# A School-Based Cognitive Behavioral Program to Improve Adolescent Mental Health

Amanda Harper, DNP, RN, CPNP; Tracy L. Brewer, DNP, RNC-OB, CLC, EBP-C; Cassie Fishbein, DNP, APRN, CPNP-PC
*The University of Tennessee Knoxville College of Nursing*

## Background

- Anxiety and depression are prevalent in teens
- Symptoms interfere with the teen's daily life and can have serious consequences if untreated
- Adequate mental health treatment is rarely achieved due to inequitable access to services

## PICOT Question

In adolescents with anxiety or depression, how does participating in a CBT program compared to no program affect anxiety or depression one month after completing the program?

## Evidence Synthesis

| Outcome | Dray et al., 2017 | Sigurvinsdottir et al., 2019 | Rooksby et al., 2015 | Melnyk et al., 2014 | Carr & Stewart, 2019 | Erlich et al., 2019 | Duong et al., 2016 |
|---|---|---|---|---|---|---|---|
| **Depression (post-intervention)** | ↓ˢ | – | – | ↓ˢ | ↓ | ↓ˢ | ↓ |
| **Depression (follow-up)** | – | – | – | ↓ˢ 4 week | ↓ˢ 3 month | – | ↓ 6 & 12 months |
| **Anxiety (post-intervention** | ↓ˢ | ↓ˢ | ↓ˢ | ↓ˢ | ↓ᶜ | ↓ˢ | – |
| **Anxiety (follow-up)** | – | – | ↓ˢ | ↓ | ↓ | – | – |
| **Sample Size** | 57 studies | 81 studies 3386 CBT-based 2527 Control | 7 studies (4 RCTs) | 16 adolescents | 15 adolescents | 37 adolescents | 120 adolescents |
| **Level of Evidence** | I | I | III | II | II | II | I |
| **Quality of Evidence** | A | B | B | A | B | B | A |
| **Setting** | School-based | ϕ | Remote | School-based | School-based | PCP | School-based |
| **CBT program/ Modality** | ϕ | Manualized/modular Individual/remote | Computer-based | COPE | COPE | COPE | PTA |
| **Screening tool used** | ϕ | ϕ | Various | BYI | BYI BRIEF | PHQ-A GAD-7 | MFQ |

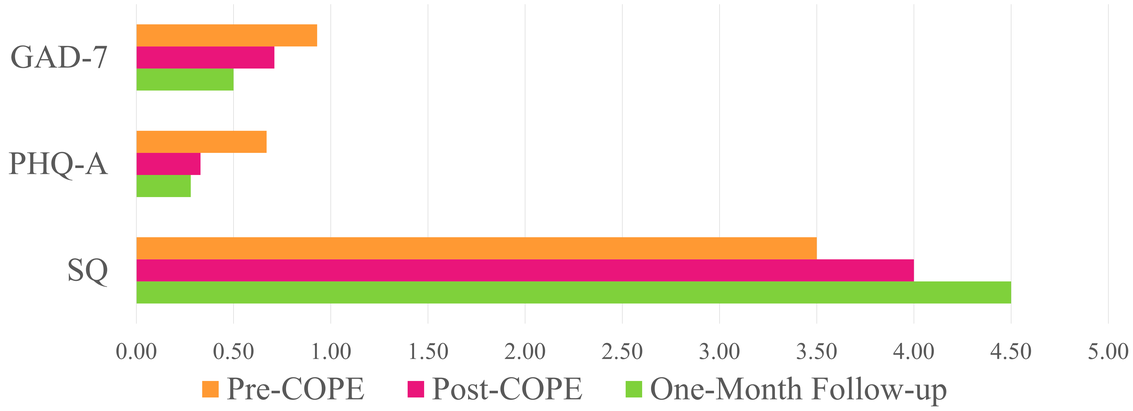
↓=decrease; ↓ˢ=statistical significance; ↓ᵐ=mixed significance; ↓ᶜ=clinical significance; –=not addressed; ϕ=not specified; BRIEF=Behavior Rating Inventory of Executive Function-Self Report; BYI=Beck Youth Inventory; CBT=cognitive behavioral therapy; COPE=Creating Opportunities for Personal Empowerment; GAD-7=Generalized Anxiety Disorder 7-Item; MFQ=Mood and Feelings Questionnaire; PCP=primary care clinic; PHQ-A=Patient Health Questionnaire modified for adolescents; PTA=Positive Thoughts and Actions

## Methods

- COPE was administered virtually in a homeschool cooperative setting with middle school students ages 11-15
- Data collection with self-report anxiety and depression screening instruments pre-, post-, and one month after completion of COPE; post-COPE evaluation
- Data analysis included descriptive statistics and a repeated-measures ANOVA

## Results

*Anxiety and Depression Screening Tool Results*




SQ=Screening Question: Do you feel like you are able to handle stressful situations or negative thoughts?

*Open-Ended Questions from Creating Opportunities for Personal Empowerment Evaluation*

| Questions | Responses |
|---|---|
| In what ways did you find the COPE program helpful? | • It help me come down<br>• It helped me find new ways to deal with situations<br>• It helped me get away from the problems for awhile<br>• It helped me know how to deal with my feelings<br>• Recognizing the stressors<br>• The COPE program helped me to control my feelings |
| What, if anything, has changed in your life since starting the COPE program? | • How I interact with others around me<br>• I can handle my feelings better<br>• I have gained a better idea of how to deal with my emotions |
| What was the most helpful topic in the COPE program? How did it help you? | • Everything<br>• Finding my happy place<br>• It was the stress topic. This was the most helpful as it has helped me calm down and think when I am stressed.<br>• Recognizing the stressors<br>• The abdominal breathing exercise<br>• The breathing technique it helped me to relax/calm down |
| What new or different thoughts do you have about dealing with things that worry you? | • I think differently when dealing with stressful situations<br>• I think more positively then I used to |

## Conclusion and Recommendations

- Implementation of a CBT program may improve anxiety and depression in adolescents
- The COPE program is feasible to implement in a school-based setting and can increase access to this resource for students who otherwise may be unable to attend sessions
- Continue to implement COPE at the site as a health class within the curriculum

**Acknowledgements**
Homeschool Co-op of Oak Ridge
Sigma Theta Tau—Gamma Chi Chapter