

ENHANCING RESILIENCE AND SELF-EFFICACY THROUGH COPE: RURAL HIGH
SCHOOL SENIORS

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Rural High School Seniors

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DOCTOR OF NURSING PRACTICE

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ABSTRACT

Background: Adolescence is a particularly stressful time during an individual's life. It is vital that adolescents have access to mental health resources. A confidential program was offered in a school setting, a vital stepping-stone to addressing some barriers to accessing mental health resources. Creating Opportunities for Personal Empowerment (COPE) is a program that was used to provide adolescents with the tools necessary to deal with the countless impending changes encountered as they transition to young adults.

Objectives: The background objective of implementing COPE was to provide rural high school teens with the tools they can utilize to cope with life's stressors.

Study Design: The COPE program was an already established plan based on cognitive behavioral therapy (CBT). Introduced in the first session of the COPE program were the three fundamental pillars of interest: thoughts, feelings, and actions. The COPE Teen 7-session program, each session 25-50 minutes in length, was implemented in a rural high school.

Results: Thirteen high school seniors participated in the 7-session COPE program. A two-sided T-test ($\alpha=0.05$) was calculated to compare pre and post change in resilience. The results were highly variable and non-definitive. Additionally, a two-sided T-test ($\alpha=0.05$) was computed to compare pre and post changes in self-efficacy. All items of the scale showed a positive increase. All participants reported that they found the program overall helpful.

Conclusion: Participants found COPE as a useful resource to teach mental health skills. There was a clinically significant increase in participants' self-efficacy.

Keywords: mental health, resilience, self-efficacy, COPE, rural, teens, adolescents

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researched and put to use in a timely manner. I hope that we will all continue our efforts to enrich our community.

I am passionate about providing our youth with any and all health resources they may need during their formative years. This program allowed me to explore and develop a personal interest in adolescent mental health. I look forward to continuing similar work in my future work as and nurse practitioner.

DEDICATION

The completion of this dissertation project is dedicated to my husband, Rick, and to my three sons, Colt, Maverick, and Beau. My family has been the ultimate form of happiness and motivation within my life. It has been with their love and unconditional support that I continually found inspiration and comfort throughout this long and rigorous process. I know that with their encouragement I will continually strive to be an ardent advocate within our community.

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CHAPTER ONE. BACKGROUND AND SIGNIFICANCE

Adolescence is rife with emotional, social, physiological, and environmental fluctuations. As a child enters their teen years, they experience substantial social and familial pressure to behave, look, or act in a particular manner. Moreover, many adolescents are still trying to express themselves and define whom they are. Numerous stressful external pressures arise from trying to gain social acceptance. This includes modifying an individual's weight, appearance, and personality to fit in with their peers. Another potential source of stress is school, where one is expected to work hard, get good grades, know what they want to do in the future, and have a clear plan as to the what they will be doing after high school. Throw emotional heartbreak or the maintenance of relationships with peers and family into the mix, and there is a conflagration of expectations bearing down on today's adolescents. When one or more expectation flares up, teens are faced with a prod of anxiety or worry.

While stress and anxiety are a normal part of growing up, a heightened sense of anxiety can lead to avoidance, seclusion, and nervousness (ADAA, 2016). The Anxiety and Depression Association of America (2016) asserts that it is perfectly normal to experience sadness, loneliness, anxiety, fear, and nervousness—currently one in eight children experience anxiety disorders. However, youth who cannot manage these emotions may sink into a prolonged sense of depression. Mental Health America (MHA) estimates that one in five teens suffer from depression, and the number of depressed adolescents is on the rise (MHA, 2016). Depression and anxiety take an immense toll on an individual's wellbeing. Depression, anxiety, and low self-esteem can lead to risk-taking and negative comportments including hostility, promiscuity, aggression, substance abuse, suicidal inclinations, functional impairment, recklessness, excess weight gain, and the inability to form healthy relationships (CDC, 2014; NAMI, 2016).

A common outlet utilized by those overwhelmed by anxiety is self-destructive behavior. Common sources of destructive behavior include smoking and alcohol consumption. The CDC estimates that within any given month, 4.9% of youth aged 12-17 years have smoked a cigarette, and 11.5% of youth aged 12-17 years have consumed alcohol (2014). Both smoking and excessive imbibing of alcohol have deleterious effects on an individual's health. Prolonged detrimental behavior can lead to a further depressed mental state, and feelings of hopelessness.

Providing adolescents with access to mental health resources is vital. However, there is existing stigmatization when it comes to addressing mental health concerns. The destigmatization of seeking and/or receiving mental health services is fundamental to improving access to mental health resources. The CDC reported that only 29% of individuals experiencing depression contacted a health care provider (2014). Many people feel uncomfortable with the idea of seeking help for their anxiety, but professional assistance can greatly influence patient outcomes and an individual's ability to manage symptoms. Youth may avoid seeking guidance because they do not want to be judged by their peers or family as potentially weak or unstable. Another barrier presented to youth is difficulty in accessing the mental health services they are looking for (COPE, 2016). Creating Opportunities for Personal Empowerment (COPE), a confidential program offered in a school setting could be a vital stepping-stone to addressing a few of these barriers.

Adolescents may face barriers when accessing healthcare if they lack parental consent. Though medical statutes will vary by state, certain delineated circumstances that allow a minor to receive medical and mental health care without their parents' or guardians' consent. Within the state of Minnesota, for example, an adolescent may receive medical, health, or mental services for substance abuse and if aged 16 years or older, may enter into a treatment facility for

evaluation and/or short-term care (House Research Department, 2013). It is imperative that adolescents are educated on the mental health resources available to them, and when in need, how they may access these resources.

Moreover, the National Alliance on Mental Health posits, “Half of all chronic mental illness begins by age 14, three-quarters by age 24” (2016, para. 16). This indicates a 50% increase during teen/young adult years. To help combat the rise of mental illness in youth, and to provide youth with life-long tools to manage anxiety, stress, and depression, mental and behavioral health programs have been recommended for high school age youth. COPE is one program demonstrating success when utilized in this venture. The emphasis of COPE is placed on providing adolescents with the tools necessary to deal with the countless impending changes they will encounter as they transition to young adults (Cope, 2016).

In particular, rural communities tend to have less health resources available than an urban center or major conurbations. Estimates indicate that although the rural population is nearly 20% of the total population, rural areas have only 10% of the mental health workforce (Hoeft, Fortney, Patel, & Unütze, 2018). Additionally, the prevalence of 24-hour service mental health facilities is sparse, leading individuals who feel that they are in crisis without any after hour help (Matsea, Ryke, & Weyers, 2018). The lack of psychologists, nurse practitioners, physicians, physician assistants, counselors, and social workers within rural counties must be taken into consideration. If there is a deficit in healthcare workforce, and an increase in workforce is not economically viable, then an alternative approach to spreading health resources is through group programs.

The practice improvement project (PIP) chosen was aimed to address stress in adolescents within a rural community. Preliminary discussions with the school counselor and

principal were initiated to determine feasibility of implementing the COPE program and benefits to rural adolescents at a critical developmental stage of their life. Advocating for community change, the chosen intervention location was a rural Minnesotan town. The program was hypothesized to provide the most benefit as a school-based program in lieu of a community-based program. Participation would be easier to bolster, as the students would not have any transportation barriers preventing them from participating in the program.

Norman County, MN, was chosen as the location of the intervention. Rates of substance abuse by Minnesotan high school age students—specifically eighth, ninth, and eleventh grade students—revealed that within the 30 days preceding the Minnesota Student Survey that 11% participated in alcohol use (6% in binge drinking), 9% smoked cigarettes, 6% used marijuana, and 4% misused prescription drugs (SUMN, 2014). Additionally, “8% of Norman County grades 8, 9, and 11 reported having been treated for a mental health, emotional, or behavioral problem during the past year” (MSS, 2013, as quoted in SUMN, 2014, p. 4). Furthermore, approximately 26% of the students surveyed reported high levels of distress for internalizing mental and behavioral disorders (SUMN, 2014).

Norman County East High School was the chosen site for the study of the effectiveness that the COPE program could have on improving the resilience and self-efficacy of adolescents. Utilization of the COPE program as a continued intervention was tested for suitability and feasibility. The COPE program is a 7-session evidence-based program designed to help youth acknowledge, understand, and deal with depression, stress, and anxiety (COPE, 2016). Alternatively, there is a 15-week COPE Healthy Lifestyles TEEN (Thinking, Emotions, Exercise, and Nutrition) option as well. This longer program has previously helped youth in losing weight and improving self-esteem (COPE, 2016).

Through a triadic relationship between parents, healthcare professionals, and educators, the COPE program can help teens learn to link their feelings to their thoughts and behaviors (COPE, 2016). Adolescents learn how to acknowledge the way they feel, moderate their negative thought patterns, and implement physical responses that are productive and beneficial. By actively utilizing positive and hopeful responses, the adolescents practice situational acceptance and control rather than overburdening themselves with anxiety, depression, or a sense of hopelessness.

Significance of Proposed Project

The overall purpose of the project is reflected in the title—to enhance resilience and self-efficacy among rural teenagers. The goal of the project is to enhance both resilience and self-efficacy to emphasize positive and effective tools for managing stressful events that teens will encounter as young adults. The suitability of the program to the participants was also a variable measured. Introductions to resiliency and self-efficacy, as well as the opportunities and challenges of this project are discussed in this section.

Building Resilience

A key outcome of the COPE program was to enhance the resilience of teens in the face of adverse or stressful events. Resilience is the way one bounces back or recovers from an incident. Resiliency is a valuable and commonplace coping mechanism. One could argue that every human possesses a degree of inherent resilience—without such, the first stress-inducing event that occurred in our lives would have had us falling to pieces. However, the American Psychological Association asserts resilience “is not a trait that people either have or do not have. [Resilience] involves behaviors, thoughts, and actions that can be developed by anyone” (2016, para. 7). The operational definition is directly in line with the COPE mentoring program’s first

session, which is to reinforce the connection between what one thinks, and how that affects his or her feelings and behavior (COPE, 2016).

In lieu of explicitly teaching the teens how to be resilient, the goal of the program is to teach teens tools to monitor and adjust the negative aspects of their thinking and encourage teens to take positive and productive steps towards their goals (COPE, 2016). Negative thinking, wallowing, and succumbing to overwhelming anxiety or fear can stymie personal growth and development. Rather than working toward a goal of establishing a purpose for actions, most of an individual's effort is spent either trying to simply make ends meet or is exhausted from suspension in a state of continued emergency coping. Depletion of mental resources on a daily basis is a back-seat approach to dealing with stressful events. The ever-mounting pressures tie up a great deal of mental capacity. In an attempt to invalidate pervasive pressures, reckless behavior becomes more eminent among teens (COPE, 2016).

When an adolescent feels that nothing is worthwhile, or everything is 'too much,' the gut response is to invalidate stressful events by convincing themselves that the stressors are not as important as they have originally imagined. In a negative frame of mind, adolescents may be lead to believe that *nothing* is very important and when nothing is deemed important, then reckless behavior, substance abuse, and frivolous relations –instant gratification actions— become more prominent (Hermens et al., 2015)

Introducing the COPE intervention and encouraging that negative thoughts be acknowledged, managed, and transformed into positive alternatives can improve the resilience of teens. With a positive and hopeful frame of mind, meaning will be allocated to tasks and goals. By establishing the relevance of taking an action, teens are more likely to follow through with their plans. Something considered 'relevant' could be a reward or even a desired outcome. A

positive frame of mind provides a conducive disposition to guide an individual's behaviors towards accomplishing constructive actions. A positive mind and productive actions are the overarching byproduct of the core principles of the COPE program (COPE, 2016).

Enhancing Self-Efficacy

Building resilience and enhancing self-efficacy go hand in hand. While resilience includes the principles of being able to adapt, rebuild, or bounce back, self-efficacy “reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment” (Carey & Forsyth, 2016, para. 1). A combination of resilience and self-efficacy are fundamental in controlling the direction and nature of an individual's thoughts and actions.

Self-efficacy is the belief that an individual can achieve tasks to which they set their mind. In stark contrast to depression, or a sense of futility and/or overwhelming sadness, self-confidence and the belief in his or her self plays a vital part in motivating a person to action (Cherry, 2016). Individuals with a poor sense of self-efficacy will tend to avoid tasks and convince themselves that they cannot accomplish certain undertakings that they struggle with. Depreciation in self-efficacy can be in part due to previous failure to meet goals.

Setting, working toward, and meeting *obtainable* goals are excellent ways to build self-efficacy. Conversely, setting a goal that is too difficult or too overwhelming is a sure-fire way to fall into a trap of poor self-efficacy. With small, manageable goals, meeting each milestone will reinforce an individual's sense of confidence and ability. Other ways to increase an individual's resolution is to see people who are similar complete the same goals, to receive positive social reinforcement/encouragement, and to maintain a positive and resilient attitude when a goal is unmet (Cherry, 2016).

Opportunities

The COPE educational program is versatile in that the program allows certified instructors to teach wherever they wish. This means instructors can go where they will be the most useful. One of the biggest barriers to accessing health care is the lack of transportation (Syed, Gerber, & Sharp, 2013). By offering to teach the COPE sessions on school property, during school hours, more youth will have an opportunity to attend the program. Furthermore, by creating a conducive and encouraging learning environment, participants can interact with one another and build a network of peers with whom they can grow, share experiences, and receive help.

A marvelous part of the COPE program emanates from the fact that the program allows participants to network and be a part of a supportive and available community. Although sessions focus on certain topics, class participation is openly welcomed and encouraged. Additionally, information on available resources and/or mental health services can be provided so that the teens are able to seek assistance if they should need help (COPE, 2016).

Challenges

One challenge addressed prior to initiating the COPE program was that of formal consent. Teens who were interested in participating in the COPE program obtained a signed consent form from their parent/guardian. Participants also submitted a signed assent form. Obtaining the appropriate consent forms presented a minor barrier to a few students wanting to participate in the sessions. The program was offered and encouraged for all relevant-aged students, which may have helped lessen students' anxiety or uncomfortableness asking their guardian for permission to participate in a program designed to teach coping strategies.

Habitually, youth tend to be self-conscious of their perceived image. Youth may not wish to show interest in a self-help or improvement program in front of their family and peers. A trend that is on the rise is acting detached or emotionally neutral about things and the behavior is considered socially acceptable among today's youth (Bruun, Raptis, Kjeldskov, & Skov, 2016). The best way to combat this challenge (and increase the number of participants) is to encourage all students (within the designated age range set by the COPE manual) to participate in the program. Taking steps to offer the program indiscriminately would help prevent certain students from feeling targeted or pre-selected as individuals whom the teachers and counselors preconceive would benefit from the COPE program. Mental health resource tools are not only meant as a means of remediation but are critical to prevention strategies. By allowing COPE delivery to a wide array of students, the outcomes are likely to be more beneficial.

CHAPTER TWO. LITERATURE REVIEW

The COPE program is an evidence-based intervention program. Numerous reports and dissertations have used COPE to measure the program's efficacy and suitability as an intervention program. After performing a literature search through various nursing databases, including CINAHL, Cochrane Library, and PubMed, as well as broad grey matter research, pertinent literature was reviewed to provide a critical analysis of the existing literature and studies of the COPE program.

The COPE platform offers different programs for children, teens, and young adults. A basic 7-week program and an extended 15-week program that includes healthy lifestyle education are available. A duality exists between mental health problems and physical health. With this in mind, the literature review was not limited to solely mental health related programs. To determine the suitability of each program offered by COPE, the programs that included nutrition and physical activity education were included in the literature summation.

When overcome by anxiety or depression, people often experience weight gain. Weight gain in combination with a buildup of anxiety exacerbates a state of poor health. Obesity rates for ages 12-19 years are currently purported up to 21% (CDC, 2014). While well known that obesity is associated with many physical and psychological health problems, weight gain in a depressive state can further an individual's depression (Roberts & Duong, 2013). The COPE TEEN program has been effective in lowering participants' BMI and encouraging physical activity (COPE, 2016). Many researchers support the implementation of COPE and COPE TEEN. A review of existing literature has shown that implementing COPE to fight anxiety, or implementing COPE TEEN to fight anxiety and obesity, have both been effective.

Melnyk et al. (2015) conducted a study titled “Twelve-Month Effects of the COPE Healthy Lifestyles TEEN Program on Overweight and Depressive Symptoms in High School Adolescents”. In a blinded, randomized controlled trial (RCT), 779 participants were randomly assigned to participate in either COPE/Healthy Lifestyles TEEN (thinking, emotions, exercise, and nutrition) program or the Healthy Teens program. The COPE program sessions included 20 minutes of physical activity and pedometers to encourage students to monitor and increase their physical exercise pace. Alternatively, the Healthy Teens program focused on “common health issues for adolescents, including dental care, skin care, infectious disease, and immunizations” (Melnyk et al., 2015, para. 16).

Results of Melnyk et al. (2015) study were collected 12 months following the completion of the intervention. Melnyk and colleagues used the Beck Youth Inventory (BYI-II) to assess the participants’ depressive symptoms. BMI was calculated after measuring height and weight. Follow-up attrition was taken into consideration, and an analysis of covariance performed. Results indicated “a significant decrease in the proportion of overweight and obese COPE teens” ($r = 0.4408$ to $r = 0.4043$) when compared to those who participated in the Healthy Teens program—that showed an increase in proportion (0.4101 to 0.4318) (2015, para. 3). Only 4.8% of the COPE participants moved from a healthy weight into an overweight category compared to the 8.6% from Healthy Teens participants (Melnyk et al., 2015).

Melnyk et al. (2015) accredits the cognitive-behavioral therapy base that went into the development of COPE as a key factor to the intervention’s success. The short-term effects transitioned into long-term results due to the sessions focusing on a shift in the thinking and behavior of the participants. The program decreased depressive symptoms, support weight loss/management, improve mental health, lessened anxiety and disruptive behavior, and was

adaptable and affordable to implement within school settings (Melnyk et al., 2015). A summary of aspects for this publication is provided in Appendix Table M1.

Another study by Melnyk, Amaya, Szalacha, Hoying, and Bowersox (2015) titled “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” indicated another successful use of the COPE program. Their study focused on 121 university students—92.1% first year students and 92.3% female (Melnyk et al, 2015). The authors acknowledged that the demographics were overwhelming unvaried and may have decreased the generalizability of their study.

The students participated in COPE’s 7-session online program. Evaluations of the participants revealed, “62% said that all freshman students should have the COPE sessions during their first year at the university” (Melnyk et al., 2015, para. 31). All but one participant completed all the modules. Because completion rates were high, the authors postulated that the COPE program was implementable in a college setting. The authors recommended offering the program as early as possible in the freshman year to help students cope with stress and anxiety in the initial transition to college life. The majority of the students found the program to be helpful. Furthermore, the authors asserted that because increased levels of anxiety and stress are more likely to lead to lower grade point averages and dropout rates, that the COPE program could help students to learn to succeed and feel better equipped to handle college level stress (Melnyk et al., 2015). A summary of aspects for this publication can be found in Appendix Table M2.

The Melnyk et al. studies gave overwhelming support for the COPE program. However, the primary author, Bernadette Melnyk, is the founder of the COPE program. Therefore, although the claims of the program’s efficacy may be true, it is clear that further studies are

necessary to support the COPE program. Four DNP student capstone projects utilizing COPE also provided insight into COPE's effectiveness (Ritchie, 2011; Edwards, 2014; McCormick, 2016; Lindblom, 2017).

The first Dissertation was by West Virginia University student, Teresa Ritchie, titled "Evaluation of the Impact of the Creating Opportunity for Personal Empowerment (COPE) Healthy Lifestyles Thinking, Emotions, Exercise, and Nutrition (TEEN) Program in Rural High School Health Class" (2011). The program was designed to increase healthy lifestyle behaviors in ninth graders. There were 55 participants, of which, 49 completed the program.

The project utilized the COPE TEEN program, which consisted of a 30-minute information/lecture session followed by 20 minutes of physical activity once per week for a total of 15 weeks. Newsletters were sent home with students to give to parents on three occasions (Ritchie, 2011). Results were favorable, with Ritchie positing, "Forty-nine percent of the students lost a total of 143.6 pounds and 6% maintained their weight" (2015, para. 5). Ritchie advocated for the program due to the positive reductions in BMI and the ease of implementation. A summary of aspects for this publication is provided in Appendix Table M3.

Eastern Kentucky University student, Sharon A. Edwards', DNP capstone project used the COPE program in her dissertation titled: "Creating Opportunities for Personal Empowerment for Adolescent students in a Rural High School" (2014). School counselors recommended prospective student participants. Of the 39 potential candidates, nine completed the 7-session COPE TEEN program. This program was a 30-35-minute session once a week for 7 weeks. Participants met on the eighth week to complete post-intervention surveys including the Beck Youth Inventory II and Healthy Lifestyle Beliefs Scale (Edwards, 2014).

The small participant size limits Edwards' results. Moreover, while the differences pre and post intervention were not statistically significant, she argued they were clinically significant. Results indicated an increase in self-confidence and improvements in depressive scores (Edwards, 2014). Program evaluation forms that were completed at the end of Edwards' project revealed overwhelming support and acknowledgement of the positive outcomes by parents, counselors, and the principal (2014). A summary of aspects for this publication is provided in Appendix Table M4.

A dissertation by Maria McCormick titled "Implementation of the Evidence-Based COPE Intervention in an Elementary Classroom to Promote Mental Health" (2016) was also reviewed. The project aimed at a younger target audience. The participants were second graders. McCormick (2016) used several measures including a Positive Behavioral Interventions and Supports (PBIS) classroom clip chart to analyze results.

The younger children present in McCormick's (2016) project all reported that they had positive feelings concerning the COPE sessions. Furthermore, there were sustained positive behaviors, with 4/5 of the participants having the ability to recall fundamental concepts that they were taught 6 weeks prior. Overall, McCormick (2016) found the program beneficial, but documented that the material may have been a bit too difficult for such a young audience fully to grasp. A summary of aspects for this publication is provided in Appendix Table M5.

Additionally, an NDSU DNP dissertation titled "COPE: Evaluation of a School-Based Intervention to Improve Overall Mental Health, Resiliency, and Social-Emotional Development of Rural North Dakota Adolescent Youth" by Jessica Lindblom (2017) was included in the literature review. The 7-session COPE program was delivered over the recommended 7-week

period. Lindblom aimed to mitigate transportation barriers by scheduling the program during a scheduled study hall for the students.

Eleven participants completed the program. To measure the efficacy and acceptability of the COPE program at the high school, Lindblom employed the use of measures including the Patient Health Questionnaire for Teens (PHQ-9) and the Generalized Anxiety Disorder Scale (GAD-7). Although statistical significance was not noted, an operational significance was declared. Lindblom (2017) acknowledged that the program was overall quite well received, but that the small sample size limited the generalizability of the results. A summary of aspects for this publication is provided in Appendix Table M6.

Multiple studies support the COPE Healthy TEEN nutrition and exercise program's positive benefits –decreased stress, decreased anxiety, improved self-esteem—that can stem from proper nutrition and exercise. With obesity linked to health risks such as high cholesterol, high blood pressure, diabetes, and heart disease—to name a few—exercise and proper nutrition fit into all health promotion programs.

Obesity and depression are interrelated, although a cause and effect relationship has not been established. A report by Jennings (2015) posited, “People who are obese have a 55% increased risk of developing depression over time; whereas those with depression have a 58% increased risk of becoming obese” (p. 68). The TEEN nutrition and exercise plan has shown to improve weight management and loss among youth (Melnik et al., 2015). Exercise is effective in decreasing depression and anxiety while improving an individual's mood (Flaskerud, 2015; Malcom et al., 2013), increasing self-regulation, inhibitory control, and improving dietary choice (Lowe, Kolev, & Hall, 2016). Motivation to keep active and make exercise a regular part of any

health routine can help teens feel more in control of their bodily health and incite them to be more proactive throughout the day.

Nutrition has also been shown to be important to managing anxiety and depression. According to Jennings (2015), “There is evidence that specific micronutrients have an effect on mood –particularly depression” (p. 68). Some of these important micronutrients that were claimed to be effective in influencing anxiety and depression were vitamin C, vitamin E, vitamin B6, vitamin B12, vitamin B9 (folate), zinc, and omega-3 fatty acids (Jennings, 2015). A healthy nutritional balance is the goal. Over-nutrition (obesity) can lead to decreased cognitive functions (Flaskerud, 2015). COPE can help facilitate behavioral changes and modifications to help balance the food intake and calorie expenditure of students. With time, these behavior modifications could become daily habits that don’t require external promptings.

Overall, there was support for both COPE and COPE TEEN. Although most utilizations of COPE as part of a dissertation project failed to demonstrate statistical significance, positive outcomes and overall well regard for the problem seemed prevalent. All forms of writing can be subject to bias, however, and a subjective view of the intent of the publications should be acknowledged.

A handful of other adolescent help programs showed promise. Similar to COPE, the program ON FIRE stated that the programs aims were to “cultivate hope, resilience, and well-being in children and adolescents aged 8-17 years” (Foster, McPhee, Fethney, & McCloughen, 2016, p. 295). However, this program was to help teach these skills to youth in families where a sibling or parent was affected by a mental health problem; whereas, COPE is aimed at preventative measures that can be delivered to practically anyone. Although the overall goals of the ON FIRE program were in-line with the aims of this practice improvement project, there

were a handful of barriers. First, the ON FIRE program was a referral-based program, whereas this process improvement project was chosen so as to not directly target pre-selected individuals. Further, the ON FIRE program did not allow easy training and transmittal of their services. Most services were offered as camps and chat groups based in Australia but had not been translated to online or manual content that could be utilized anywhere (Foster, McPhee, Fethney, & McCloughen, 2016).

Further research conducted by Ruiz-Casares, Drummond, Beeman, and Lach (2017) centered their research on a search for programs that parents could utilize to strengthen their interaction and bond with adolescents, especially in ethnoculturally diverse families. Ruiz-Casares et al. posited, “families are central to the well-being of their adolescents” (p. 744). While COPE acknowledges the impact that strong family support can provide to help adolescents avoid the onset of major mental health concerns. A strong family support is not always available. The COPE program allows youth to take the proactive role and gain tools so that they can actively monitor and acknowledge the role they can take to help foster positive mental health and coping strategies.

Another youth-oriented program that showed substantive promise was that of YouthBuild (YB, 2018). The YouthBuild program was designed to empower their students with leadership, personal mastery, and communication skills (YB, 2018). Gaining a sense of self-mastery, and the confidence to be a leader are both proactive and preventative measures. When adolescents can gain a sense of control over their environment, they are more likely to feel less anxiety and stress. Similar to the COPE program in that YouthBuild is centered on providing adolescents with the tools for success, COPE focuses on stress and anxiety reduction tools, whereas YouthBuild is more centered about academic and work bolstering skills.

Overall, the COPE program showed significant promise as the program to be utilized in the practice improvement project. A key aspect of the practice improvement project was to choose a program that could easily bring skills and resources to a rural community. The COPE program was developed to be an evidence-based, manual centered, program that can easily be spread to remote locations. Furthermore, the COPE program focuses on prevention, rather than treatment. By addressing mental health at its earliest stages, adolescents are in a better position to acknowledge how mental health concerns arise, and how to effectively cope with stress, anxiety, depression, and overburden.

CHAPTER THREE. THEORY AND PROJECT FRAMEWORK

Both a standard framework and a nursing theory apply to the development of this intervention. COPE follows a cognitive behavioral therapy guideline. The nursing theory that supports this intervention most puissant is Janet B. Younger's Theory of Mastery. Additionally, use of the Iowa model can help promote the transition from research to practice. Each will be discussed further in the sections to follow.

Cognitive Behavioral Therapy

The COPE program is an already established program based on cognitive behavioral therapy (CBT). The Beck institute describes CBT as a form of therapy stemming from many other modalities including, psychotherapy, acceptance, and commitment therapy, mindfulness, and solution focused therapy (Beck, 2016). The key elements of CBT focus on the correlation between thoughts and the feelings and behaviors that an individual's thoughts elicit. Furthermore, CBT is a time bound, structured form of therapy to help individuals acknowledge how they can continue to learn and help themselves.

Introduced in the first session of the COPE program are the three fundamental pillars of interest: thoughts, feelings, and actions. The National Association of Cognitive-Behavior Therapists (NACBT) reinforces the interdependence of thoughts, feelings and actions by putting emphasis on thoughts and how thoughts influence our feelings and actions (2016). The Beck institute follows in suit by asserting that part of CBT is "teaching clients skills to modify dysfunctional thinking and behavior" (2016, para. 1). How an individual copes is often hinged on how they view the problem at hand.

As with anything else, learning to control innate functions help facilitate continual and meaningful progress. People think without having to be told and often without having to take

accountability. Thoughts are thoughts, and many people just let them pass idly. However, because thought plays such an important role in how one acts, individuals must be aware of when their thoughts are interfering with their ability to recover and cope with life's stressors. Learning how to acknowledge thoughts and replace ill-productive or maladjusted thoughts to stay ahead of negative emotional responses can promote beneficial problem-solving actions rather than detrimental alternatives.

Cognitive behavioral therapy is a structured form of therapy. This often includes specific topic-oriented sessions, and a clear end date set for instruction (Beck, 2016; NACBT, 2016). Sessions are subject oriented and often will guide patients through a matter and reinforce the topics learned via post session materials to review. CBT is not intended for use as a life-long form of therapy. Rather, CBT is designed to be a short-term intervention aimed to teach a paradigm shift that one will use throughout their life. A fundamental goal of CBT is to teach self-counseling skills so that patients learn to monitor, reflect on, and adapt their personal habits on their own (NACBT, 2016).

Another central pillar to CBT (as noted by NACBT, but not necessary reflected by the Beck Institute) is the use of stoicism. When anxiety increases, and coping becomes difficult, a lack of physical control is often a side effect. Typically, when overwhelmed or irritated, people may feel urged to scream, hit the wall, or show some sort of short-lived physical or verbal outburst. NACBT believes that part of CBT is to not tell people how to feel, but encourage and emphasize stoicism, or calm rationale so that mental effort and physical energy can be reserved to resolve the problem at hand (NACBT, 2016). Stoicism is the transfer of destructive mentality to a controlled, productive substitute.

Janet B. Younger's Theory of Mastery

The proposed intervention can be linked to the theoretical framework of Janet B. Younger's Theory of Mastery. Closely hinged to the concepts of resilience and self-efficacy, Younger's concept of mastery encompasses four key aspects relating to stress: certainty, change, acceptance, and growth (1991). Mastery is the ability to learn from stressful events so that when encountered with similar situations in the future, one would feel better at ease. The concept of mastery is a form of positive adaptation.

The origins of mastery stretch back to Greek philosophers. The concept of a peaceful soul or resolution in the face of existentialism is at the core of mastery. Life is full of seemingly daunting events, and many are completely out of an individual's control. Mastery concludes that one can only achieve a sense of complete mastery when they can acknowledge and accept that some things are out of their control and still feel comfortable and able to handle this notion (Younger, 1991).

Stress can arguably stem from a state of uncertainty. Younger's theory of mastery emphasized that acceptance of uncertainty was needed, and the acknowledgement of certainty in areas where one can feel particularly free from doubts, are necessary. Furthermore, one needs to be able to change or adapt to new situations by implementing effective problem solving, decision-making, and taking action. The final key to mastery is growth. With each stressor, one should not only exercise the aforementioned tactics to cope and diminish the stressful event, but should also gain new competencies, strength, purpose, and efficiency that one can utilize in their future (Younger, 1991).

Fundamentally, Younger's Theory of Mastery reverts to perspective. Mastery promotes an active participation in life, where one approaches new situations in a content and optimistic

state of mind. If an event is seen as stressful, and can be changed, then one should seek to change the event. Otherwise, one should exercise acceptance, acknowledge that some events occur and focus on learning from the event and being more prepared for what lies ahead (Younger, 1991).

Iowa Model

The IOWA model was used to initiate, develop, and translate theory into practice. How the IOWA Model was adapted to fit the COPE program is summarized in Figure 1 and Figure 4 (located in Chapter 7: Discussion). To initiate change, there must first exist a need for change to occur. By identifying a problem within the community, the selection of a topic is often done by considering focused triggers and determining whether the topic merits priority within an organization (Farrington, Lang, Cullen, Stewart, 2009). The co-investigator identified a triggering issue in that rural communities have fewer mental health resources, and adolescents are at a pivotal developmental stage that is imbued with stress. To help address the dearth of mental health services in rural communities, the following problem statement was created:

- Problem Statement: Can the evidence-based, cognitive behavioral therapy centered, program COPE help to increase the resiliency and self-efficacy of adolescents?

To further address the validity of the problem statement, a systematic review of literature was performed. Appropriate sources are accumulated and critically appraised for the relevance, reliability, and accuracy. Literature related to COPE, adolescents, resilience, and self-efficacy was analyzed and synthesized.

Sufficient evidence was found to support utilizing COPE as part of a practice improvement project to help adolescents develop strategies to acknowledge and manage stress,

anxiety, and depression. The 7-week COPE sessions was presented to the senior class at a rural Minnesota High School. The post-intervention portions of the IOWA model continue in Chapter 7: Discussion. An Iowa Model blueprint can be found in Appendix J; permission to use the Iowa Model is documented in Appendix K.

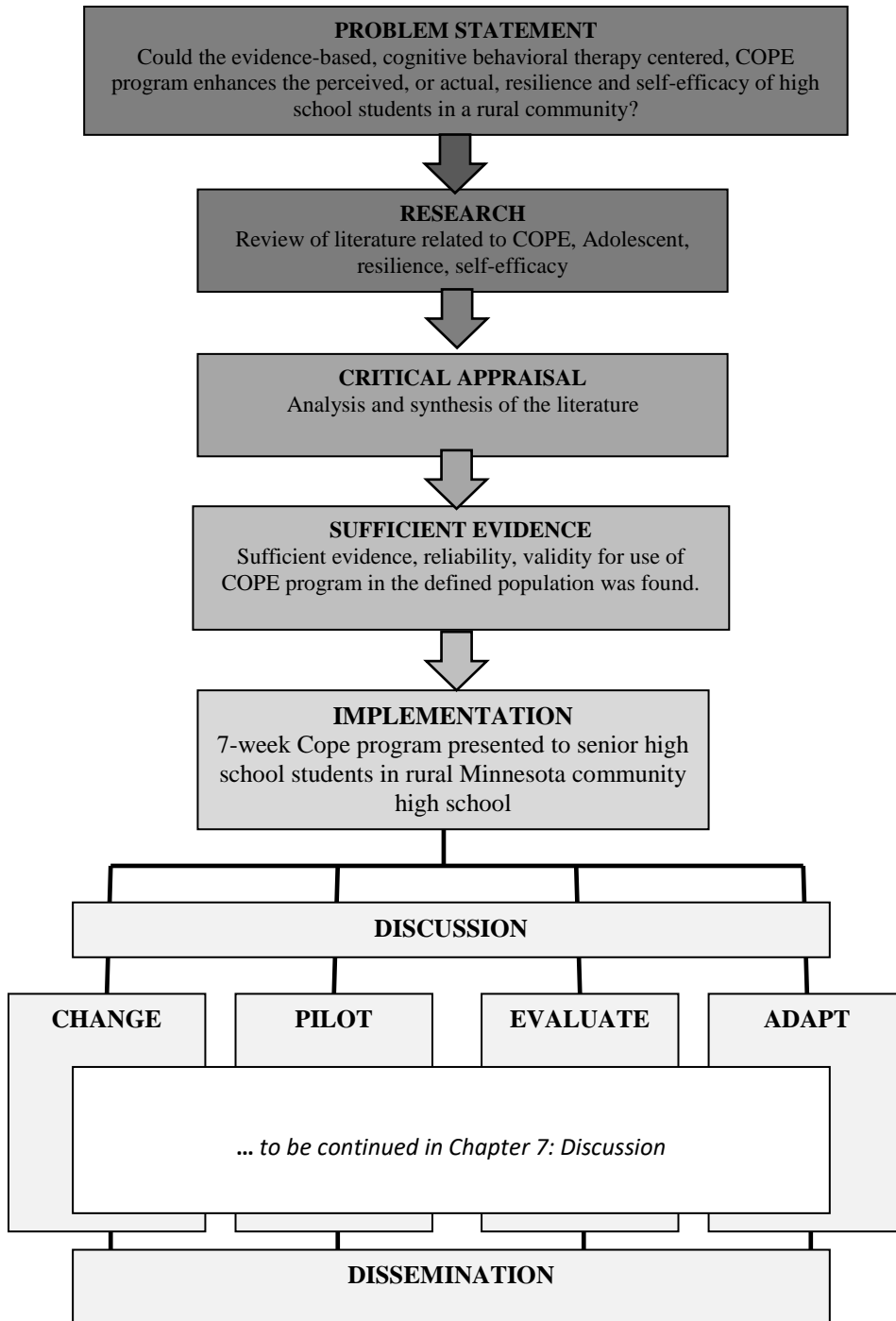


Figure 1. IOWA Model adapted for COPE program

CHAPTER FOUR. PROJECT DESIGN

The basis of all successful interventions begins by establishing design parameter, delineating a timeline, and ensuring participants involvement and well-being. This chapter will introduce the importance of the practice improvement project, the objectives, the project design, the protection of human subjects, resources, timeline, and participant recruitment.

Congruence of the Project to a Rural High School Setting

The values and objectives of Norman County East Secondary School were considered to make the project pertinent. Mental health, depression, and anxiety are quite prevalent during the tumultuous teen years and a coping strategy is of great value. This program was implemented during a course offered to seniors titled Senior Seminar. The focus of Senior Seminar was to enhance skills that would ensure success in future tasks such as communication, college preparation, test taking, and problem solving. Because access to mental health facilities is typically more difficult to acquire in rural settings, the best chance for youth to receive access is via their school.

A fundamental principle is that schools try to promote student involvement, well-being, and success. Because anxiety and depression have been linked to a lower school performance, decrease in attendance, social exclusion, and substance abuse, the introduction of COPE could offer life-long techniques for students to employ to combat stress and manage anxiety and depression (COPE, 2016).

Project Objectives

The background objective of implementing COPE is to provide teens with the tools they can utilize to cope with life's stressors. Techniques include raising self-confidence/self-worth, and stemming alcohol/substance abuse (COPE, 2016). Resilience and coping techniques,

positive thinking, excitation of hope reflex, improved performance—both social and academic—, and an increase in healthy lifestyle choices—both physical and nutritional—, are just a few of the ways in which the COPE program is designed to help adolescents. Many of these positive thought and behavioral habits shapes an individual's resilience and self-efficacy.

There were three primary objectives:

- Objective 1. The first objective was to measure whether COPE could improve resiliency scores on Wagnild and Young's Resilience Scale.
- Objective 2. The second objective was to measure whether COPE could improve self-efficacy scores on Chen et al. New General Self-Efficacy Scale.
- Objective 3. The third objective was to measure program acceptance through responses to a post COPE intervention questionnaire.

An improvement in both resiliency and self-efficacy scores were the desired measurable outcomes of the program. A post intervention two-tailed T-test ($\alpha=0.05$) has been preselected as a means of comparing pre and post intervention scales. Improvement in resilience and improvement in self-efficacy can be enhanced by learning how to think in a productive manner. Altering negative thought patterns can help individuals to focus and organize their thoughts so that they can approach new or stressful situations with a plan of how solve or resolve the aspects that trouble them.

Following the SMART (significance, measurable, agreed upon, realistic, and time-based) goal format helped guide this intervention:

- Significance. The significance or objective of this project is to measure the resilience and self-efficacy of the students and determine whether COPE is an accepted form of intervention within the setting.

- Measurable. To ensure measurability, we will utilize the Resilience scale (Wagnild & Young, 1993), the New General Self-Efficacy Scale (Chen, Gully, & Eden, 2001), and a COPE program related questionnaire.
- Agreed upon. Agreement on the intervention plan was modified to best serve the students. A meeting with the school counselor to agree on when and where the intervention could best be utilized was determined prior to project initiation. The best-suited location was determined to be within the Senior Seminar period.
- Realistic. Results for the three above-mentioned scales were statistically analyzed to determine if the results were useful and realistic.
- Time-bound. To ensure that the intervention is time-bound, the program will be limited to a set number of 7 sessions, with a total implementation length not to exceed six months.

Project Design

The COPE program provides an evidence-based, easy to administer approach to delivering healthy and efficient coping strategies to children, teens, and young adults. Healthcare providers, counselors, teachers, or social workers can train to be a COPE instructor (COPE, 2016). Once certified, they can deliver either a seven or 15-week COPE program sessions. Each session can be completed within 25-50 minutes depending on instructor preference and/or time considerations.

These sessions offer a myriad of techniques to teach teens how better to cope with depression, anxiety, and negative thoughts. The 15-week program extends this a bit further to include sessions on proper nutrition and exercise (COPE, 2016). The target audience for this project is the senior class of a rural Minnesotan high school. The COPE Teen 7-session program

is specifically designed for teens aged 11-18. The COPE Teen 7-session program was the best choice to meet the aims of this practice improvement project.

The COPE program was offered in a school setting. Each student was provided with a COPE program manual that they could keep indefinitely and utilize for future reference. The seven sessions of the COPE program were integrated within the existing curriculum of an existing Senior Seminar course. This allowed the participants to stay in their own desks, and in an environment that was both familiar, comfortable and designed to facilitate learning. The regular Senior Seminar teacher was present for all COPE sessions.

The first step in initiating the use of this program was to become a COPE-trained instructor. The process was relatively straightforward; anyone can deliver COPE sessions after completing an “Instructor Online Training Webinar” and a “Practice Program Delivery” session (COPE, 2016). Both programs must be completed before the COPE administrator will validate the right for the new instructor to teach the program.

The training webinar is 2 hours 30 minutes and is followed by a multiple-choice quiz. A score above 80% indicates proficiency. Repeat testing is allowed until the desired results are achieved. The instructor candidate must also practice delivering a session (or multiple sessions) to their child, a friend, or family member to gain a sense of comfort and familiarity with the material and get accustomed to assuming a teaching role. An online “Practice Delivery Results Form” needs to be submitted after this stage. This form asks for the date of completion, age of the child, and both instructor/participant feedback. Once the training module is complete and the practice delivery results form is submitted, they will be reviewed and approved by COPE administrators (COPE, 2016).

Once administrators have validated that the requirements have been met to satisfactory levels, the instructor candidate will receive a certificate of completion and a program delivery license in the mail. The newly recognized COPE instructor will then be certified to teach the COPE program at any location of their choosing for up to a year. Annual renewal is required.

The COPE sessions were taught in a course offered to seniors at the high school. This course was called Senior Seminar and the curriculum supports the integration of the COPE program to continue to meet the course objectives. With proper connections to the Principal, counselors, and teachers at Norman County East High School, the program is entirely feasible.

All interested participants provided signed assent and parental consent to participate in the program. The measurement scales (Chen et al. New General Self-Efficacy Scale and Wagnild and Young's Resilience Scale) and a post program evaluation forms require less than five minutes per form to complete. Brief scales are strategic in helping bolster scale completion. Furthermore, the COPE program is highly sustainable. Teachers and counselors can become COPE certified instructors and implement the program in a classroom or advisory setting. Certification renewal costs \$250 and is required annually.

Project Implementation

The first day and last day of the COPE program were allocated additional time so that participants could have the time to fill out the supplemental documents provided to the participants. Prior to the first session, all participants were asked to fill out a demographic handout, the Resilience Scale, and the New General Self-Efficacy Scale so that a baseline could be established. Subsequently, the following seven sessions were delivered:

- Session 1. Thinking, Feeling and Behaving: What is the Connection?
- Session 2. Self-Esteem and Positive Thinking/Self-Talk

- Session 3. Stress and Coping
- Session 4. Problem Solving and Setting Goals
- Session 5. Dealing with your Emotions in Healthy Ways through Positive Thinking and Effective Communication
- Session 6. Coping with Stressful Situations
- Session 7. Pulling it all Together for a Healthy YOU

All sessions followed the COPE manual guidelines. Typical sessions included open group interaction and incorporated hands-on learning where applicable. The information in the manual followed a systematic approach to learning the material and provided routine emphasis of material covered to reinforce the learning process. After the final session concluded all participants completed a post-intervention Resilience Scale, a post-intervention New General Self-Efficacy Scale, and a COPE program related questionnaire.

To help include as many of the participants as possible, one make-up session was conducted for three of the participants. The three students missed a session due to testing. To help keep the students on track with the others, one repeat session was conducted within the school counselor's office over the school lunch hour. This make up session was implemented prior to the continuation of subsequent sessions to help maintain the integrity of the COPE program.

Protection of Human Subjects

The target population was seniors at a rural high school. This population was selected based on convenience sampling. Not only was Norman County East Secondary receptive of the idea of implementing the COPE program, but they also had an existing course, Senior Seminar, in which the COPE program could easily be integrated. Typical ages ranged from 17-19 years.

All participants were required to give signed assent if they are under 18 years of age to participate in the COPE program. All participants were further required to obtain a signed parental/guardian consent form before participation. Women, minorities, and youth (teens) may be included in this program. There was no known direct harm or risks to the participants. Care was taken throughout the program to ensure that the participants were not put at risk; the program could have been halted at any point should a risk arise.

Expedited category #7 IRB approval from NDSU was obtained on October 2, 2017. This approval predates implementation of the COPE sessions. The IRB Approval letter may be found in Appendix G. IRB consent was initiated by filing an IRB application that clearly delineated the project title, primary and co-investigators, project dates, project purpose, methods and procedures, project site, research design and analysis plan, recruitment methods, protection of participants, compensation, participant consent, risks and benefits, and confidentiality. Supplemental copies of all consent forms, all questions posed to participants, syllabus of the Senior Seminar course, and project design was also submitted to IRB.

Utmost care was implemented to protect the confidentiality of the participants. Participants were issued an identification number and these numbers were used on all forms in lieu of names. Names and their associated identification numbers were held in confidence, available to only the principal investigator and co-investigator. Utilization of names was only to be released in emergency cases, such as intent to harm his or her self or others. To further privacy, the program was offered to all students and not only those who counselors or teachers identify as possible candidates. By introducing the COPE intervention as a program to help manage anxiety and stress, rather than mental health, some of the stigma associated with seeking mental health can be circumvented. All forms collected during the course of the COPE program

were kept under lock and key by the co-investigator until conclusion and final defense of the program was completed. After the final report was submitted to North Dakota State University, all files were to be securely transferred to the principal investigator. Following a 3-year holding period, all data will be destroyed in accordance to IRB protocol.

Resources

Resources for this project's implementation include IRB approved personnel, a COPE certified instructor, and student manuals. Fundamental to the implementation of this project was a letter of approval from Norman County East High School Board and principal. Further cooperation from teachers, parents, and counselors also smoothed the program's execution.

After discussing the potential advantage that the students of Norman County East could gain from the COPE program, the counselor and Principal graciously allowed the intervention to continue. A working agreement between the COPE instructor and the school was established. Please see the template of the working agreement in Appendix B.

Financial considerations included the cost of the COPE program package, student manuals, certification renewal (for subsequent years, when necessary), participation incentives, and classroom material. The program package included a one-year Program Delivery License, an Instructors Manual, the COPE Instructors Online Training Webinar, and five hard-copy student manuals. The 7-session package cost is \$385. Additional hard-copy student manuals were purchased for \$20 per manual for the 7-session program.

Funding was provided from the Wild Rice Electric Round-up, awarded May 12, 2017. A copy of the award letter can be found in Appendix L. The funds were used to implement the COPE program at Norman County East High School. The co-investigator served as the COPE-trained instructor to implement a 7-session program. The school counselor acted as the primary

liaison for the school. The counselor was present and available during all COPE sessions. Should any psychological need have arisen, the counselor was present to halt proceedings and/or provide additional safeguards to protect the student population from undue distress. The COPE sessions were held during the regular class period of Senior Seminar. The Senior Seminar course was designed to teach students to develop a career plan, locate and use reliable information, and organize and synthesize new data in a logical fashion. Implementation of the COPE program within the Senior Seminar allowed students to easily access the program and ensure that implementation of the program did not overlap or interfere with the participants' other coursework.

Project Timeline

In congruence with the North Dakota State University (NDSU) DNP Clinical Dissertation Guidelines, a tentative timeline had been established in 2017 and refined as the process progressed. A community needs assessment, and a review of the literature preceded all other forms of work. The needs assessment and literature review began in mid-2016. A proposal was formatted, reviewed and submitted for committee approval in February of the following year. Proposal approval via committee approval was obtained by late February 2017. The overall project timeline can be seen in Figure 1.

Project Timeline

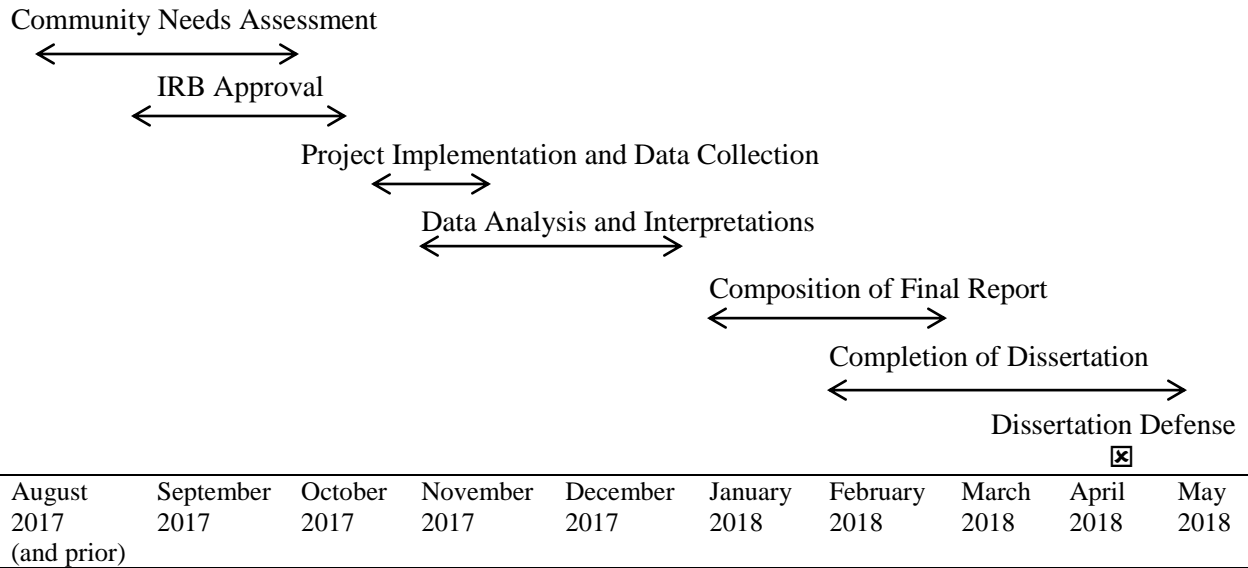


Figure 2. Project Timeline

In a working agreement with the Norman County East High counselor, a project timeline agreement was discussed in March 2017 with the intent to schedule the COPE sessions in the fall. Further refinement of a timeline developed over the summer and the COPE program was scheduled to be initiated beginning in the second week of October 2017.

With the intent of program implementation in mid-October, IRB approval forms were filed in August 2017. NDSU IRB approval was obtained on October 2, 2017. The IRB Approval letter may be seen in Appendix G. Intervention was scheduled to begin in October. Data collection occurred in sequence with the intervention.

Upon completion of the COPE program, post-intervention analysis and interpretation ensued over the remaining months of 2017. Composition of the final report ensued following the intervention completion. Thereafter, the final report was compiled and submitted to the NDSU dissertation committee for final review. Final defense was held on April 03, 2018.

Participant Recruitment

Participants for the program were chosen as the entire Senior Seminar class at Norman County East Secondary School. To avoid targeting pre-selected individuals all participants were openly recruited and encouraged to participate in the program. Consent and assent forms, as well as information regarding the program, was provided to the senior class.

CHAPTER FIVE. EVALUATION

The primary objectives were to enhance resiliency and self-efficacy of teens so that they will be better equipped to handle the considerable changes in their life, as they become young adults. Each objective needs a detailed evaluation plan (including the evidence-based measures/instruments) and method of evaluation. To measure changes in resiliency, the Resilience Scale (Wagnild & Young 1993) was used. A copy of Wagnild and Young's Resilience Scale is provided in Appendix H. To measure changes in self-efficacy, the New General Self-Efficacy Scale (Chen, Gully, & Eden, 2001) was used. A copy of Chen et al. Self-Efficacy Scale is provided in Appendix I. Both the resilience and self-efficacy scales were open resources. Furthermore, a post program questionnaire about the value of the COPE program was administered to gain feedback on the program's reception.

Resilience Scale

The chosen scale to measure change in resilience is the Resilience Scale developed by Wagnild and Young from the School of Nursing at the University of Washington (1993). Although Wagnild and Young's Resilience Scale is an older scale, it has exhibited many desirable traits that have validated its use as the appropriate scale to measure resilience changes for this practice improvement project. Designed for older teens or adults, the 25-item Resilience Scale was developed to represent resilience as it relates to personal competence (17 items) and the acceptance of self and life (8 items) (Wagnild & Young, 1993). The Resilience Scale can be reviewed in Appendix H.

In a comparison of resilience studies by Windle, Bennett, and Noyes (2011) 19 resilience measures were reviewed and rated based on factors such as content validity, internal consistency, criterion validity, construct validity, reproducibility, and interpretability. Wagnild and Young's

Resilience Scale received a score of six, with the highest scores being seven (Windle, Bennett, & Noyes, 2011). Although the review by Windle et al. did rank a few other resilience scales higher, most were designed for an adult population or to measure psychological resilience or resilience after receiving medical treatment and thus were deemed unsuitable for this project (2011).

The Resilience scale utilizes a 7-point Likert Scale ranging from one (Disagree) to seven (Agree). Example questions include “When I make plans I follow through with them,” “I have self-discipline,” and “When I’m in a difficult situation; I can usually find my way out of it” (Wagnild & Young, 1993, p.169). The 25-item scale is estimated to take roughly 5 minutes to complete. The Resilience Scale posited a high level of reliability ($\alpha = 0.91$), and all items were deemed significant at $p \leq 0.001$ (Wagnild & Young, 1993). This instrument was provided to all participants pre and post COPE intervention.

New General Self-Efficacy Scale

The scale chosen to measure self-efficacy was Chen et al. New General Self-Efficacy (NGSE) scale. Scherbaum, Cohen-Charash, and Kern (2006), utilized item response theory to compare Sherer et al. General Self-Efficacy Scale, Schwarzer and Jerusalem’s General Perceived Self-Efficacy Scale, and Chen et al. New General Self-Efficacy Scale. While simultaneously defending the validity and reliability of General Self-Efficacy scales (especially for individuals measuring in on the lower end of the scale), they concluded, “Chen et al. (2001) GSE measure outperformed the others in terms of item discrimination, item formation, and the relative efficiency of the test information functions” (Scherbaum et al., 2006, p. 1059). In adjunct to Scherbaum et al. commendation, is the brevity of the scale. This relatively short, 8-item scale can be completed within a few minutes. This scale can be found in Appendix I.

Chen et al. (2001) NGSE scale utilizes a 5-point Likert scale includes responses: disagree strongly (score=1), disagree (score=2), neutral (score=3), agree (score=4), and strongly agree (score=5). Example questions include “I will be able to achieve most of the goals that I have set for myself”, “I believe I can succeed at most any endeavor to which I set my mind,” and “Even when things are tough, I can perform quite well” (Chen et al., 2001). Final scores are the sum of scores from each of the 8-items. Scores from eight to 23 indicate low self-efficacy, 24 to 27 indicate below average self-efficacy, 27 to 31 is average, 32 to 34 are above average, and 35 to 40 indicate high self-efficacy (Chen et al., 2001). This instrument was provided to all participants on the first and last day of the COPE program.

Program Evaluation

In addition to measuring the outcome factors of resilience and self-efficacy, the perceived value of the COPE program was also validated. Post intervention questionnaires included with the COPE program were administered to participants. The questions were designed to gather responses on how the program was received and to rate the program as a whole. Responses to this questionnaire provide insight into whether participants think the COPE program is useful and whether the program should continue to be promoted for use on other teens.

The results of the practice improvement project were to be analyzed with a two-sided T-test ($\alpha=0.05$). The T-test allows for a straightforward comparison of change for groups of participants typically fewer than thirty individuals. The T-test is designed to show if there is a statistically nominal shift in the mean response before and after an intervention.

CHAPTER SIX. RESULTS

All participants completed and submitted a pre and post New General Self-Efficacy Scale, a pre and post Resilience Scales, a demographic sheet, and a COPE evaluation form. Compilation and protection of the responses were held paramount to ensure anonymity. All responses have been amalgamated and displayed in the sections to follow.

Participants

There was a total of seventeen students in the Senior Seminar class. Thirteen participants participated in all COPE sessions and completed all pre and post intervention scales. The characteristics of the sample group are summarized in Table 1. Out of the thirteen participants, most were male (69%). The majority of the group was Caucasian (77%), other participants included Hispanic, American Indian/ Alaskan Native, and Multi-Racial backgrounds. Participants ranged in age from 17 to 19.

As part of the demographic information gathering process, the participants were asked about their previous mental health. In the survey, all participants were asked whether they had ever been diagnosed with a mental health problem or were currently or have previously undergone counseling, been prescribed medications, or been hospitalized for a mental health reason. Eighty-five percent of the participants reported that they had not experienced any of these conditions. Fifteen percent of the population group had encountered one or more of these conditions.

Participants were asked to self-report their perception of their academic standing. Sixty-nine percent of the participants had a high sense of self-perception on their academic ranking, believing that they have or could obtain A-level grades. Following, three participants (23%)

reported their academic standing was within the “B” range. Only one student expressed that their academic standing may be in the “C” range.

Table 1

Sample Demographics of Adolescents (N = 13)

Sample Characteristics	Adolescent Participants (N = 13)	
	Mean (SD)	Range
Age (years)	17.62 (0.65)	17-19
	n (Count)	% (Percentage)
Gender		
Male	9	69
Female	4	31
Ethnicity		
Caucasian	10	77
Hispanic	1	8
Multi-Racial	1	8
American Indian/ Alaskan Native	1	8
Currently Exhibiting Stress within Life		
Yes	6	46
No	7	54
Past Diagnosis of Mental Health Concern		
Yes	2	15
No	11	85
Self-Reported Academic Standing		
Typical Grades: A	9	69
Typical Grades: B	3	23
Typical Grades: C	1	8

Resilience Scale Results

A two-sided T-test ($\alpha=0.05$) was performed to compare the pre and post Resilience Scale results. The results of the Resilience scale were highly variable. Of the twenty-five items that make up the Wagnild and Young’s Resilience scale, only two showed statistical significance:

Item 12. I take things one day at a time

Item 24. I have enough energy to do what I have to do.

Among the remaining 23 questions on the Resilience scale, 12 Items increased from baseline scores, 10 Items decreased from baseline scores, and one Item exhibited no change.

Some of the Items that showed an increase in clinical outcome include:

Item 1. When I make plans, I follow through with them

Item 3. I am able to depend on myself more than anyone else

Item 18. In an emergency, I'm someone people generally can rely on.

Item 24. I have enough energy to do what I have to do.

Some of the Items that showed a decrease in clinical outcome include:

Item 7. I usually take things in stride.

Item 11. I seldom wonder what the point of it all is.

Item 21. My life has meaning.

The one Item that remained neutral was

Item 4. Keeping interested in things is important to me

Overall trends indicated that positive outcomes were usually associated to action items, where the participant was asked about his or her ability to do something or follow through on something. Negative outcomes, or a decrease in baseline scores, were more heavily found within thought or emotion-based items. Out of all responses, 56% of Resilience Scale items showed an increase from baseline values; whereas, 44% of items showed no change or a decrease from baseline values. Results of the Resilience Scale have been summarized in Table 2.

Table 2

25 - Item Resilience Scale Results

Item	n	Pre Mean (SD)	Post Mean (SD)	Change in Mean	T value
1. When I make plans I follow through with them.	13	5.0 (1.2)	5.4 (1.1)	+0.4	1.24
2. I usually manage one way or another.	13	5.9 (1.0)	5.7 (1.2)	-0.2	-0.70
3. I am able to depend on myself more than anyone else.	13	5.2 (1.8)	5.5 (1.6)	+0.2	0.53
4. Keeping interested in things is important to me.	13	5.7 (1.0)	5.7 (1.1)	0.0	0.00
5. I can be on my own if I have to.	13	5.2 (2.1)	5.5 (2.0)	+0.4	0.70
6. I feel proud that I have accomplished things in my life.	12	6.3 (1.0)	6.5 (0.7)	+0.3	1.28
7. I usually take things in stride.	13	5.6 (1.0)	5.2 (1.1)	-0.5	-1.46
8. I am friends with myself.	13	5.6 (1.8)	5.5 (1.9)	-0.1	-0.15
9. I feel that I can handle many things at a time.	13	5.0 (1.5)	4.8 (1.9)	-0.2	-0.30
10. I am determined	13	5.5 (1.9)	5.6 (1.6)	+0.2	0.34
11. I seldom wonder what the point of it all is.	13	5.2 (1.7)	4.7 (2.1)	-0.5	-0.91
12. I take things one day at a time.	13	5.4 (1.3)	6.1 (1.1)	+0.7	2.24
13. I can get through difficult times because I've experienced difficulty before.	13	5.4 (1.3)	5.7 (1.4)	+0.3	0.77
14. I have self-discipline.	13	5.6 (1.5)	5.8 (1.3)	+0.2	0.43
15. I keep interested in things.	12	5.7 (1.1)	5.6 (1.2)	-0.1	-0.23
16. I can usually find something to laugh about.	13	5.7 (1.7)	5.5 (1.9)	-0.2	-0.44
17. My belief in myself gets me through hard times.	13	4.8 (1.7)	5.3 (1.7)	+0.5	1.01
18. In an emergency, I'm someone people generally can rely on.	12	5.6 (1.4)	6.0 (1.3)	+0.4	1.03
19. I can usually look at a situation in a number of ways.	13	5.3 (1.4)	5.5 (1.5)	+0.2	0.38
20. Sometimes I make myself do things whether I want to or not.	13	5.7 (1.3)	5.6 (1.4)	-0.1	-0.20
21. My life has meaning.	12	6.2 (1.1)	5.8 (1.5)	-0.4	-0.95
22. I do not dwell on things that I can't do anything about.	13	3.9 (2.1)	4.6 (2.1)	+0.7	1.17
23. When I'm in a difficult situation, I can usually find my way out of it.	13	5.5 (1.2)	5.4 (1.2)	-0.1	-0.23
24. I have enough energy to do what I have to do.	13	5.2 (1.4)	6.2 (1.1)	+0.9	3.12
25. It's okay if there are people who don't like me.	13	6.3 (1.3)	6.4 (0.9)	+0.1	0.32

Note. Scale Measure from 1 (Disagree) to 7 (Agree)

Self-Efficacy Results

A two-sided T-test ($\alpha=0.05$) was performed to compare the pre and post Self-Efficacy Scale results. Each item was evaluated individually and cumulatively. All items showed a positive increase. Based on the preselected alpha value, no item exhibited statistical significance. Results of the Self-Efficacy Scale have been summarized in Table 3.

Table 3

8 - Item Self-Efficacy Scale Results

Item	N	Pre Mean (SD)	Post Mean (SD)	Change in Mean	T value
1. I will be able to achieve most of the goals that I have set for myself.	10	4.1 (0.6)	4.2 (0.4)	+0.1	0.75
2. When facing difficult tasks, I am certain that I will accomplish them.	13	3.8 (0.6)	4.0 (0.7)	+0.2	1.18
3. In general, I think I can obtain outcomes that are important to me.	13	4.1 (0.6)	4.2 (0.7)	+0.2	0.77
4. I believe I can succeed at most any endeavor to which I set my mind.	13	3.7 (0.8)	4.2 (1.1)	+0.5	1.56
5. I will be able to successfully overcome many challenges.	13	3.9 (0.6)	4.1 (1.0)	+0.2	0.58
6. I am confident that I can perform effectively on many different tasks.	13	3.6 (1.0)	4.0 (0.9)	+0.4	1.52
7. Compared to other people, I can do most tasks very well.	13	3.3 (1.1)	3.8 (1.2)	+0.5	1.43
8. Even when things are tough, I can perform quite well.	13	3.6 (0.9)	4.0 (0.8)	+0.4	1.70
Overall Average	10	30.4 (4.1)	32.6 (4.4)	+2.2	1.58

Chen et al. (2001) New General Self Efficacy Scale categorizes a self-efficacy rating based on the cumulative score from all eight items. Shown in Table 4, there was an increase in

all participants' self-efficacy. No participant received a pre or post rating of "Low Self-Efficacy." One participant did exhibit a score in the "Below Average" range. There was positive shift among those who scored "Average," "Above Average," or "High." Three fewer individuals ranked as average, two changed to above average, and one additional participant moved to a level of high self-efficacy.

Table 4

Self-Efficacy Category Breakdown

Item	Pre N	Post N	Change
Low Self-Efficacy: 8-23	0	0	0
Below Average Self-Efficacy: 24-27	1	1	0
Average Self-Efficacy: 27-31	5	2	- 3
Above Average Self-Efficacy: 32-34	2	4	+ 2
High Self-Efficacy: 35-40	2	3	+ 1

Overall Program Helpfulness

Participants were also asked to rank the overall helpfulness of the COPE program and the helpfulness of each COPE session. One-hundred percent of participants found the overall program helpful. Participants ranked the sessions, utilizing a Likert Scale, from 0 to 4, 0 = was not helpful, 1 = a little helpful, 2 = somewhat helpful, 3 = moderately helpful, and 4 = very helpful. Graphical representation of student responses can be seen in Figure 2.

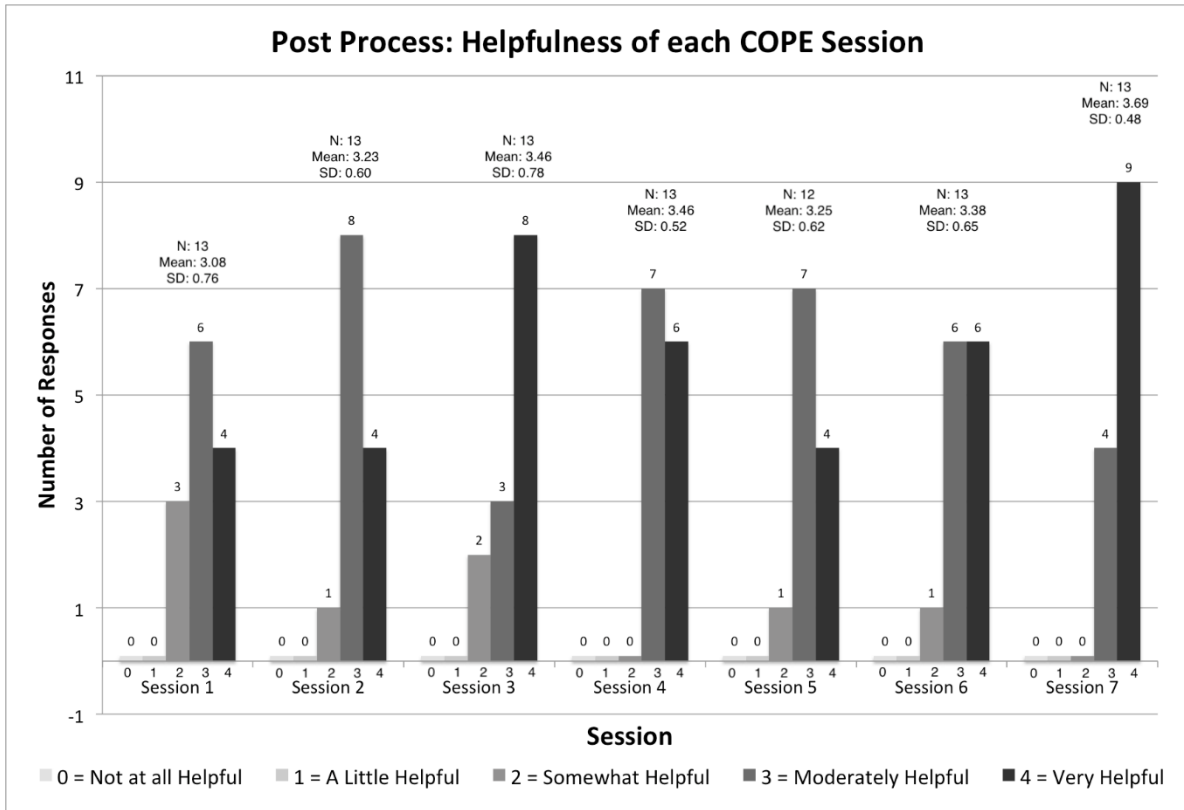


Figure 3. Helpfulness of each COPE Session.

No session received a score of 0 or 1. The average for all sessions was 3.4, indicating that all sessions were ranked between moderately to very helpful. Most participants designated two sessions as helpful: Session 3 (Stress and Coping) and Session 7 (Pulling it all Together for a Healthy YOU).

COPE Related Skills Learned and Planned to use

Throughout the COPE sessions, a number of key skills surfaced throughout the course material. Given a list of seventeen key skills covered in the program, the participants were asked to report what skill they learned from the COPE session, (Table 5), and what skills they had learned and were currently using (Table 6).

The highest reported learned skill was “positive self-talk” (69%), followed by “seeking help when needed” and “regulating emotions” (62% each). A little over half the students learned “positive thinking” skills, and the ability to change “unhealthy habits”.

Table 5

Participant Report of Skills Learned through COPE Sessions

Skills Learned	n	%
Positive self-talk	9	69
Seeking help when needed	8	62
Regulating emotions	8	62
Positive thinking	7	54
Changing unhealthy habits	7	54
Goal setting	6	46
Monitoring emotions	6	46
Being thankful	6	46
Practicing self-control	6	46
Coping positively with stress	5	38
Effectively communicating	5	38
Planning for how to respond to negative events	5	38
Staying in the present moment	4	31
Seeing the cup “half full”	4	31
Practicing mental imagery	4	31
The ABC’s (antecedent, belief, consequence)	1	8
Using the 4-step approach to problem solving	1	8

The post practice improvement COPE survey indicated what skills learned through COPE the participants were currently using. Participants indicated the most common skills that they were currently using were “goal setting” (77%), “being thankful” (69%), “positive self-talk,” and “practicing self-control” (62% each). All items listed as a skill taught during the COPE program received acknowledgement as being both being learned and utilized by at least one participant.

Table 6

Participant Report of Skills Learned through COPE Sessions that were currently being Used

Skills Learned	N	%
Goal setting	10	77
Being thankful	9	69
Positive self-talk	8	62
Practicing self-control	8	62
Positive thinking	7	54
Regulating emotions	7	54
Changing unhealthy habits	6	46
Coping positively with stress	6	46
Monitoring emotions	6	46
Staying in the present moment	5	38
Seeking help when needed	5	38
Effectively communicating	4	31
Seeing the cup “half full”	4	31
Planning for how to respond to negative events	4	31
Using the 4-step approach to problem solving	3	23
Practicing mental imagery	3	23
The ABC’s (antecedent, belief, consequence)	2	15

In addition to all participants finding the COPE program helpful, all participations were satisfied with the location where the program was delivered. Six students reported barriers to attending sessions; none of the barriers were in reference to the location of the program. Typical Barriers were delineated by five of the six students and are summarized in Table 7. Standard barriers included illness and alternate obligations.

Table 7

Q. Were there barriers for you in attending all of the COPE sessions?

Participant Responses
(Yes) Being sick.
(Yes) I had an algebra exam one day.
(Yes) Helping people so I missed day
(Yes) I had to take an exam for another class.
(Yes) I took a test and it took way longer than expected.

Additional post-intervention feedback has been abbreviated in Table 8. Ninety-two percent expressed contentment with the length of sessions, know a friend who would benefit from COPE, would recommend COPE to all other students, and believe that COPE should be delivered to all students.

Table 8

Participant Feedback on COPE program

	n	%
Found COPE helpful	13	100
Reported barriers to attending sessions	6	46
Satisfied with length of sessions	12	92
Satisfied with the location of program	13	100
Knows a friend who would benefit from COPE	12	92
Would recommend COPE to other students	12	92
Believe that COPE should be delivered to all students	12	92

Qualitative Responses to the COPE Program

A great way to get feedback and recommendations is with open-ended questions. An open-ended question affords an individual with the chance to provide a response that may be substantially different from what is expected. Although response questions are more difficult to examine analytically, unrestricted replies are fundamental to the identification of problems and

allow progressive feedback to be voiced that may alter the approach the program takes in the future.

Participants were asked if they had experienced anything recently that has caused them stress. Some reported answers are provided in Table 9. Recurring themes and incoherent responses were omitted for clarity. Students experienced stress relating to homework and schoolwork. Furthermore, many students reported stressors that were centered on their friends and family. Whether it was concern over the potential to lose a family member who was ill, or losing a peer to self-harm, there were many poignant factors weighing down on the participants. There were also participants who reported dark thoughts and feelings of insecurity.

Table 9

Q. Have you experienced any recent changes or stressors in your life? If yes, explain.

Participant Responses
Homework; writing assignments;
School stress; college stress;
Life in general
Growing up stress
Friends going to college and family member getting cancer
Worry for suicidal friends
Unsupportive family members
Dysphoria, dark thoughts
Feelings of not being good enough

The students all reported that the COPE program was helpful. When asked how the sessions were helpful, the students provided a milieu of responses. Responses from students have been recorded in Table 10. Many students reported that the program taught them skills that could help them reduce stress in the everyday life. A few students explicitly mentioned that goal setting was a useful tool.

Table 10

Q. If you found the COPE module sessions helpful, how were they helpful to you?

Participant responses
“Made me less stressful.”
“They taught me that sometimes everyone gets down you just got to find it in you to come back. Think positively and try to achieve your goals.”
“Sheds a new light on things.”
“They taught me how to make SMART goals and how to talk to myself positively to feel better.”
“They served as a refresher and helped me understand some concepts.”
“They taught me how to cope with stress in a healthy way. It also taught how using little things to connect with people can make you a good conversationalist.”
“Helped me to see my failures and set goals”
“They gave me tools to cope with anything that comes my way.”
“How to deal with stress.”
“They helped me learn how to deal with stress and use positive self-talk.”
“They helped me build skills for everyday life.”
“It made me think about Nursing more in depth.”

All participants reported satisfaction with where the COPE program had been offered. When probed further, and asked what about the location they liked, most students asserted that the fact that it was located in their own classroom that they were already scheduled to attend was not only convenient but also made some feel more comfortable to be in a familiar environment. One participant stated that he or she liked the location, as he or she was happy to be in a room with peers. There was one participant who felt that although location was suitable, that the room was perhaps too comfortable as there was a lot of talking.

Table 11

Q. Did you like the location of the COPE program, please explain?

Participant Responses

(Yes). Helped to keep focused

(Yes). Quiet room with normal entering and exiting

(Yes). Kind of, there was a lot of talking.

(Yes). It was in school and just took the place of our senior seminar.

(Yes). It was right in school

(Yes). Because it was during class.

(Yes). Was in a room I was already going to be in at that point in time.

(Yes). It was with people I know

(Yes). It was a room I was used to so I felt comfortable

(Yes). Easy to attend when it was during a class

The majority of participants asserted that COPE should be offered to all students. The participants reasoned that the information was important, and new and/or basic skills could be learned from the program that would be beneficial to anyone. One participant did not believe that COPE was a blanket program that necessarily needed to be delivered to everyone. The same participant clarified by emphasizing that if an individual learned the skills as a child, then it would not necessarily be vital for them to cover the information again as a teen. Responses are shown in Table 12.

Table 12

Q: Do you feel that COPE should be delivered to ALL students?

Participant Responses

(Yes). "It is helpful for everyone. Important info."

(Yes). "Yes, It helps them with some skills they may not be familiar with."

(Yes). "It teaches them new methods to be less stressful."

(Yes). "It helped me learn basic methods of dealing with life."

(Yes). "There are many students that could benefit from this program."

(No). "Some students don't need it if they were given a good system when they were kids."

(Yes). "Some students need to know this."

(Yes). "I think everyone can learn from cope whether they think they know everything or not"

(Yes). "It can benefit all students."

(Yes). "There are people out there that are very good at hiding their emotions."

As a final closing question, all participants were given a chance to share any closing thoughts on the COPE program in which they had participated. Responses are shown in Table 13. Feedback received about the workbook and other resources was that it was too elementary; participants felt that most adolescents would already know the information. However, participants expressed enjoying the sessions. Several students reported learning additional information through the program.

Table 13.

Q: What else would you like to share about the COPE program?

Participant Responses

“Most of the things we learned is stuff we kind of already now, or most of us anyways due to experience”

“It was eye opening”

“It’s a way to learn to get your stress away.”

“I really enjoyed the COPE sessions and I found them very helpful.”

“I learned more about myself.”

“I had fun”

“Not only did it teach me about my brain, it taught me about important life skills.”

“Thought it was a lovely program that helps us understand some concepts we may not be familiar with.”

CHAPTER SEVEN. DISCUSSION

The COPE program's design was centered on the fundamental goals of CBT. The fundamentals of CBT are to teach self-counseling skills so that patients learn to monitor, reflect on, and adapt their personal habits on their own (NACBT, 2016). Participants of the COPE program were given ample time throughout each lesson to monitor and reflect on what they learned during the session.

There was also an emergence of several traits specific to Younger's concept of mastery. The four key aspects relating to Younger's concept of mastery are certainty, change, acceptance, and growth (1991). Students were allowed to reflect on questions relative to certainty, change, and acceptance within the New-General Self Efficacy Scale and the Resilience Scale. Growth was examined by means of a post project T-test to compare the mean score of participants' pre-scale surveys to their post scale surveys.

Mastery concludes that one can only achieve a sense of complete mastery with acknowledgement and acceptance that some things are out of their control and yet still feel comfortable and able to handle this notion (Younger, 1991). Acknowledgment and acceptance are forms of positive adaptation. A few items on the Resilience scale were structured to measure the participants' ability to learn and grow. For example, on the Resilience Scale: Item 22, "I do not dwell on things that I can't do anything about" showed a mean shift of 0.7 upward, indicating that more students expressed acceptance of things they cannot change.

Following the post-intervention portion of the IOWA Model, change from baseline scores and demographic data from the pilot group were recorded. Statistical evaluation was performed to gauge the magnitude and significance of the changes brought on by the COPE program. A summary of these results can be seen in Figure 4.

All pilot programs leave room for improvement. Adaptation of the initial pilot study can address concerns that may have arisen. Some positive adaptations of the COPE program that could show promise in future interventions include increasing the number of participants, extending the program to wider age range of adolescents, analyzing change with a chi-squared method, and training in-school staff as COPE instructors. Results and recommendations were disseminated through poster board presentations, an executive summary, and letters to key stakeholders.

Overall, students particularly enjoyed Session 3 (Stress and Coping), Session 4 (Problem Solving and Setting Goals), and Session 7 (Pulling it all Together for a Healthy You). There was less fervor over the first two sessions as they were seen as basic and introductory, but once personal application of the lessons could be positively utilized, there seemed to be more interest in the program. The final day served as a day for review and summary. The students indicated that they enjoyed the closing session on their post session surveys.

Generally, a negative correlation existed between academic standing and an adolescent's encounter with high levels of anxiety and stress. Students were asked to self-report their perception of their academic standing. Students were asked whether they feel that they can obtain the grade they want, or whether their academic performance feels out of their control. Most students exhibited confidence about their academic ranking. Nine of the students (69%) reported their academic standing was within the "A" range. Following, three students (23%) reported their academic standing was within the "B" range. Only one student expressed that their academic standing may be in the "C" range.

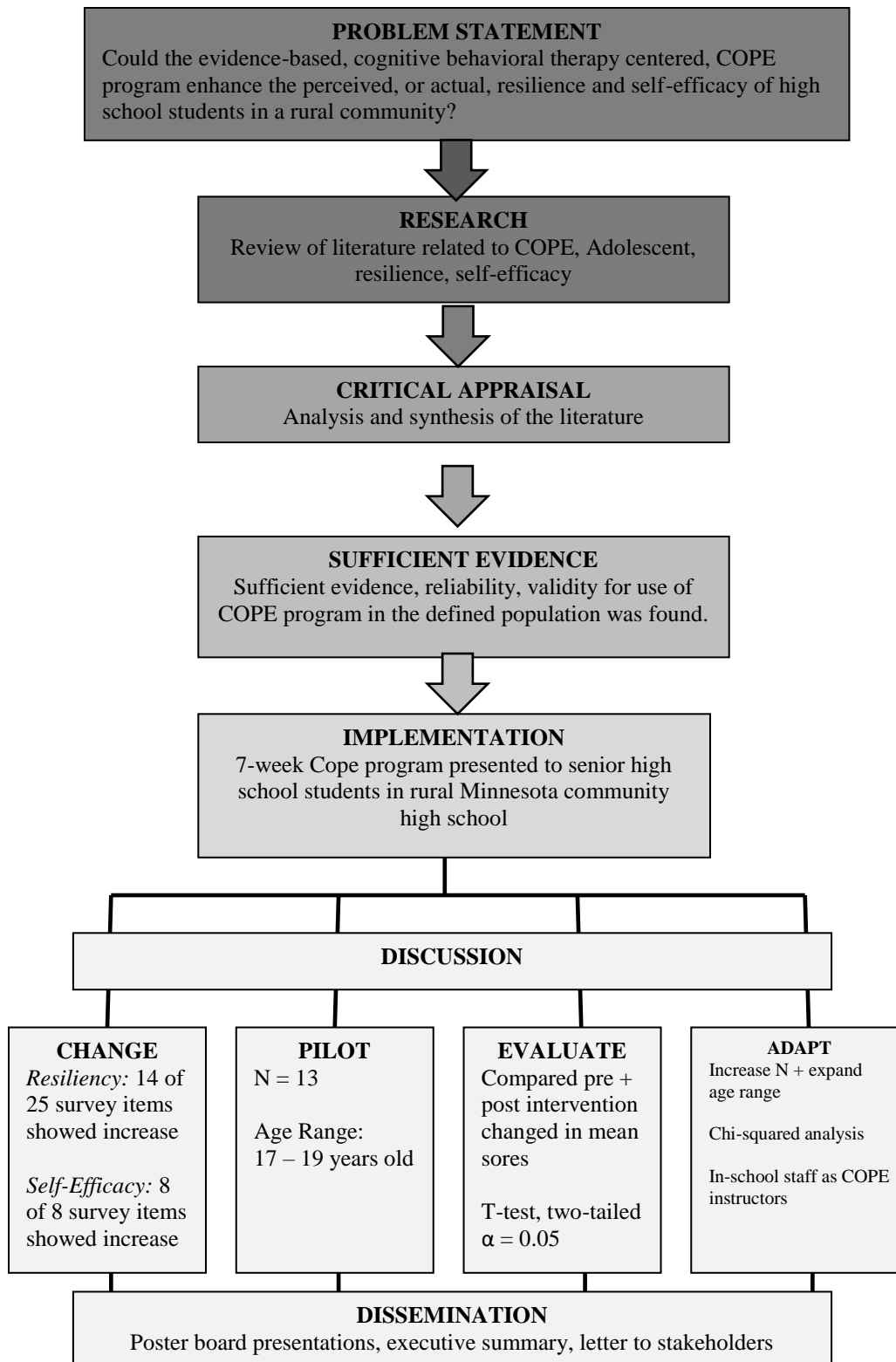


Figure 4. IOWA Model adapted for COPE program

The overall attempt to increase baseline resilience and self-efficacy scores was shown to be inconclusive. Although there were very clear indications supporting the increase in baseline scores with regards to self-efficacy scores, there was a great degree of fluctuation when comparing pre and post resilience scales. Based on the statistical analysis performed on Wagnild and Young's Resilience Scale and Chen et al. New General Self-Efficacy Scale, neither scale had clear signs of statistical significance.

Although two of the 25 Items in the Resilience Scale exhibited statistically relevant increases from baseline scores based on a two-side paired T analysis, there were sufficient variations among pre and post changes for the 25 items. Fifty-six percent of the Resilience Scale Items increased from baseline; however, 44% declined from baseline. One explanation for the overwhelming decrease in baseline scores may be attributed to an increased sense of self-awareness and critical thinking. After learning more about resilience and coping skills, students may have been in a better position to be more critical of their initial responses, thus lowering scores. However, there is no definitive basis to assert that a more critical attitude is what led to the lack of meaningful correlation throughout the analysis of the Resilience Scale.

There was a systematic increase of 0.1 to 0.5 in all areas of the New General Self-Efficacy responses indicating that participants gained a higher perspective of their ability to control their compartment in the face of new situations. This increased sense of an individual's ability to accomplish tasks is a positive health outcome when an individual is exposed to new information and resources.

Utilizing Pearson's chi-squared test may better represent the outcome of the pre and post intervention scales in future implementation of the COPE program. The chi-squared test can be utilized to delineate trends where the null hypothesis is true. The null hypothesis utilized for the

T-test analysis was that the mean scores pre and post interventions were equal. Without gaining statistical significance to indicate that they were not in fact equal the T-test dismissed upward and downward trends if they did not show larger increase or decrease (McClave & Sincich, 2013). Performing a chi-squared test on those who showed improvement may help denote trends that the T-test overlooked.

Program Acceptability

Various publications have denoted an overall acceptance of the COPE program from those who participated in the program. The study by Melnyk et al. (2015) titled “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” showed that participants recommended the program. Similarly, Maria McCormick dissertation (2016) titled “Implementation of the Evidence-Based COPE Intervention in an Elementary Classroom to Promote Mental Health,” reflected favorably on the program. Another dissertation by Jessica Lindblom (2017) titled “COPE: Evaluation of a School-Based Intervention to Improve Overall Mental Health, Resiliency, and Social-Emotional Development of Rural North Dakota Adolescent Youth” also purported that the COPE program received positive commendation from the participants.

Overall, previous studies showed that there was a general sense of acceptance for the COPE program. Students often disclosed a great deal of support for the COPE program and its ability to provide helpful tools to anyone. Although some of the participants in the practice improvement project argued that the material was perhaps too simplified and that they were already aware of the tools by the time of the intervention. By offering the sessions on school property, and during an existing course, students felt that they did not encounter any excessive

barriers to attending the session. Most barriers that prevented the students from attending the sessions were typical unanticipated events such as illness or schedule overlaps. Absences are best addressed by ensuring the program can be offered at another time or that the participants can employ self-study of a lesson to catch up on material they may have missed.

Feasibility of Program Continuation

Although a Doctor of Nursing Practice student initiated the COPE sessions at Norman County East Secondary School, this does not need to be the case. Counselors and teachers within the school can undergo COPE training and become certified instructors. Overall, annual costs are low, and support for the program was high. Offering the COPE program on a continual basis is feasible, and based off participant feedback, would likely be accepted within an educational setting. Funding for the COPE certification renewal could be obtained through grant funding. Schools could also utilize a loan of COPE manuals to students to help keep costs minimal. Utilizing the same COPE manual to provide the lessons to multiple students during different sessions could help cut assuage costs that arise from ordering, printing and shipping additional COPE manuals. If students are loaned the book rather than gifted, greater emphasis on personal note taking should be encouraged during the sessions.

Cooperation from the school staff, students, and parents was invaluable to the execution of the COPE program. Setting up a similar program will be largely dependent on how the selected school feels that the program would be most beneficial. Determining whether future implementation of the COPE program should be implemented in a health class or if students will be taken out of class for a 30-40-minute session, once per week, will need to be discussed with the school staff.

Furthermore, the COPE program provides material so that each session can be completed within 25-50 minutes. This allows the instructor to mold the lecture to best suit the participants. While the base material could be traversed within the first half hour of the session, utilization of the full hour allowed for extended discussion, group participation, and alleviated the participants from feeling rushed while working in their manuals and responding to pre and post-intervention scales.

Study Limitations

There are a few notable limitations relevant to this practice improvement project. Although there was a total of 17 students in the senior seminar class, only 13 individuals submitted all consent and assent forms and completed all surveys. The overall sample size of 13 is small. Small sample sizes have less precision and are typically less reliable. A sample size larger than 30 is recommended to better represent the population under interest. Avoiding excess homogeneity within a sample group can increase generalizability.

Several of the studies reviewed in the course of the literature review also had small sample sized. Sharon A. Edwards' (2014) publication noted a small sample size. Similarly, Jessica Lindblom's (2017) publication also noted a small sample size. Both Edwards and Lindblom stated that the small sample size of their population limited the generalizability of their results. Similarly, the small sample size of this study limits applicability and generalizability beyond the current student. Future projects to determine the value of COPE could be bolstered by expanding the target audience to a larger overall participant group.

A secondary limitation may have been the resilience measure used to collect data. Although Wagnild and Young's Resilience scale had published support from authors who defended its legitimacy, it is nonetheless possible that the scale was not suitable for the

population under consideration. Alternatively, the scale may be perfectly suitable, and results from this particular population were simply non-conclusive. Further documentation of the scale's reach, reliability, and accuracy could help determine if the scale is suitable to an adolescent population.

To help mitigate access barriers, this practice improvement project was offered in a school setting similar to the dissertation project implemented by Lindblom, McCormick, and Ritchie. Moreover, although access to the program was aimed to be easy, it precluded the chance for students outside of senior seminar from participating. To better increase the program's access, it is recommended that participation be open to all students at the school. However, this may be more difficult to coordinate, as many of the students will likely not have the same class, which may result in the program being offered as an after-school session, which may decrease the access for some students who would not have appropriately arranged transportation to get home after the program.

Including a long-term follow up contingency would be beneficial for future implementations of this program. Time is necessary to evaluate whether the COPE program provides lasting change. One of the greatest barriers of the program implementation was the limited data collection window. The goal of the program was to teach coping techniques that could be utilized throughout the participants' lives, but a long-term (6-month, 12-month, 5-year) post survey was not conducted to see if the short-term benefits were maintained over a degree of months or even years.

The publication "Twelve-Month Effects of the COPE Healthy Lifestyles TEEN Program on Overweight and Depressive Symptoms in High School Adolescents" (Melnik et al, 2015) showed that some long-term benefits of from COPE Healthy Lifestyles TEEN program were a

reduction in depressive symptoms and a lower BMI. A similar approach to see if there was a trend of long-term improvement in resilience and self-efficacy could be an important aspect to consider in future research.

Application to DNP Roles

Nurse practitioners are educated and trained in a manner that allows them a unique position within their community. In addition, nurse practitioners are leaders, educators, and advocates. Throughout the practice improvement project within a rural high school, the co-investigator readily applied all three skills.

The role of a leader means that an action is initiated by an individual. However, it is often mistaken that leadership implies a sense of innovative behavior—that leaders do something that others have not done. Originality is not necessarily compulsory. A leader can follow in the footsteps of another, and in turn inspire someone new to step up and take a similar leadership role. The quality of a great leader is to motivate others to pursue a common cause (Foster, 2017; Pidgeon, 2017). Taking initiative to actively pursue change and encouraging others to take action is an innate characteristic expected of nurse practitioners.

Many qualities that imbue a great leader lead them to be advocates as well. Leadership roles often develop after a plan of action. Typically, behind every strong action plan is a purpose, and sharing the purpose of an intervention or plan is a form of advocacy. Nurse practitioners can use their education and mental acuity to help translate evidence-based research into practice. By advocating for a method, practice, or program, information is disseminated to the community and key stakeholders.

Furthermore, fundamental to being a leader and advocate, is the ability to communicate effectively and at a level relevant to the target audience (Pidgeon, 2017). Attuning speech

patterns and vocabulary to concisely express a message to a particular audience can be arduous. Modifying parlance can be especially difficult for specialized individuals, and use of arcane terms may go unnoticed by individuals who have specialized in an area of study (Medina & Avant, 2015). Due to the innately arcane training that leads to specializing in a field of study, an individual often acquires unique aphorisms and terminology that the layperson may not understand. If the specialist cannot effectively communicate the importance or purpose of a program, idea, or project, then it is their failing as an educator.

To help promote health, providing preventative care and advocating for health changes within the community is imperative. Throughout this practice improvement project, steps have been taken to show leadership, advocacy, and education. The principal and co-investigators showed leadership by researching the needs of the community and analyzing possible solutions. Furthermore, the co-investigator becoming a COPE certified trainer took leadership initiative. Advocating the values of the COPE program to the school counselor and Principal was necessary. Students were then provided with education of stress and anxiety control techniques.

Similarly, future applications of the COPE program or substitute programs will require that nurse practitioners actively engage with the community in which they work. Community engagement requires nurse practitioners to not only be leaders, advocates, educators, and communicators, but passionate and fervent collaborators.

Dissemination

Fundamental to all practice improvement project is dissemination of the results. Acquiring and sharing knowledge allows for progress to be more incipient. The practice improvement program development, target audience, outcomes and recommendations were disseminated via poster presentations held on NDSU campus in March 2017 and April 2018.

The 2017 poster focused on the program's design, need, and objectives. The 2018 poster focused on results, analysis, discussion, and recommendations. A manuscript outlining the program and outcomes was also submitted to the editor-in-chief of the child and adolescent mental health journal for review. Additionally, a thank you letter and summary of results was sent to key stakeholders, including the grant providing organization Wild Rice.

Conclusion

Life is a series of miniature tests in a way. Some are easy, but many are not. This is never truer than for teens on the verge of their transition out of high school. Stressors can appear in multitudinous forms ranging from social acceptance to personal self-worth. A key factor underlying stressors is uncertainty. If the solutions to life were provided, then our existence would undoubtedly be less stressful. If you press 'A' you will receive a cookie; if you wear purple jeans today, you will be late for class; if you tell this joke, then classmates X, Y, and Z will howl with laughter. In a simple if-then sort of world, perhaps life would be less stressful.

Unfortunately, life is not simple. There is no one-stop, always effective route to achieving your aspirations. This is where the COPE program shines. COPE focuses on reinforcing the most basic building blocks that influence the lives of teens and adults alike. These fundamental building blocks are their thoughts, feelings, and actions. The three building blocks can exist autonomously and will strongly influence one another. People must learn how to acknowledge their thoughts and understand that the way they think has a solid influence over the feelings they elicit and the actions they undertake.

Ensuring that teens have the tools to manage their surroundings, regardless of the situation teens find themselves, is paramount to their wellbeing. The intent of this practice improvement project was to teach teens how to manage their thoughts and replace negative

thoughts with positive ones so that their anxiety, depression, and reckless behavior may abate. Teaching teens to acknowledge and manage their feelings and choose actions that decrease impending stressors will help them prepare for the next phase of their life.

The traits of self-efficacy and resilience are long lasting. The ability to take hits and get back up and to approach new situations in a positive manner will benefit teens throughout their lives. By learning to manage anxiety, worry, and fear –which are hefty roadblocks to an individual’s mental, emotional, and physical wellbeing— teens, can renew a sense of self-confidence and hope for their futures. A program like COPE can help provide adolescents with tools to help increase their self-efficacy and reduce their overall negative reactions to stressful situations.

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APPENDIX A. PERMISSION TO USE COPE



September 20, 2017

Monica Wenschlag
4167 County Hwy 31
Twin Valley, MN, 56584

Subject: COPE Program Utilization and Results Publication

Dear Monica,

I am happy to provide approval for you to conduct an outcomes evaluation of the COPE 7-session manual-based program using seniors at a rural Minnesota high school as a part of your Doctor of Nursing Practice clinical dissertation and publish the results.

Please let me know if I can be of any additional assistance.

Warm Regards



Bernadette Melnyk, PhD, RN, CPNP/PMHNP, FAAN
Creator of COPE

**APPENDIX B. COPE IMPLEMENTATION WORKING AGREEMENT WITH
SCHOOL**

COPE Implementation Agreement

Doctor of Nursing Practice (DNP) Capstone Project

Enhancing the Resilience and Self-Efficacy of Rural Adolescents through COPE

This document serves as record of agreement between North Dakota State University DNP candidate, Monica Wenschlag, and Norman County East High School with regards the implementation of the Creating Opportunities for Personal Empowerment (COPE) 7-session program.

Proposed Implementation Date

Tentative Agreement Start Date: October 1, 2017

Tentative Agreement Close Date: June 2, 2018

Project Description

- The COPE program is a 7-session evidence-based program designed to help youth acknowledge, understand, and deal with depression, stress, and anxiety. Introducing the COPE intervention and encouraging that negative thoughts be acknowledged, managed, and transformed into positive alternatives can improve the resilience of teens. With a positive and hopeful frame of mind, meaning will be allocated to tasks and goals. By establishing the relevance of taking an action, teens are more likely to follow through. Relevance may be a reward or a desired outcome. A positive frame of mind provides a more conducive mentality to guide one's behaviors towards accomplishing a constructive action. This is the overarching byproduct of the core principles of the COPE program.
- After recruitment and appropriate consents have been obtained the COPE program will be delivered once daily for a total of seven days. The COPE program is a pre-developed seven session, manual based, cognitive-behavioral skills building intervention that will be completed in 30-minute sessions. The seven session topics include:

Session 1: Thinking, Feeling, and Behaving Triangle

Session 2: Self-Esteem, Positive Thinking, Self-Talk

Session 3: Goal Setting and Problem Solving

Session 4: Stress and Coping

Session 5: Emotional and Behavioral Regulation

Session 6: Effective Communication

Session 7: Barriers to Goal Progression

Purpose and Goals

- The objectives of this dissertation project are to enhance resiliency and self-efficacy of teens at Norman County East High School so that they will be better equipped to handle the considerable changes to their life as they become young adults. Administration of pre and post surveys including, the Resilience Scale and the New General Self-Efficacy Scale will be used to determine the statistical significance of the intervention.
- Through a triadic relationship between parents, healthcare professionals, and educators, the COPE program can help teens learn to link their feelings to their thoughts and behaviors (COPE, 2016). By acknowledging the way they feel, moderating their negative thought patterns, and implementing physical responses that are productive and beneficial, the youth participants will be learning and implementing positive and hopeful responses rather than overburdening themselves with anxiety, depression, or a sense of hopelessness.

Data Collection

- The COPE program will be evaluated with surveys and screening tools that will be administered prior to beginning the COPE intervention and immediately after its completion. These surveys will address participant and school staff opinion regarding the efficacy, acceptability, and feasibility of providing the COPE program in a rural school setting.
- The surveys will contain both quantitative and qualitative data, utilizing Likert scales, yes/no questions, and open ended entries. Pre and post measurement screening tools to

specifically measure changes in resilience or self-efficacy will also be administered to determine effectiveness in improving baseline scores. Following data collection descriptive analysis and t-tests will be used to compare pre and post-test scores for participant and school staff program surveys and evaluations and reported in narrative and graph/tabular forms.

- As a part of the program participants will also be asked to provide general demographic information to help describe the study group that may include, age, gender, any previous mental health diagnosis or treatment, typical grades, and any current stressors.

Consent

- The target population for this project is adolescents ages 16-18. A letter will be sent out to all students and their guardian's explaining program details and objectives with an invitation to participate in the program. Sample size is estimated to be 10-25 students.
- Monica Wenschlag, DNP student, will obtain informed consent and student assent. Students will be able to return completed consent forms to the school counselor, Rhoda Habedank, in person at the high school counselor's office. All students must have a signed parent/guardian consent form on file prior to participating in any proposed intervention activities.

Confidentiality

- All efforts will be made to ensure participant confidentiality. Each student will be identified by a unique identification code in order to facilitate confidentiality and will only be accessible to study personnel. Any surveys, evaluations, or other forms of written data completed by students will identify students according to these codes. Data will be kept locked in the principal investigator's office and will only be accessed by the principal investigator and co-investigator. When reporting study results, results will be displayed based on the combined information that has been gathered and will not include any identifying information. Confidentiality and privacy of participants is held paramount.

The below signees consent and agree to the implementation of COPE and agree to adhere to confidentiality with regards to all participants

	Name	Signature	Date
School Principal: _____	Cassandra Hoseth	_____	
School Counselor: _____	Rhoda Habedank	_____	
COPE Instructor: _____	Monica Wenschlag	_____	

APPENDIX C. DEMOGRAPHIC/BACKGROUND INFORMATION FORM

Participant Demographics and Information

Note: All information obtained is confidential.

Directions: Please fill in the blank, or check the number of the item that best answers the question.

1. **Your age in years:** _____

2. **Gender:**

Male

Female

3. **Please check your ethnic background:**

White, not of Hispanic origin

Black, not of Hispanic origin

American Indian/Alaskan Native

Asian/Pacific Islander

Hispanic

Multiracial

Other _____

4. **Have you ever been diagnosed with a mental health problem?**

Yes

No

5. If you answered yes to the previous question, what mental health problems have you experienced (select all that apply)?

ADD/ADHD

Anxiety disorder

Bipolar

Depression

Eating disorder

Post-traumatic stress disorder (PTSD)

Other (please specify):

6. If you answered yes to the previous questions, have you ever received mental health treatment (therapy, medications, etc.)?

Yes, I am currently receiving treatment

Not currently receiving treatment but I have in the past

I have never received treatment of any kind

7. If you have received treatment in the past or are currently receiving treatment for a mental health problem, what kind of treatment are you receiving (select all that apply)?

Medication(s)

Counseling

Individual therapy

Group therapy

Other (please specify):

8. Have you ever been hospitalized due to a mental health condition/problem?

Yes

No

If yes, please explain below:

9. What kind of grades do you get in school?

- Mostly A's
- Mostly B's
- Mostly C's
- Mostly D's
- Failing

10. Have you experienced any recent changes or stressors in your life?

- Yes
- No

If yes, please explain below:

APPENDIX D. COPE PROGRAM EVALUATION FORM (PARTICIPANT)

1. Overall, did you find the COPE sessions helpful?

- Yes
- No

2. Please rate the helpfulness of the following COPE sessions.

- 0= Not at all helpful
- 1= A little helpful
- 2= Somewhat helpful
- 3= Moderately helpful
- 4= Very helpful

(Session 1) Thinking, Feeling and Behaving: What is the Connection?	0	1	2	3	4
(Session 2) Self-Esteem and Positive Thinking/Self-Talk	0	1	2	3	4
(Session 3) Stress and Coping	0	1	2	3	4
(Session 4) Problem Solving and Setting Goals	0	1	2	3	4
(Session 5) Dealing with your Emotions in Healthy Ways through Positive Thinking and Effective Communication	0	1	2	3	4
(Session 6) Coping with Stressful Situations	0	1	2	3	4
(Session 7) Pulling it all Together for a Healthy YOU!	0	1	2	3	4

3. If you found the COPE module sessions helpful, how were they helpful to you?

4. If you did NOT find the COPE module sessions helpful, how were they NOT helpful?

5. Overall, how helpful was the program in improving your ability to recognize patterns of thinking, feeling and behaving in response to stress?

0= Not at all helpful

1= A little helpful

2= Somewhat helpful

3= Moderately helpful

4= Very helpful

6. What new skills did you learn through the COPE sessions? (please check all that apply)

- Positive thinking
- The ABC's (antecedent, belief, consequence)
- Positive self-talk
- Staying in the present moment
- Goal setting
- Monitoring my emotions
- Seeing the cup "half full"
- Changing unhealthy habits
- Coping positively with stress
- Seeking help when I need it
- Setting goals
- Using the 4-step approach to problem solving
- Being thankful
- Practicing mental imagery
- Regulating my emotions
- Effectively communicating
- Practicing self-control

- Planning for how to respond to negative events
- Other (please specify):_____

7. Which of the skills learned in the COPE program are you currently using? (please check all that apply)

- Positive thinking
- The ABC's (antecedent, belief, consequence)
- Positive self-talk
- Staying in the present moment
- Goal setting
- Monitoring my emotions
- Seeing the cup "half full"
- Changing unhealthy habits
- Coping positively with stress
- Seeking help when I need it
- Setting goals
- Using the 4-step approach to problem solving
- Being thankful
- Practicing mental imagery
- Regulating my emotions
- Effectively communicating
- Practicing self-control
- Planning for how to respond to negative events
- Other (please specify):_____

8. Were there barriers for you in attending all of the COPE sessions?

- Yes
- No

If yes, please explain below:

9. Was the length of the COPE sessions (30 minutes) satisfactory?

Yes

No

10. Did you like the location of the COPE program, please explain?

Yes

No

Please explain below:

11. Do you know friends who would benefit from the COPE program?

Yes

No

12. Would you recommend the COPE program to other students?

Yes

No

13. Do you feel the COPE should be delivered to ALL students?

Yes

No

Please explain:

14. What else would you like to share about the COPE program?

APPENDIX E. YOUTH ASSENT FORM

NDSU NORTH DAKOTA
STATE UNIVERSITY
School of Nursing

Physical address: 1919 University Drive North, Suite 1

Fargo, ND 58108-6050

(701) 231-7395

YOUTH ASSENT FORM

Title of Research Study: Enhancing Resilience and Self-Efficacy through COPE: Rural High School Seniors

Invitation:

- You are invited to take part in a research study to teach teens skills to positively manage thoughts, feelings, and behaviors in response to stress. The study is being done by Monica Wenschlag, RN, DNP-S and will be supervised by Tina Lundeen, DNP, FNP-BC.

What will the research involve?

- If you agree to participate, you will attend COPE sessions during a senior seminar course with some of your peers over the course of seven different days. The sessions will last approximately 30 minutes. The sessions are designed to teach teens how to cope with and manage stress in positive ways. As a part of the program, you will be asked some questions to learn more about who participated in the program and to measure the success of the program. Questions will ask you to respond whether you agree or disagree with statements. Statements are based on resilience and self-efficacy. Some sample questions include, “I do not dwell on things that I can’t do anything about,” and “I am confident that I can perform effectively on many different tasks.” In addition, we will ask for information about you such as your age, grade, gender, race/ethnicity, etc. All information collected on these surveys will be kept private and confidential.
- The total amount of time it will take for you to take part in this project is roughly 4 hours and 30 minutes. The first and last session will last approximately an hour to allow time to complete the surveys at the start and finish of the program otherwise each session will last about 30 minutes.

What are any risks or benefits for me?

- Potential risks to you include issues of confidentiality, potential for you to feel uncomfortable during the intervention, and the potential for experiencing mental or psychological distress. Every effort will be made to ensure your safety and confidentiality during this project.
- It may be good for you to take part in this research because this program has been shown to help teens learn skills to improve their ability to cope with and manage stress. This may improve your overall mental health and help you develop lifelong tools that you can utilize to overcome stressful events in the future. You can feel good about helping to determine if this program is successful and a strategy that other schools can use to promote the mental health, improve resilience, and increase self-efficacy of students.

Do I have to take part in the research?

- Your parent(s) or legal guardian(s) have given their permission for you to be in the research, but it is still your choice whether or not to take part.
- Even if you say yes now, you can change your mind later, and stop participating.
- Your decision will have no effect (bad or good) on your schoolwork or activities.

Who will see my answers and information?

- We will make every effort to keep your information private; only the people helping us with the project will know your answers or see your information.
- Your information will be combined with information from other people in the study. When we write about the study, we will write only about this combined information, and no one will be able to know what your information is.
- If you want to look at the information that we collect from you, just let us know and we will provide it to you. However, you cannot look at information from others in the research.
- Sometimes we need to show your information to other people. If you tell us that you have been abused, or if we think that you might be a danger to yourself or other people, we will tell someone who can help, like the police or a doctor.

What will I get if I agree to be in the research?

- Incentives will be offered to encourage the completion of all seven sessions. Each student will place their name in a drawing each session that they attend the COPE program. At the end of the program, each student's name will have been entered once for each session that they attended the program, thus the more sessions attended the better the odds of winning a prize. At the end of the last COPE session student names will be drawn for the chance to win three to five individual prizes valued at approximately \$5-\$15 each.

What if I have questions?

- You should ask any questions you have right now, before deciding whether or not to be a part of the research.
- If you or your parent(s) or guardian(s) have questions later, contact Monica Wenschlag at monica.wenschlag@ndus.edu or by phone at 218-331-5635 or her advisor Tina Lundeen at tina.lundeen@ndsu.edu or by phone at 701-231-7747.
- Your parent(s) or legal guardian will receive a copy of this form to keep.

What are my rights?

- You have rights as a research participant.
- For questions about your rights, or to tell someone else about a problem with this research, you can contact the NDSU Human Research Protection Program (HRPP) at:
 - 701-231-8995
 - Toll-free at 1-855-800-6717
 - ndsu.irb@ndsu.edu .
- The HRPP is responsible to make sure that your rights and safety are protected in this research. More information is available at www.ndsu.edu/research/irb.

Sign this form only if you:

- have understood what the research is about and why it’s being done,
- have had all your questions answered,
- have talked to your parent(s)/legal guardian about this project, and
- agree to take part in this research

Your Signature	Printed Name	Date
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Name of Parent(s) or Legal Guardian(s)

Signature	Printed Name	Date
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Researcher explaining study

APPENDIX F. PARENTAL CONSENT FORM

NDSU NORTH DAKOTA
STATE UNIVERSITY

School of Nursing

Physical address: 1919 University Drive North, Suite 1

Fargo, ND 58108-6050

(701) 231-7395

PARENT CONSENT FORM

Title of Research Study: Enhancing Resilience and Self-Efficacy through COPE: Rural High School Seniors

This study is being conducted by: Monica Wenschlag, RN, DNP-s and will be supervised by Principal investigator Tina Lundeen, DNP, FNP-BC, Assistant Professor of Practice at North Dakota State University.

Why is my child being asked to take part in this research study?

We are offering the COPE program to any seniors ages 16-18 at Norman County East High School who are interested in participating in the program being offered in the Senior Seminar class. The program will teach teens skills to positively manage thoughts, feelings, and behaviors in response to stress.

What is the reason for doing the study?

The purpose of this project is to determine if the Creating Opportunities for Personal Empowerment (COPE) program is an effective strategy for improving the resilience and self-efficacy of teens.

What will my child be asked to do?

Your child will be asked to participate in a seven-session program. During the program sessions, the teens will be given the chance to reflect on what they are learning and try to apply it to their lives.

As part of the project, some information will be collected from your child to learn more about who participated in the program and to measure the success of the program. Questions will ask about your child's feelings, emotions, and coping skills. Some sample questions will ask students to indicate if they agree or disagree to statements such as, "I do not dwell on things that I can't do anything about," and "I am confident that I can perform effectively on many different tasks." In addition, we will ask for descriptive information about your child, such as age, grade, gender, race/ethnicity, etc. All information collected on these surveys will be kept private and confidential

Where is the study going to take place, and how long will it take?

The program will be delivered as part of a senior seminar course at Norman County East High School. There will be seven, 30-minute sessions given over the course of seven independent days. The first and last session will last approximately 60 minutes to allow time to complete the surveys that are a part of this project. The total amount of time it will take for your teen to take part in this project is roughly 4 hours and 30 minutes. The program is free to any students who participate.

What are the risks and discomforts?

Potential risks to your teen include the chance that your child may be uncomfortable during the program if asked sensitive information or could experience mental or psychological distress thinking about stressful situations. However, if your child experiences any of these, the school counselor will be present to help work through these issues. Any reports of thoughts about harming self or others or experiences of abuse or neglect will be reported to authorities following mandated reporting laws in the state of North Dakota.

Are there benefits to my child?

Potential benefits of completion of the program for your child may include an improved ability to cope with and manage stress. This may in turn improve the overall mental health, resiliency, and social emotional development of your child. However, your child may not get any benefit from participating in this program.

What are the benefits to other people?

If this program is successful it may continue to be utilized by North Dakota schools to promote the development of resiliency and self-efficacy of students as well as help to provide them with tools to help them manage stressful events.

Does my child have to participate in the study?

Whether your child participates in this study is your choice. If you and your child decide to participate in the study, either of you may change your mind or stop participating at any time without penalty or loss of benefits to which you and your child are already entitled.

Who will have access to my child's information? How will it be presented?

We will keep all research records that identify your child private. Your child's information will be combined with information from other students taking part in the study. When we write about the study, we will write about the combined information that we have gathered and will not individually report any information. We may publish the results of the study; however, we will keep your child's name and other identifying information private. You should know, however, that there are some circumstances in which we may have to break confidentiality. For example, the law may require us to report if we suspect your child has been abused or neglected, or if s/he is a danger to himself or others.

Is compensation being offered for participation?

Incentives will be placed to encourage the completion of all seven sessions. Each student will place their name in a drawing each session that they attend the COPE program. At the end of the program, each student's name will have been entered once for each session that they attended the program, thus the more sessions attended the better the odds of winning a prize. At the end of the last COPE session, student names will be drawn for the chance to win three to five individual prizes valued at \$5 - \$15 each.

What if I have questions?

Before you decide whether to give consent for your child to take part in this program, please ask any questions that might come to mind now. Later, if you have any questions about the study, you can contact the researcher, Monica Wenschlag at monica.wenschlag@ndus.edu or by phone at 218-331-5635 or her advisor Tina Lundeen at tina.lundeen@ndus.edu or by phone at 701-231-7747

What are my child’s rights as a research participant?

Your child has rights as a participant in research. If you have questions about your child’s rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program by:

- Telephone: 701.231.8995 or toll-free 1.855.800.6717
- Email: ndsuirb@ndsuh.edu
- Mail: NDSU HRPP Office, NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050.

The role of the Human Research Protection Program is to see that your rights are protected in this research; more information about your rights can be found at www.ndsu.edu/irb .

Documentation of Informed Consent:

You are freely making a decision whether to be in this research study. Signing this form means that

1. you have read and understood this consent form
2. you have had your questions answered, and
3. you give your permission for your child to be in the study.

You will be given a copy of this form to keep.

Your signature

Date

Your printed name

Your Child’s Name

Signature of researcher explaining study

Date

Printed name of researcher explaining study

APPENDIX G. IRB APPROVAL



October 2, 2017

Dr. Tina Lundeen
Nursing

IRB Approval of Protocol #PH18046, "Enhancing Resilience and Self-Efficacy through COPE: Rural High School Seniors"

Co-investigator(s) and research team: Monica S. Wenschlag

Approval period: 10/2/2017 to 10/1/2018
Continuing Review Report Due: 9/1/2018

Research site(s): Norman County East High School Funding Agency: n/a
Review Type: Expedited category # 7

IRB approval is based on the revised protocol submission (received 9/20/2017) with updated Principal/Counselor consent (received 10/2/17).

Additional approval from the IRB is required:

- o Prior to implementation of any changes to the protocol (Protocol Amendment Request Form).
- o For continuation of the project beyond the approval period (Continuing Review/Completion Report Form). A reminder is typically sent approximately 4 weeks prior to the expiration date; timely submission of the report the responsibility of the PI. To avoid a lapse in approval, suspension of recruitment, and/or data collection, a report must be received, and the protocol reviewed and approved prior to the expiration date.

Other institutional approvals:

- Research projects may be subject to further review and approval processes.

A report is required for:

- o Any research-related injuries, adverse events, or other unanticipated problems involving risks to participants or others within 72 hours of known occurrence (Report of Unanticipated Problem or Serious Adverse Event Form).
- o Any significant new findings that may affect risks to participants.
- o Closure of the project (Continuing Review/Completion Report Form).

Research records are subject to random or directed audits at any time to verify compliance with human subjects protection regulations and NDSU policies.

Thank you for cooperating with NDSU IRB procedures, and best wishes for a successful study.

Sincerely,

Digitally signed by Kristy Shirley
DN: cn=Kristy Shirley, o=NDSU,
ou=Institutional Review Board,
email=kristy.shirley@ndsu.edu, c=US
Date: 2017.10.02 16:35:17 -0500

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult www.ndsu.edu/irb. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

INSTITUTIONAL REVIEW BOARD

NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb

Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

NDSU is an EO/AA university.

APPENDIX H. WAGNILD & YOUNG'S RESILIENCE SCALE

25-Item Resilience Scale

		Disagree			Agree			
1.	When I make plans I follow through with them.	1	2	3	4	5	6	7
2.	I usually manage one way or another.	1	2	3	4	5	6	7
3.	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4.	Keeping interested in things is important to me.	1	2	3	4	5	6	7
5.	I can be on my own if I have to.	1	2	3	4	5	6	7
6.	I feel proud that I have accomplished things in my life.	1	2	3	4	5	6	7
7.	I usually take things in stride	1	2	3	4	5	6	7
8.	I am friends with myself	1	2	3	4	5	6	7
9.	I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10.	I am determined	1	2	3	4	5	6	7
11.	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12.	I take things one day at a time.	1	2	3	4	5	6	7
13.	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14.	I have self-discipline.	1	2	3	4	5	6	7
15.	I keep interested in things.	1	2	3	4	5	6	7
16.	I can usually find something to laugh about.	1	2	3	4	5	6	7
17.	My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18.	In an emergency, I'm someone people generally can rely on.	1	2	3	4	5	6	7
19.	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20.	Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21.	My life has meaning.	1	2	3	4	5	6	7
22.	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23.	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24.	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25.	It's okay if there are people who don't like me.	1	2	3	4	5	6	7

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APPENDIX I. CHEN ET AL. NEW GENERAL SELF-EFFICACY SCALE

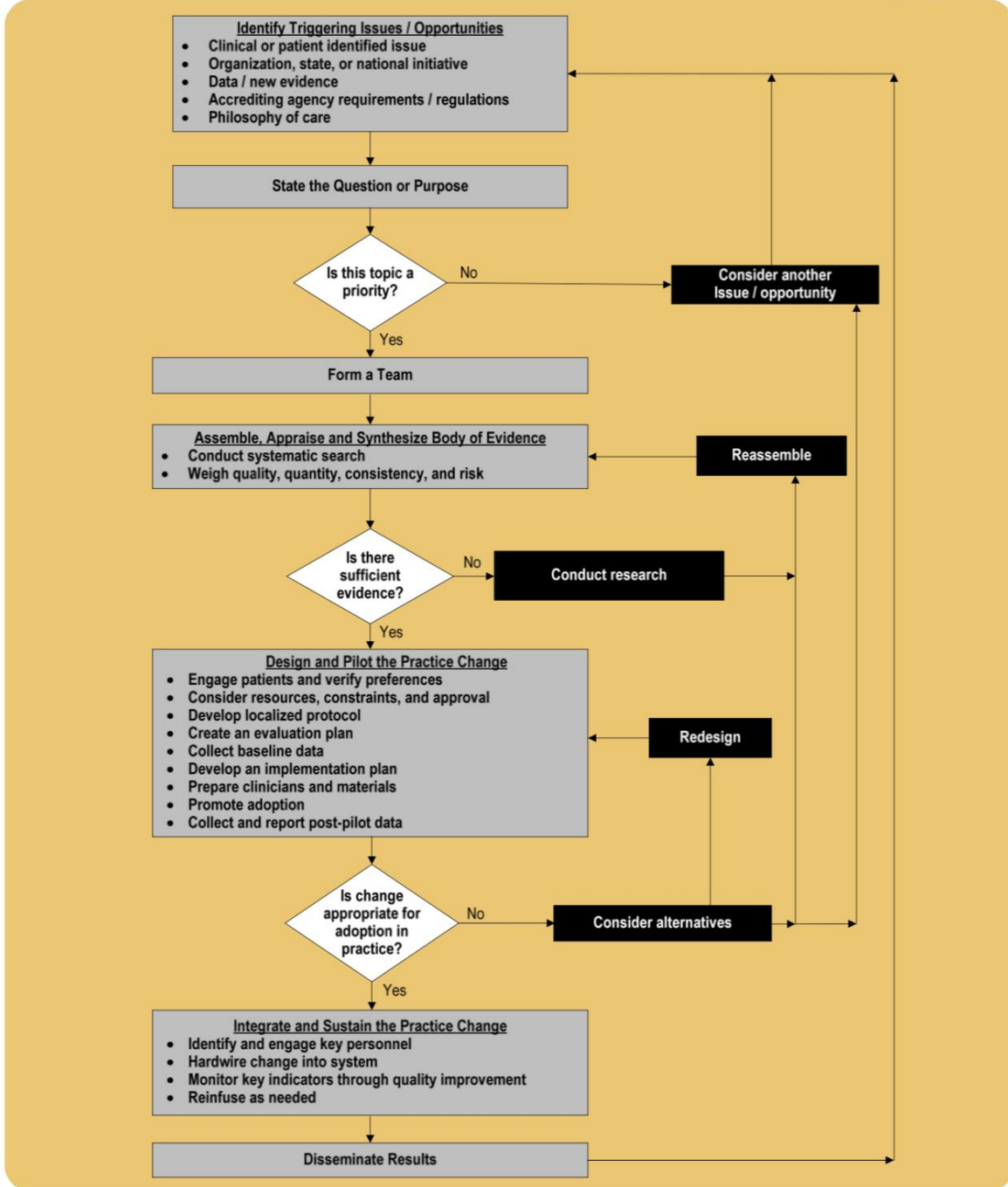
To what extent does each statement describe you? Indicate your level of agreement by marking the appropriate response on the right.

	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
1) I will be able to achieve most of the goals that I have set for myself.					
2) When facing difficult tasks, I am certain that I will accomplish them.					
3) In general, I think I can obtain outcomes that are important to me.					
4) I believe I can succeed at most any endeavor to which I set my mind.					
5) I will be able to successfully overcome many challenges.					
6) I am confident that I can perform effectively on many different tasks.					
7) Compared to other people, I can do most tasks very well.					
8) Even when things are tough, I can perform quite well.					

(Chen et al., 2001)

APPENDIX J. IOWA MODEL (2015)

The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care



APPENDIX K. PERMISSION TO USE IOWA MODEL 2015

Permission to Use The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care

Kimberly Jordan - University of Iowa Hospitals and Clinics <noreply@qualtrics-survey.com>

Sun 2/18/2018 8:33 PM

Inbox

To: Wenschlag, Monica <monica.wenschlag@ndsu.edu>;

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Please contact UIHCNursingResearchandEBP@uiowa.edu or 319-384-9098 with questions.

APPENDIX L. WILD RICE ELECTRIC FUNDING



502 North Main
PO Box 438
Mahnomon, MN 56557-0438
Telephone: (218) 935-2517
FAX: (218) 935-2519

May 12, 2017

Norman Co East Secondary School
Monica Wenschlag, DNP-S
408 Main Avenue West
Twin Valley MN 56584

Dear Monica,

On May 11, 2017, our Wild Rice Electric Board of Trustees met to review the applications submitted for the funds available through the Operation Roundup Program. At that meeting the Norman Co East Secondary School was awarded \$400.00 to aid in the purchase the COPE program package and student manuals.

Wild Rice Electric Trust's Operation Roundup Program receives its funding from consumers who are willing to round-up their electric bill. Can you please help this program out? Enclosed you will find a few Operation Round-up sign up forms. If you know of a Wild Rice Electric consumer willing to participate in this round-up program, it would help accumulate funds more quickly. This would in turn make more dollars available to be given out to these worthwhile community organizations. If interested, all they have to do is fill out the form and return to Wild Rice Electric. The form can be returned in the same envelope as their monthly electric payment.

If you have any questions or concerns please contact Jolene Brevik at Wild Rice Electric.

Thank you.

Sincerely,

Chris Krogsgaard, President
Wild Rice Electric Board of Trustees

Enclosure

CK/jb

This Institution Is An Equal Opportunity Provider And Employer
www.wildriceelectric.com

APPENDIX M. LITERATURE REVIEW SUPPLEMENT

Table M1

Literature Review Supplement (Part 1 of 6)

Twelve-month effects of the COPE Healthy Lifestyles TEEN Program on Overweight and Depressive Symptoms in high school adolescents (Melnik et al., 2015).				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
<p>Authors: Melnik, Jacobson, Kelly, Belyea, Shaibi, Small, O’Haver, & Marsiglia (2015)</p> <p>Location: Eleven high schools within 2 school districts in the US Southwest</p> <p>Design: Prospective, blinded, cluster RTC</p>	<p>Purpose: Test the effectiveness of the COPE program in improving overweight/obesity and depressive symptoms in high school adolescents</p> <p>Sample: N=779 COPE (N=358) Healthy Teens (N=421)</p> <p>Female: 402 Male: 377</p> <p>Native American: 27 Asian: 31 Black: 77 White: 110 Hispanic: 526 Other: 8</p>	<p>Interventions: 20 minutes of physical activity in combination with health lectures</p> <p>Measures: 1. Body mass index 2. Depressive symptoms via Beck Youth Inventory II</p>	<p>-Significantly lower BMI at 12 month</p> <p>-Significant decrease in proportion of overweight</p> <p>-Lower depression in those who exhibited extremely elevated initial depressive symptoms</p>	<p>- Depression was self-reported</p> <p>-Decreases in program fidelity measured at least once in approximately ½ the classrooms</p>

Table M2

Literature Review Supplement (Part 2 of 6)

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 (Melnik et al., 2015).				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
<p>Authors: Melnik, Amaya, Szalacha, Hoying, Taylor, & Bowersox (2015)</p> <p>Location: 19 online classroom sections (college freshman enrolled in required one credit survey course)</p> <p>Design: A cluster, randomized controlled pilot study</p>	<p>Purpose: Assess feasibility and preliminary effects of a seven-session online cognitive-behavioral skill-building intervention</p> <p>Sample: N=121 Control (n = 39) COPE (n=82)</p> <p>Female: 102 Male: 19 White: 80.9%</p> <p>White: 99 Asian: 5 Black: 2</p>	<p>Interventions: 7-session COPE program delivered via online course platform</p> <p>Measures: 1. Personal Beliefs Scale (12-item instrument) 2. Personal Health Questionnaire-9 3. General Anxiety Disorders Scale 4. Grade Point Average</p>	<p>- 58% found COPE helpful</p> <p>-62% said all freshman should have COPE sessions during first year at the university</p> <p>-COPE has potential to not only alleviate elevated levels of anxiety and depressive symptoms, but could help in prevention.</p>	<p>- Convenience sampling; limited diversity, and limited generalizability</p> <p>- Smaller number of students in comparison group who participated in study</p> <p>- Long-term positive outcomes not measured</p>

Table M3

Literature Review Supplement (Part 3 of 6)

Evaluation of the Impact of the Creating Opportunity for Personal Empowerment (COPE) Healthy Lifestyles Thinking, Emotions, Exercise, and Nutrition (TEEN) Program in Rural High School Health Class (Ritchie, 2011)				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
Authors: Ritchie (2011) Location: Senior health class in a rural high school Design: School based participation	Purpose: Evaluate impact of COPE TEEN program in a rural high school setting Sample: N recruited = 55 N completed = 49	Interventions: 15-session COPE TEEN Program; 30-minute information session followed with 20-minute physical activity Measures: 1. Body mass index	- Program was easy to implement -49% lost 143.6 pounds -6% maintained weight -Positive BMI reduction	- Localized to single case study location - Barrier to access mitigation was provided

Table M4

Literature Review Supplement (Part 4 of 6)

Creating Opportunities for Personal Empowerment for Adolescent students in a Rural High School (Edwards, 2014)				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
Authors: Edwards (2014) Location: Rural high school in Kentucky Design: School based participation; one group design	Purpose: Provide an evidence-based intervention (COPE TEEN) to teach adolescents effective coping skills; improve depressive symptoms Sample: N = 9 Male: 5 Female: 4 Caucasian; 8 Hispanic: 1	Interventions: Seven 30-35 minute group education sessions Measures: 1. Beck Youth Inventory II 2. Healthy Lifestyle Beliefs Scale	- Improvement in depressive symptoms and self-confidence achieved by majority of participants -Clinically significant	- Small sample size -Limited diversity within group -Limited parental consent;

Table M5

Literature Review Supplement (Part 5 of 6)

Implementation of the Evidence-Based COPE Intervention in an Elementary Classroom to Promote Mental Health (McCormick, 2016)				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
<p>Authors: McCormick (2016)</p> <p>Location: 2nd Grade Classroom</p> <p>Design: School based participation; one group design</p>	<p>Purpose: Promote mental health in order to prevent mental illness and decrease depression, anxiety, and suicidal ideation</p> <p>Sample: N participated= 25 N completed= 16 Aged: 6yrs-8yrs</p> <p>Male: 12 Female: 13</p> <p>African American: 1 White/Caucasian: 24</p>	<p>Interventions: 7-session COPE program session</p> <p>Measures: 1. Participant Information Tool 2. Rating of the Sessions 3. PBIS Classroom Clip Chart Analysis</p>	<p>- Increase in long-term positive behaviors; 20% were able to recall key concepts</p> <p>-All participants reported positive feelings with regards to the COPE program</p>	<p>- Difficult to make up session due to conflict with regularly scheduled classes and events</p> <p>- Concepts may have been too advanced for the age group</p>

Table M6

Literature Review Supplement (Part 6 of 6)

COPE: Evaluation of a School-Based Intervention to Improve Overall Mental Health, Resiliency, and Social-Emotional Development of Rural North Dakota Adolescent Youth (Lindblom, 2017)				
Author/Location/ Design	Purpose/Sample	Interventions/ Measures	Conclusions	Limitations
<p>Authors: Lindblom (2017)</p> <p>Location: North Dakota High School</p> <p>Design: School based participation; one group design</p>	<p>Purpose: Evaluate the success and efficacy of COPE at Wahpeton High School</p> <p>Sample: N= 11 Aged: 14yrs-18yrs Male: 4 Female: 7 American Indian: 1 White/Caucasian: 10</p>	<p>Interventions: 7-session COPE program group sessions; approx.30 minutes per session</p> <p>Measures: 1. Patient Health Questionnaire Modified for Teens (PHQ-9) 2. Generalized Anxiety Disorder Scale (GAD-7)</p>	<p>- Demonstrated operational significance</p> <p>-All participants reported positive feelings with regards to the COPE program</p>	<p>- Small sample size</p> <p>- Probable selection bias</p> <p>-Possible external stressors that may have altered responses (finals)</p>

APPENDIX N. EXECUTIVE SUMMARY

Background

Adolescence is a particularly difficult time during an individual's life. With an abundance of physical, emotional, and environmental changes, stress and anxiety can become a large overburdening factor to anyone. These sources of anxiety can be overwhelming and may lead to depression. Depression, anxiety, and low self-esteem can lead to risk-taking and negative comportments including hostility, promiscuity, aggression, substance abuse, suicidal inclinations, functional impairment, recklessness, excess weight gain, and the inability to form healthy relationships(CDC, 2014; NAMI, 2016).

Providing adolescents with access to mental health resources is vital. In particular, rural communities tend to have less health resources available than a major conurbation. Although rural population attributes to nearly 20% of the total population, rural areas have only 10% of the mental health workforce (Hoeft, Fortney, Patel, & Unütze, 2018).

However, addressing mental health concerns has become a stigmatized venture. The destigmatization of seeking mental health services is fundamental to the program's access. The CDC reported that only 29% of individuals experiencing depression contacted a health care provider (2014). Many people feel uncomfortable with the idea of seeking help for their anxiety, but professional assistance can greatly influence patient outcomes and an individual's ability to manage symptom. A confidential program offered in a school setting could be a vital stepping-stone to addressing a few of these barriers.

Creating Opportunities for Personal Empowerment (COPE) is one such program that could be utilized in this venture. The emphasis of COPE is placed on providing adolescents with

the tools necessary to deal with the countless impending changes they will encounter as they transition to young adults.

Objectives

The background objective of implementing COPE was to provide rural high school teens with the tools they can utilize to cope with life's stressors. Techniques include raising self-confidence/self-worth, and stemming alcohol/substance abuse (COPE, 2016). Resiliency and coping techniques, positive thinking, excitation of hope reflex, improved performance—both social and academic—, and an increase in healthy lifestyle choices—both physical and nutritional—, are just a few of the ways in which the COPE program is designed to help adolescents. Many of these positive thought and behavioral habits shapes an individual's resilience and self-efficacy. There were three primary objectives:

- Objective 1. The first objective was to measure whether COPE could improve resiliency scores on Wagnild and Young's Resilience Scale.
- Objective 2. The second objective was to measure whether COPE could improve self-efficacy scores on Chen et al. New General Self-Efficacy Scale.
- Objective 3. The third objective was to measure program acceptance through responses to a post COPE intervention questionnaire.

Study Design

The COPE program is an already established plan based on cognitive behavioral therapy (CBT). The key elements of CBT are that it focuses on the correlation between thoughts and the feelings and behaviors that an individual's thoughts elicit. Introduced in the first session of the COPE program are the three fundamental pillars of interest: thoughts, feelings, and actions.

The COPE program provides an evidence-based, easy to administer approach to delivering healthy and efficient coping strategies to children, teens, and young adults. Healthcare providers, counselors, teachers, or social workers can train to be a COPE instructor (COPE, 2016). Once certified, they can deliver either a seven or 15-week COPE program sessions. Each session can be completed within 25-50 minutes depending on instructor preference and/or time considerations.

These sessions offer a myriad of techniques to teach teens how to better cope with depression, anxiety, and negative thoughts. The COPE Teen 7-session program is specifically designed for teens aged 11-18 and thus is the manual that is most appropriate for this practice improvement project.

The COPE program was offered in a school setting. Each student was provided with a COPE program manual that they could keep indefinitely and utilize for future reference. The seven sessions of the COPE program were integrated within the existing curriculum of an existing Senior Seminar course. This allowed the participants to stay in their own desks, and in an environment that was both familiar and comfortable. The regular Senior Seminar teacher was present for all COPE sessions. All sessions followed a scripted presentation to cover the COPE program topics.

Results

Of the 17 students that comprised the Senior Seminar class, a total of 13 participants participated in all COPE sessions and completed all pre and post intervention scales. The characteristics of the sample group have been summarized in Table 1. Out of the 13 participants, there were nine male participants (69%) and four female participants (31%). Although the majority of the group was comprised of Caucasians (77%), participants with Hispanic, American

Indian/ Alaskan Native, and Multi-Racial backgrounds participated in the study. The age range of the participants was from 17 years of age to 19 years of age.

A two-sided T-test ($\alpha=0.05$) was performed to compare the pre and post Resilience Scale results. The results of the Resilience scale were highly variable. Of the twenty-five items that make up the Wagnild and Young's Resilience scale, only two showed positive statistical significance. Among the remaining 23 Items on the Resilience scale, 12 Items showed an increase from baseline scores, 10 Items showed a decrease from baseline scores, and one Item exhibited no change. Overall trends indicated that positive outcomes were usually associated to action items, where the participant was asked about his or her ability to do something or follow through on something. Negative outcomes, or a decrease in baseline scores usually made themselves present on thought or emotion based items. Out of all responses, only 56% of Resilience Scale Items showed an increase from baseline values; whereas, 44% of Items showed no change or a decrease from baseline values. Results of the Resilience Scale have been summarized in Table 2.

A two-sided T-test ($\alpha=0.05$) was performed to compare the pre and post Self-efficacy Scale results. Each item was evaluated individually as cumulatively. All items showed a positive increase. However, based on the preselected alpha value, no Item exhibited statistical significance. Results of the Self-Efficacy Scale have been summarized in Table 3.

Chen et al. New General Self Efficacy Scale categorizes a self-efficacy rating based on the cumulative score from all 8 items. Shown in Table 4, there was a clear shift in the self-efficacy of the group. No participant received a pre or post rating of "Low Self-Efficacy". One participant did exhibit a score in the "Below Average" range. However, there was positive shift among those who scored "Average", "Above Average", or "High". Three fewer individuals

ranked as average, two changed to above average, and one additional participant moved to a level of high self-efficacy.

Participants were also asked to rank the overall helpfulness of the COPE program and the helpfulness of each COPE session. One-hundred percent of participant found the overall program helpful. Responses to perceptions of the individual sessions was based on a response from 0 to 4, with 0 indicating that the session was not helpful, 1 indicating that the session was a little helpful, 2 indicating that the session was somewhat helpful, 3 indicating that the session was moderately helpful, and 4 indicating that the session was very helpful. Graphical representation of student responses can be seen in Figure 2.

Conclusion

The overall attempt to increase baseline score with regards to resiliency and self-efficacy proved to be a non-definitive endeavor. Although there were very clear indications supporting the increase in baseline scores with regards to self-efficacy, there was a great degree of fluctuation when comparing pre and post resilience scales. Based on the statistical analysis performed on Wagnild & Young's Resilience Scale and Chen et al. New General Self-Efficacy scale determined that neither had clear signs to indicate statistical significance.

Although a Doctor of Nursing student initiated the COPE sessions, this does not need to be the case. Counselors and teachers within the school can undergo COPE training and become certified instructors. Overall annual costs are low, and support for the program was high. The continuation of providing the COPE program on a continual basis is feasible and likely would be accepted within an educational setting.

Keywords: mental health, resilience, self-efficacy, COPE, rural, teens, adolescents