

University of Louisville

ThinkIR: The University of Louisville's Institutional Repository

Doctor of Nursing Practice Papers

School of Nursing

7-2021

Effectiveness of an evidence based cognitive behavioral therapy program (Creating Opportunities for Personal Empowerment [COPE]) to improve childhood mental health outcomes in a private school.

Carlatesha Flippin
carlaflippin@gmail.com

Follow this and additional works at: <https://ir.library.louisville.edu/dnp>



Part of the [Nursing Commons](#)

Recommended Citation

Flippin, Carlatesha, "Effectiveness of an evidence based cognitive behavioral therapy program (Creating Opportunities for Personal Empowerment [COPE]) to improve childhood mental health outcomes in a private school." (2021). *Doctor of Nursing Practice Papers*. Paper 113.

Retrieved from <https://ir.library.louisville.edu/dnp/113>

This Doctoral Paper is brought to you for free and open access by the School of Nursing at ThinkIR: The University of Louisville's Institutional Repository. It has been accepted for inclusion in Doctor of Nursing Practice Papers by an authorized administrator of ThinkIR: The University of Louisville's Institutional Repository. This title appears here courtesy of the author, who has retained all other copyrights. For more information, please contact thinkir@louisville.edu.

Effectiveness of an Evidence Based Cognitive Behavioral Therapy Program (Creating Opportunities for Personal Empowerment [COPE]) to Improve Childhood Mental Health Outcomes in a Private School Setting.

by

Carlatesha Flippin

Paper submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

School of Nursing, University of Louisville

July 21, 2021

Cynethia Bethel-Jaiteh
DNP, APRN, CPNP

Digitally signed by Cynethia Bethel-Jaiteh
DNP, APRN, CPNP
Date: 2021.07.22 14:59:45 -04'00'

Signature DNP Project Chair

Date

Rudy R. Clark EdD, MSN,
RN

Digitally signed by Rudy R. Clark EdD,
MSN, RN
Date: 2021.07.22 15:47:43 -04'00'

Signature DNP Project Committee Member

Date


Signature DNP Program Director

8/12/2021

Date


Signature Associate Dean for Academic Affairs

8-12-2021

Date

Author's Note

No conflicts of interest to disclose.

Correspondence concerning this manuscript should be addressed to Carlatesha Flippin.

Email: carlaflippin@gmail.com

Dedication

I want to give all honor and praise to God, who has continued to cover me in grace, love, and mercy. For through him, my purpose and passion were nurtured in alignment. [Proverbs 31:8-9](#) says, "Speak up for those who cannot speak for themselves, for the rights of all who are destitute. Speak up and judge fairly; defend the rights of the poor and needy." This Doctor of Nursing Practice Project is dedicated to all adults and children everywhere who need to be heard, loved, and supported.

Acknowledgement

I would acknowledge my committee chair, Dr. Cynethia Bethel-Jaiteh for her provision, inspiration, and leadership throughout my doctoral degree. You have served as a great teacher, mentor, and role model for many. I thank you for your commitment to nursing student's success. I would like to thank my Committee member Dr. Rudy Clark for her encouragement and support, and expertise. I would like to thank Nur Islamic School and Hafsa Salleng for approving this project and assisting with implementation. I want to acknowledge Dr. Ruth Staten for her encouragement, contribution, and optimism. Your guidance inspired me to pursue my Doctor of Nursing Practice Degree at the University of Louisville. Your support provided me with opportunities to grow professionally. To Dr. Michelle Rodems and the graduate school, I thank you for this opportunity to challenge myself and reach untapped potential.

Excelling this far into my career would not be possible without the immeasurable support from my family, friends, and extended loved ones. My family and friends have uplifted me throughout this journey on challenging days and celebrated with me during victories. For this I'm grateful. I want to thank first my Mother Toyette Anderson, for her unconditional love. To my stepdad Eugene (Geno), I hope I've made you proud, you're missed deeply. To my grandparents, siblings, aunts, and uncles I thank you for your encouragement and kindness. To Tina Hughley, you have been a consistent motivator and encourager on this Doctoral journey. To Tobijah, I thank you for your love and support over the past 5 years, you remained by my side. To my Robinson- Hughley family, your reassurance has an everlasting impact. To my loving friends (Allison, Autumn, Bailey, Brittney, Blake, Emerald, Jasmine, and Kelcey) who have served many roles throughout my educational journey, I cherish your commitment to being a part of my village.

Abstract

Background: When mental health issues are left untreated in children, there is an increased risk for poor school performance, substance abuse, and missing essential experiences in life. School-based cognitive-behavioral therapy programs improve negative emotions, increase student positive experiences, increase coping skills knowledge, and provide adequate resources for effective mental health management of symptoms. School-based -behavioral therapy programs improve childhood mental health outcomes and promote coping skills utilization amongst pediatric populations. **Purpose:** To implement Creating Opportunities for Personal Empowerment (COPE) a cognitive behavioral therapy program in a private school-based setting to assist children in obtaining optimal mental health outcomes. **Methods:** Seven virtual sessions via Zoom utilizing student manuals, online modules, and PowerPoint integrated into the existing assembly class time. The educational sessions included information about mental health, increasing positive mental health behaviors, coping skills, reducing negative thoughts, problem-solving, and communication. A pre/post-test design was selected to explore the relationship between increased COPE knowledge/ coping skill utilization and achievement of mental health goals at baseline and 4-week follow-up. **Results:** COPE knowledge increased for 70% of participants at follow-up. The mean COPE knowledge score amongst participants (n=10) at pre-intervention and post-intervention were 2.5 and 3.5, respectively. Coping skill utilization increased for 60% of participants' follow-up. The mean coping skill utilization score at pre-intervention and post-intervention were 3.0 and 3.10 respectively. All the participants indicated they met their initial mental health goal at follow-up. **Discussion:** There is enough evidence to conclude that school-based cognitive behavioral therapy programs such as COPE improve childhood mental health outcomes. The results did reveal increased cope knowledge, coping skill

utilization, new coping skill identification, and mental health goal attainment. *Keywords:* cognitive behavioral therapy, CBT, COPE, school-based therapy, virtual education, pediatrics, childhood, mental health outcomes, anxiety, behavior modification.

Table of Contents

Introduction.....	7
Rationale.....	9
Purpose.....	10
Aims.....	11
Environment (Setting).....	11
Ethics/Permissions.....	12
Conceptual Framework.....	12
Intervention	13
Literature Review	15
Methods.....	18
Procedures.....	18
Measurements.....	23
Data Analysis.....	26
Results.....	26
Discussion.....	31
Dissemination.....	35
References.....	36
Appendices.....	42

Effectiveness of an Evidence Based Cognitive Behavioral Therapy Program COPE to Improve Childhood Mental Health Outcomes in a Private School Setting

Background

National Evidence

As of 2020, around 4 million children 3-17 years old in the United States were diagnosed with anxiety disorders (Center for Disease Control and Prevention [CDC], 2020). Also, 28% of teenagers and 14% of tweens reported feeling worried a lot and had increased anxiety their parents weren't aware of (American Psychological Association [APA], 2009). According to the Anxiety and Depression Association of America (2018), when anxiety disorders are left untreated, their risk for poor school performance, substance abuse, and missing essential experiences increases. Only 59.3% of children diagnosed with anxiety are receiving treatment from a medical provider, which leaves approximately 40% of children with anxiety who are not on a current treatment plan (CDC, 2019). There is an increasing need for additional training for non-medical advocates such as teachers, administrators, and staff to help assist with the mental health needs in schools, as well as provide early intervention programs to support students (Weale, 2017).

In the United States, across all age groups, during the years of 2007 to 2017, anxiety disorders became the second most diagnosed mental health disorder in a review of mental health claims (Gelburd, 2019). In a study conducted by FAIR Health, an increase in mental health claim lines was mostly represented by the pediatric population. This was found after the review of a database that consisted of 28 billion claim lines (Gelburd, 2019.) With a steady increase in childhood mental health disorders, there is a growing need for adequate mental health programs to recognize mental health illnesses and apply early intervention.

State and Local Evidence

The increasing rates of mental illness amongst children are apparent nationwide and locally. Doctors surveyed in Jefferson County refer to the mental health crisis in Kentucky as growing, however, there isn't enough access or investment of resources for behavioral health in Kentucky (Ross, 2019). In an interview with the Courier-Journal discussing mental illness, suicide, and crisis, Dr. Hatim Omar a professor from the University of Kentucky refers to the impulsive decisions of children due to their views on a crisis or dealing with mental illness. Dr. Omar references that children are unable to realize that most crises don't last long due to their poor attention spans (Ross, 2019). The short-lived episodes result in impulsivity instead of treatment or coping skills.

In a recent interview with Shericka Smith, a Fayette County Public School coordinator, anxiety, depression, and suicidal thoughts were identified as the most diagnosed disorders among children (Ramlagan, 2019). According to Smith, while serving as a Mental Health Services coordinator, the county has seen a rise in behavioral health referrals to outside agencies and requests for more mental health resources (Ramlagan, 2019). Based on the increase and her advocacy, Kentucky was selected for an Advancing Wellness and Resilience in Education grant, to improve their access to mental health resources, early intervention, and student and staff engagement (Ramlagan, 2019).

Significance

In the pediatric population, children often experience stressful situations, life changes, or adverse exterior motivations (CDC, 2019). According to the CDC, mental health disorders can interfere with various areas of functioning for children such as school performance, play activities, relationships, sleep, and physical symptoms (CDC, 2019). Addressing childhood

anxiety can involve an interdisciplinary approach and mixed methods. While there are different interventions and treatment plans are tailored to specific mental health disorders, there is one method that is often under-utilized, coping skills. Coping skills allow individuals to deal with the negative experiences that occur. If coping skills are used effectively, it can also increase resiliency (Serenity Mental Health Centers, 2018).

Target Population

According to the American Academy of Pediatrics, the pediatric age range for patients seen in the primary care setting is considered 0-21 years of age (Hardin & Hackwell, 2017). The Creating Opportunities for Personal Empowerment (COPE), a cognitive behavioral therapy intervention, is approved in ages 8-18 years old (COPE, 2013). Inclusion criteria included children ages 8- 18 years old, in grades 3rd through 12th grade, and children from diverse ethnic, cultural, socioeconomic, and educational backgrounds. Students with diagnosed mental health disorders and students with an interest in coping skills, stress management, and interpersonal development would also benefit from a mental health program. Exclusion criteria were children under 8 years old and older than 18 years of age.

Rationale

Primary care providers and teachers are first-line advocators for children. There is a need for training, education, and support for an evidence-based mental health curriculum to address childhood mental health outcomes in school-based settings. We can't eliminate stressful situations or mental health disorders in children. However, children should learn effective ways of dealing with stressors in their school setting (Schultz, 1980). Implementing a school-based enrichment program could potentially address the increasing need for early intervention for children diagnosed with mental health disorders.

Needs Assessment

An informal needs assessment was conducted with a public and private school enrichment coordinator, fifth-grade teacher, assistant principal, and two pediatricians in the Southcentral Region of the United States. Each professional was asked to (1) identify the main problems you experience in children 5-18, (2) What interventions or treatment plan could be implemented to address the problem? (3) Within your setting, is completing a nursing project feasible? Several themes emerged from the needs assessment from key stakeholders including the need for a uniformed mental health curriculum, stress management interventions, coping skills building, improvement of student engagement, enhancing positive mindsets and thought resources, and reducing negative stress responses to environmental stimuli. There was expressed desire from the private school assistant principal to have a mental health program facilitated and organized in a format that could be utilized in upcoming school years by different facilitators. The first needs assessment was conducted in August 2019. The cognitive-behavioral therapy-skills program was selected to reflect requests from the need's assessment.

Purpose

Cognitive-behavioral (CB) therapy-skills programs in school-based settings improve childhood mental health outcomes and promote coping skills utilization amongst pediatric populations (Melnyk et al., 2014; Car & Stewart, 2019; Hoying et al., 2016). The purpose of this quality improvement project was to implement Creating Opportunities for Personal Empowerment (COPE), an evidence-based cognitive behavioral therapy program, in a private school-based setting. The quality improvement project aimed to assist children in obtaining optimal mental health management. Childhood mental health outcomes can be improved by increased access to evidence-based mental health curriculums in the school setting. School-based

cognitive-behavioral therapy-skills programs improve negative emotions, increase student positive experiences, increase coping skills knowledge, and provide adequate resources for effective mental health management of symptoms (Melnik et al., 2014; Car & Stewart, 2019; Hoying et al., 2016).

Aims

Aim 1: To educate students about the effectiveness of cognitive-behavioral therapy- skills in assisting with improved mental health outcomes in childhood.

Aim 2: To evaluate the feasibility of implementing a seven-session school-based cognitive-behavioral therapy skills program in four weeks.

The mission and vision of the private school is to provide an educational environment for students to achieve complete development spiritually, morally, imaginatively, intellectually, culturally, aesthetically, emotionally, and physically while attaining an interpersonal relationship with God. The school aims to nurture the hearts and minds of the students. This DNP project aligns with the values, mission, and vision of this school by promoting conscious mental health awareness, positive behaviors, and educating students about evidence-based coping skills to help facilitate improved mental health outcomes throughout their lifetime.

Setting

The private school offers rigorous academics, extra circular programs, and traditional Islamic values for kindergarten through twelfth-grade students. The holistic private school curriculum is delivered through a ten-month traditional school year and covers a variety of academic and interpersonal areas such as spiritual, emotional, moral, cultural, and intellectual programming contributing to whole child development. The program curriculum is centered around the core values, morals, and guidance of the Islamic religion and its mission statement

responds to the educational, psychosocial, spiritual, and developmental needs of the pediatric population. The curriculum encompasses the school's vision to prepare and engage students to become considerate and strong with good Islamic character through teaching in a safe, moral, and guided environment. The private school created enrichment opportunities that contribute to the growth and development of the student's Islamic identity, nurtures, and instills Islamic principles. Although the Islamic academic enrichment curriculum is in place, this setting welcomed programming that promotes positive mindsets and improved childhood mental health outcomes.

Ethics/Permissions

IRB and Agency Approval

This DNP project protocol was submitted to the University of Louisville Institutional Review Board (IRB) for ethics review as a quality improvement project. The DNP project proposal was submitted to the private school assistant principal. The project proposal was presented to the private school board of directors for spring 2021 academic program approvals. The proposal was approved by the UofL School of Nursing in November 2020 and the University of Louisville IRB in February 2021.

Conceptual Framework

The key problem established for this DNP project was the lack of an effective and uniform evidence-based mental health curriculum addressing childhood mental health outcomes in school-based settings. The Cognitive Theory Framework and Iowa Model Quality Improvement framework were used to guide the project. Cognitive theory is widely accepted by mental health practitioners (BICBT, 2020). The cognitive theory is the essential framework of cognitive behavior therapy. Mental health practitioners utilizing cognitive behavioral therapy

(CBT interventions, based on the cognitive theory, assist patients with improving automatic thoughts, accepting distress and difficulties, problem-solving, and working on mindset (BICBT, 2020).

In the literature review, many group-based CB interventions were guided by the Cognitive Theory. The cognitive theory explains individuals' emotional, behavioral, and physiological reactions are influenced by their perceptions, thoughts, and experiences (Beck Institute of Cognitive Behavioral Therapy [BICBT], 2020). An individual in acute distress can experience altered perceptions and thoughts which manifest into imbalanced emotions and behaviors. According to the cognitive theory, identifying automatic thoughts and correcting distressed thinking improve functionality and creates thoughts mirroring reality.

The Iowa Model QI framework was created to address a quality or clinical problem. The Iowa Model addresses the problem by establishing a team that targets the problem and implements change. The team consists of key stakeholders. Team members conduct extensive research and literature reviews relevant to the problem at hand and then synthesizes the research. Through synthesis and critique of research, they determine the research applicability to use in practice. The results are then implemented into practice and outcomes are measured over time (Titler et al., 2001). The Iowa Model helps health care clinicians implement evidence-based research into daily clinical practice to improve patient outcomes. Clinical practice decisions based on evidence-based research also correspond to quality patient care (Brown, 2014).

Intervention

Description

The quality improvement project implemented an established evidence-based cognitive behavioral therapy program called Creating Opportunities for Personal Empowerment (COPE).

COPE was created by Dr. Bernadette Mazurek Melnyk, Ph.D, APRN-CNP, FAANP, FNAP, FAAN who is a nurse practitioner, researcher, educator, and author. Dr. Melnyk's research for cognitive behavioral therapy programming has received over \$33 million in funding and appeared in 430 publications (Psychiatry & Behavioral Health Learning Network, 2020). COPE is a 7-session manualized cognitive-behavioral program created for children 8 to 18 years of age, studied across primary care, outpatient psych, community centers, and school-based settings. The 7 session COPE Program was delivered in brief 25-30-minute sessions. The DNP quality improvement program implemented the 7 sessions of COPE for 4 weeks. Time and financial resources are vital for the success of a school-based intervention. COPE is feasible and time-effective when implemented in a school-based setting. Students who demonstrated improved knowledge and use of coping skills and reported managing negative emotions were improved on the Beck Youth Inventory which assesses symptoms of depression, anxiety, anger, disruptive behavior, and self-concept ($p < .063$). Results indicated improvement in depression and anxiety symptoms amongst students who were diagnosed with depression and anxiety (Mazurek Melnyk, 2014, Melnyk et al., 2009, Melnyk et al., 2015, Hart et al., 2019). The COPE program is sustainable due to cost, feasibility, framework, and acceptability by participants (Melnyk et al., 2020). Skills-based interventions are interactive and appeal to kinesthetic learners. An increase in personal beliefs about managing negative emotions. Evaluations indicated that the group COPE intervention was a positive experience for the students (Malboeuf-Hurtubise, 2017).

The quality improvement DNP project COPE curriculum is displayed in the lesson plan below and the application attachment of the published COPE manual. The intervention utilized student manuals, interactive assignments, online modules, and PowerPoint to improve student engagement. The curriculum manuals were provided via zoom and pdf to assist facilitators and

students. The sessions included information about mental health, increasing positive mental health behaviors, coping skills, reducing negative thoughts, problem-solving, and communication to achieve mental health goals.

Creating Opportunities for Personal Empowerment (COPE Topics) Lesson Plan

Table 1. COPE Lesson Plan

DATE	TOPIC	Session Time (minutes)
Week 1: Tues; Introduction/Icebreaker	Facilitator and Student Introduction; COPE Program Overview; Distribute COPE Materials; COPE Program Manual Attachment available	25-30min
Week 1: Thurs (Session 1)	1. Thinking, Feeling, and Behaving: What is the connection?	25-30min
Week 2: Tues (Session 2)	2. Positive Thinking and Forming Healthy Thinking Habits	25-30min
Week 2: Thurs (Session 3)	3. Coping with Stress	25-30min
Week 3: Tues (Session 4)	4. Problem Solving & Setting Goals	25-30min
Week 3: Thurs (Session 5)	5. Dealing with your Emotions in Health Ways through Positive Thinking and Effective Communication	25-30min
Week 4: Tues (Session 6)	6. Coping with Stressful Situations	25-30min
Week 4: Thurs (Session 7)	7. Pulling it All Together for a Healthy You	25-30min
4 Week Follow Up		

Literature Review

According to the National Institute of Mental Health, cognitive behavioral therapy (CBT) is a type of psychotherapy that treats anxiety disorders. CBT demonstrates practical ways to react to anxiety, stressful stimuli, and situations by challenging the participants to think and behave. CBT can be delivered in individual and group formats (National Institute of Health [NIH], 2018). The following research selected for this literature review is categorized as an individual or group-based cognitive-behavioral interventions. The goal of cognitive-behavioral interventions is to establish sustainable behaviors that lead to long-term improved outcomes for patients (Kilgus et al., 2015).

Cognitive-behavioral (CB) interventions were studied in individual and group-based formats. CB interventions such as COPE were evaluated in several studies utilizing an individual format. The interventions were tailored to participants individually and implemented in a school-based and primary care setting. The studies (Erlich et al., 2019, Kozlowski et al., 2015) found there is a relationship between multiple interactive sessions and the improvement of anxiety symptoms. Children were more receptive to the psychoeducation component in individual cognitive-behavioral programs when interactive. Participants benefit when the intervention does not include multiple modalities of learning and additional requirements outside of the session time (Malboeuf-Hurtubise et al., 2017; Michael et al., 2016; Erlich et al., 2019; Kozlowski et al., 2015). The COPE individual format was feasible and cost-effective. The results of individual-based COPE interventions were well discussed, and significance was demonstrated throughout the studies. The results demonstrated support for implementing individual interventions to address childhood anxiety.

Group-based cognitive-behavioral interventions are effective programs and appropriate for addressing childhood mental health and behavioral disorders. Specifically, the studies (Eiraldi et al., 2016; Kim et al., 2016; Salum et al., 2018) had similar results of self-reported reduction in anxiety and distress symptoms after the intervention group. Results were compelling, indicating children, late adolescents, and young adults showed significant improvement in mental health outcomes. The studies utilizing a group-based CB intervention provided evidence that clinicians, health care professionals, mental health providers, or school faculty/staff could successfully deliver a mental health program. Providing extensive training of an outlined program insured participant outcomes were not affected by the facilitator's official title (Eiraldi et al., 2016; Kim et al., 2016; Salum et al., 2018).

The COPE program delivered in a group-based format had improved student engagement and provided a familiar setting for students. Group-based cognitive-behavioral interventions like COPE are beneficial in primary care or school-based settings since they are cost-effective, time-limited, focus oriented and encourage relationship building since the treatment is group work (Melnik et al., 2014, Melnik et al., 2009, Melnik et al., 2015, Ritchie et al., 2011, Hart et al., 2019). Results demonstrated group-based CB interventions such as COPE, Integrated Stress management Program, Group Cognitive Based Therapy, Control Therapy, Attention Control Therapy were feasible and can be easily integrated into school-based settings.

Of the research articles, two were randomized control trials exhibiting the highest level of evidence based on the John Hopkins Model for Evidence-Based Practice. Four of the research articles were level 2 and level 3. The research presented in this review demonstrate how a variety of group format interventions can be applied in a school-based enrichment program to achieve improved mental health outcomes for each participant. During a group enrichment program, it is not time-efficient to customize a mental health curriculum to each student; instead, it is feasible to provide an interactive intervention modeled after various learning styles to accommodate every participant. The research encountered some limitations and biases due to small sample sizes, high attrition rates, and poor follow-up. Overall, the studies produced improved mental health outcomes and demonstrated a reduction of physiological symptoms as measured by their respective instruments, as documented in the Appendix.

Methods

Project Design

This evidence-based DNP project used a pre/post COPE Intervention questionnaire to evaluate mental health outcomes in participants. During the initial session, the terms mental

health, coping skills, anxiety, depression, self-esteem, positive self-talk, stress, and emotions were defined. The sessions included positive coping skills, goal setting, problem-solving. COPE sessions were delivered in 7 sessions over 4 weeks. Sessions were interactive with student discussions throughout the COPE modules and PowerPoint. Students had prep assignments for the following week's session to take home. Before the initial session was complete, participants were asked to identify one mental health goal and complete a pre-intervention questionnaire assessing prior knowledge of COPE, utilization of coping skills, and generalized anxiety symptoms. Students completed the questionnaire 4 weeks post-intervention to assess knowledge of the elements of COPE, utilization of learned coping skills, and reassess generalized anxiety symptoms.

Procedure

Intervention Team

The intervention team included the assistant principal, teachers, and the DNP student. The assistant principal assisted the DNP student with distributing the program's marketing flyer, registration form, consent form, and release of information. The assistant principal collected the registered student's information and provided it to the DNP student. The DNP student reserved the session class time with the assistance of the intervention team. The DNP student created the zoom program link and provided the link to participants and the intervention team. The DNP student facilitated the virtual 7-session program. The assistant principal assisted the DNP student with moderating the student chat feature and student discussions. The DNP student educated the intervention team about the program via a scheduled zoom meeting.

Stakeholders

The individuals and organizations that positively or negatively impact the outcome of a project and contributes sponsorship, resources, and collaboration to ensure the success of a project are considered stakeholders (Landau, 2017). Project outcome measures directly impact the stakeholders involved (Landua, 2017). Stakeholders for this intervention include the Board of Directors, assistant principal, instructional teachers, students, and parents of the school. The board of directors, assistant principal, and instructional teachers gain an evidence-based mental health curriculum to incorporate into their academic program that is sustainable for future student cohorts. The students gain functional resources to improve mental health outcomes and establish skills that create the opportunity for personal empowerment. The project provides the parents an accessible, free, interpersonal resource that contributes to their child's mental, emotional, and social development. The assistant principal, instruction teachers, and students received the DNP project protocol and COPE module used during the 7-session intervention via email.

Participants

Marketing materials for the virtual CBT-skills program were available for students, parents/guardians, faculty, and administration as a pdf flyer including a COPE program overview and a registration form. The forms were sent to the school bulletin, online parent portal, and parent WhatsApp messenger group. Students in grades 3rd-12th referred by the school counselor, assistant principal or principal, students with diagnosed mental health disorders, and students with interest in coping skills, stress management, and interpersonal development were invited to participate in the program. Program participants were identified from the referral and the registration form attached at the end of the marketing flyer. Before the first CBT-skills COPE

session, student participants and legal guardians were informed of the DNP project and signed a consent form. The demographic data obtained from each student participant included the following: age, sex, gender, race, educational level, school performance, cultural background, socioeconomic status, diagnosed mental health disorders and diagnosed medical conditions.

Implementation

Preamble

Students and legal guardians received an electronic preamble via email. The purpose and description of the project were included. Participants were informed of all potential risks for joining in the CBT-skills intervention. There is a potential risk for participants to have undesired changes in thought processes and emotion which can include feelings of stress, guilt, or discomfort from discussing one's behaviors, attitudes, or sensitive psychological topics such as anxiety, depression, sadness, trauma, and worry in the past or present.

Data Collection

Participants completed a registration form that obtains their demographic data. The participant was assigned a participation letter for identification. Participation letters, student goals, and their demographic data were entered in an excel spreadsheet and saved on a protected flash drive. Participant data from worksheets, online modules, and coping skill assignments were compiled into an excel sheet corresponding with their identification letter. Participants received a follow-up zoom meeting four weeks after the initial intervention session. Student responses from the follow-up evaluation were recorded in the data excel spreadsheet. The data collected from the intervention was entered into the Statistical Package for Social Sciences (SPSS) system for analysis.

Referral Plan

Any student that needed additional mental health management during the cognitive-behavioral therapy-skills program or through a positive score on the GAD-7 screening was advised to contact their primary care provider or psychiatric provider managing their care. Students without an established primary care provider or psychiatric provider were provided direct resources by the DNP student to acute psychiatric services. All students were provided mental health resources such as the hotlines and safety plans included in the COPE manual. Participants presenting in an active crisis are a priority. After the student's safety is assessed, the referral protocol would be initiated. Students in an active crisis were removed from participation in the DNP project program. The attrition is noted in the data.

Data Maintenance and Security

All student participants received a participation number and all sensitive information was de-identified. Data collected were stored on an excel file and secured on a flash drive. The hard drive was stored in the office of the DNP project committee chair at the UL School of Nursing. All communications through email with school site administration, staff, and students was through university outlook.

Zoom is a video communication network that ranks at the top of the preferred video conferencing platform due to its accessibility, feasibility, and extensive features (Singh & Awashti, 2020). Features such as screen sharing, screen recording, team chats, and the ability to search for meeting history contribute to ease of use for participants of all ages (Singh & Awashti, 2020). Zoom communication includes features supporting the security of sensitive data. The DNP student locked the zoom meeting once all participants have joined to eliminate the risk of unregistered guests from entering a secured session. Locked meeting in the zoom communication

format is a supported practice utilized by professionals with sensitive patient information being shared in session (Vinayak, 2020). Security measures to ensure the safe use of Zoom communication for the DNP project intervention included securing the meeting with a session-specific password and enabling the waiting room option that allowed the DNP student to verify participants entering the meeting screen (Vinayak, 2020).

Project Budget

Detail Acct Description	Item	Estimated Cost
Educational Materials		
	COPE/CBT Manual and Program(up to 5 students and 1 instructor)	385
	Additional workbooks provided by remote PDF download	0
	Laptop/Webcam/Microphone (Provided By NISL and Students)	0
	TOTAL	385
Virtual Web Platforms		
	Survey Monkey (Free Membership through Research Team)	0
	Zoom (Free)	0
	TOTAL	0
Time		
Carlatesha Flippin, APRN	Facilitator; 7 sessions x 30minutesx Hourly wage (\$43)	150.5
	TOTAL	150.5
Electronic Resources		
Promotional Flyer	2 hours x Hourly Wage (\$43)	86
Consent Forms	2 hours x Hourly Wage (\$43)	86
Follow-up Surveys	8 hours x Hourly Wage (\$43)	344
TOTAL	TOTAL	516
	Grand Total	1,052

Table. 2 Budget

Measurement

Process Measures

The DNP student completed COPE program facilitator training and licensing requirements. The DNP student completed COPE Instructor Online Training Module in step one. In step two, the DNP student completed one Practice Training Session and submitted the Practice Delivery Results Form. Structured COPE session schedules and scripts addressed barriers of restricted class time by adapting to the allotted time frame. The DNP student aimed to eliminate major virtual format delays by selecting a free virtual video-sharing format that supports large group meetings.

Outcome Measures

Participants identified at least 1 manualized CBT coping skill (coping skill from the COPE manual) and one mental health behavior goal to achieve during the intervention. A PDF file containing the 4-item COPE Intervention questionnaire and the Generalized Anxiety Disorder 7-item (GAD-7) scale was given to the students at the beginning of the 1st session. Students received a 4-week follow-up zoom meeting and given the COPE post-intervention questionnaire and GAD-7 scale post-intervention to evaluate how frequently the learned CBT skills were utilized, the knowledge gained, mental health goal attainment, and GAD symptoms.

The goals for the students who participated in the project were a 50% increase in COPE programming knowledge on the post-intervention evaluation by the end of the 7 sessions and a 3-point reduction in anxiety symptoms on the Generalized Anxiety Disorder Questionnaire (GAD-7) at the 4 -week -post-intervention follow-up. Also, all students were instructed to document applying the use of at least one manualized coping skill after the program. The 4-item COPE intervention questionnaire contained two qualitative questions about identifying a mental

health goal and coping skill and two questions that used a 5-point Likert scale (about what?). The GAD-7 was a 7-item 4-point Likert scale created to assess the symptoms of Generalized Anxiety Disorder. The outcome measures from the GAD-7 and COPE questionnaire were selected to demonstrate the effectiveness of the intervention.

Instruments

Assessing student's anxiety symptoms at baseline and follow-up were measured utilizing the Generalized Anxiety Disorder Scale (GAD-7). The GAD-7 is self-administered based on the DSM-V criteria for Generalized Anxiety Disorder in the format of the Patient Health Questionnaire-9 (PHQ-9); like the PHQ-9 the GAD-7 can be completed quickly in outpatient care settings in 2-5 minutes (Spitzer et al., 2006). The GAD-7 is reliable ($\alpha=.85$), and moderate convergent validity $r_s = .52-.68$ (Rutter and Brown, 2017). The GAD-7 measures the severity of anxiety symptoms, panic disorder (sensitivity 74%, specificity 81%), social anxiety disorder (sensitivity 72%, specificity 80%), and post-traumatic stress disorder (sensitivity 66%, specificity 81%) (Spitzer et al., 2006). The GAD-7 is time-efficient, accessible, and differentiates between the severity of anxiety symptoms in pediatric populations in comparison to other existing screening tools that have lengthy administration times and not readily accessible (Mossman et al., 2017). The GAD-7 was selected for this project due to its accessibility, variability, self-administration, and efficient use of time.

On the GAD-7, scores of 0, 1, 2, and 3 are assigned to the response categories of 'not at all', 'several days', 'more than half the days', and 'nearly every day' respectively. The scores from the seven questions are then added together. A cumulative score of 0-5 is mild anxiety, 6-10 is moderate anxiety, 11-15 is moderately severe anxiety, and 16-21 severe anxiety. GAD-7 scores

greater than 10 require further evaluation (Spitzer et al., 2006). The GAD-7 is free and accessible for reproduction, translation, display, and distribution without permission.

Demographic Data

The demographic data obtained from each participant included the following items: gender, age, grade level, ethnicity, race, cultural background, diagnosed mental health disorders, diagnosed medical conditions.

The participant data excel spreadsheet included the following items in rows: student participation number. In column 1: identifier letter, column 2: gender, column 3: age, column 4: grade level, column 5: ethnicity, column 6: race; column 7: cultural background, column 8: diagnosed mental health disorders; column 10: diagnosed medical conditions; column 11: the participants' mental health goal, column 12: the answer to question 1 of the post-intervention follow assessment, column 13: the answer to question 2 of the post-intervention follow-up assessment, column 14: the answer to question 3 of the post-intervention assessment, column 15: the answer to question 4 of the post-intervention assessment. The DNP student validated data entered into SPSS through a comparison of the student's data pulled from spreadsheets then assessed for errors.

Outcomes Measures

The 4-item Coping Skills Questionnaire conducted at pre-intervention and -post-intervention were compared for each student participating in the cognitive-behavioral therapy-skills program. The collected data from the pre and -post-intervention questionnaire was analyzed using a paired t-test to determine the mean difference of COPE knowledge and coping skill utilization between the first and second survey from the student participants.

Data Analysis

Descriptive statistics were utilized to synthesize the demographic data of students (N=17). Data results and outcomes from the DNP project intervention were computed and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Frequency distributions of gender, age, grade level, race, ethnicity, diagnosed mental health disorders, diagnosed medical disorders were calculated to determine the demographic diversity of the participants. Measures of central tendency and dispersion (mean, standard deviation, minimum, and maximum) were computed for age and grade level. A paired t-test for analysis of cope knowledge and coping skills utilization pre-intervention and cope knowledge and coping skills utilization at the 4 week follow up was completed calculating (correlation, significance, mean, standard deviation, standard error mean, t, df, and 95% confidence interval) for a sample size of N=10.

Results

Quantitative Data

The total number of participants at the initial project sign-up was 17. Twelve students completed the 7- week COPE program, resulting in an attrition rate of 29.4%. Ten students completed both the pre-intervention and post-intervention questionnaire, resulting in an 83.3% response rate amongst participating students. Demographic data collected included age, grade level, gender, ethnicity, race, diagnosed mental health disorders, diagnosed medical disorders. Majority of the participants (64.7 %) were female and 54.3% were male. The average age of participants was 10.71 years. Students in 4th and 7th grade accounted for 47% of participants in the intervention. Most of the participants (58.8%) identified their race as White, 23.5 % as Asian, 5.9% as African, 5.9% as Black American/African American, 5.9% as multiracial. One student had a diagnosed mental health disorder disclosed as Generalized Anxiety disorder. One student

disclosed diagnosed medical disorder: food/environmental allergies. COPE knowledge increased for seven participants at follow-up, decreased for one participant, and remained the same for two participants. Mean score of COPE knowledge amongst participants (n=10) at pre-intervention was 2.5 and 3.5 at post-intervention, Pearson correlation coefficient ($r = -0.92$), $t = (-2.739)$, $p = (0.23)$. Coping skill utilization increased for six participants, decreased for two participants, and remained the same for two participants at the 4-week follow-up. The mean score of coping skill utilization at pre-intervention was 3.0 and 3.10 at post-intervention. Pearson correlation coefficient ($r = 0.92$), $t = (-.208)$, $p = (.840)$.

	N	Minimum	Maximum	Mean	Std. Deviation
Age	17	8	13	10.71	1.929
Grade Level	17	3	8	5.53	1.908
Valid N (listwise)	17				

Table 3. *Descriptive Statistics of Age and Grade Level (N=17)*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	11	64.7	64.7	64.7
	Male	6	35.3	35.3	100.0
Total		17	100.0	100.0	

Table 4. *Frequency Distribution of Gender (N=17)*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	4	23.5	23.5	23.5
	9	1	5.9	5.9	29.4
	10	3	17.6	17.6	47.1
	12	6	35.3	35.3	82.4
	13	3	17.6	17.6	100.0
	Total	17	100.0	100.0	

Table 5. *Frequency Distribution of Age (N=17)*

Grade Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3rd	4	23.5	23.5	23.5
	4th	2	11.8	11.8	35.3
	5th	2	11.8	11.8	47.1
	6th	2	11.8	11.8	58.8
	7th	4	23.5	23.5	82.4
	8th	2	11.8	11.8	94.1
	9th	1	5.9	5.9	100.0
	Total	17	100.0	100.0	

Table 6. *Frequency Distribution of Grade Level (N=17)*

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	African	1	5.9	5.9	5.9
	Asian	4	23.5	23.5	29.4
	Black/African american	1	5.9	5.9	35.3
	Multiple Race	1	5.9	5.9	41.2
	White	9	52.9	52.9	94.1
	Whitie	1	5.9	5.9	100.0
	Total	17	100.0	100.0	

Table 7. *Frequency Distribution of Race (N=17)*

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	COPE Knowledge	2.50	10	.850	.269
	4 week Knowledge of COPE	3.50	10	.707	.224
Pair 2	Weekly Coping Skill Utilization	3.00	10	.943	.298
	4 week Coping Skill Utilization	3.10	10	1.287	.407

Table 8. *Paired Sample Statistics of COPE Knowledge and Coping Skill Utilization at Pre-Intervention & Post Intervention 4week Follow up (N=10)*

Paired Samples Correlations

		N	Correlation	Significance	
				One-Sided p	Two-Sided p
Pair 1	COPE Knowledge & 4 week Knowledge of COPE	10	-.092	.400	.799
Pair 2	Weekly Coping Skill Utilization & 4 week Coping Skill Utilization	10	.092	.401	.801

Table 9. Paired Samples Correlations of COPE Knowledge and Coping Skill Utilization at Pre-Intervention & Post Intervention 4week Follow up (N=10)

Paired Samples Test

		Mean	Std. Deviation	Paired Differences			t	df	Significance	
				Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
				Lower	Upper					
Pair 1	COPE Knowledge - 4 week Knowledge of COPE	-1.000	1.155	.365	-1.826	-.174	-2.739	9	.011	.023
Pair 2	Weekly Coping Skill Utilization - 4 week Coping Skill Utilization	-.100	1.524	.482	-1.190	.990	-.208	9	.420	.840

Table 10. Paired Samples Test of COPE Knowledge and Coping Skill Utilization at Pre-Intervention & Post Intervention 4week Follow up (N=10)

Qualitative Data

The most frequently identified mental health goals had common themes centered around: behavior, emotions, and worry. At the 4-week follow-up, all ten participants met their pre-intervention mental health goal. Coping skills were identified at baseline and at follow-up. At follow-up, participants frequently selected coping skills centered around COPE core content including positive mindset, thought/behavior/action, and breathing/mindfulness skills.

Mental Health Goals

Mental Health Goal	Mental Health Goal Achieved at 4-week Follow-Up
"Not to worry"	Y
"To be more kind"	Y
"Less Anger Issues"	Y
"I want to be more Patient"	Y
"Less of Negative Thoughts"	Y
"I want to stop stuttering and not get embarrassed "	Y
"I want to learn to control my anger"	Y
"to be fine in uncomfortable situations"	Y
"to be good and get good grades"	Y
none	Y

Table 15. Results of mental health goal at baseline and follow up (N=10)

Coping Skills

Coping skills identified at baseline	Coping skills identified at 4-week follow-up
Take Deep Breaths	"Thinking of others, your thoughts." like when you get hungry during Ramadan, think about the poor people.
Walking	Play with Birds, Be patient
Understand What happens in life	Taking Patient Actions
drawing	Staying calm
none	none
"Staying Quiet"	going outside
Drawing or Painting	positive thoughts
"Understanding that people don't care about what you see as flaws"	Writing List/to-do list
none	to be good, good thoughts
Breathing	breathing exercises

Table 16. Identified Coping Skills

Discussion

Summary

Current evidence reveals the need for cognitive behavioral therapy-skills programs to promote improved mental health outcomes in childhood. CBT skills programs such as COPE is supported by the highest levels of evidence such as systematic reviews and randomized control

trials. The overall aim of this quality improvement project was to utilize evidence-based cognitive-behavioral interventions to improve mental health outcomes amongst the children. The plan was to establish a sustainable mental health program within the enrichment program curriculum at a private school.

Most of the sample was White and Asian students ages eight to thirteen who were experiencing poor thoughts, emotional dysregulation, poor grades, worry, low self-esteem, and poor interpersonal relationships. Only one student identified having a diagnosed mental health disorder. There can be no conclusions made about whether school-based cognitive-behavioral interventions decrease the severity of diagnosed mental health disorder symptoms. However, by the end of the intervention knowledge of the COPE intervention increased for 70% of participants and coping skill utilization increased for 60% of participants. All participants indicated they met their initial mental health goal at follow-up. It is noted a decrease in COPE knowledge and coping skill utilization at 4-week follow-up did not affect participants' ability to achieve their mental health goals.

Interpretation

There is enough evidence to conclude that school-based cognitive behavioral therapy programs such as COPE improve childhood mental health outcomes. Project results revealed increased cope knowledge, increased coping skill utilization, new coping skill identification, and mental health goal attainment at the 4-week follow-up. There is a weak correlation between the school-based CBT program (COPE) and increased COPE knowledge ($r = -0.92$), the correlation was not statistically significant ($p > .05$). Results acknowledged a weak correlation between school-based cognitive behavioral therapy programs such as COPE and improved coping skill utilization ($r = 0.92$), the correlation was not statistically significant ($p > .05$). Statistical

significance was established between COPE knowledge pre-intervention and COPE knowledge of participants post-intervention at 4-week follow-up $t(9) = -2.74, p = <0.05; (p = 0.023)$. The results did reveal that many students were currently utilizing coping skills, warranting the need for cognitive behavioral therapy content to be integrated into the curriculum to teach children about optimal mental health management and selection of behavioral health practices that improve mental health outcomes.

Limitations

The small sample size and 30% attrition rate limited the generalizability and significance of the result findings. Participants received a scheduled follow-up zoom call in which PDF post-intervention questionnaires were completed in thirty minutes and collected. Perhaps in a future project, a different evaluation method that allows students more time, option for electronic and paper forms to be completed and collected. Implementing a virtual format for a 7-session intervention did not allow some students to ask questions about the questionnaire due to poor internet connection, feedback, and zoom time limits. The GAD-7 diagnostic tool was not completed in this project due to limitations of time. In future studies, the time allotted for the collection of evaluation forms should be included separate from intervention time. This intervention was delivered in March 2021. Participants identified leaving the intervention due to school schedule, workload, Islamic holiday preparation, group format, and virtual delivery format. Barriers to the intervention are varied. The DNP student faced barriers to participation due to lack of parental permission, and technical difficulties for virtual delivery format. Learning styles were a barrier to learning, however, the curriculum was adaptable. Some participants preferred individual-based delivery formats. Other environmental and financial barriers to the intervention included lack of extended classroom time for post-session questions and social

distance guidelines in response to Covid-19. The purpose of providing a school-based program with initially no cost to participants reduced a barrier to attendance for students who may be underinsured, disadvantaged socioeconomic status, inadequate access to quality mental health care, and racial/ethnic minorities.

Conclusion

This project responds to the educational, psychosocial, and developmental needs of this population. This school-based approach for educating students about positive mental health is easily accessible, well-accepted, cost-effective, and proven to improve mental health outcomes. The use of a manualized program with multimodal delivery format options such as individual-based, group-based, remote/virtual, in-person, facilitated, or self-learning can potentially address accessibility, feasibility, acceptability, and cost-effectiveness of childhood mental health programs and management. Before the Covid-19 pandemic transportation, curriculum schedule, time, access to technology were barriers to a single in-person mental health program. With adaptability to virtual formats and the utilization of technology provided by the intervention school, these barriers become minimal. The new barrier identified in this project is combining age groups in one zoom session. This barrier can be mitigated by establishing separate zoom sessions for participants in the COPE child manual and COPE teen manual. Restricted session time allowed by zoom basic plan subscription is a barrier identified in this project. This barrier can be addressed by utilizing other virtual classroom formats or selecting an upgraded zoom subscription.

The results of this quality improvement project demonstrated the effectiveness of a school-based cognitive behavioral therapy program (COPE) to improve childhood mental health outcomes. The results demonstrated increased cognitive behavioral therapy knowledge and

coping skills utilization after the project implementation. A curriculum update for mental health programs in the school setting should be considered when appropriate. Stakeholders were receptive to the CBT-skills intervention and once the DNP project was completed, the school administration expressed written interest in continuing the program in the future. The literature supporting the DNP project intervention established the relationship between cognitive-behavioral interventions in familiar settings such as school contributes to better follow-up and decreased attrition rates in the pediatric population. Further research is needed to determine if CBT school-based programs (COPE) can influence symptom severity, presentation, diagnosis, and management of mental health disorders in children. Longitudinal studies evaluating the effectiveness of school-based cognitive behavioral therapy programs (COPE) to improve childhood mental health outcomes should be considered. Improving childhood mental health outcomes will contribute to improved quality of life throughout development.

Dissemination

The results from the data analysis will be presented to the project's stakeholders. Results will be shared with the assistant principal of the private school during a scheduled post-intervention meeting. The outcome of the intervention will be presented at the University of Louisville School of Nursing DNP Project Poster Presentation.

References

Anxiety and Depression Association of America. (2018). *Facts & statistics*.

<https://adaa.org/about-adaa/press-room/facts-statistics>

Beck Institute for Cognitive Behavioral Therapy. (2020). *Cognitive Model*.

<https://beckinstitute.org/cognitive-model/>

Brown, C. G. (2014). The Iowa Model of Evidence-Based Practice to promote quality care: An illustrated example in oncology nursing. *Clinical Journal of Oncology Nursing, 18*(2).

Carr, K. L., & Stewart, M. W. (2019). Effectiveness of school-based health center delivery of a cognitive skills building intervention in young, rural adolescents: Potential applications for addiction and mood. *Journal of Pediatric Nursing, 47*, 23-29.

Center for Disease Control and Prevention. (2019, April 15). *Anxiety and Depression in children: Get the facts*. Retrieved from

<https://www.cdc.gov/childrensmentalhealth/features/anxiety-depression-children.html>

Center for Disease Control and Prevention. (2020). *Data and statistics on children's mental health*. <https://www.cdc.gov/childrensmentalhealth/data.html>

Collins, S., Woolfson, L. M., & Durkin, K. (2014). Effects on coping skills and anxiety of a universal school-based mental health intervention delivered in Scottish primary schools. *School Psychology International, 35*(1), 85-100.

Conley, C. S., Travers, L. V., & Bryant, F. B. (2013). Promoting psychosocial adjustment and stress management in first-year college students: The benefits of engagement in a psychosocial wellness seminar. *Journal of American College Health, 61*(2), 75-86.

COPE. (2013). *Creating Opportunities for Personal Empowerment*.

<https://www.cope2thriveonline.com/>

- Eiraldi, R., Power, T. J., Schwartz, B. S., Keiffer, J. N., McCurdy, B. L., Mathen, M., & Jawad, A. F. (2016). Examining effectiveness of group cognitive-behavioral therapy for externalizing and internalizing disorders in urban schools. *Behavior Modification, 40*(4), 611-639.
- Erlich, K. J., Li, J., Dillon, E., Li, M., & Becker, D. F. (2019). Outcomes of a Brief Cognitive Skills-Based Intervention (COPE) for adolescents in the primary care setting. *Journal of Pediatric Health Care, 33*(4), 415-424
- Flannery-Schroeder, E. C., & Kendall, P. C. (2000). Group and individual cognitive-behavioral treatments for youth with anxiety disorders: A randomized clinical trial. *Cognitive Therapy and Research, 24*(3), 251-278.
- Gelburd, R. (2019, May 20). *Young people are increasingly represented in growing mental health insurance claims*. <https://www.usnews.com/news/healthiest-communities/articles/2019-05-20/young-people-increasingly-represented-in-growing-mental-health-insurance-claims>
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report, 8*(4), 597-606.
- Hardin, A. P., & Hackell, J. M. (2017, September 1). *Age limit of pediatrics*. <https://pediatrics.aappublications.org/content/140/3/e20172151>
- Hart, A. et al. (2019). Decreasing Depression and Anxiety in College Youth Using the Creating Opportunities for Personal Empowerment Program (COPE). *Journal of the American Psychiatric Nurses Association, 25*(2), 89–98.

- Hoying, J., Melnyk, B. M., & Arcoleo, K. (2016). Effects of the COPE cognitive behavioral skills building TEEN program on the healthy lifestyle behaviors and mental health of Appalachian early adolescents. *Journal of Pediatric Health Care, 30*(1), 65-72.
- Kim, S., Lee, H., Kim, H., Noh, D., & Lee, H. (2016). Effects of an integrated stress management program (ISMP) for psychologically distressed students: A randomized controlled trial. *Perspectives in Psychiatric Care, 52*(3), 178-185.
- Kozlowski, J. L., Lusk, P., & Melnyk, B. M. (2015). Pediatric nurse practitioner management of child anxiety in a rural primary care clinic with the evidence-based COPE program. *Journal of Pediatric Health Care, 29*(3), 274-282.
- Malboeuf-Hurtubise, C., Lacourse, E., Herba, C., Taylor, G., & Amor, L. B. (2017). Mindfulness-based intervention in elementary school students with anxiety and depression: a series of n-of-1 trials on effects and feasibility. *Journal of Evidence-Based Complementary & Alternative Medicine, 22*(4), 856-869.
- Melnyk, B.M., Jacobson, 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. *Journal of School Health, 79*(12), 575-584
- Mazurek Melnyk, B., Kelly, S., & Lusk, P. (2014). Outcomes and feasibility of a manualized cognitive-behavioral skills building intervention: Group COPE for depressed and anxious adolescents in school settings. *Journal of Child and Adolescent Psychiatric Nursing, 27*(1), 3-13.
- Melnyk, B., & Fineout-Overholt, E. (2015). Evidence-based practice in nursing & healthcare: A guide to best practice (4th ed.). Philadelphia, PA: Wolters Kluwer

- Melnyk, B. M. (2020). Reducing healthcare costs for mental health hospitalizations with the evidence-based COPE program for child and adolescent depression and anxiety: A cost analysis. *Journal of Pediatric Health Care, 34*(2), 117-121.
- Melnyk, B. M., Jacobson, D., Kelly, S. A., Belyea, M. J., Shaibi, G. Q., Small, L., ... & Marsiglia, F. F. (2015). Twelve-month effects of the COPE healthy lifestyles TEEN program on overweight and depressive symptoms in high school adolescents. *Journal of School Health, 85*(12), 861-870.
- Michael, K. D., George, M. W., Splett, J. W., Jameson, J. P., Sale, R., Bode, A. A., ... & Weist, M. D. (2016). Preliminary outcomes of a multi-site, school-based modular intervention for adolescents experiencing mood difficulties. *Journal of Child and Family Studies, 25*(6), 1903-1915.
- Mossman, S. A., Luft, M. J., Schroeder, H. K., Varney, S. T., Fleck, D. E., Barzman, D. H., ... & Strawn, J. R. (2017). The Generalized Anxiety Disorder 7-item (GAD-7) scale in adolescents with generalized anxiety disorder: Signal detection and validation. *Annals of Clinical Psychiatry: Official Journal of the American Academy of Clinical Psychiatrists, 29*(4), 227.
- Ramlagan, N. (2019, May 22). *KY school districts focus on improving mental-health resources.* <https://www.publicnewsservice.org/2019-05-22/mental-health/ky-school-districts-focus-on-improving-mental-health-resources/a66485-1>
- Ritchie, T. (2011). Evaluation of the impact of the Creating Opportunity for Personal Empowerment (COPE) Healthy Lifestyles Thinking, Emotions, Exercise, and Nutrition (TEEN) Program in a rural high school health class. (DNP Capstone Project). West Virginia University, Morgantown, West Virginia.

- Ross, A. (2019, March 21). *When children say 'I want to kill myself': The alarming rise of youth suicides*. <https://www.courier-journal.com/story/news/local/2019/03/20/suicides-among-children-rising-kentucky-nationally/3065115002/>
- Salum, G. A., Petersen, C. S., Jarros, R. B., Toazza, R., DeSousa, D., Borba, L. N., ... & Bar-Haim, Y. (2018). Group cognitive-behavioral therapy and attention bias modification for childhood anxiety disorders: A factorial randomized trial of efficacy. *Journal of Child and Adolescent Psychopharmacology*, 28(9), 620-630.
- Serenity Mental Health Centers. (2018, December 21). *6 Keys to the Good Life: #5 Coping Skills*. <https://serenitymentalhealthcenters.com/6-keys-to-the-good-life-5-coping-skills/#:~:text=Coping%20skills%20increase%20resilience%20because,are%20associated%20with%20that%20experience>
- Schultz, E. W. (1980). Teaching coping skills for stress and anxiety. *Teaching Exceptional Children*, 13(1), 12-15.
- Singh, R., & Awasthi, S. (2020). *Updated Comparative Analysis on Video Conferencing Platforms-Zoom, Google Meet, Microsoft Teams, WebEx Teams and GoToMeetings* (No. 4026). EasyChair.
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of internal medicine*, 166(10), 1092-1097.
- Vinayak, S. P. (2020). *9 Ways To Keep Your Zoom Meetings Safe And Secure*. Retrieved from <https://www.problogbooster.com/2020/03/zoom-app-is-safe-or-not-best-practices-for-securing-your-video-conference-meetings-privacy-mobile-user-accounts.html>

Weale, S. (2017, September). *Primary school teachers 'not trained to deal with mental health issues*. The Guardian. <https://www.theguardian.com/society/2017/sep/21/primary-school-teachers-not-trained-to-deal-with-mental-health-issues>

Appendix A: COPE Intervention Questionnaire

Pre-Intervention

Question 1

In the space below identify one mental health goal.

Question 2

In the space below identify at least one coping skill.

Question 3

Overall, I am knowledgeable of Creating Opportunities for Personal Empowerment (COPE)?

0= Strongly Disagree, 1=Disagree, 2= Neither Agree nor Disagree, 3= Agree, 4= Strongly Agree

Question 4

On average, how many times a week do you use coping skills?

0 = Never, 1 = Once a week, 2 = Twice a week, 3 = Three times a week, 4 = Four times a week or more

COPE Post Intervention Questionnaire

Post Intervention

Question 1

Did you obtain your mental health goal?

Question 2

In the space below identify, at least one coping skill.

Question 3

Overall, I am knowledgeable of Creating Opportunities for Personal Empowerment (COPE)?

0= Strongly Disagree, 1=Disagree, 2= Neither Agree nor Disagree, 3= Agree, 4= Strongly Agree

Question 4

On average, how many times a week did you use coping skills?

0 = Never, 1 = Once a week, 2 = Twice a week, 3 = Three times a week, 4 = Four times a week or more

Appendix B: GAD-7**Generalized Anxiety Disorder 7-Item (GAD-7) Scale**

Over the last 2 weeks, how often have you been bothered by the following problems?

1. Feeling nervous, anxious, or on edge

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

2. Not being able to stop or control worrying

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

3. Worrying too much about different things

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

4. Trouble relaxing 0 1 2 3

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

5. Being so restless that it's hard to sit still

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

6. Becoming easily annoyed or irritable

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

7. Feeling afraid as if something awful might happen

0 Not at All 1 Several Days 2 Over Half the Days 3 Nearly Every Day

Add Scores for Each Column + + +

Total Score (Sum of Column Scores)

If any of the above problems were identified, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not Difficult At All Somewhat Difficult Very Difficult Extremely Difficult

Appendix C: Synthesis Matrix

Article Definitions:	COPE: Creating Opportunities for Personal Empowerment utilizing CBT	TEEN: Thinking, Emotions, Exercise, and Nutrition topics	G-CBT: group cognitive behavioral therapy	CT: Control Therapy	ACT: attention control training	SEED: Student Emotional and Educational Development
	CPP: coping power program	FRIENDS: friends for life addressing depression	PASCET: Primary and Secondary Control Enhancement Training			
Citation (Full APA)	Study Purpose	Methods/Design/ Level of Evidence	Sample/Setting	Findings	Instruments	Appraisal: Applicability to DNP Project
Yoga Intervention						
Weaver and Darragh (2015)	Examine the effectiveness of yoga interventions in reducing anxiety in children and youth	*Systematic Review *Level 1 *16 articles selected for review: 6 RCTs, 2 control group, 7 pre-post control studies, 1 case study.	*3-18 years of age * evidence base 1984-2014 * Clinical, School, Community settings. *Setting Sessions -avg 30min to 2 hours, held 1-6x a week, 4-12 weeks.	*Nearly all studies indicated reduced anxiety after a yoga intervention. *PAQ- $p < 0.01$ *BASC-2 $p = .013$ * $P < .0001$ on Revised Children's Manifest Anxiety Scale *Limitations: populations, limitations in some study designs, and variable outcome measures, *further research to generalize and	*Performance Anxiety Questionnaire *BASC-2 * BAI-Y *STAI-C * Aberrant Behavior Checklist (ABC) -Brief Symptom inventory 18	*Interactive hands-on intervention *Teaches mindfulness and movement in the reduction of anxiety symptoms * Teachable across different age groups *Feasible to incorporate in an afterschool program * Includes daily movement

				apply yoga to reduce anxiety		
Resilience Focused Intervention						
Dray et al. (2017)	Examine the effectiveness of school-based resilience-focused intervention targeting child and adolescent mental health	*Systematic Review *Level 1 * 57 studies included 12 RCT and 45 CRCTS	* 41,521 participants *5-18 years of age * School Setting * 16 countries * US and Australia largest group	*Short term reduction in depressive and anxiety symptoms *Reduction on 4 out of 7 outcomes		*Research indicated short term reduction if cognitive behavioral-based. * Time effective and did not interfere with school instructional time * Programs adaptable to age groups * Significant results in multiple countries.
Group Format Cognitive Behavioral Intervention						
Melnyk et al. (2014) *Although dated, Study included due to relevance of CBT intervention and Support for COPE in a school setting.	Assess the feasibility and preliminary effects of a theory-driven COPE Intervention.	*Cohort study *Level 3 *Seven 50-minute COPE sessions. * 4 weeks follow up & Delivered by an APRN * Guided by the cognitive theory and CBT	*N= 16 *Ages 14-17 *2 High Schools * Southwest US	*Decrease in anxiety scores from pre COPE (M = 55.5, SD 9.6) to post-COPE (M = 49.9, SD 9.4), p≤.063 on the BYI-2. * Anxiety scores decreased from baseline at posttest (Mean 65 to 55.5) p= .074 *remained about the same at the 4-week follow-up	*Beck Youth Inventory 2 nd edition *Personal Beliefs Scale (PBS)- 10 items *Post-COPE Program Evaluation for the Teens	*Time and financial resources are vital for the success of a school-based intervention, COPE is feasible and time effective when implemented in a school-based setting. *Results indicated improvement in depression and anxiety symptoms amongst teenagers diagnosed with depression and anxiety. *COPE program is sustainable due to cost, feasibility, framework, and acceptability by teens. *Skills-based interventions are interactive and appeal to kinesthetic learners.
Hart, A. et al. (2019).	Examining reduction of depression and anxiety symptoms amongst	*Cohort Study *Level 3, 7 COPE sessions	*N= 13 * Ages 18-25 * Eastern Ky College	COPE is an effective brief program for reducing depression and anxiety in	*Beck Youth 2 nd edition * The trait inventory	*COPE is an effective brief program for reducing depression and anxiety in college-age youth. * ultimately increasing the likelihood of students successfully

	Youth in college using the Creating Opportunities for Personal Empowerment Program (COPE).	* after conclusion of 7 th session follow up *CBT; Group		college-age youth. Implementation of evidenced-based programs into the college experience could lead to less severe depression and anxiety and better academic performance, ultimately increasing the likelihood of students successfully completing their academic programs.		completing their academic programs.
Melnyk, et al. (2015)	Twelve-Month Effects of the COPE Healthy Lifestyles TEEN Program on Overweight and Depression in High School Adolescents. Journal of School Health.	*cluster randomized controlled trial *	N= 779 *US Southwest * 14-16 * 2 high schools' 2 districts	OPE teens had a significantly lower BMI at 12 months ($F_{1,698} = 11.22$, $p = .001$) than Healthy Teens (24.95 versus 25.48); COPE teens had significantly lower depression at 12 months compared with Healthy Teens (COPE M = 42.39; Healthy Teens M = 57.90); ($F_{1,12} = 5.78$, $p = .03$).	*Beck Youth Inventory 2 nd edition * BMI	COPE can improve long-term physical and mental health outcomes in teens.
Ritchie, T. (2011).	Evaluation impact of Creating	*Pre/Post experimental	N= 49 *9 th Grade	Although not statistically significant,	*BMI *Beck Youth	The COPE Program which consists of education with cognitive behavioral skills building combined

	Opportunity for Personal Empowerment (COPE) Healthy Lifestyles Thinking, Emotions, Exercise, and Nutrition (TEEN) Program in a Rural High School	cohort study design	*Rural Health Class	there was an increase in healthy lifestyles beliefs as well as a decrease in perceived difficulty among the COPE teen participants, which resulted in positive effect sizes for the intervention. T		with physical activity and parent newsletters is an effective strategy in improving healthy lifestyles behaviors and weight management among teens, and can be easily incorporated into the curriculum of a rural high school health class.
Melnyk, et al., (2009).	Improving the mental health, healthy lifestyle choices and physical health of Hispanic adolescents: A randomized controlled pilot study	*randomized Controlled pilot study	N= 19 *Hispanic *Southwest High school	*reduction in depression and anxiety symptoms * reduced BMI	*Beck Youth 2 nd edition *BMI	Findings from this study indicate that the COPE Healthy Lifestyles TEEN program was well received by Hispanic adolescents and provides preliminary support that the intervention program had a positive effect on depressive and anxiety symptoms as well as healthy lifestyle choices
Kim et al. (2016)	Evaluate the effects of an integrated stress management program (ISMP) on college life stress, stress coping, psychological distress, and cortisol among male college students.	*Randomized Controlled Trial *Level 1 * Participants allocated randomly to the ISMP group or waitlist control group *8 ISMP two - hour sessions delivered over 4 weeks. * control group: 1- day workshop with ISMP book	*Sample n= 84 *Ages 19-29 *Korean College * Drop out students=15 students= ending sample 84.	Decreases in ISMP group compared to control group: *college life stress (p = .006) *psychological distress (p = .027 *Interpersonal sensitivity (p=.047) *Depression (p=.009) *Phobic anxiety (p=.004)	*revised life stress scale for college students *Symptom Checklist-90-Revision (SCL-90-R) *Global severity index (GSI) *Ways of coping checklist (WCC) *Plasma Cortisol	*Group based intervention may engage student participation. *Group based interventions may provide a familiar setting for students if implemented in a school-based setting. *This group-based interventions promotes interactive sessions.

				* No change in coping style and cortisol		
Salum et al. (2018)	Assess group differences in symptom reduction between individuals receiving (G-CBT) and (ABM) compared to (CT) and (ACT)	*Factorial double-blind parallel-group randomized controlled trial. *Level 1 *Participants allocated to 1 of 4 different therapy groups * 4 therapy intervention groups based on a combination of two CBT guided practices	*N= 79 *Ages 7-11 *Hospital Brazil *23 Children dropped out.	*Significant improvement in anxiety scores across all groups. No differences in response rates among the groups *GCBT + ABM group (23.8%) * G-CBT + ACT (42.9%) *CT + ABM (47.18%)– 8.57) *CT + ACT (30%) *The combination of G-CBT and ABM was found to increase dropout rate	*Pediatric Anxiety Rating Scale *CDI *SDQ *SCARED	*Study performed in a clinical setting reflecting the reality of the clinical practice for which most of the evidence is targeted. *Also, results reveal no benefit from combining G-CBT and ABM for anxiety disorders in children. *Implications of group cognitive behavioral therapy is effective in childhood anxiety treatment without additional approaches such as ABM.
Carr et al. (2019)	Examine the effectiveness of a nurse-led COPE Intervention on executive function and mood in a school setting.	* prospective, quasi-experimental, feasibility design. *Level 2 *Seven 30-minute group COPE sessions *Offered small group or alone.	*N= 15 *11-15 years old *Rural US	* anxiety improved. P=0.24 *improved depression from pre to post p=.051 * Improvement results did not hold at 3 month follow up	*Behavior Rating of Executive Function Self-Report (BRIEF-SR) *Beck Youth Inventory 2nd Edition scales for Anxiety and Depression	*Group based intervention may engage student participation. *Group based interventions may provide a familiar setting for students if implemented in a school-based setting. *This group-based interventions promotes interactive sessions.
Eiraldi et al. (2016)	Examine the effectiveness of GCBT in the urban school setting for the most	*Explanatory mixed method design. *Level 3	*N= 114 *K-8 th *Inner City Northeast US	* significant decrease in diagnostic severity, exact McNemar test	* NIMH C-DISC-IV - NIMH Diagnostic Interview Schedule for	*Sessions conducted in the school setting however did not interfere with academic instruction. CBT interventions should not interfere with instructional time.

	common externalizing and internalizing conditions.	*CPP was delivered in 12 weekly 45-minute sessions * The FRIENDS 10 weekly 70-min sessions and two booster session * PASCET was delivered in 12, 45-min sessions.		= 6.0 (1), p = .031. friends McNemar test = 5.33 (1), p = .039. pascet McNemar test = 9.14 (1), p = .004. CPP	Children, Computer Version, 4th Edition	*Trained school counselors and graduate students conducted the study. For my DNP project a graduate student will facilitate (myself). *Teachers, staff, and administration assisted with the selection of students and observation of qualifying behaviors; later assisted with follow up. *Central High school and Englehart elementary are schools of interest for my DNP project, the population used in this study is similar.
Hoying et al. (2016)	Evaluate the feasibility and efficacy of a 15-session (COPE) & (TEEN) on healthy lifestyle behaviors, physical health, and mental health of rural early adolescents.	*Cohort study *Level 3 * 15 session COPE TEEN program guided by the CB framework.	*N= 24 *13 and 14 years old *Appalachian junior high school	*Self-concept pretest: 43.25 (9.02) to posttest 46.04 P=.053 *Anxiety pretest 18.33 (14.22) to posttest 14.00 P= .146 *Depression pretest 10.42 (10.06) to posttest 9.58 p=.474	*Healthy lifestyles Behaviors Scale *Beck Youth Inventory 2 nd edition	*Group based intervention may engage student participation. *Group based interventions may provide a familiar setting for students if implemented in a school-based setting. *This group-based interventions promotes interactive sessions.
Individual Format Cognitive Behavioral Intervention						
Malboeuf-Hurtubise et al. (2017)	Evaluation of a mindfulness-based intervention for children diagnosed with GAD, non - specified	* Experimental N of 1 trial series design. *Level 2 * 8-week MBI intervention during school.	*N=3 *Elementary school *Canada * no attrition rates	* Decrease In anxiety symptoms from baseline to end of the intervention *Return to baseline	*Behavior Assessment System for Children, Second Edition (BASC-II). *Five-Facet Mindfulness	*Individual-Based CBT can improve patient engagement, trust, and improved health outcomes. *Teachers have trusted relationships with students they encountering daily behaviors. * a mindfulness approach to CBT interventions, parents and

	anxiety disorders & major depressive disorder.	*students and teacher participated in a questionnaire		scores at follow up * differences in scores between the baseline, treatment P=.02, and follow-up, P=.001	Questionnaire	students may more likely agree to participation. *Weekly sessions help with student engagement, retention, and consistency. *Demonstrates feasibility of implementing a multi-session intervention *Interactive sessions to engage kinesthetic learners.
Erlich et al. (2019)	determine whether a cognitive-behavioral skills-based intervention for adolescents is associated with improved patient-reported outcomes.	*A Pre-experimental cohort study. *7 session weekly COPE Program *Level 3	*N=37 *12-19 years of age *Primary Care office * United States	* Decrease in PHQ-A scores by 2.1 P= 0.0067 *Decrease in GAD-7 scores by 2.3 P= 0.0081 *Questionnaire data demonstrated satisfaction with COPE	*Questionnaires on depression (PHQ-A) *anxiety (GAD-7) *Post-COPE program evaluation questionnaire	*This study demonstrates the COPE program can be implemented in school-based and primary care settings. *The use of the COPE program in the primary care setting, can help support future research on streamlining the same coping skills interventions from school to clinic. *Individual-based CBT interventions tailored to patients as part of their treatment plan, will have better outcomes for compliance and effectiveness. *Implementing an individual-based CBT intervention in a primary care setting, allows for more structured follow-up.
Kozlowski et al. (2015)	Assess the feasibility and effects of COPE intervention delivered to anxious children by a pediatric nurse practitioner in a primary care setting.	*A pre-experimental, cohort study. *Level 3 * Seven 30 minute COPE sessions set by appt times.	*N= 14 *Ages 8-13 *Southeast US * Primary care clinic	* Decrease in Anxiety Symptoms (13.88 points; SD= 17.96) * Increase in cognitive behavioral coping skills (M= 1.38, P=0.00)	*COPE content quiz *The Screen for Child Anxiety Related Disorders (SCARED)	*This study demonstrates the COPE program can be implemented in school-based settings. *The COPE program lead and implemented by a pediatric nurse practitioner, showed improved outcomes when delivered by a clinician. *Individual-based CBT interventions tailored to the patient's treatment plan, will have better outcomes for compliance and effectiveness.
Michael et al. (2016)	Assess the effectiveness, feasibility, and	*Pilot Cohort Study *9 SEED CBT 45-min	*N= 20 12-16 years of age *Southeast US	* than 50 % of participants demonstrating	*Behavioral Assessment System for Children—	*SEED sessions tailored to the student.

	<p>acceptability the SEED program treating mood disorders among middle and high school students</p>	<p>sessions across 2–3 months * Level 3</p>		<p>g reliable improvement on a global assessment of mental health symptoms * BDI-II depression* pre 29.25 to post 20.80 p = .019 *YOQ-SR outcomes pre 46.10 to post 30.43 p = .001 * BASC-2 anxiety pre 66.65 to post 56.30 p = .000</p>	<p>Second Edition (BASC-2 *Parent or Self-Report Depression and/or Internalizing T Score >60), *Beck Depression Inventory –II (BDI-II) *Youth Outcomes Questionnair e - 30 (YOQ- 30)</p>	<p>*Weekly sessions help with student engagement, retention, continuity, and consistency. *Demonstrates feasibility of implementing a multi-session intervention within a school- based setting. *Interactive sessions to engage kinesthetic learners.</p>
--	---	---	--	--	---	--