT concepts in interventions. The results of this project identified several informative outcomes including: psychiatric nurses have varying experiences with CBT trainings, educational interventions may assist in improving nursing confidence related to CBT concepts, and the trainings on CBT/COPE were found to be overwhelmingly feasible and beneficial. These topics will be reviewed in the following paragraphs. This section will also evaluate strengths, limitations, and financial implications of the current project. Lastly, the author will review future directions for evaluation and implications of implementation of CBT/COPE educational models in a variety of nursing-practice settings.

Discussion of OutcomesNurses' Experience with CBT and COPE

Cognitive behavioral therapy is widely accepted as an appropriate therapeutic intervention for a variety of psychiatric diagnoses including mild-to-moderate mental illnesses, emotional wellbeing, acute and chronic pain, and self-management of many long-term illnesses (Batterbee, 2020). Aligning with findings from previous studies, registered mental health nurses

continue to experience minimal education on CBT, which can lead to this population experiencing only vague conceptualization of related concepts and skills (Batterbee, 2020). This suggests that an educational gap exists for the nursing profession as a whole, but especially for the specialized workforce of adolescent mental health nurses. Minimal education on CBT is problematic because nurses are often expected to be responsible for the emotional and psychological wellbeing of patients in a variety of settings (Hardy, 2014).

The COPE program is a program that could provide additional CBT education to this population. It has been demonstrated that the use of manualized programs in nursing education is beneficial for increased understanding of theoretical practices, yet utilization continues to be minimal (Lusk et al., 2017). The lack of exposure and education on the unit where this project was conducted demonstrated a similar shortcoming. Nurses are one of the main sources of emotional support for patients and spend 8–12 hours a day providing care. Additionally, due to the patient's crisis status it is especially pertinent for nursing staff to be educated on therapeutic communication techniques, such as CBT. A lack of educational experience and training on these types of practices can lead to deficient nursing care (Batterbee, 2020). In an attempt to decrease this educational gap, some countries have made specific requirements to address the inadequate focus on therapeutic communication topics in nursing programs (Batterbee, 2020). For example, the standards for the United Kingdom Nursing and Midwifery Council clearly state that evidence-based therapeutic communication skills, which include cognitive-behavioral techniques, are essential to nursing educational curricula (Nursing and Midwifery Council, 2018). Unfortunately, there are not specific guidelines in place for therapeutic communication skills within the United States, which leads to a lack of standardization of education for

curriculum developers in this area (Batterbee, 2020). The findings of both this project and prior studies suggest that there is an opportunity to improve exposure to therapeutic-communication topics by enhancing education, both in undergraduate programs and post-graduate education, by including evidence-based therapeutic-communication techniques, such as CBT, in curricula.

Experience and use of CBT

Butler et al. (2013) report that nurses who experience greater education in psychosocial interventions, including CBT, have a higher likelihood of incorporating these interventions into practice. This finding did not necessarily hold up within the current project, as only one participant reported a clear understanding of CBT having utilized it previously with patients, whereas three nurses reported a clear understanding of CBT, but had not utilized it with patients. This may suggest that increased educational experiences in CBT may continue to result in a lack of usage, specific to the sample recruited for this project. Future research could benefit from gaining insight into why CBT is underutilized, even by nursing staff who feel they have a clear understanding of CBT-related concepts. Developing a greater understanding of inefficient use of CBT by nursing staff could lead to more effective implementation. It is worth noting that the majority of the participants were new hires to the adolescent psychiatric unit, thus their lack of use may be related to insufficient access to patients who could benefit from CBT interventions. Five participants expressed minimal to no understanding of CBT and how to utilize it with patients, which suggests that nursing education programs are not adequately educating future nurses on the topic of CBT (Layton et al., 2020). Prior studies have produced results that suggest an increase in educational opportunities on psychological theories often leads to an increase in use of interventions associated with that psychological theory (Batterbee, 2020; Butler et al.,

2013; Layton et al., 2020). Enhancing opportunities for nursing education in CBT can benefit a variety of patient and provider outcomes (Batterbee, 2020; Layton et al., 2020; Butler et al., 2013).

Experience with Group Therapy

Group-therapy proficiencies were also evaluated in this project due to anecdotes of frustration by unit nurses due to minimal training on group therapy and group topics for this adolescent inpatient unit. The results from this aspect of this project highlight that training in group therapy and group topics is also variable. For example, three participants had never received training, two participants had training that was not specific to the adolescent population, and four participants reported group training specific to working with adolescent patients. This was assessed in more detail in the discussion groups where staff who had worked with patients reported they were trained to perform group therapy with adolescents by their peers (T. Vallia, personal communication, August, 2015). While peer guidance can be beneficial to the learning process, these preceptors had no formal training in group therapy. There is some concern that the training received was not evidence-based. It is often the role of the unit nurse to lead group therapies with adolescent patients (Ronnegren et al., 2018). Additionally, it has been demonstrated that nurse-led CBT group sessions have a positive effect on patients' wellbeing, play a role in reducing psychiatric symptoms, assist in the development of life skills, promote a therapeutic milieu, and add value to the profession of mental health nursing (Visagie, 2017; Kunikata et al., 2020). This suggests another educational gap in mental health nursing undergraduate and post-graduate training that needs to be addressed.

Nursing Comfort Level with CBT and Group Therapy

Presenting nurses with education on CBT has been shown to improve comfort and confidence in utilizing CBT (Batterbee, 2020; Layton et al., 2020). A similar effect was seen in this project. When comparing pre-intervention and post-intervention scores, the majority of participants reported an increase in comfort levels in discussion of CBT topics with adolescents, implementing CBT interventions, and in leading a group-therapy session. While 77.7% of participants reported similar to greater confidence levels, some participants reported a decrease in comfort level with the discussion of CBT topics and in leading group-therapy sessions. There are a variety of possible explanations that could account for these variances; however, this project did not collect subjective data to learn why scores changed pre- and post-implementation. Overall, in each category the majority of participants felt a greater sense of comfort in the topics of CBT and group therapy. These results align with previous studies that have provided nurses with continuing education on the topics of CBT and group therapy, which demonstrate that CBT is a skill that can be easily taught and can increase empowerment, confidence, and lead to greater intrapersonal wellbeing (Layton et al., 2020; Batterbee, 2020).

COPE as a Model for Educating Nurses about CBT

The COPE program been repeatedly found to be an effective model for educating a variety of healthcare professionals on the use of CBT with adolescent patients (Melnyk et al., 2014; Lusk et al., 2017). Previous studies have demonstrated that the COPE training model can increase comfort with terms associated with CBT and provide an enhanced understanding of the concepts of thoughts, feelings, and behaviors (Lusk et al., 2017). Additional concepts that nurses have gained from interacting with the COPE training model are the importance of establishing

trust with clients, understanding the developmental level and experiences of adolescents, and the need to adapt the lesson to the patients' experiences (Lusk et al., 2017). Nurses who were exposed to a COPE training model felt that they were able to implement CBT at a beginner's level, and could progress in their proficiency with additional formalized training and supervision (Lusk et al., 2017). Similar to the Lusk et al. (2017) study, the participants in this project reported overwhelming satisfaction with the COPE training model provided. Further, participants reported that they believed the training increased their understanding of CBT skills and techniques, how CBT applies to adolescent populations, that it was an effective CBT teaching method, and that the education model will assist them in caring for their adolescent patient population. The positive reactions within previous studies and this project suggest that the utilization of the COPE model for training nurses in beginner levels of CBT is a feasible and beneficial practice.

Financial Implications

Mental health disorders account for the greatest amount of spending for healthcare disorders in children and adolescents at an estimated 8.9 billion dollars annually (Melnyk, 2020). With that high level of expenditure, it is important to be aware of cost-effectiveness and evidence-based interventions that can be utilized to assist this population. As with initiation of any program in the healthcare setting, it is important to understand the associated costs, strength of evidence, and feasibility (Melnyk, 2020). This is necessary to ensure that the healthcare system benefits from interventions that are implemented (Melnyk, 2020). Previous research has demonstrated that nurse-led CBT groups are both beneficial to patients and cost effective

(Kunikata et al., 2020). Specifically, Kunikata et al. (2020) reported that nurse-led CBT groups led to a significant increase in self-esteem scores when measured both immediately after the intervention and one year after the intervention took place. Additionally, Kunikata et al. (2020) stated that the direct mean medical costs were significantly reduced from pre- to post-intervention groups. It is believed that the implementation of the nurse-led CBT program led to a decrease in hospital visits, number of prescriptions needed, and a reduction in visits for outpatient psychotherapy (Kunikata et al., 2020). In turn, a reduction in healthcare costs for this population was noted; thus, CBT group interventions led by nursing staff can assist in reducing healthcare costs (Kunikata et al., 2020).

Strengths

While this project was limited due to a small sample size, it was strengthened by several factors. First, it provided psychiatric, adolescent mental health nurses with basic training and education on CBT and group-therapy techniques targeted toward their specific patient population. It is unlikely that this participant group would have received this type of education in other circumstances. Secondly, an evidence-based model for educating nurses on the topic of CBT was utilized to provide education. This ensured that nursing staff received validated and accurate information related to CBT and group-therapy topics. Additionally, the education allowed a new unit of nursing staff to be exposed to streamlined vocabulary and concepts related to a specific psychological theory. This exposure to greater CBT educational training also increased post-training comfort levels of many of the nurses, which can assist in promoting the use of CBT on the new unit. Lastly, all participants reported that the training was beneficial. This

finding suggests that the aim of providing a successful education model for training adolescent psychiatric nursing staff in CBT was met.

Limitations

Limitations were mostly related to small sample size, dropout rate, and time allotted for the intervention. Due to utilizing one hospital setting, the availability of nursing staff to complete the training was small. All members of the adolescent nursing staff team were present for the training and role-playing session. Although all nursing staff were present, the small sample size increased the difficulty of evaluating data, and the results may not be generalizable to other hospital settings or larger nursing populations.

The three participants who dropped out were another limitation of the project. Two of the dropout participants appeared to have greater exposure to CBT and experiences in working specifically with the adolescent population. Their continued participation would have offered important information and also provided necessary feedback related to training effectiveness.

In addition to small sample size, time constraints related to the participation in the training may have also impeded this project. The participants were limited to a 3-hour training period, which only allowed for the author to present the didactic information and to perform one group-therapy role-playing session. Previous studies have allowed all participants to lead at least one role-playing group session (Lusk et al., 2017). An enhanced training experience may have been achieved with additional time where each participant had an opportunity to lead the group sessions. Similarly, the project could have benefited from utilizing a student/trainee competency measure to evaluate the nurses' acquired knowledge and skills. Implementing a measure such as

this could assist in increasing objectivity of the study. Cognitive Therapy Rating Scale (CTRS), is one such scale that could benefit future projects (Beck, 2011).

Lastly, the limitation of utilizing a non-validated self-report tool limits the results of this project. The utilization of self-report measurement tools is common in the practice of quality improvement projects (Doupnik et al., 2017). Due to the nature of self-reporting tools, response biases are common (Rosenman et al., 2011) and this can be problematic in either over or under estimating proficiencies of skills. The tool utilized was developed by the author due to a lack of available tools for measuring comfort levels of nurses or other professionals delivering the CBT/COPE model for adolescent group therapy. The majority studies on this topic are focused on the patient outcomes rather than that of the provider. Future research into validated measurement models would greatly benefit the reliability of understanding providers comfort levels in presenting CBT and COPE information to patients.

Future Directions

Even with the limitations of this project, adolescent psychiatric nursing staff unanimously reported benefits to receiving psychoeducation on CBT and the COPE program. Thus, use of standardized education on CBT concepts may benefit this unit. For example, incorporating this presentation or a similar manualized program into the unit's new-hire orientation process may assist in streamlining care. Other benefits may also arise from educating the nurses in CBT concepts on the adult psychiatric unit.

In addition to implementing standardized education on psychiatric units, such as the one used in this project, future projects may benefit from gaining further insight into how education

of nurses in CBT skills has affected their use of cognitive-behavioral interventions and how training may affect quality interventions. In this project, self-reported CBT use and education were mixed; thus, evaluating use after implementation could enhance understanding of how continuing education affects practice. Other quality measures that could be evaluated in future research may include use of as-needed medications, restraints, nursing staff burn out, patient safety, and patient satisfaction with CBT programming. Evaluating these types of measures before and after providing continuing education on CBT to nursing staff could allow for greater understanding of the role these skills and interventions play in patient care.

Due to the complexity of nursing practice, nursing education often emphasizes the importance of critical thinking. Innate to the concept of critical thinking is the desire to discover new knowledge (Abiogu et al., 2020). However, as this project and the literature has demonstrated, nurses rarely seek out new knowledge on psychological theories (Batterbee, 2020). Nurse educators promote the need to focus on holistic care. The link between physical and emotional wellbeing has been made evident in recent years; thus, integrating cognitive-behavioral strategies into nursing education could greatly benefit the profession as a whole (Batterbee, 2020). Integrating cognitive-behavioral concepts, skills, and interventions into nursing-education programs should be further researched to understand their benefits on patient outcomes. Training in CBT has been shown to influence patients' physical symptoms and can empower both the provider and patient. This makes CBT beneficial not only for psychiatric nurses, but also those working with patients who suffer from physical ailments (Batterbee, 2020). Incorporating CBT education into nursing-education programs has the potential to assist nurses

outside of the psychiatric setting and allow them to continue to provide effective, evidence-based care.

Conclusion

The results from this project highlight the need for continuing education on CBT within the adolescent psychiatric nursing community. Addressing this gap in education can greatly impact the care of this vulnerable population. Utilizing upstream concepts, such as early CBT psychoeducation, can give adolescent psychiatric patients tools that allow them to cope with their mental illnesses when they are first recognized. The first step in tackling this goal is to ensure that adolescent psychiatric nurses are equipped with the appropriate skills and knowledge in order to provide CBT psychoeducation to adolescents. This can be completed through both undergraduate and post-graduate education. Nurses work the closest with these patients during their time of need, which gives them the essential role of introducing and educating youth on CBT topics.

Despite some restrictions in the implementation of this project, nursing staff reported that the didactic education on CBT/COPE and the role-playing scenarios were feasible, helpful, and would impact their patient care. Additionally, the majority of nurses self-reported a greater comfort level in CBT and group-therapy topics and interventions, suggesting that this and similar education techniques could greatly benefit this nursing population and, thus, the care of adolescent psychiatric patients.

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APPENDICES

APPENDIX A

EVIDENCE TABLE

Citation (authors, date, publication title)	Conceptual Framework and purpose	Design/Method	Sample/Setting	Major Variables Studied and Their Definitions	Measurement of Major Variables	Data Analysis	Study Findings	Strength of Evidence (level, quality, strengths and weaknesses)
Hart-Abney, B. G., Lusk, P., Hovermale, R., & Melnyk, B. (2018). Decreasing depression and anxiety in college youth using the Creating Opportunities for Personal Empowerment Program (COPE).	<p>Framework: Cognitive behavioral theory.</p> <p>Purpose: To evaluate the effects of COPE on college students' anxiety and depression.</p>	One group pre-test/post-test design.	<p>Sample: 13 college students.</p> <p>Inclusion: ages 18-25, diagnosed depression or anxiety disorder, and to be current college student.</p>	<p>Aim 1: assess levels of depression and anxiety in "at risk" college students.</p> <p>Aim 2: IV: Implementing COPE program</p> <p>DV: levels of depression, anxiety and satisfaction with the intervention.</p>	<p>Beck's depression inventory (BDI-II): coefficient alpha .93, Cronbach's α = .94-.98.</p> <p>State Trait Anxiety Inventory (STAI): Test-retest correlation .73-.86.</p> <p>COPE young adult program evaluation form.</p>	<p>Paired t-test impact of COPE on BDI-II and STAI scores.</p> <p>Effect sizes for intervention and p values computed related to small sample size.</p> <p>Significance = .05</p>	<p>All participants experienced a decrease in depressive symptoms following COPE intervention.</p> <p>All participants had an improvement in anxiety symptoms.</p> <p>All participants reported that the COPE intervention was helpful and changed the way they reacted to stress.</p>	<p>Level: III</p> <p>Limitations: convenience sample small, no control group.</p> <p>Strengths: Use of good measurement tools.</p> <p>Conclusions: COPE is an effective brief program for decreasing anxiety and depression in college-aged youth. Implementation of programs may lead to less severe depression and anxiety among COPE students.</p>
McGovern, C. M., Militello, L. K., Arcoletto, K. J., Melnyk, B. M. (2018). Factors associated with healthy lifestyle behaviors	<p>Framework: Cognitive Theory/ Cognitive behavioral therapy.</p> <p>Purpose: Secondary analyses were</p>	Structural equation modeling, evaluating Cross sectional data.	<p>Setting: 11 schools, in two school districts in SW US.</p> <p>Sample: 779 adolescents ages 14-17.</p>	<p>IV: COPE intervention.</p> <p>DV: Healthy lifestyle beliefs, healthy behavior perceived difficulty,</p>	<p>Healthy Lifestyle Beliefs Scale (HLBS): Cronbach's alpha .89.</p> <p>Healthy Lifestyle</p>	<p>Two structural equation models.</p> <p>Descriptive statistics.</p> <p>Statistical significance set at $p < .10$.</p>	<p>Males had higher reported beliefs in the ability to engage in healthy lifestyles.</p>	<p>Level: III</p> <p>Strengths: Tools with good reliability.</p> <p>Limitations: secondary</p>

among adolescents.	conducted to test an explanatory model for the influence of adolescents' thoughts and feelings on healthy lifestyle behaviors and to investigate whether there are sex differences in these relationships.			anger/ depression/ anxiety/ self-concept / disruptive behavior, and healthy lifestyle behaviors (PA, diet, mental health).	Perceived Difficulty Scale: Cronbach's alpha .88. Beck Youth Inventory II: Cronbach's alpha: .89. Healthy Lifestyle Behaviors Scales: Cronbach's alpha .85.	SPSS 22.0 and Mplus 8 utilized for statistical analyses.	Females scored lower on self-concept, but they perceived lower difficulty engaging in healthy behaviors. Females scored higher on depression and anger subscales than males. Adolescents who have more positive thought about engaging in healthy lifestyle behaviors reported fewer negative feelings and engaged in more healthy lifestyle behaviors.	analysis, measures relied on self-report. Conclusion: Cognitive beliefs effect adolescents' ability to engage in healthy lifestyle behaviors and perceived difficulty and self-concept have on healthy lifestyle behaviors.
Lusk, P., Hart-Abney, B. G., & Melnyk, B. (2017). A successful model for clinical training in child/adolescent cognitive behavior therapy for graduate psychiatric advanced	Framework: Cognitive therapy approach. Purpose: To evaluate the feasibility and acceptability of a new clinical model for teaching child/adolescent CBT to advanced practice PMH students.	Qualitative	Sample: 107 PMHNP students complete evaluations Setting: 5 graduate nursing programs in US. Online and face to face classes. 4-hour didactic workshop.	Aim 1: IV: COPE program education DV: knowledge of CBT, Effectiveness of training,	COPE: CBT program utilized for adolescent and children groups. CBT training questionnaire: Students evaluated the training workshop and experiences in small groups working	Thematic data analysis completed to evaluate the experiences of PHHNP students. Phenomenological data were collected through the interview processes. Audit trail utilized to verify themes. Exploratory qualitative	Teaching of COPE can be beneficial in both blended and face to face settings. Experience helped them better understand what the patient is going through during CBT/ Understanding	Level V Limitations: Trainees only trained for limited period of time. Lack of feedback from educating staff while in small groups. Student/trainee competency measure was not included in project.

practice nursing students.					through cope manuals. Assessment of CBT knowledge done through course exams. Following completion of 7 COPE lessons discussions were facilitated about group psychotherapy.	analysis was performed utilizing post-clinical training program evaluation questionnaire.	of adaptation of CBT for children and adolescents. Students felt it was feasible to implement COPE during 30 min sessions with patients. Increased belief that students would utilize CBT in their own practice. Enhancement of therapeutic skills and techniques for use with teens and adolescents. Enhanced level of confidence through participated in COPE program. Understanding of therapeutic benefit of being in a group setting.	Conclusion: Positive PMHNP student evaluations indicated that this clinical training model is feasible both online and face-to face and acceptable for providing clinical training in CBT for children and adolescents.
Hoying, J., Melnyk, B., & Arcoleo, K. (2016). Effects of the COPE cognitive behavioral skills building	Conceptual Framework: Cognitive theory. Purpose: To evaluate feasibility, acceptability, and	Pre- and posttest pre-experimental design was used with follow up immediately	24 8 th grade students between ages 13-14 years who were enrolled in a required health education class in Appalachian	Aim 1: IV: COPE intervention DV: Feasibility of implementation	Demographics Healthy Lifestyle Behaviors Scale Chronbach's α = 0.80.	Descriptive statistics-demographics Paired t-tests: baseline to post-intervention	Improvement of student's anxiety, depression, disruptive behaviors and self-concept scores after	Level III Strengths: Use of good measurement tools with high reliability.

<p>TEEN program on healthy lifestyle behaviors and mental health of Appalachian early adolescents.</p>	<p>preliminary efficacy of a 15-session cognitive behavioral skills building intervention (COPE/ TEEN) program on healthy lifestyle behaviors, physical health, and mental health of rural early adolescents.</p>	<p>post-intervention.</p>	<p>junior high school in the Midwest.</p> <p>Inclusion: consent/assent, comprehension of English, enrolled in 8th grade health class.</p>	<p>Aim 2: IV: COPE intervention</p> <p>DV: Healthy Lifestyle Behavior Scale.</p> <p>Aim 3: IV: COPE intervention</p> <p>DV: Beck's Youth Inventory</p>	<p>Depression/ anxiety/ anger/ disruptive behavior/ self-concept: Beck's Youth Inventory (BYI-II) cronbach's α ranging from 0.87-0.92.</p> <p>BMI</p> <p>Post-intervention questionnaire.</p>		<p>COPE intervention compared to baseline.</p> <p>Improvement in healthy lifestyle behavior scores.</p>	<p>Limitations: small sample size, use of one group pre-test/post-test, no control group, and short-term outcomes.</p>
<p>Hoying, J., & Melnyk, B. M. (2016). COPE: A pilot study with urban-dwelling minority sixth-grade youth to improve physical activity and mental health outcomes.</p>	<p>Framework: Cognitive Theory.</p> <p>Purpose: Feasibility and accessibility and preliminary effects of COPE/TEEN intervention on physical activity and mental health outcomes for minority 11-13-year-old adolescents.</p>	<p>One group pre/post-test design.</p>	<p>Sample: 31 6th grade students between ages 11-13 enrolled in science classes in the Midwest.</p> <p>Inclusion: English speaking, enrolled in 6th grade science class</p>	<p>Aim 1: IV: Use of COPE program.</p> <p>DV: feasibility and acceptability of COPE programs.</p> <p>Aim 2: IV: Use of COPE program</p> <p>DV: short-term preliminary efficacy of COPE delivered in a middle school setting.</p> <p>Aim 3: assess the relationship among study variables for</p>	<p>Variables: Healthy Lifestyle Beliefs Scale- Cronbach's α= 0.90 - 0.94.</p> <p>Beck's Youth Inventory (BYI-II): Measuring anxiety, depression, self-concept, and suicide risk. Cronbach's α= 0.90-0.99.</p> <p>Physical activity: OMRONTM pedometer.</p> <p>Baseline measurements: height, weight and BMI.</p>	<p>Descriptive statistics.</p> <p>Paired t-tests.</p>	<p>Significant decrease in anxiety and depression levels.</p> <p>Significant increase in self-concept scores.</p> <p>Small to medium effect on healthy lifestyle beliefs.</p> <p>Significant increase in physical activity.</p> <p>Program had an attendance rate of 94% and homework completion rate of 84.4%-feasible.</p>	<p>Level III</p> <p>Strengths: Highly utilized measurement tools with high Cronbach's alpha scores.</p> <p>Limitations: One group study design with no control group. Small sample.</p>

				baseline correlation patterns.	Demographics: age, ethnicity, gender, public assistance, parent's employment status, and highest level of education. Preadolescent program evaluation: post-test questionnaire			
Kozlowski, J. L., Lusk, P., Melnyk, B. (2015). Pediatric nurse practitioner management of child anxiety in a rural primary care clinic with the evidence-based COPE program.	Assess feasibility and effects of a seven session COPE program delivered to anxious children in a primary care nurse practitioner setting.	Pre-experimental, one-group, pretest and post-test design.	Convivence sample 14 children ages 8-13 y.o. Inclusion: diagnosis of anxiety recorded in EMR, Met DSM-5 criteria for an anxiety disorder, score of 25+ on SCARED assessment tool, Exclusion: mental retardation, psychosis, and current suicidal thoughts.	Aim 1: IV: COPE intervention DV: Feasibility in a PCP nurse practitioner's office. Aim 2: IV: COPE intervention DV: Increase knowledge of CBT skills Aim 3: IV: COPE intervention DV: Decreased anxiety symptoms, improved functioning at home and school.	Preintervention assessment: Screen for Child Anxiety Related Disorders (SCARED)-stated high reliability. Content Quiz measuring knowledge of cognitive skills Post-intervention evaluations: screening with SCARED tool, assessment of anxiety symptoms, cognitive skill knowledge (Content skills quiz), level of functioning (Clinical global	Not discussed in paper.	Children who participated had a significant decrease in anxiety symptoms (13.88 points, SD= 17.96, 95% confidence interval [CI]= -1.13-28.89) Children had an increase in knowledge of CBT skills (M= 11.38, CI= 5.99-8.26, p=.00). Children also experienced improved functioning at school and home.	Level III Strengths: High reliability screening tool for anxiety; SCARED. High reliability functioning tool; CGI. Use of evidence-based intervention. Limitations: lack of discussion regarding data analysis, moderate attrition rate,

					impressions scale [CGI] utilized reliability correlation coefficient= 0.96) and post-program satisfaction.			
Hoying, J. A. (2015). COPE: A pilot study with urban sixth grade youth to improve physical activity and mental health outcomes.	None.	On group pre/posttest study design.	<p>Convenience sample 31 pre-adolescent students.</p> <p>2 students withdrawn by parents.</p> <p>Inclusion: enrolled in 6th grade, taking a science class, speak and comprehend English, have 1 parent who speaks/ comprehends English, consent from parent.</p> <p>Exclusion: Medical condition that would not allow them to participate in physical activity.</p> <p>Columbus Ohio 6th grade class rooms.</p>	<p>Aim 1:</p> <p>IV: 15 session cognitive behavioral skills building healthy lifestyles intervention.</p> <p>DV: feasibility and acceptability.</p> <p>Aim 2:</p> <p>IV: COPE program intervention</p> <p>DV: short term effects on healthy life style beliefs, anxiety, depression, low self-concept, and suicide risk.</p>	<p>Depression: Beck's youth inventory II (BYI-II) Cronbach's alpha .87 to .92.</p> <p>Physical activity: OMRONTM pedometer. Reliability .90</p> <p>COPE constructs Cronbach's alpha .80-.91</p> <p>Healthy interventions: Healthy lifestyle beliefs scale: Cronbach alpha .94</p> <p>Beck Depression Inventory Cronbach alpha .90</p> <p>Beck Anxiety Inventory .81.</p>	<p>Descriptive statistics</p> <p>Pearson's correlations</p> <p>Paired t tests</p> <p>Reliability and validity Cronbach's alpha over .80 all instruments.</p>	<p>Decreases in anxiety, increase healthy lifestyles, increase ability to manage negative emotions, significant increase in physical activity after intervention.</p> <p>Anxiety $t=3.230, p=.003$ Cohen's $d=0.42$</p> <p>Depression $t=2.15, p=.076$, Cohen's $d=1.06$</p> <p>Healthy lifestyle $-t=3.530, p=.004$, Cohen's $d=1.17$.</p> <p>Students that were high risk for suicide on BDI at baseline did not report risk for suicide on same instrument.</p>	<p>Level III</p> <p>Strengths: High reliability and validity on measure instruments, utilization of an evidence-based program.</p> <p>Limitations: Lack of randomization, Assessment too close to intervention, potential for heterogeneity, lack of control group.</p>

							<p>Subjects who scored for anxiety, depression and low self-concept on BDI were within normal ranges post intervention.</p> <p>6 students with baseline depression mean score pre-intervention 20.11 (10.80) and post intervention score 14.50 (8.24) =, effect size 0.58.</p> <p>Feasible within a school setting 89.4% of classes were attended exceeding feasibility rate of 80%.</p>	
<p>Kelly, S. A., Oswalt, K., Mazurek Melnyk, B., & Jacobsen, D. (2015). Comparison of intervention fidelity between COPE TEEN and an attention-control</p>	<p>Purpose: evaluate intervention fidelity and to compare implementation fidelity between the COPE healthy lifestyles TEEN program and the experimental Healthy Teens an attention control intervention.</p>	<p>Prospective blinded (to teachers and participants) randomized controlled trial.</p>	<p>Sample/Setting: 30 health teachers taught programs</p> <p>779 adolescents (14-16 y.o.) from 11 high schools in the SW region of US.</p> <p>Inclusion: Enrolled in health class, volunteer,</p>	<p>Aim 1: To determine intervention fidelity of COPE/TEEN IV: Ability of teacher to educate students on the program appropriately.</p>	<p>Baseline questionnaire, post-intervention, 6 mo. Follow up, 12 mo. Follow up.</p> <p>Parent questionnaires: baseline and post-intervention.</p>	<p>Descriptive stats</p> <p>Logistic regression for repeated measures using generalized estimating equation models</p>	<p>Overall most fidelity components were addressed by the health teachers in this study.</p> <p>Two components that were not evaluated were assessment of</p>	<p>Level II</p> <p>Strengths: Good inter-rater reliability.</p> <p>Limitations: non-blinded observers, small sample size, observations only a random</p>

<p>programs in a randomized controlled trial.</p>			<p>parental consent, adolescent ascent.</p> <p>Exclusion: Medical conditions that would not allow them to participate in the physical activity component of the program.</p>	<p>DV: Measurement of fidelity.</p> <p>Aim 2: describe fidelity of intervention design, training, and receipt of COPE/TEEN IV: Ability of teacher to educate students on the program appropriately. DV: Measurement of fidelity.</p> <p>Aim 3: To compare fidelity intervention between COPE/TEEN and Health Teen intervention. IV: COPE program or Healthy Teen program DV: Fidelity of education from program.</p>	<p>Teachers observed by research team members at four unannounced program sessions (inter-rater reliability=90%)</p> <p>Fidelity measures: teacher preparations, presentation of learning objectives, delivery of intervention, adherence to lesson plan, participation level of students, and CBT building by students— ea. Category measured on 5-point Likert.</p>	<p>teacher prior to implementation and corrective feedback when protocol deviations occurred.</p> <p>Teachers had more clarity when teaching the Healthy Teen program rather than COPE/TEEN program [OR: 0.51: 95% (CI): 0.35-0.75; P=0.0001)</p> <p>COPE TEEN students had significantly more steps per day (P=0.03), Less BMI (P=0.01), less depression (P=0.02), lower etoh use (P=0.04), higher social skills rating (p<0.05), and higher health course grades (p=0.01).</p> <p>Although fidelity was less in COPE/TEEN positive outcomes were achieved.</p>	<p>sample of all taught classes.</p>
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<p>Melnyk, B., Amaya, M., & Taylor, T. (2015). Feasibility, acceptability, and preliminary effects of the COPE online cognitive-behavioral skill-building program on mental health outcomes and academic performance in freshman college students: A randomized controlled pilot study.</p>	<p>Framework: Cognitive Behavioral Theory.</p> <p>Purpose: Assess feasibility, and preliminary effects of a seven session online cognitive-behavioral skill building intervention (COPE) vs. a comparison group on anxiety, depressive symptoms, and grade performance.</p>	<p>Cluster randomized controlled trial.</p>	<p>Sample: convenience sample of freshman college students.</p> <p>19 online classroom sections.</p>	<p>IV: COPE or introductory content about their colleges.</p> <p>DV: Anxiety and depressive symptoms.</p>	<p>Personal Beliefs Scale: validity established by adolescent health specialist, Cronbach's $\alpha = >.85$</p> <p>Personal Health Questionnaire-9 (PHQ-9): Reported good sensitivity (.88) and specificity (.89) for identifying MDD.</p> <p>General Anxiety Disorder Scale (GAD-7): Cronbach's $\alpha = .89$.</p> <p>Grade point average.</p> <p>Demographics.</p> <p>Program evaluation: post-test data collection point r/t helpfulness of program.</p>	<p>Estimating psychometrics for each scale.</p> <p>Descriptive statistics.</p> <p>Independent t-tests to assess differences by group.</p> <p>Paired t-tests for within groups to examine change from baseline to postintervention.</p>	<p>No significant differences of anxiety and depressive symptoms between groups.</p> <p>Students with high levels of anxiety at baseline had decreased anxiety symptoms after using COPE.</p> <p>GPA was higher for COPE students vs. comparison group.</p> <p>58% of students stated COPE was helpful, 62% of students stated all freshman should have COPE sessions during first year at college.</p> <p>COPE is feasible and acceptable to implement for college freshman.</p>	<p>Level II</p> <p>Strengths: RCT, large sample size, tools with good reliability and validity.</p> <p>Limitations: No longitudinal follow up. Not asking a greater number of students to participate in the study. Limited generalizability.</p>
<p>Hickman, C., Jacobson, D., & Melnyk, B. M. (2014). Randomized</p>	<p>Framework: Cognitive theory</p> <p>Purpose: to determine if a</p>	<p>Randomized controlled trial.</p>	<p>Setting: hospital-based academic pediatric neurology</p>	<p>IV: COPE-HPE vs. Headache education group.</p>	<p>COPE HPE: 7 CBT sessions and relation to chronic daily HA.</p>	<p>Paired t-tests; significance= $p < .10$: pre/posttest</p>	<p>Adolescents and parents found COPE HEP to be a highly</p>	<p>Level: II</p> <p>Strengths: Treatment fidelity was</p>

<p>controlled trial of the acceptability, feasibility, and preliminary effects of a cognitive behavioral skills building intervention in adolescent with chronic daily headaches: A pilot study.</p>	<p>theory-driven COPE-HPE model program in adolescents ages 13-17-years-old who have mild to moderate depressive symptoms was feasible and acceptable to adolescents and their parents. Also to determine the preliminary effects of COPE HPE on anxiety, depression, beliefs, perceived stress, HA disability, and parent perception of pain interference with this population compared to a comparison group.</p>		<p>specialty care clinic in AZ.</p> <p>Sample: 32 adolescent participants.</p> <p>Inclusion BYI-II scores from 55-69. Consent from parents and assent from participants. Diagnosis of chronic daily HA, 13-17 y.o., availability of parents, ability to speak English, enrollment in high school, presence of depressive symptoms. Exclusion: prior diagnoses mental health condition, presence of clinical disease as cause of HA.</p>	<p>DV: acceptability of program to adolescents and parents, effects on anxiety, depression, beliefs, perceived stress, HA disability, and parent perception of pain.</p>	<p>HA education group: Triggers, HA hygiene measures, were discussed.</p> <p>Depression: Beck's Youth Inventory II (BYI-II). Cronbach's alpha= .88 and .57.</p> <p>Healthy Lifestyles Beliefs Scale. Cronbach's alpha .91.</p> <p>Perceived Stress Scale. Cronbach's alpha= .58, good reliability and validity.</p> <p>HA disability: PedMIDAS. Adequate reliability and validity, Cronbach's alpha= .61. Parent Perception of Pain Interference. Adequate reliability and validity, Cronbach's alpha= .96.</p>	<p>Chi-squared analyses and independent t-tests: Continuous variable.</p> <p>Analysis of covariance was utilized for posttest anxiety and depression controlling for baseline levels.</p> <p>SPSS version 19 utilized for analyses.</p>	<p>acceptable intervention.</p> <p>Medium to large positive effects were demonstrated on adolescents' depression and anxiety in both groups.</p> <p>COPE-HPE offered additional benefits of a larger decrease in adolescent anxiety over time and a stronger belief in teens to manage headaches.</p>	<p>assessed, good reliability and validity for instruments, use of RCT design, use of theory based manual intervention, low attrition rate,</p> <p>Limitations: Use of phone sessions for treating patients, self-report survey, homogenous sample, referral process/ convenience sample, low Cronbach alphas for 2 scales.</p> <p>Conclusion: Adolescents with chronic daily HA and depressive anxiety symptoms should be offered HA hygiene education plus cognitive skills building interventions.</p>
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<p>Melnyk, B. M., Jacobson, D., Kelly, S. A., Belyea, M. J., Shaibi, G. Q., Small, L., O'Haver, J. A., & Marsiglia, F. F. (2014). Twelve-month effects of the COPE healthy lifestyles TEEN program on overweight and depressive symptoms in high school adolescents.</p>	<p>Framework: Cognitive theory</p> <p>Purpose: To evaluate the long-term efficacy of the COPE/TEEN program versus an attention control program (Healthy Teens) on overweight/obesity and depressive symptoms in adolescents ages 14-16-years-old.</p>	<p>Prospective cluster randomized controlled trial.</p>	<p>Setting: 11 SW US high school health education course.</p> <p>Sample: 779 adolescents ages 14-16-years-old.</p> <p>Inclusion: Ability to read, speak English, assent, and consent from parents.</p>	<p>IV: Cope vs. Healthy Teens</p> <p>DV: Overweight/Obesity, depressive symptoms.</p>	<p>PA: Pedometers measured steps for physical activity (PA)</p> <p>Intervention fidelity: observers rated 25% of teacher's interventions using field observation instruments. 90% inter-rater reliability.</p> <p>BMI: measured by height and weight.</p> <p>Depressive symptoms: Beck's Youth Inventory II (BYI-II). .94 reliability.</p>	<p>Power analysis conducted.</p> <p>ANCOVA</p> <p>Statistical analysis performed with SAS Proc Mixed for continuous outcomes and Proc Genmode for limited dispersion outcomes.</p> <p>Effect size= Cohen's d.</p>	<p>COPE adolescents had significantly lower BMI at 12 months than the adolescents in the healthy teens program.</p> <p>For youth who started the program with elevated depressive symptoms, COPE teens had significantly lower levels of depression than those in the healthy teen group.</p>	<p>Level: II</p> <p>Strengths: High inter-rater reliability for fidelity. Reliable measurement tools.</p> <p>Limitations: Self-reported data, moderate attrition, differences in schools.</p> <p>Conclusion: COPE may improve long-term physical and mental health outcomes in adolescents.</p>
<p>Melnyk, B. M., Kelly, S., & Lusk, P. (2013). Outcomes and feasibility of a manualized cognitive-behavioral skills building intervention: Group COPE for depressed and anxious adolescents in school settings.</p>	<p>Framework: Cognitive theory and CBT</p> <p>Purpose: to assess the feasibility and preliminary effects of a theory driven CBSB intervention, COPE for teens with a sample of 14-17-year-old students identified by a school-based NP to have</p>	<p>Pre-experimental one-group pre-test and posttest pilot study design with a 4 week follow up.</p>	<p>Setting: Intervention implemented at two high schools in SW region of US.</p> <p>Sample: 16 adolescents 14-17-year-old. referred by a school-based nurse practitioner for depression and anxiety symptoms.</p>	<p>DV: Implementation of COPE program.</p> <p>IV: Student's level of depression/anxiety, Student's personal beliefs, student's evaluation of program.</p>	<p>Personal Beliefs Scale: Cronbach's alpha exceeded .85 for teens.</p> <p>Beck Youth Inventory (BYI-II): Cronbach's alpha .87 for both anxiety and depression in teens.</p> <p>Post-COPE program evaluation: 11 questions</p>	<p>Paired sample t-tests</p> <p>Effect sizes for intervention computed along with p values due to small sample size. Cohen's d statistic.</p> <p>Level of significance set at .10 due to small sample size</p> <p>Post program evaluations were</p>	<p>Adolescents reported a significant decrease in depression and anxiety on BYI.</p> <p>They also reported an increase in personal beliefs about managing negative emotions. Described COPE interventions as a positive</p>	<p>Level: III</p> <p>Strengths: High Cronbach's alpha for measurement tools.</p> <p>Limitations: Lack of parental involvement. No attention-control group, threats to internal validity. Low generalization.</p>

	depression/anxiety symptoms.		Inclusion: symptoms of anxiety/depression reported to by school-based NP,		completed after each COPE session.	compiled and reviewed.	experience for teens.	Conclusion: COPE is a promising brief-focused cognitive behavioral therapy-based intervention that can be effectively delivered to teens in a school setting and group format.
Melnyk, B. M., Jacobson, D., Kelly, S., Belyea, M., Shaibi, G., Small, L., O'Haver, J., & Marsiglia, F. F. (2013). Promoting healthy lifestyles in high school adolescents.	<p>Framework:</p> <p>Purpose: To test the efficacy of COPE/TEEN versus an attention control program to evaluate healthy lifestyle behaviors, BMI, mental health, social skills, and academic performance immediately after and 6 months post intervention.</p>	Prospective, blinded RCT cluster	<p>Setting: 11 SW US high school required health education courses.</p> <p>Sample: 779 culturally diverse adolescents 14-16 years-old.</p> <p>Exclusion criteria: medical condition that would prevent them from participating in physical activity component of program.</p>	<p>IV: COPE/TEEN vs. Attention Control Program (Healthy Teens)</p> <p>DV: evaluate healthy lifestyle behaviors, BMI, mental health, social skills, and academic performance immediately after and 6 months post intervention.</p>	<p>Pedometers to evaluate PA and steps.</p> <p>Observers rated approximately 25% of teacher intervention sessions for intervention fidelity. Inter-rater reliability = 90%.</p> <p>PA and Healthy lifestyles: BMI and Healthy Lifestyle Behaviors Scale. Cronbach's alpha >.80.</p> <p>Depression/anxiety: Beck's Youth Inventory II.</p>	<p>ANOVA tests</p> <p>Linear mixed models</p> <p>Repeated measures ANCOVA</p> <p>Repeated logistic regression models.</p> <p>SAS Proc Mixed Pro GenMod version 9.2 software used.</p>	<p>Post-intervention COPE students had greater number of steps, and lower BMI than the attention control group.</p> <p>Teens in COPE group with elevated depression had significantly lower depression scores than attention control group.</p> <p>Alcohol use was lower in COPE group.</p> <p>Grades were higher in COPE group.</p>	<p>Level: II</p> <p>Strengths: Blinded RCT, valid measurement tools.</p> <p>Limitations: Student groups differing in variables and intervention fidelity among teachers.</p> <p>Conclusion: COPE may assist in improving short- and long-term outcomes in high school students.</p>

					<p>Social skills: Social Skills Rating System.</p> <p>Substance use: Self-reported.</p> <p>Academic performance: School records.</p>		<p>At 6 mo intervention COPE group had lower BMI, proportion of overweight teens was significantly different in postintervention group, and less reported alcohol use.</p>	
<p>Melnyk, B. M., Kelly, S., Jacobson, D., Belyea, M., Shaibi, G., Small, L., O'Haver, J., & Marsiglia, F. F. (2013). The COPE healthy lifestyles TEEN randomized controlled trial with culturally diverse high school adolescents: Baseline characteristics and methods.</p>	<p>Framework: Cognitive Theory</p> <p>Purpose: To test the efficacy of COPE/TEEN program vs. Healthy Teens program on adolescent's healthy lifestyle behaviors, BMI, mental health, social skills, and academic performance.</p>	<p>Randomized Controlled Trial</p>	<p>Setting: 11 SW US high school required health education courses.</p> <p>Sample: 779 culturally diverse adolescents 14-16 years-old.</p> <p>Inclusion: enrolled in health class at participating school, assent, consent, speak/read English, and parents who could speak/read English.</p> <p>Exclusion: teens with medical condition that would not allow them to participate in PA.</p>	<p>IV: COPE/TEEN vs. Attention Control Program (Healthy Teens)</p> <p>DV: evaluate healthy lifestyle behaviors, BMI, mental health, social skills, and academic performance</p>	<p>Healthy behaviors: Healthy Lifestyle Beliefs Scale. High content and construct validity.</p> <p>PA: measured by pedometer.</p> <p>Depression/anxiety: Beck's Youth Inventory II (BYI-II).</p> <p>BMI: Height and weight.</p> <p>Social skills: Social Skills Rating System. Established validity and reliability.</p> <p>Observers rated approximately 25% of teacher intervention</p>	<p>Descriptive statistics.</p> <p>Independent sample t-tests and chi-square.</p> <p>Linear hierarchical models.</p> <p>Structural Equation Model.</p> <p>Power analysis conducted.</p>	<p>Baseline results: Slightly more than half of participants are female, predominant ethnicity is Hispanic.</p> <p>Greater than 40% of the sample is overweight or obese.</p> <p>15.79% of participants had elevated BYI-II scores indicating mild, moderate or severe depression.</p>	<p>Level: II</p> <p>Strengths: Blinded RCT, valid measurement tools.</p> <p>Limitations: Student groups differing in variables and intervention fidelity among teachers.</p> <p>Conclusion: If COPE/ TEEN is an effective program it can be easily incorporated into the high school health curriculum to improve adolescent healthy behaviors.</p>

					sessions for intervention fidelity. Inter-rater reliability = 90%.			
Melnyk, B. M., Lusk, P. (2011). COPE for the treatment of depressed adolescents: Lessons learned from implementing an evidenced based practice change.	<p>Framework:</p> <p>Purpose: To describe lessons learned from implementing COPE in a community mental health practice as part of an evidence-based practice change to improve an advanced practice psychiatric nurse's clinical practice and provide treatment for depressed adolescents.</p>	Pre-experimental one-group pre- and posttest design	<p>Setting: 30-minute health medication outpatient visits. Community mental health center in rural SW US.</p> <p>Sample: 15 depressed adolescents age 12-17 y.o.</p>	<p>IV: Implementation of COPE program in outpatient setting.</p> <p>DV: depression, anxiety, self-concept, disruptive behaviors, anger.</p>	<p>Beck's Youth Inventory-II (BIY-II): depression, anxiety, self-concept, disruptive behaviors, anger.</p> <p>Personal Beliefs Scale: ability to cope with stressors.</p>	<p>Paired sample t-tests for continuous variable.</p> <p>Cohen's d</p>	<p>Using COPE in outpatient visits led to improved adolescent outcomes.</p> <p>Adolescents reported significant decreases in depression, anxiety, anger and disruptive behaviors, also increases in self-concept and personal beliefs about managing negative emotions.</p>	<p>Level: IV</p> <p>Strengths:</p> <p>Limitations: limited organizational resources.</p> <p>Conclusion: COPE may be implemented in 30 min outpatient visits. APRNs can utilize COPE to effectively treat depressed teens even with practice limitations.</p>
Melnyk, B. M., Jacanson, D., Kelly, S., O'haver, J., Small, L., Mays, M. Z. (2009). Improving the mental health, healthy lifestyle choices, and physical health of Hispanic adolescents: A Randomized controlled pilot study.	<p>Framework: Cognitive Behavior Theory.</p> <p>Purpose: To Evaluate the preliminary efficacy of the COPE/TEEN program on Hispanic adolescents' healthy lifestyle choices, mental health, and physical health outcomes.</p>	Cluster randomized controlled pilot study	<p>Setting: Health class in SW high school.</p> <p>Sample: 19 Hispanic adolescents.</p> <p>Inclusion: enrolled in health classes, consent and assent,</p>	<p>IV: COPE program vs. attention control program.</p> <p>DV: Healthy lifestyle choices, nutrition knowledge, mental health, physical health.</p>	<p>Healthy Lifestyle Beliefs Scale: Cronbach's alpha= .90.</p> <p>Nutrition Knowledge survey: Cronbach's alpha= .88.</p> <p>Healthy Lifestyle Choices Scale: Cronbach's alpha= .85.</p>	<p>Independent and paired t-tests: continuous variables.</p> <p>Level of significance $p < .10$</p>	<p>Adolescents in COPE increased their healthy lifestyle choices and reported a decrease in depressive and anxiety symptoms from baseline to post-intervention.</p> <p>Overweight adolescents had a decrease in</p>	<p>Level: II</p> <p>Strengths: RCT design, themes reviewed by two researchers.</p> <p>Limitations: Small convenience sample.</p> <p>Conclusion: COPE/TEEN program is a promising</p>

					<p>Beck's Youth Inventory II (BYI-II): Depression, anxiety, anger, and disruptive behavior symptoms.</p> <p>Anthropometric Measures: Height, weight, waist circumference.</p> <p>Lab work: A1C, HDLs, LDLs, and triglycerides.</p>		<p>triglycerides and increase in high density lipoproteins.</p> <p>Overweight adolescents reported increase in healthy lifestyle beliefs, nutrition knowledge and decrease in depressive symptoms.</p>	<p>school-based strategy for improving physical and mental health outcomes in adolescents.</p>
<p>Melnik, B. M., Small, L., Morrison-Beedy, D., Strasser, A., Spath, L., O'Haver, J. (2007). The COPE healthy lifestyles TEEN program: Feasibility, preliminary efficacy, & lessons learned from an after-school group intervention with overweight adolescents.</p>	<p>Framework: Cognitive Behavior Theory.</p> <p>Purpose: To determine the feasibility of implementing COPE/TEEN program with over-weight adolescents, to obtain feedback that could be used to refine program, and to examine preliminary efficacy of the COPE program on adolescents' weight and BMI</p>	<p>Phase I: pre-experimental design with one group.</p> <p>Phase II: RCT with 9 week follow up.</p>	<p>Setting:</p> <p>Sample: Phase I: 11 overweight/ obese adolescents in urban high school. Phase II: 12 overweight adolescents in suburban high school.</p> <p>Inclusion: Assent, consent, BMI >25, 15-18 y.o.,</p>	<p>IV: COPE/TEEN vs. Red Cross Safety.</p> <p>DV: Feasibility, weight loss/ BMI decrease</p>	<p>COPE: 15 CBT based sessions.</p> <p>Control: Red Cross safety program.</p> <p>Program evaluation questionnaire parent and adolescent.</p> <p>BMI</p> <p>Physical activity: 20-30 mins.</p>	<p>Descriptive statistics.</p>	<p>COPE adolescents experienced a significantly greater reduction in weight and BMI than adolescents in the control group who gained weight over time.</p> <p>Although COPE was well received by adolescents, retention of subjects across time and parent involvement were challenges.</p>	<p>Level: Phase I level IV, Phase II level II</p> <p>Strengths: Use of RCT design, interventionist were trained in program,</p> <p>Limitations: high attrition in urban school setting.</p> <p>Conclusion: COPE is feasible and may lead to a reduction in BMI in overweight adolescents. Implementing COPE in the</p>

								context of a school day may be more successful than implementation of after-school format.
	Framework: Purpose:	Design:	Setting: Sample:	Major Variables	Measurement of variables	Data analysis	Findings	Level: Strengths: Limitations: Conclusion:

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL



**INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165**

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MEMORANDUM

TO: Claire Thralls and Tracy Hellem
FROM: Mark Quinn *Mark Quinn*
Chair, Institutional Review Board for the Protection of Human Subjects
DATE: March 10, 2020
RE: "Educating Psychiatric Nurses in Cognitive Behavioral Therapy for Adolescent Patients: A Qualitative Improvement Project" [CT031020-EX]

The above research, described in your submission of March 9, 2020, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation; and (iii) the information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by section 16.111(a)(7).
- (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- (b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- (b) (6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

APPENDIX C

PRE-INTERVENTION QUESTIONNAIRE

Pre-Intervention Questionnaire.

- 1. Please provide the last 4 digits of your phone number to utilize as a participant identifier.**
- 2. How many previous CBT trainings have you had prior to this presentation?**
- 3. Have you used cognitive behavioral therapy (CBT) with patients?**
 - I have never heard of CBT.
 - I have heard of it, but I do not know what CBT is.
 - I have some understanding about CBT, but I am unsure of how to use it with patients.
 - I have a clear understanding about CBT, but I have not used it previously with patients.
 - I have a clear understanding about CBT and I have used it with patients.
- 4. Have you experienced training for group therapy?**
 - No, I've never received training on how to perform group therapy.
 - Yes, I have received training on group therapy, but not with adolescent patients.
 - Yes, I have received training on group therapy specifically with adolescent patients.
- 5. Have you ever heard of the COPE model of delivery for children and adolescent group therapy?**
 - I have never heard of COPE
 - I have heard of COPE, but do not know the details behind it.
 - I have heard of COPE and have some knowledge background about the program.
 - I am familiar with the COPE program.
- 6. How comfortable do you feel with utilizing CBT interventions with the adolescent patient population?**
 - Extremely comfortable
 - Moderately comfortable
 - Slightly comfortable
 - Neither comfortable nor uncomfortable
 - Slightly uncomfortable
 - Moderately uncomfortable
 - Extremely uncomfortable
- 7. How comfortable would you be discussing CBT topic with the adolescent patient population?**
 - Extremely comfortable
 - Moderately comfortable
 - Slightly comfortable
 - Neither comfortable nor uncomfortable
 - Slightly uncomfortable
 - Moderately uncomfortable

- Extremely uncomfortable

8. How comfortable do you feel in leading group therapy sessions with the adolescent patient population?

- Extremely comfortable
- Moderately comfortable
- Slightly comfortable
- Neither comfortable nor uncomfortable
- Slightly uncomfortable
- Moderately uncomfortable
- Extremely uncomfortable

APPENDIX D

POST- INTERVENTION QUESTIONNAIRE

Post-Intervention Questionnaire.

- 1. Please provide the last 4 digits of your phone number to utilize as a participant identifier.**

- 2. How comfortable do you feel with utilizing CBT interventions with the adolescent patient population?**
 - Extremely comfortable
 - Moderately comfortable
 - Slightly comfortable
 - Neither comfortable nor uncomfortable
 - Slightly uncomfortable
 - Moderately uncomfortable
 - Extremely uncomfortable

- 3. How comfortable would you be discussing CBT topic with the adolescent patient population?**
 - Extremely comfortable
 - Moderately comfortable
 - Slightly comfortable
 - Neither comfortable nor uncomfortable
 - Slightly uncomfortable
 - Moderately uncomfortable
 - Extremely uncomfortable

- 4. How comfortable do you feel leading group therapy sessions with the adolescent patient population?**
 - Extremely comfortable
 - Moderately comfortable
 - Slightly comfortable
 - Neither comfortable nor uncomfortable
 - Slightly uncomfortable
 - Moderately uncomfortable
 - Extremely uncomfortable

- 5. Did the CBT and COPE educational session increase your understanding of how to utilize specific CBT skills and techniques?**
Yes/No

- 6. Do you feel that participating in a COPE session increased your understanding of the CBT process with adolescent patients?**
Yes/No

7. Do you feel that the CBT/COPE educational session was an effective way to teach/practice basic CBT skills and techniques?

Yes/No

8. Do you feel that being educated on CBT and the COPE model will assist in your future care with adolescent patients?

Yes/No

9. Do you have any other questions related to the CBT or COPE? If so, please type your questions here.

Is there any other information that you wish to share regarding the COPE program training?

APPENDIX E

UNIT-SPECIFIC FINANCIAL IMPLICATIONS

COPE Costs and Reimbursement for St. Patrick Hospital Inpatient Psychiatric Unit

The unit has recently expanded from 6 to 14 beds (C. Moran, personal communication, August 15, 2019). Prior to the expansion of the new unit, it was estimated that the unit helped approximately 158 patients per year, if patient numbers stay consistent, the increase of beds on the new unit would lead to care of approximately 368 patients per year. Twelve nurses are designated to work specifically on this unit.

Cost of Nursing Certification:

Cost per Instructor Certification: \$385.00

Total Cost for Psychiatric Nurse Certification: ($\$385.00 \times 12$ nurses) = \$4620.00

Cost of COPE supplies:

COPE student manual: \$20.00

Total cost of manuals: ($\$20.00 \times 368$ patients) = \$11,980.00

Reimbursement

CPT code: 99214 (Melnik, 2020)

Reimbursement: Approximately \$109.00/session (Melnik, 2020).

Total reimbursement for completion of all sessions: ($\$109.00 \times 7$ sessions) = \$763.00/completion of program

Break-Even Analysis

Total unit costs: \$11,980.00

Patients needed to break-even: $\$11,980.00 / \$763.00/\text{patient} = 15.7$ patients → 16 patients*

*If all 7 sessions are performed with each patient.

Estimated Profit

Reimbursement for estimated patients: $\$763 \times 368 \text{ patients} = \$268,804.00$