Closing the Mental Health Treatment Gap for Rural Adolescents: An Evidence-Based Collaboration in a Public High School

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Abstract

Background: Mental health disorders represent the most common disease in childhood and adolescence in the United States, with anxiety disorders showing the highest prevalence. Adolescents in rural areas face unique socioeconomic and cultural challenges, elevating their risk for anxiety and depression. Of note, less than 1/3 of youth with mental health disorders receive evidence-based treatment.

Methods: The primary objective of this evidence-based practice project was to enhance mental health screening in a local rural high school and to increase access to mental health care through the implementation of Creating Opportunities for Personal Empowerment (COPE). Students (485) in a public high school received evidence-based mental health screening materials, which 39.8% (193) returned. Students were recruited to participate in COPE through a convenience sampling method. The 7-session COPE program was co-led by a primary care pediatric nurse practitioner and the director of school counseling.

Findings: Participants completed mental health screening forms, including the PHQ-9 and GAD-7, prior to intervention, after the 4th COPE session, and again after the intervention. Participants also completed a qualitative evaluation. Results indicate clinically significant improvements in anxiety, with depression symptoms remaining at baseline.

Conclusion: The delivery of COPE in a rural public school setting has the potential to meet a great need for increased access to mental health care. The project is cost-effective and is well accepted by school administrators, students, and parents.

Keywords: anxiety, adolescents, rural, school, cognitive behavioral therapy

Introduction

Mental health disorders represent the most common disease in childhood and adolescence in the United States. Amongst mental health disorders, anxiety disorders have the highest prevalence rates (Mangione et al., 2022). The 2018-2019 National Survey of Children's Health found that 7.8% of children and adolescents aged 3 to 17 years had an anxiety disorder (Mangione et al., 2022). The lifetime prevalence rate of anxiety is estimated at 30%. The median age of onset of anxiety disorders is approximately 11 years old but there is a difference between developmental stages and associated symptoms (Walter et al., 2020). Children and adolescents diagnosed with anxiety experience uncontrollable worry, fear, and hyperarousal. They are more likely to experience poor behavioral symptoms as well as symptoms of depressed mood and sadness. These disorders disrupt healthy development patterns and are associated with an increased risk of suicide and other psychiatric disorders as well as a risk of persistent mental health disorders through adulthood (Racine et al., 2021).

Mental health promotion is a national health priority and there are several Healthy People 2030 goals which focus on improved screening and treatment for children with mental health disorders including anxiety disorders. The US Preventive Task Force recommends screening for anxiety disorders in youth aged 8-18 years old but there is not an empirically based recommendation for universal screening. In addition, despite the availability of screening tools and treatments for anxiety, less than one-half of youth who need mental health treatment receive any care and even fewer receive evidence-based care (Walter et al., 2020). In clinical practice, primary care providers are well positioned to diagnose and treat children and adolescents who are experiencing an anxiety disorder. Research shows that families of children and adolescents

with anxiety and depressive symptoms often choose to discuss their concerns with their primary care provider (Walter et al., 2020).

It is important to note that some populations experience additional challenges with disparities of care (Berryhill et al., 2022). Adolescents who live in rural areas face unique socioeconomic and cultural challenges that may elevate their risk for anxiety and depression, including higher unemployment rates, teen pregnancy rates, obesity rates and opioid abuse. Rural adolescents have less access to social, mental health, and medical services and are less likely to seek care due to perceived unacceptability or stigma around receiving care (Berryhill et al., 2022). Despite the national goals surrounding increasing mental health for all children, there is a scarcity of data and statistics surrounding prevalence rates of mental health disorders for the subpopulation of adolescents in rural areas, some of which is extrapolated from adult data (National Rural Health Association, 2024).

Over 51 million Americans, or one-sixth of the population, live in rural areas. The definition of "rural" in the literature is not precise but there is general consensus that this points to the sparseness of population over a geographic region (Douthit et al., 2015). The evidence supports that people who live in rural areas of the United States are subject to health disparities that result in higher mortality rates and shorter life expectancies compared to people who live in urban and suburban areas (Hardin et al., 2021). Residents of rural areas are more likely to experience obesity, substance abuse, cancer, diabetes, hypertension, respiratory disease, and mental health disorders. Rural adolescents are more likely than their suburban peers to smoke cigarettes (26.6% versus 19%) as well as smokeless tobacco (6.7% versus 2.1%) (National Rural Health Association, 2024). In rural areas, adolescents seeking care for physical or mental health needs have more difficulty with accessibility, availability, and acceptability compared to

suburban peers. While overall anxiety and depression rates are estimated to be similar in rural and urban youth, rural youth are twice as likely to commit suicide (Berryhil et al., 2022; Douthit et al., 2015).

The American Academy of Child and Adolescent Psychiatry published a clinical practice guideline for the assessment and treatment of children and adolescents with anxiety disorders in 2020 (Walter et al., 2020). The guideline emphasizes that treatment plans should be child and family centered and provide safe, timely, effective, efficient, feasible, and equitable care. Cognitive-behavioral therapy (CBT) and selective serotonin reuptake inhibitor (SSRI) medication have empirical support as safe and effective treatments for anxiety in children and adolescents. In youth with mild to moderate symptoms, CBT alone may be considered as a first-line treatment option. In the clinical practice guideline, the authors report a severe shortage of child and adolescent-trained behavioral health specialists and address the need for pediatric providers to expand access to safe and effective care, particularly for mild to moderate anxiety presentations (Walter et al., 2020).

A promising evidence-based intervention for children with anxiety is a 7-session manualized cognitive-behavioral-skills-building intervention, Creating Opportunities for Personal Empowerment (COPE). Developed by Dr. Bernadette Melnyk, COPE has been effectively utilized in many settings by health care providers, school personnel, and community leaders (Koslowski et al., 2015; Melnyk, 2020). COPE is structured around Beck's cognitive behavior theory. One key concept is the use of the thinking-feeling-behaving triangle; essentially, children and adolescents are taught that how they think affects how they feel and also how they behave. A 2020 study by Melnyk estimated that for every mental health hospitalization prevented by participation in COPE, there is a cost savings of $14,262 (Melnyk, 2020).

In summary, children and adolescents in the United States are suffering from high prevalence rates of mental health disorders. If untreated, adolescents with mental health disorders are at risk of developmental impairments, comorbid mental and physical health issues, elevated rates of substance abuse, elevated suicide risk, and impaired health and functioning in adulthood. Adolescents in rural areas face additional socioeconomic challenges that increase their level of risk in the aforementioned areas. Rural adolescents have less access to health care, including specialty mental health care, and while there is a stigma to seeking care, they are more likely to seek help from trusted primary care providers than specialists. Primary care providers are challenged with offering evidence-based care according to clinical guidelines, often with limited time and resources. COPE is a promising, timely CBT-skills building intervention that may be effective to meet the needs gap created by a high demand for mental health care and a shortage of resources. This author was interested to learn more about the integration of COPE or a similar CBT-based intervention in a rural area where the demand for mental health care is high and there is a shortage of resources.

Evidence Search Method

A systematic literature review was conducted to explore interventions that may be utilized by primary care providers to treat mild to moderate anxiety in adolescent patients. The keywords “cognitive behavioral therapy” OR “CBT” AND “anxiety” AND “primary care” AND “adolescent” were utilized alongside Boolean search phrases as indicated. Results were limited to the past 10 years (2014-2024). The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Appraisal Tools and methodology were utilized to critique the level and quality of evidence of each source. Figure 1 shows the search and review process using a Preferred

Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram. Table 1 shows a summary of the evidence which was retained for analysis.

Evidence Summary and Thematic Analysis

CBT-based Interventions

Many variations of CBT-based interventions are effective in promoting help-seeking behaviors amongst adolescents with mental health conditions. Types of interventions that were found to be effective include group interventions, interventions in primary care, classroom-based interventions, and online or multimedia-based interventions (Aguirre et al., 2020). Skarphedinsson et al. (2023) found a brief group-based CBT program to be effective in reducing depression and anxiety scores when administered in an integrated primary care setting. Carpenter et al. (2018), Cervin & Lundgren (2022), and Lilja et al. (2021) found telehealth-based intervention both efficacious and feasible for motivated families. In their meta-analysis, Cervin & Lundgren (2022), found that telehealth-based interventions were more effective in reducing anxiety for those with lower pre-treatment anxiety scores, those whose intervention involved at least one face-to-face meeting, and for those of male gender (Cervin & Lundgren, 2022). It is important to note that for some adolescents, telehealth-based interventions may help overcome obstacles such as social stigma and geographic barriers (Carpenter et al., 2018). Likewise, group sessions may help overcome obstacles related to provider shortages (Skarphedinsson et al., 2023).

Facilitators

Aguirre et al. (2020) found that adolescents with good mental health literacy, or the ability to recognize mental health concerns and make informed decisions about seeking help,

were more likely than others to access mental health care. Other facilitators included having a previous positive experience with mental health care or help-seeking behaviors, as well as having trusted and committed relationships with relevant adults such as parents, teachers, and counselors (Aguirre et al., 2020). In addition, Cervin & Lundgren (2022) found that adolescents with caregiver support and involvement showed better treatment outcomes (Cervin & Lundgren, 2022). These findings were also supported by Lilja et al. (2021) who found a statistically significant correlation between adolescents' motivation to change and improvement in treatment outcomes (Lilja et al., 2021).

Barriers

Aguirre et al. (2020) found that more than half of studies referenced social stigma as the main obstacle to seeking help for mental health concerns for adolescents. Adolescents also reported negative attitudes towards seeking help such as shame, fear, and embarrassment. Aguirre at al. (2020) found that the second most common barrier was family beliefs, including mistrust of health professionals and a history of negative past experiences. Of note, structural difficulties such as poor availability, cost, and transportation were noted as a lesser barrier, except for rural and immigrant populations, which reported these as significant barriers (Aguirre et al., 2020). Other structural barriers include provider shortage and poor provider reimbursement (Erlich et al., 2019; Gray et al., 2024; Skarphedinsson et al., 2023).

COPE

Three studies reviewed data from the COPE intervention delivered within the school environment. Gray et al. (2024) found that when delivered in the school setting, COPE improves adolescents' mental health and emotional intelligence. Their pilot study supported previous

studies that show delivery in group school settings as efficacious and feasible (Gray et al., 2024). Hoying et al. (2016) conducted a pilot study of the 15-week COPE Healthy Lifestyles TEEN program in a rural Appalachian middle school and found that the intervention had a positive effect on self-concept, symptoms of anxiety and depression, and healthy lifestyle behaviors. This study found that Appalachian students found the intervention acceptable and helpful and that they would recommend it to others (Hoying et al., 2016). In a separate pilot study, Carr et al. (2019) found that COPE, when delivered in a rural school-based health center by a nurse practitioner, was effective and feasible in reducing symptoms of anxiety. Recommendations to improve access include system-wide, computer-based delivery of COPE by school nurses. It is recommended that school nurses receive training in interventions such as COPE as they are well positioned to offer private and confidential services to adolescents with anxiety and depression (Carr et al., 2019).

Other settings for COPE were reviewed, including primary care clinics. Hart Abney et al. (2019) piloted COPE for Young Adults within a college health center, which led to reduced anxiety and depression scores amongst participants. The COPE intervention was found to be timely and efficient, and the manualized delivery was well received amongst college-aged adolescents (Hart Abney et al., 2019). In addition, Erlich et al. (2019) found that providing COPE in primary care showed efficacy in reducing anxiety and that primary care delivery was well received by patients. One difficulty with delivery in primary care is lack of practice support for behavioral health appointments, though these appointments can receive insurance reimbursement (Erlich et al., 2019).

COPE is an appropriate evidence-based intervention to help adolescents develop cognitive behavioral skills to impact their mental health positively as well as to manage

symptoms of poor mental health (Gray et al., 2024). COPE may be utilized as a primary intervention for adolescents with mild symptoms of anxiety, as an adjunct therapy for those with moderate to severe anxiety, or as an interim therapy for those awaiting specialist care, particularly those in rural settings (Carr et al., 2019). COPE increases the quality and comprehensive nature of health care when integrated into school health (Carr et al., 2019; Gray et al., 2024) or primary care settings (Erlich et al., 2019).

Evaluation and Recommendations from the Literature

Cognitive behavioral therapy-based interventions are effective and should continue to be recommended for adolescents with anxiety and depression. For adolescents with mild to moderate anxiety, brief, 7- to 16-week, interventions such as COPE may provide an alternative to traditional cognitive behavioral therapy, particularly in areas with limited access to mental health professionals. Brief interventions may help break down perceived and actual barriers to seeking and accessing mental health care. These interventions may be delivered effectively in primary care settings, school settings, and other community settings. Delivery may be face-to-face or technology-based. In addition, evidence supports both individual participation and group participation. It is important that care remain person-centered, that adolescents are motivated to change, and that adolescents perceive positive support from their families. There is limited evidence on rural youth, however, this review does show one positive intervention carried out in an Appalachian middle school. In addition to revealing the efficacy and feasibility of brief CBT-based interventions such as COPE, this review demonstrates the need for further research and implementation in rural areas.

Specific Aims

The primary author has worked for years as a primary care pediatric nurse practitioner in a rural county in Virginia. The primary care clinic is designated as a federally qualified rural health center which provides primary care and behavioral health services to the surrounding medically underserved community. The school nurses in the county are also employees of the health center. Adolescents in the community have shown increasing rates of anxiety and depressive disorders and the need for increased mental health access in both the primary care clinic and the schools is immense. The aims of this project to address these concerns are: (1) expand screening for mental health disorders and symptomatology in the school system, and (2) increase access to cognitive behavioral therapy through implementation of COPE.

Methods

Project Design

This evidence-based practice project was declared exempt from formal review by the Institutional Review Board for Health Sciences Research (IRB-HSR) because it was not human research. The EBP project used as its framework the Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care (Iowa Model). The Iowa Model uses triggering questions for consideration at each point of the algorithm, which follows a logical progression, starting with establishing priority and followed by forming a team, appraising the evidence, designing and piloting the change, integrating and sustaining the change, and finally, disseminating the results (Iowa Model Collaborative, 2017). Figure 2 shows The Iowa Model, which is used with permission.

Participants and Setting

Participants were students in the local, rural, public high school in Central Virginia. At the beginning of the academic year, in August 2024, all students were sent a link to an electronic social and emotional wellness screening survey, which was expanded to include validated screening tools, with permission from school administrators. Of the 485 students enrolled in grades 9-12, 193 students (39.8%) completed and returned the screening forms. Alongside input from the school nurse, the director of school counseling identified the students who were considered at highest risk for anxiety or depression based on their self-report of difficulty with friendship, anxiety, socialization, bullying, sadness and anger. The school counselor then met with the students at highest risk, inviting them to participate in COPE. Twenty-three students were interviewed and recruited before the counselor received student and parental consent for 10 students, the desired number. Of those who did not participate, 10 students declined interest, 2 parents declined consent, and 1 student transferred to a different school district. Demographics for student participants are included in Table 2.

Intervention

Methodology

Following IRB exemption, permissions for COPE implementation were obtained by administrators in the high school and the central office. The primary author, a pediatric nurse practitioner, and the co-facilitator, the director of school counseling, completed the COPE program training and licensure requirements to ensure validity of the program. The school counselor met with prospective student participants to validate their social and emotional screening results and to inform them about COPE, discuss goals, confidentiality, and safety. For those students who showed interest, parental and student permissions were obtained. Students were recruited via convenience sampling until a group of 10 was formed. Participation was

voluntary, students understood that they may withdraw from sessions at any point. COPE manualized workbooks were purchased and each participant was given their own workbook.

The implementation group of 10 student participants was co-led by the primary author and the school counselor. The school nurse was available during sessions if needed. The COPE group met during school hours in 7 weekly sessions, each for 45 minutes, beginning in October 2024. The content of each session is listed in Table 3. The time of the sessions was intentionally flexed in order to minimize time away from core academic content. Teachers were informed that students would be away from class during COPE and hall passes were sent to facilitate participant attendance. Participants showed active participation in the sessions, writing in their workbooks, engaging in open conversation, and often offering suggestions to help each other. Four participants were unable to complete the program for varied reasons, including perceived guilt for missing class, and teacher's hesitancy to allow the student to leave class. Six participants completed the program and were included in data analysis and the evaluation of outcomes.

Instruments

The Generalized Anxiety Disorder Scale (GAD-7) and the Patient Health Questionnaire-9 (PHQ-9) screening forms were used to measure anxiety and depression. Both tools have good validity and reliability and are free to use in the public domain (Gray et. al, 2024). Additionally, each tool has strong sensitivity and specificity to diagnose the respective disorder. Student participants completed GAD-7 and PHQ-9 forms at baseline, after the 4th session, and at COPE completion. In addition, the COPE qualitative evaluation form was completed following completion of the program.

Findings

Survey data were analyzed for raw effect and clinical significance using IBM SPSS. Data was assessed for normality using the Shapiro-Wilk normality test and paired t-tests were performed for GAD-7 and PHQ-9 screening results. There was a significant decrease in GAD-7 scores from baseline (M=12.3, SD=6.3) to post-intervention (M=10.2, SD=5.5), t(5)=-2.4, p=.029, g=-.84. Of note, Cohen's *d* was measured for clinical effect size and due to the small sample size, Hedge's *g* was utilized for correction. No significant decrease was found in PHQ-9 scores from baseline (M=13.5, SD=7.2) to post-intervention (M=14, SD=8.76), t(5)=.213, p=.420, g=.073. Table 4 shows a comparison of findings for GAD-7 (anxiety) and PHQ-9 (depression) scores.

Student participants had the opportunity to provide qualitative feedback regarding the program and their experience with the COPE program evaluation form. Of note, 100% of respondents reported that COPE was helpful and that they learned new ways to deal with their thoughts, feelings, and behaviors. A majority of students found the deep breathing and guided imagery exercises as the most helpful content in the sessions. A majority of students also reported feeling a sense of belonging with the group and enjoying the conversations and relationships that developed during COPE. Student responses are provided in Table 5.

Discussion

The purpose of this project was to expand screening for mental health disorders and symptomatology in a rural high school system to increase access to CBT through implementation of COPE. A review of the literature supported utilization of the COPE program in both the primary care setting and the school setting which prompted a collaboration between primary care

and school staff. This collaboration was well-received by community stakeholders. The evidence supported COPE as a means to break down barriers to seeking and accessing mental health care. Our project brought together school personnel, including the school counselor, the school nurse, and the school administration in collaboration with a local primary care clinic to better recognize and support students in need of mental health services. Our findings are promising. Analysis shows statistical and clinical significance in improvement of anxiety scores. Though improvement in depression scores was not noted, this may be explained by the small sample size and confounding variables, as two students experienced significant negative life events during program implementation. Qualitative data was very positive, with all participants reporting the program as helpful. A majority of participants recommended that everyone should receive COPE. The school counselor noted a profound impact amongst participants, showing improvements across multiple dimensions, including decreased visits to the counseling team, decreased conflicts with peers, improvement in grades, and better school attendance. Efforts to sustain and expand the project are ongoing; the program has been expanded to the middle school and high school counselors are seeking additional grant funding for ongoing sustainment.

Limitations of the project include the small sample size, which contributed to the lack of statistical significance and the greater impact of outlier results. Many students did not consistently complete homework throughout the week, which may have impacted results. Other limitations include hesitancy from teachers in allowing student participants to leave class and perceived guilt felt by students. Confounding variables included significant life events such as an unplanned surgery and the death of a caregiver. Finally, the project was completed over a short duration of time. For a more comprehensive understanding of results, long-term follow up data 6-12 months after program completion would be beneficial.

Implications for School Nursing

Data suggests that the COPE program is effective and feasible when implemented in a rural public high school setting. The program offers adaptability and accessibility for students, breaking down geographic and cultural barriers. School nurses are trusted members of the interprofessional school team and are in a unique position as members of an interdisciplinary mental health support team. School nurses can work alongside school counselors and in collaboration with primary care practitioners to screen for mental health disorders and offer evidence-based interventions, such as COPE. The 7-session COPE program can be offered for students demonstrating mild to moderate anxiety and/or depression or as a preventive program to enhance resiliency and emotional strength in future stressful situations. COPE is very cost effective. In a school setting, the initial estimated cost of time and materials for a group of 10 students to participate in the 7-week COPE program is $1,415. This number decreases with each subsequent group as the initial license may be utilized. School nurses are well positioned to advocate for such a program for their students as the cost of a life is priceless and if even one suicide is prevented amongst COPE participants, it should be considered a worthwhile investment.

Conclusion

The delivery of COPE in a rural public school setting has the potential to meet a great need for increased access to mental health care caused by increasing prevalence of anxiety and depression and a shortage of mental health providers. It aids in improving difficulty with accessibility, availability, and acceptability of mental healthcare. This program is well accepted by school administrators, students, and parents. Our project adds to the existing evidence which shows a decrease in GAD-7 scores and improvement of anxiety symptoms. The evidence

supports that the skills obtained through COPE will help rural adolescents navigate future obstacles with positive self-efficacy and resiliency. Further screening and data collection to determine current rates of anxiety and depressive disorders in rural adolescents is warranted, as well as further COPE implementation studies in rural settings.

Author's Note

The author completed this project as part of a requirement for the doctorate of nursing practice (DNP) curriculum.

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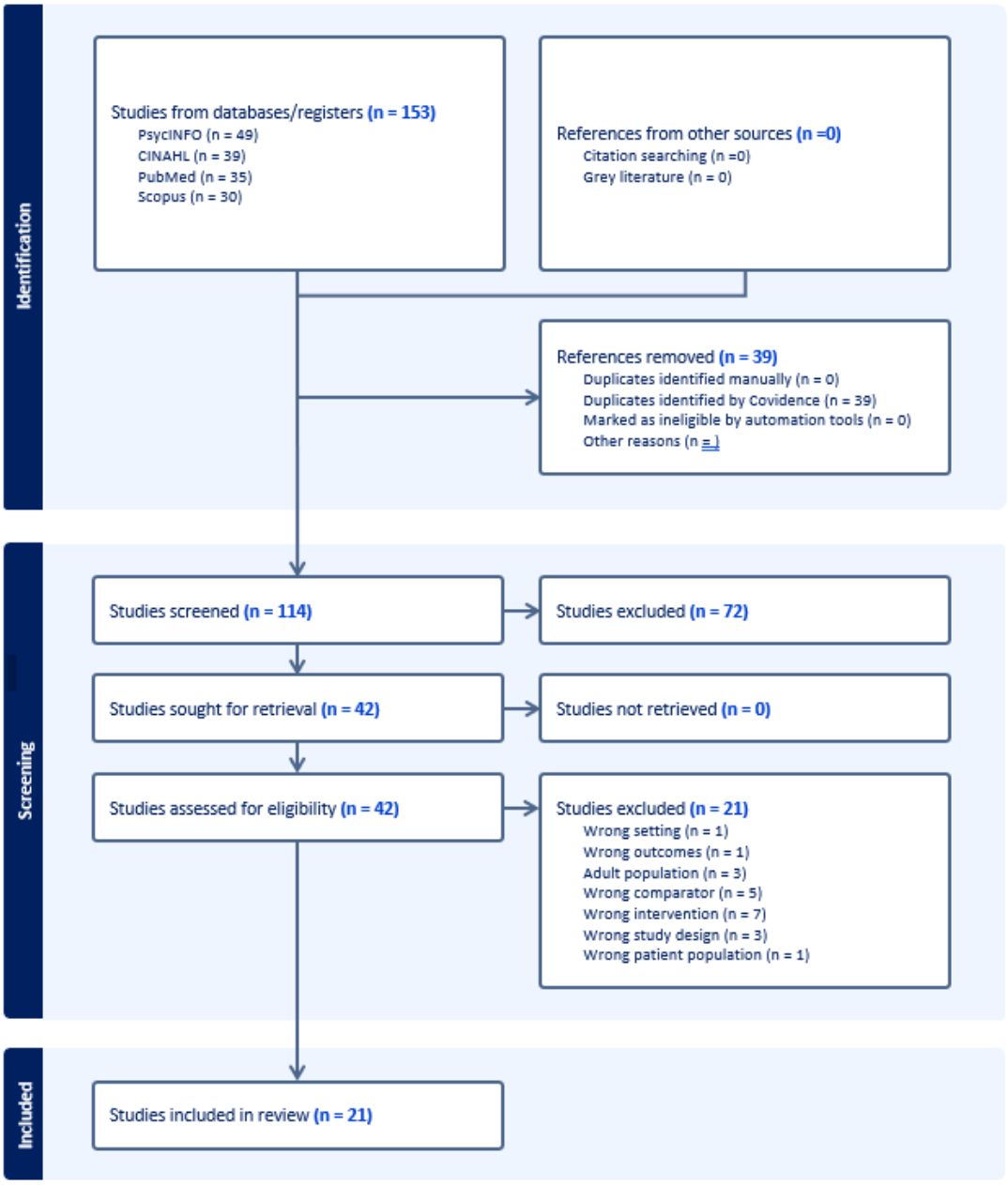

Figure 1. PRISMA flow diagram for the systematic literature search process, transcribed using Covidence.

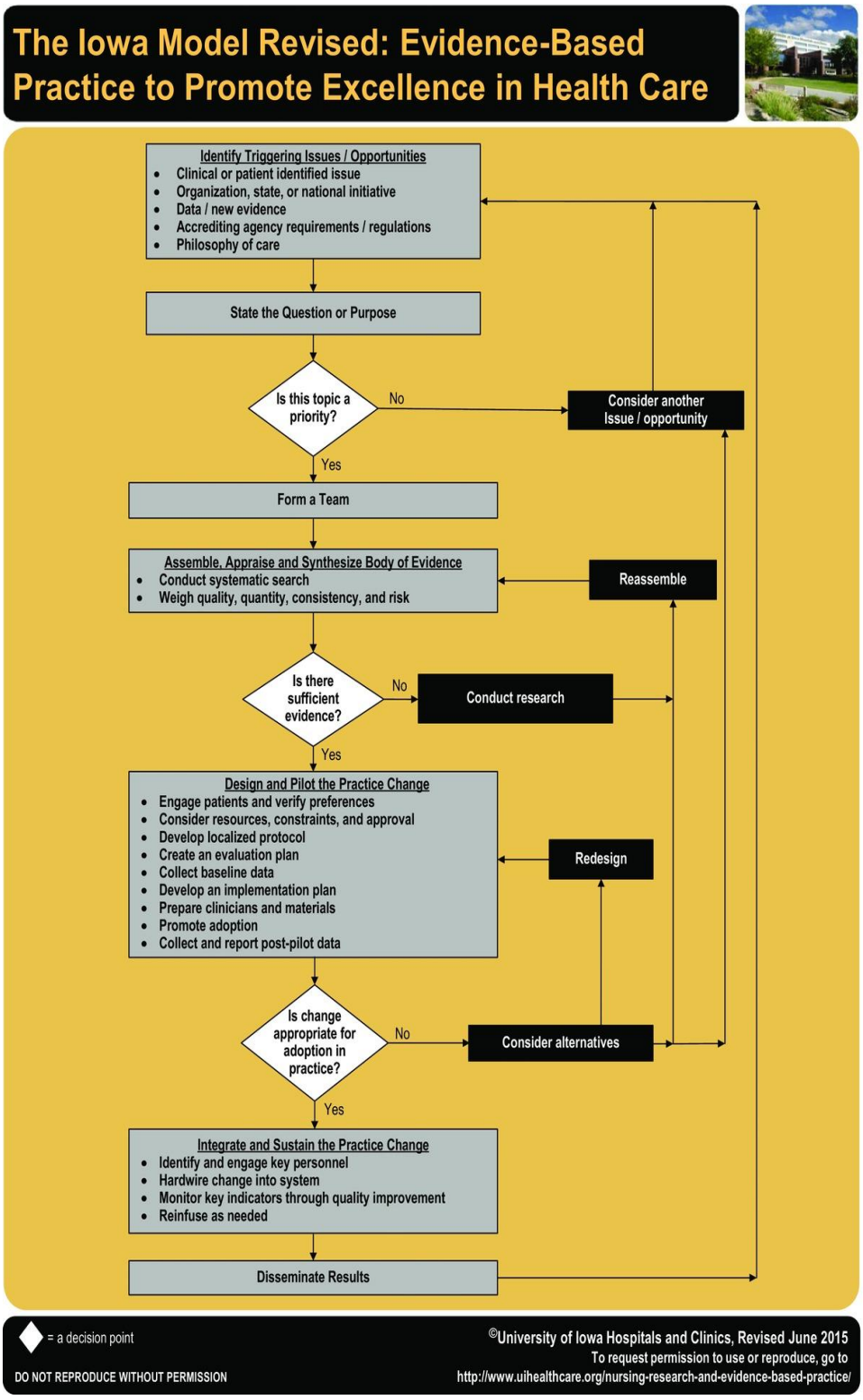

Figure 2. The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care

Table 1

Summary of Literature Review

Study Reference (Author, Year)	Design	Purpose	Setting & Sample	Findings	Level of Evidence
Aguirre Velasco et al. (2020)	Systematic Review	To review barriers and facilitators of adolescent mental health help-seeking and targeted interventions.	90 studies included with various design.	The most prominent barrier to seeking help was stigma. Effective interventions were psychoeducation, multimedia interventions and peer training interventions.	III, B
Carpenter et al. (2018)	Quasi-experimental	To test the effectiveness and feasibility of telehealth-based CBT in treating adolescents with anxiety.	n=13; Youths aged 7-14 diagnosed with anxiety, living in urban Massachusetts and South Florida	Telehealth-based CBT was found to be feasible, acceptable, and efficacious. 91% of participants showed improved clinical response.	III, B
Carr & Stewart (2019)	Quasi-experimental	To test the efficacy and feasibility of the COPE intervention on executive function, anxiety, and depression.	n=15; Adolescents aged 12-15 diagnosed with anxiety and/or depression, enrolled in a rural school-based health center.	COPE demonstrated statistical significance and clinical significance in improving anxiety scores and behavioral regulation scores. It was found to be feasible in a school-based health center, as delivered by a nurse.	II, B

Study Reference (Author, Year)	Design	Purpose	Setting & Sample	Findings	Level of Evidence
Cervin & Lundgren (2022)	Meta-analysis	To test the efficacy of technology-based CBT in relation to diagnostic remission in adolescents.	n=9; Children and adolescents under the age of 18years diagnosed with a primary anxiety disorder.	Technology-based CBT had a moderate effect on remission of primary anxiety disorders and may be most appropriate in youth with mild to moderate anxiety. Intervention should include some face-to-face sessions.	I, A
Erlich et al. (2019)	Quality Improvement	To determine wither COPE is associated with improved patient-reported outcomes and to determine which characteristics of patients are associated with specific outcomes.	n=37; Adolescents in the primary care setting who were diagnosed with anxiety or anxiety and depression.	Implementation of COPE for Teens in a large primary care office showed statistically significant and clinically significant improvement in anxiety and depression scores.	V, A

Study Reference (Author, Year)	Design	Purpose	Setting & Sample	Findings	Level of Evidence
Gray et al. (2024)	Quality Improvement	To examine the efficacy and sustainability of COPE on anxiety and depression in a school setting.	n=15; Adolescents in a suburban public middle school in Tennessee who screened positive for anxiety or depression symptoms.	Participants did not show statistically improved anxiety or depression scores, but clinical significance was suggested by a decrease in symptoms.	V, B
Hart Abney et al. (2019)	Evidence-Based Practice	To evaluate the effectiveness of COPE on college students' anxiety and depression	n=10; Adolescents diagnosed with an anxiety or depressive disorder, recruited from a University Student Health Center	COPE was found to be a timely, feasible intervention for primary care clinics. 100% of students demonstrated statistically improved anxiety and depression scores.	V, B
Hoying et al. (2016)	Evidence-Based Practice	To evaluate the efficacy, feasibility, and acceptability of COPE on physical and mental health of rural adolescents.	n=24; Early adolescents enrolled in an 8th grade health education class in an Appalachian middle school.	Incorporating COPE Healthy Lifestyles Teen into health education was acceptable and well-received. There was statistically significant improvement of anxiety and depression scores but not BMI reduction.	V, B

Study Reference (Author, Year)	Design	Purpose	Setting & Sample	Findings	Level of Evidence
Lilja et al. (2021)	Mixed Methods	To investigate how adolescents and parents perceive internet-based CBT.	n=14; Adolescents diagnosed with mild to moderate anxiety, aged 13-18 years, followed in a Swedish primary care center.	Participants showed statistically significant improvement in anxiety and depression after participation. Higher motivation by the patient, not the parent, is an indicator of success.	II, B
Skarphedisnsson et al. (2023)	Randomized Controlled Trial	To test the efficacy and feasibility of an 8-week transdiagnostic group-based CBT intervention.	n=53; Adolescents aged 13-17 years; diagnosed with anxiety and/or depression in a primary care setting.	Participants demonstrated statistically significant improvement in patient-reported anxiety and depression. Clinical effectiveness was maintained at 1-year follow up.	I, A

Table 2

Characteristics of COPE participants (n=10)

Characteristic	n	%
Gender		
Female	8	80.0
Male	2	20.0
Race		
White	8	80.0
Black or African American	2	20.0
Grade Level		
9th grade	8	80.0
11th grade	2	20.0
Previous Suicidality (Self-Report)		
Yes	6	60.0
No	4	40.0

Table 3

Content and skills building in the 7-session COPE program

Weekly Session	*Session Content*
1	Thinking, feeling, behaving triangle
2	Self-esteem and positive self-talk
3	Stress and coping
4	Planning, goal setting, and problem solving
5	Dealing with emotions in healthy ways
6	Coping with stressful situations
7	Putting it all together

Table 4

Comparison of Baseline and Post-Test Scores of Participants (n=6)

	Baseline		Post-intervention					
Variable	*M*	*SD*	*M*	*SD*	*t*	*df*	*p*	*g*
Anxiety	12.3	6.3	10.2	5.5	-2.4	5	.029	-.84
Depression	13.5	7.18	14	8.76	.213	5	.420	.073

Table 5

Qualitative Feedback from COPE Evaluation Form (n=5)

Did you find the COPE program helpful?	100% of respondents said yes.
If you found the COPE program helpful, in what ways did it help you?	2/5 reported help with calming. 3/5 reported help with anger.
What did you like best about the COPE program?	A majority of respondents reported group collaboration and sense of belonging.
What did you like least about the COPE program?	A majority reported no complaints, 2/5 reported filling out questionnaires.
What, if anything, have you changed since starting the COPE program?	A majority reported feeling less stressed.
What was the most helpful topic in the COPE program?	A majority reported learning deep breathing and guided imagery exercises.
Why was deep breathing and guided imagery helpful?	Answers included that it was calming and healthy.
What topic in the COPE program would you have liked to spend more time on?	The top answers included guided imagery and positive affirmations.
What topic in the COPE program would you have liked to spend less time on?	A majority of respondents said none.
What new or different thoughts do you now have about dealing with stress, concerns, or things that worry you?	A majority of respondents reported help with checking their thoughts and thinking more positively.
What things that you learned in the COPE program do you plan to continue to use?	A majority of respondents reported deep breathing to calm themselves.
What would you change about the COPE program?	3/5 reported nothing. 2/5 reported making it longer.
Was the homework/skills building after each session helpful to you?	100% of respondents said no.
Did you like the length of the COPE sessions?	A majority reported yes.
Have you talked with your parent/guardian about the things you have learned in COPE?	80% of respondents reported yes.
What would you tell a friend about the COPE program?	A majority reported that it was very helpful, particularly for anxiety.
Do you think all teens should get COPE?	80% of respondents reported yes.
Did you learn new ways to deal with your thoughts?	100% of respondents reported yes.

Did you learn new ways to deal with your feelings?	100% of respondents reported yes.
Did you learn new ways to deal with your behaviors?	100% of respondents reported yes.
What else would you like to share about this COPE experience?	A majority of respondents reported that it was helpful.