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## Development of a Brief Group CBT Intervention to Reduce COVID-19 Related Distress Among School-Age Youth

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*School-aged youth have been significantly impacted by the COVID-19 pandemic. The effects of the pandemic will likely have long-standing effects on the well-being of youth, and access to mental health care is even more critical during this time. For the past 5 years, TRAILS (Transforming Research into Action to Improve the Lives of Students) has been working throughout the state to increase utilization of evidence-based mental health practices among K-12 school mental health professionals (SMHPs). By leveraging SMHPs who are widely accessible to students, TRAILS seeks to improve youth access to effective mental health care and reduce current mental health inequities. In March 2020, TRAILS responded to the COVID-19 pandemic by developing a group manual designed to be delivered virtually by SMHPs to help students develop effective coping skills to mitigate the impact of COVID-19. TRAILS focuses on promoting use of CBT and mindfulness, as these skills are ideally suited for school-based delivery, and thus the new manual, Coping with COVID-19 (CC-19), was grounded in these modalities. This article will describe the design, development, and deployment of the CC-19 program to address the mental health needs of students in the context of the pandemic. Early acceptability and penetration data will also be discussed.*

**A**NXIETY and mood disorders have long been prevalent among youth in the United States, but recently, this prevalence has grown along with rates of youth suicide (Collishaw, 2015; Hedegaard & Curtin, 2018; Merikangas et al., 2010). It is amidst this bleak backdrop that the COVID-19 pandemic emerged in the early months of 2020, echoing through the routines and lives of school-aged youth in the United States and across the world. Many states responded by discontinuing in-person education, with rippling impacts for students' access to important resources (Gruber et al., 2020; Holmes et al., 2020). Virtual classrooms were often the sole touchpoint for student mental health support, and school mental health professionals (SMHPs) saw an urgent need for resources to enable their delivery of effective student services. This article reviews the rationale for school-based mental health care delivery broadly, then describes the development and dissemination of a group manual designed specifically to assist SMHPs

in supporting the mental health of students during the COVID-19 pandemic.

### Supporting Student Mental Health in Schools

Most youths with mental health diagnoses do not receive treatment, partially due to lack of access to specialty mental health care (Costello et al., 2014; Cummings et al., 2013). However, schools provide a unique and promising gateway to access care (Farmer et al., 2003). SMHPs, such as school counselors, social workers, psychologists, and other allied professionals, allow students to bypass key barriers to treatment access, such as insufficient financial resources, limited transportation, and inflexible schedules (Beidas et al., 2012; Committee on School Health, 2004). Further, SMHPs are often trusted by students and families, which serves to increase acceptability and overcome stigma associated with service utilization (Koschmann et al., 2019). Prior to the pandemic, approximately 35% of students who received any mental health care did so exclusively in school settings (Ali et al., 2019). In addition to overcoming systemic barriers to access, school-based mental health care is effective, including

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for the treatment of internalizing disorders common in childhood and adolescence, such as anxiety and depression (Mychailyszyn et al., 2012).

Despite advantages of school-based mental health, the ability of SMHPs to provide services is challenged by limited resources, high demand, and limited access to training in evidence-based mental health practices (EBPs; Cummings et al., 2013; Koschmann et al., 2019). Thus, when the pandemic emerged, SMHPs were well-positioned to address students' distress but faced numerous obstacles.

### **TRAILS: A School-Based Implementation Program**

School-based mental health implementation programs, such as TRAILS (Transforming Research into Action to Improve the Lives of Students), offer training and supports to SMHPs who are well-positioned and motivated to provide needed services to students, but lack resources. In working to increase utilization of EBPs in schools, the TRAILS model is informed by findings from implementation science indicating that training alone is not sufficient to promote effective and sustained use of new clinical skills (Williams & Beidas, 2019). Thus, in addition to offering training to SMHPs in evidence-based practices, TRAILS offers posttraining implementation support, including access to state-of-the-art materials (e.g., web-based toolkits, videos, manuals, student worksheets, and handouts), and curated supports (e.g., one-on-one coaching, technical support calls, tailored newsletters, emails, and webinars). Together, these implementation strategies equip SMHPs to learn, adopt, and independently sustain delivery of CBT and mindfulness practices (Koschmann et al., 2019). As of May 2020, TRAILS trainings had been attended by more than 2,800 school and mental health professionals, across more than 350 schools, impacting an estimated 90,000 students.

### **The Impact of COVID-19 on Student Mental Health**

In the spring of 2020, shelter-in-place orders and other virus mitigation strategies significantly affected youth access to mental health services while simultaneously increasing situational risk for anxiety and depressive disorders. Many of the most vulnerable students became more limited in their access to resources supporting their physical health and safety, such as regular contact with mandated reporters (Cohen & Bosk, 2020) and free and nutritious food (Dunn et al., 2020). Students also faced increased stressors related to financial uncertainty, risk of exposure to COVID-

19, and social isolation (Courtney et al., 2020). Some youths also experienced the illness or death of loved ones, which was especially true in cities that were early epicenters of the virus, such as New York City and Detroit (Bach, 2020). Unsurprisingly, these accumulating stressors were associated with increases in psychological distress in youth (Bhatia, 2020). In addition, unlike other disasters, the enduring and uncertain nature of threats associated with the pandemic classify it as a chronic stressor (Liu & Alloy, 2010), prompting an expectation that youth mental health may continue to deteriorate as the pandemic wanes on. Research suggests that while most people are resilient in the face of acute stressors, the body cannot maintain physiological arousal to threat for extended periods of time without negative impact (Gruber et al., 2020).

Given the high prevalence of anxiety and depression among youth (Merikangas et al., 2010), the immediate COVID-related threats to child and adolescent mental health, and the likelihood that student mental health would continue to suffer in the face of an enduring stressor, early in the course of the pandemic there arose an urgent need to identify feasible and effective strategies for promoting student mental health. Although closed for in-person education, schools remained a critical access point for most students, furthering the need for tools and training to enable effective school-based mental health service delivery.

### **TRAILS Rapid Response to COVID-19**

In March 2020, TRAILS regular programming came to a halt due to the COVID-19 pandemic. To inform next steps, TRAILS developed a needs assessment survey, which was sent in April 2020 via email to the database of TRAILS-affiliated SMHPs. A total of 239 SMHPs were invited to participate and 155 responded (Rusch et al., submitted for publication). SMHPs reported that they had needs for support in a variety of domains related to mental health (e.g., trainings on online delivery, coping with grief). Over 90% of SMHPs respondents reported they had been in contact with their students during the suspension of in-person learning. The most pressing needs for students identified by respondents were general support for self-care and wellness and support for coping with anxiety and depression.

Prior to COVID-19, the majority of clinical resources housed on the TRAILS website (TRAILStoWellness.org) were designed to facilitate delivery of effective support services to students by SMHPs. Primary materials included 7-session and 10-session skills-based group manuals and accompanying materials for supporting students with depression and/or anxiety. In the COVID-19 needs assessment, SMHPs requested

adaptation of these group materials to incorporate further self-care skills and examples with particular relevance for COVID-19-related stressors. They also noted several implementation barriers related to virtual delivery and low internet bandwidth. Thus, they requested materials that allowed for virtual and interactive delivery of services, required few supplementary resources (e.g., handouts, worksheets), and required minimal training. The *Coping with COVID-19* (CC-19) group manual was born out of these direct requests as well as a global documented need.

### Coping With COVID-19 (CC-19)

CC-19 is a skills-based group program, informed by cognitive behavioral and mindfulness principles, designed to be delivered either virtually or in person. Featured coping skills are those designed to normalize stress in the context of a public health crisis, build resilience and coping in the face of uncertainty and hardship, and emphasize emotion identification and self-compassionate acceptance. Specifically, CC-19 applies the following evidence-based CBT and mindfulness principles to student wellness during the pandemic: (a) Psychoeducation about Feelings, (b) Mindfulness, (c) Behavioral Activation, (d) Cognitive Coping, and (e) Relaxation. These principles are then supported with between-session practice with the use of a handout entitled the *Daily Wellness Journal*. We briefly describe the rationale for each principle and associated skills below. In addition, [Table 1](#) links identified principles to CC-19 skills and [Table 2](#) depicts integration of the

Table 1  
Integration of Treatment Principles and CC-19 Skills

Principle	Skill
Psychoeducation about Feelings	Recognizing and validating grief* Understanding emotions
Behavioral Activation	Staying connected Getting active
Mindfulness	Gratitude Mindfulness and self-compassion
Cognitive Coping	Coping with uncertainty Coping with worried thoughts
Relaxation	Relaxation

Note: \* = also considered to incorporate the principle of mindfulness; CC-19 = Coping with COVID-19 seven-session skills group manual; there is a manual for grades 3-5 that presents the content differently, visit [TRAILStoWellness.org](http://TRAILStoWellness.org) for more information.

identified principles into each of the 7 CC-19 sessions. Given the universality of the pandemic as a stressor for students, the use of CC-19 was not restricted to students with clinical diagnoses or experiencing a clinical threshold of distress. Rather, SMHPs were encouraged to make the program widely available to all students. Skills were tailored to be less intensive than what might be required for a clinical setting, while still integrating key principles of EBPs for student anxiety and depression. CC-19 also has broad applicability, with suitability for group and individual modalities.

### Psychoeducation About Feelings

Psychoeducation about feelings (sometimes called emotion identification) is a foundational CBT principle for youth. It is intended to build awareness of their emotions, reduce shame and stigma around emotional responses, and then respond appropriately and be able to advocate for their needs. This principle of emotion identification is featured in many evidence-based treatments for anxiety and depression (Curry et al., 2000; Kendall & Hedtke, 2006) and is implemented within the CC-19 manual through the following skills: (1) *Understanding Emotions*, and (2) *Recognizing and Validating Grief*.

#### *Understanding Emotions*

The *Understanding Emotions* skill focuses on validating and normalizing co-occurring and conflicting emotions and providing psychoeducation about emotions broadly. Emotional acceptance may be especially critical in the context of a pandemic when new or confusing emotional responses are likely. To build emotional understanding, CC-19 grounds all sessions in the CBT model, explicitly teaching students the relationship between thoughts, feelings, and behaviors and how one's cognitive appraisal of a situation impacts feelings and behaviors. Students practice the *Understanding Emotions* skill across many activities within CC-19, for example by naming an emotion they are feeling and rating on a 1 to 10 scale of intensity using a "feelings thermometer." Most sessions also begin with a "feelings check-in" to facilitate emotion awareness, normalization of difficult feelings, and acceptance. For example, youths might express that they are feeling sad (intensity: 4/10), anxious (intensity: 3/10), and hopeful (intensity: 3/10).

#### *Recognizing and Validating Grief*

The pandemic created a pervasive sense of loss and grief as students and SMHPs attempted to acclimate to deterioration of school and work routines, lost social support, and public and personal health crises. Detroit,

Table 2  
Illustration of Session-by-Session Incorporation of CBT Principles Into Coping With COVID-19 (CC-19) for Grades 6–12

Principle	Session						
	1	2	3	4	5	6	7
Psychoeducation about feelings	X	X					
Behavioral Activation				X	X		
Mindfulness	X						X
Cognitive Coping			X			X	X
Relaxation		X					

Note. There is a manual for grades 3-5 that presents the content differently, please visit TRAILStoWellness.org for more details.

Michigan, was an epicenter of the pandemic in March and April with alarming rates of infection, hospitalization, and death. These losses were critical to acknowledge in CC-19, given TRAILS' working relationships with the Detroit Public School Community District. To that end, *Recognizing and Validating Grief* was included as a context-sensitive emotion identification skill in CC-19. Beyond simply supporting students in general emotion education, special attention was given to supporting students suffering from loss by encouraging students to name their emotions, normalize their uncomfortable emotions, increase their self-compassion and kindness, and recognize the common humanity revealed through global sadness, worry, and grief. Among other activities, this skill is taught through a “rose and thorn” activity, which provides students with opportunities to acknowledge and validate difficult experiences related to the pandemic. For example, youths might share a thorn relating to not having opportunities to see their friends in school and share a rose relating to being able to sleep for 10 additional minutes each morning.

## Mindfulness

Stress is a normal and natural reaction to the ongoing challenges associated with the pandemic. Mindfulness is a therapeutic principle that has been associated with emotion regulation, decreased depression and anxiety, and improved well-being (Zoogman et al., 2015). Within CC-19, mindfulness builds upon emotional awareness and acceptance practices taught through Psychoeducation of Feelings, to support non-judgmental present-moment awareness. CC-19 leverages these principles across numerous skills, including: *Gratitude* and *Mindful Self-Compassion*.

### *Gratitude*

Although periods of prolonged stress can understandably draw attention away from positive experiences and emotions, even chronically challenging times are typically not completely without reason for moments of joy. Research demonstrates that regular

gratitude practice is associated with lower anxiety and improved well-being (Wood et al., 2010). To promote feelings of gratitude among student participants, in CC-19 SMHPs validate student hardships while also helping students learn how to attend to positive experiences. Students are invited to cultivate gratitude, or a sense of thankfulness, for even small, positive experiences. Students are encouraged to practice this skill daily, even if it feels challenging at first, with a goal of decreasing a cognitive bias towards attending only to negative events and feedback—a bias that is common in the context of chronic risk and uncertainty (Bono & McCullough, 2006; Valikhani et al., 2019; de Voogd et al., 2018). Students are invited to practice the *Gratitude* skill with the assistance of a TRAILS hand-out entitled “Why I’m Grateful,” which provides sentence stems (e.g., “I am grateful for who I am because...” and “I am grateful for my family because...”) that can serve as inspiration and support for student gratitude.

### *Mindful Self-Compassion*

Research supports the use of self-compassion, rather than self-criticism, as an effective strategy for reducing anxiety and depressed mood (Bluth & Eisenlohr-Moul, 2017; Muris et al., 2016). By reducing shame and augmenting self-efficacy, self-compassion has also been shown to support individuals in making healthy behavioral changes (Terry & Leary, 2011). This skill can be especially relevant and useful in the context of ongoing stressors that lead to difficult changes and disappointments, many of which are beyond an individual’s control. *Mindful Self-Compassion* is taught in CC-19 through both formal and informal mindfulness meditation practices aimed to support students in extending nonjudgmental awareness towards themselves. In one formal practice of this skill, students listen to an audio recording of a Gratitude and Self-Compassion exercise, which guides students through first practicing gratitude for people and things outside of themselves, and then turning the gratitude inward and practicing compassion and gratitude for themselves (e.g., During the course of listening to the exercise, students are

asked to “Take a moment to think ‘I am grateful that my body can...’”).

### Behavioral Activation

Behavioral activation, or engaging in active, intentional behavior to alleviate depressed mood, has shown promising outcomes as a stand-alone intervention for youth depression (McCauley et al., 2016; Ritschel et al., 2016). This principle is also found throughout many treatments for youth depressive symptoms (Curry & Meyer, 2020) and has been emphasized as particularly important for youth during the COVID-19 pandemic (Mittal et al., 2020). CC-19 leverages the established benefits of this principle through two skills: *Getting Active* and *Staying Connected*.

#### *Getting Active*

Physical activity is an efficacious strategy for promoting wellness, decreased depressive and anxious symptoms, and health (e.g., Bai et al., 2020; Bernstein & McNally, 2018; Helgadóttir et al., 2017; Rebar et al., 2015). However, during the pandemic, many typical settings for physical activity, such as gyms, parks, and team sports, were unavailable or limited, suggesting a need to support students in intentionally engaging in this skill. CC-19 supports students in increasing physical activity through the *Getting Active* skill. This skill focuses on helping students identify, plan, and problem-solve engagement in activities that increase their heart rate for 15 to 30 minutes a day. Tips for overcoming practical hurdles included planning ahead, anticipating barriers, and problem solving how to overcome these barriers. Given that engaging in and maintaining consistent physical activity can be challenging, the skill leans on research about motivation, providing strategies to increase commitment and consistency to physical activity, regardless of students’ subjective experience of motivation (McDavid et al., 2014). To practice this skill, students are given a Behavioral Activation Planning sheet, and work in-session to identify at least three activities that they would like to try before the next meeting. The worksheet provides prompts to help students create a detailed plan (e.g., a student might decide to do 15 minutes of yoga right after waking up each weekday). Students are also asked to identify barriers, problem solve solutions, and identify rewards.

#### *Staying Connected*

Social connectedness and support is essential for human beings and predictive of positive outcomes following traumatic experiences (Pina et al., 2008; Trickey et al., 2012). In March 2020, public health officials rec-

ommended “social distancing”—a mandate to maintain at least 6 feet of distance among individuals from different households. CC-19 reframes this as “physical distancing” while prioritizing the role of social connectedness during school closures and unprecedented restrictions on peer interactions. *Staying Connected* promotes creativity in identifying and planning social connectedness in the context of COVID-19. Specifically, students are asked to brainstorm at least three meaningful social activities they will engage in prior to the next session. Suggestions are provided as starting points, including writing letters, scheduling regular calls to friends and family, and identifying and building connection to “healthy supports.” However, students are encouraged to identify personalized social activities that are especially meaningful to them.

### Cognitive Coping

Cognitive coping is a validated principle for reducing perseveration on unhelpful or irrational negative thoughts. Cognitive coping, sometimes called cognitive restructuring, is crucial for addressing situations where youth cannot “effect situational change” (Curry & Meyer, 2020). This principle has been included in many of the effective treatments for childhood anxiety and depression (Chorpita & Daleiden, 2009). Cognitive Coping is taught in CC-19 across two skills: *Coping with Worried Thoughts* and *Coping with Uncertainty*.

#### *Coping with Worried Thoughts*

Automatic negative thoughts are a natural response to stressful, uncertain, or high-risk situations. When these thoughts are unhelpful (i.e., cause undue distress/impairment) or irrational, they can lead to behaviors that make the situation worse. To alleviate undue perseveration on negative or unhelpful thoughts in the context of the pandemic, CC-19 implements a simplified restructuring procedure entitled *Coping with Worried Thoughts*, which consists of three steps: (1) identifying worried thoughts, (2) examining the facts, and (3) generating a believable but more helpful coping thought. These steps were intentionally selected to preserve the goal of cognitive restructuring while balancing the need for a universally applicable program that could be delivered with minimal facilitator training. To practice this skill, students review examples of *Coping with Worried Thoughts* and then take turns sharing their own worried thoughts; group members then assist each other in using the three steps of *Coping with Worried Thoughts* for these personalized examples. Example coping thoughts for COVID-19 can be found in Table 3.

Table 3  
Example Coping Thoughts

Example worried thoughts about COVID-19	More helpful coping thought
<p>“I am going to get very sick or die.”</p> <p>“Someone I care about is going to get sick and die.”</p>	<p>“There are many important and effective steps people can take to protect themselves and stay healthy.”</p> <p>“The vast majority of people who get this virus recover without becoming critically ill.”</p>
<p>“I won’t be able to cope with the emotional effects of this situation – the fear, sadness, or isolation will be overwhelming.”</p>	<p>“I have experienced difficulty in the past. I am strong and can get through even very difficult situations.”</p> <p>“I know many people who have experienced significant hardship and survived. I can reach out to them and learn more about what steps they took to get through it.”</p> <p>“I can still communicate with my family and loved ones by phone, video calls, texts, emails, and even sending letters or packages.”</p> <p>“I’m not alone – people all over the world are going through exactly what I’m going through right now.”</p>
<p>“My family can’t afford this situation – we are not going to be able to pay for anything.”</p>	<p>“This situation is unprecedented. All branches of government are passing emergency assistance bills and putting other measures in place to help people get through this.”</p> <p>“There are a lot of services working right now to help families pay bills, find food to eat, and keep their homes. I can learn more about these resources.”</p> <p>“This won’t last forever. It will be very hard to be financially unstable, but I am resourceful and have people I can turn to for help if I need it.”</p>
<p>“I am failing at keeping up with all the demands right now: work, family, finances, household responsibilities, and more.”</p>	<p>“I am doing the best I can right now. It’s okay if I can’t get to everything or if I make mistakes. This is not the time to be perfect.”</p> <p>“Everyone is trying to juggle many responsibilities right now. I’m not alone in feeling this way. I can ask other people how they are managing and try some new strategies.”</p> <p>“This is a totally new situation, and it will take time to figure out how to make it work.”</p>
<p>“If I leave my house, I will become sick. I am trapped.”</p>	<p>“The best health information right now advises people that it is ok to leave their houses to get exercise, groceries, and other necessities.”</p> <p>“I can leave my house to go for a walk, go for a drive, ride my bike, sit on my front steps, and just get fresh air. Getting out is good for my mental and physical health.”</p> <p>“When I go out, I can take precautions and follow guidelines about how to be safe by staying over six feet apart from others, washing my hands regularly, not touching my face, wearing a mask, and more.”</p>

### *Coping With Uncertainty*

CC-19 focuses on strategies to help students cope with pandemic-related uncertainty by distinguishing between things that are and are not within their control and practicing acceptance of stressors that are not controllable. Students were taught to reflect on the many things still within their power to influence, such as what they eat and drink, which steps they take to limit viral exposure, and the amount of social media they consume. However, without acknowledgment and acceptance of what is outside of one's control, it can be difficult to identify and invest in things that may be more worthy of attention and effort. Thus, CC-19 leverages both Cognitive Coping and Mindfulness principles to teach *Coping with Uncertainty*. *Coping with Uncertainty* is taught through a three-step model: (1) identifying which portions of the situation are within your control, (2) acknowledging and accepting your feelings about things beyond your control, and (3) identifying strategies to plan for or proactively address any portions of the situation that are within your control. Students are taught these steps, then given opportunities to practice each of the steps through various activities. One activity includes reviewing a list of items and determining which fall within an individual's control, and which do not. After practicing using all three steps for example scenarios, students are asked to use the steps to practice with their own uncertainty between sessions. For example, a student might use this skill to cope with uncertainty about whether their school will resume in-person learning before the end of the school year. In step one, the student identifies that they are not in control of whether the school board decides to reconvene in-person learning. In step two, the student acknowledges that they are worried (intensity: 6/10) and frustrated (intensity: 7/10) and explicitly tells themselves "It's ok to feel this way." In step three, the student problem solves what is within their control and decides to schedule a weekly virtual movie night with their closest friends to maintain social contact even in absence of in-person learning.

### **Relaxation**

Relaxation, a principle taught in many CBT protocols, teaches individuals to increase awareness about and control over physiological responses to uncomfortable or strong emotions. Relaxation training has been shown in meta-analyses to be an effective component in the treatment of anxiety (Manzoni et al., 2008; Weersing et al., 2008) and is thought to work on the principle of counterconditioning (Kendall & Suveg, 2006). CC-19 supports SMHPs in the delivery of relax-

ation skills with which they are likely already familiar. SMHPs are given flexibility in use of specific relaxation skills but are encouraged to demonstrate a variety of practices to support students in discovering at least one practice that appeals to them. Specific examples of relaxation practices that may be offered include guided imagery, deep breathing, progressive muscle relaxation, and grounding.

### **Implementation Support for CC-19**

Implementation support is the hallmark of the TRAILS program's approach to increasing the use of EBPs in school settings, and was theorized to be especially crucial in the context of launching new programming, such as the CC-19 manual. The literature supports that training alone is not sufficient for EBP implementation and sustainment, and that additional supports, such as consultation, are needed (Albers et al., 2020; Frank et al., 2020). Therefore, supports for CC-19 currently include a 3-hour virtual training, online access to all materials, and access to TRAILS clinical consultation as needed.

### **CC-19 Training**

The first CC-19 training was conducted in May 2020 and drew 982 attendees. Invitation to participate in this initial training was shared widely and was not limited to TRAILS partners. The training was 2 hours in length and provided an overview of core CBT principles, an introduction to the specific skills taught within the CC-19 program, and opportunities to practice the skills. Future trainings were expanded to 3 hours due to the development of content for grades 3–5. Best practice training strategies, such as behavioral rehearsal or practice with feedback (Dorsey et al., 2017), were not feasible due to the large number of attendees and the virtual training format.

In order to assess feasibility, acceptability, and adoption of CC-19, a brief Qualtrics survey was sent to attendees in June 2020. The overall satisfaction rating for the training was high, with a mean rating of 4.64 on a 5-point scale (1 = *Poor*; 5 = *Outstanding*). One attendee shared the following sentiments with the TRAILS team, which encompassed common ones: "Thank you so much! This webinar was awesome, the manual is excellent, and I can't wait to put it into practice. I can't believe you provided this all at no cost to us! Thank you, again!" The team also received feedback from training participants that they would like to have materials that were developmentally appropriate for younger students and learn how to apply the skills with younger ages. This feedback was



crucial and eventually led to the development of materials for grades 3–5.

Respondents ( $n = 414$ , 42.16% of training participants) primarily identified as school social workers ( $n = 155$ , 40.79% of respondents) or school counselors ( $n = 82$ , 21.58%) and were primarily located in Michigan, representing 117 Michigan cities or towns (Top 4: Detroit, Ann Arbor, Ypsilanti, and Grand Rapids). A total of 25 responses (6.03%) were located outside of Michigan (i.e., Washington, DC, Washington State, Missouri, New York, South Carolina, Texas, Virginia, and Wisconsin). Among attendees who had already used the CC-19 materials in the month between training and evaluation, 137 (33.09%) reported using the materials in individual sessions, and 61 (14.73%) reported use in group sessions. Participants who reported delivering at least one CC-19 group skills session collectively served approximately 90 students, and use of CC-19 in individual sessions collectively served approximately 600 students. A total of 216 (57.17%) attendees reported that they had *not* yet used the CC-19 materials (at least in part due to timing relative to the end of the academic school year).

Respondents who had implemented CC-19 in their schools also reported their satisfaction with the materials. A total of 128 attendees reported the degree to which they agreed with several statements (1 = *Strongly Disagree*, 4 = *Strongly Agree*): “Students appear to enjoy the session” ( $M = 3.27$ ), “It was easy for me to find students for sessions” ( $M = 3.01$ ), “My supervisors are supportive of my time spend delivering this curriculum” ( $M = 3.67$ ), “I enjoy running the sessions” ( $M = 3.60$ ), “These sessions will benefit the mental health of my students/clients” ( $M = 3.67$ ), “I felt well prepared to use the materials after the training” ( $M = 3.48$ ), and “The materials are easy to use” ( $M = 3.65$ ).

Respondents were also asked to report logistical barriers they had experienced in implementing the CC-19 groups. Identified barriers included: student participation (e.g., student buy-in, difficulty getting parental permission, not having enough students), lack of time (e.g., competing demands, lack of school time), technical difficulties, and lack of administrator support. However, the majority of respondents ( $n = 311$ , 68.81%) reported that they were planning on using the materials during the upcoming, 2020–2021, school year.

As of this writing, three additional CC-19 trainings have been offered. These trainings, which were targeted toward TRAILS partners, took place in August, September, and November of 2020 and supported a total of approximately 400 additional trainees. Additional data, including the number of students impacted, is still pending.

## Online Access to Materials

Implementation support offered by TRAILS includes maintenance of the program website (TRAILStoWellness.org) in which the majority of materials are publicly available and free to use. Materials include the CC-19 resources, additional COVID-19 resources including Self-Care guides for SMHPs, students, and the general public, and CBT and mindfulness handouts, activities, multimedia, and instructional guides. Even though TRAILS materials have been developed with Michigan SMHPs, students, and school settings in mind, website analytics demonstrate that TRAILS materials, including the CC-19 manual, are widely used across the United States and in other countries for individual and group therapy, and in inpatient and outpatient settings. Specifically, the TRAILS COVID-19 resource tab has been accessed over 40,000 times with over 20,000 unique users in California, Illinois, Massachusetts, Michigan, New York, North Carolina, Ohio, Texas, Virginia, and Wisconsin.

### Virtual Delivery Support

In addition to the many clinical resources listed above, the TRAILS program has developed instructional guides. Among these guides are several dedicated specifically to delivering virtual groups. These virtual guides and associated materials were developed in the early months of the pandemic when it quickly became apparent that virtual adaptations were needed to support SMHPs ease of delivery and to provide students with a more interactive experience. Among other supports, TRAILS developed interactive slide decks to support session delivery. To make virtual delivery of groups engaging for students and the delivery uncomplicated for SMHPs, these interactive slides were created to mirror and support each CC-19 session agenda. The slide decks utilize an add-on called Pear Deck, which offers students the opportunity to respond to questions anonymously and in real time. SMHPs are able to share student responses with the group, offering a rich, engaging, and nonthreatening environment for expression.

## Access to TRAILS experts

In addition to the CC-19 training and website, SMHPs implementing the CC-19 manual receive support in delivering the CC-19 manual through access to clinical consultation from TRAILS clinical staff. Specifically, each week TRAILS hosts a support call for any SMHP implementing any TRAILS programming. This call offers SMHPs opportunities to ask questions about CBT and mindfulness principles, about

TRAILS resources, or about logistical concerns (e.g., strategies for recruiting students to groups or how to use the virtual support resources, such as interactive slide decks). Attendees can also use the time to role-play skills or learn from other SMHPs implementing TRAILS programs. Only a small percentage of SMHPs attended each week, with the majority seeking support on how to adapt to virtual groups and how to use the interactive slides. Finally, all implementers are given access to a TRAILS support email address, which is monitored by a clinical expert. SMHPs can use this email to further support their successful implementation of CC-19 resources.

## Discussion

This article describes the rapid development and implementation of the TRAILS CC-19 program to equip SMHPs to provide effective mental health care to large numbers of vulnerable students across the state of Michigan. The program stemmed from both an observed clinical need and a needs assessment survey administered to SMHPs throughout Michigan. The program is now in wide use and provides a significant solution to the lack of available resources to suit the specific needs of school districts and SMHPs supporting student mental health during COVID-19. Even though CC-19 materials were developed with SMHPs in mind, they can be used flexibly and creatively, either as groups or stand-alone interventions, in a variety of settings. Additionally, given that CC-19 was developed with therapeutic principles and implementation in mind, its relevance and utility extend beyond COVID-19 and may be appropriate for supporting student mental health during other types of community stressors, crises, and disasters, as well as for general mental health demands as a form of scalable treatment.

The development of the CC-19 response was guided by key therapeutic principles (i.e., psychoeducation, mindfulness, behavioral activation, cognitive coping, and relaxation) that were matched to adapted CBT and mindfulness skills. Skills were then packaged into a 7-session group manual with respective agendas, interactive slides, and handouts. SMHPs then were invited to participate in a brief training and optional weekly support calls. Results from posttraining evaluations indicated that SMHPs were satisfied with training and resources for CC-19 materials. This could indicate potential acceptability of CC-19 among SMHPs, which is a crucial implementation outcome and precondition to intervention adoption (Proctor et al., 2011). In addition, the response materials have already been used with hundreds of youths in either individual or group settings, revealing some level of penetration of CC-19 into the intended settings (Proctor et al., 2011). Docu-

mented student access will increase, as data is collected from participants in additional trainings that occurred in the fall months.

Due to the rapid development of the CC-19 manuals, there are several limitations, including a lack of adaptation of materials for special needs education. However, suggestions are made to SMHPs during training about possible adaptations (e.g., using lower grade level materials). Additionally, if SMHPs and/or students lack internet access, the adaptations for interactive virtual delivery are limited, although the majority of the material could be delivered via phone call (if available). Future directions of this work include continued adaptation and development of materials by responding to ongoing partner feedback, as well as evaluation of implementation outcomes and student well-being.

## Conclusion

The COVID-19 pandemic has deeply impacted youth mental health and wellness. TRAILS responded to school district partners to attend to the emerging mental health crises in their students by developing a CBT group skills manual called Coping with COVID-19 (CC-19), and supporting these materials with various implementation supports, such as low-intensity training, open-access website with materials, and weekly support calls. These materials appear to be acceptable for use by various mental health professionals in multiple settings.

## References

- Albers, B., Metz, A., Burke, K., Bührmann, L., Bartley, L., Driessen, P., & Varsi, C. (2020). Implementation support skills: Findings from a systematic integrative review. *Research on Social Work Practice*. <https://doi.org/10.1177/1049731520967419>.
- Ali, M. M., West, K., Teich, J. L., Lynch, S., Mutter, R., & Dubenitz, J. (2019). Utilization of Mental Health Services in Educational Setting by Adolescents in the United States. *The Journal of School Health*, 89(5), 393–401. <https://doi.org/10/ghgbj8>.
- Bach, T. (2020). Why Coronavirus Is a Disaster for Detroit | Cities | US News. <https://www.usnews.com/news/cities/articles/2020-04-08/why-coronavirus-is-a-disaster-for-detroit>.
- Bai, Y., Wang, Y., Li, Y., & Liu, D. (2020). Influence of exercises of different intensities on adolescent depression. *Revista Argentina de Clínica Psicológica*, 29(1), 417–422.
- Beidas, R. S., Mychailyszyn, M. P., Edmunds, J. M., Khanna, M. S., Downey, M. M., & Kendall, P. C. (2012). Training school mental health providers to deliver cognitive-behavioral therapy. *School Mental Health*, 4(4), 197–206. <https://doi.org/10.1007/s12310-012-9074-0>.
- Bernstein, E. E., & McNally, R. J. (2018). Exercise as a buffer against difficulties with emotion regulation: A pathway to emotional wellbeing. *Behaviour Research and Therapy*, 109, 29–36. <https://doi.org/10.1016/j.brat.2018.07.010>.

- Bhatia, R. (2020). Editorial: Effects of the COVID-19 pandemic on child and adolescent mental health. *Current Opinion in Psychiatry*, 33(6), 568–570. <https://doi.org/10/ghg88m>.
- Bluth, K., & Eisenlohr-Moul, T. A. (2017). Response to a mindful self-compassion intervention in teens: A within-person association of mindfulness, self-compassion, and emotional well-being outcomes. *Journal of Adolescence*, 57, 108–118. <https://doi.org/10.1016/j.adolescence.2017.04.001>.
- Bono, G., & McCullough, M. E. (2006). Bringing forgiveness and gratitude into cognitive psychotherapy. *Journal of Cognitive Psychotherapy*, 20(2), 147–158.
- Chorpita, B. F., & Daleiden, E. L. (2009). Mapping evidence-based treatments for children and adolescents: Application of the distillation and matching model to 615 treatments from 322 randomized trials. *Journal of Consulting and Clinical Psychology*, 77(3), 566–579. <https://doi.org/10/dvfcf>.
- Cohen, R. I. S., & Bosk, E. A. (2020). Vulnerable Youth and the COVID-19 Pandemic. *Pediatrics*, 146(1). <https://doi.org/10/ggv3w3>.
- Collishaw, S. (2015). Annual Research Review: Secular trends in child and adolescent mental health. *Journal of Child Psychology and Psychiatry*, 56(3), 370–393. <https://doi.org/10/f68wxn>.
- Committee on School Health (2004). School-based mental health statement. *Pediatrics*, 113(6) <https://pediatrics.aappublications.org/content/pediatrics/113/6/1839.full.pdf>.
- Costello, E. J., He, J., Sampson, N. A., Kessler, R. C., & Merikangas, K. R. (2014). Services for adolescents with psychiatric disorders: 12-month data from the national comorbidity survey-adolescent. *Psychiatric Services*, 65(3), 359–366. <https://doi.org/10/f5t83k>.
- Courtney, D., Watson, P., Battaglia, M., Mulsant, B. H., & Szatmari, P. (2020). COVID-19 impacts on child and youth anxiety and depression: Challenges and opportunities. *The Canadian Journal of Psychiatry*, 65(10), 688–691. <https://doi.org/10/ghhw3m>.
- Cummings, J. R., Wen, H., & Druss, B. G. (2013). Improving access to mental health services for youth in the United States. *JAMA*, 309(6), 553. <https://doi.org/10/ghft7h>.
- Curry, J. F., & Meyer, A. E. (2020). Evidence-based psychosocial treatments of depression in adolescents. In *Handbook of evidence-based therapies for children and adolescents* (pp. 121–136). [https://doi.org/10.1007/978-3-030-44226-2\\_9](https://doi.org/10.1007/978-3-030-44226-2_9).
- Curry, J. F., Wells, K. C., Brent, D. A., Clark, G. N., Reinecke, M. A., Benazon, N., & March, J. S. (2000). *Treatment for Adolescents with Depression Study (TADS) cognitive behavior therapy manual: Introduction, rationale, and adolescent sessions*. Duke University Medical Center. Unpublished manual.
- Dorsey, S., Lyon, A. R., Pullmann, M. D., Jungbluth, N., Berliner, L., & Beidas, R. (2017). Behavioral rehearsal for analogue fidelity: Feasibility in a state-funded children's mental health initiative. *Administration and Policy in Mental Health*, 44(3), 395–404. <https://doi.org/10.1007/s10488-016-0727-4>.
- Dunn, C. G., Kenney, E., Fleischhacker, S. E., & Bleich, S. N. (2020). Feeding Low-Income Children during the Covid-19 Pandemic. *New England Journal of Medicine*, 382(18), e40. <https://doi.org/10/ggq8bb>.
- Farmer, E. M. Z., Burns, B. J., Phillips, S. D., Angold, A., & Costello, E. J. (2003). Pathways into and through mental health services for children and adolescents. *Psychiatric Services*, 54(1), 60–66. <https://doi.org/10/c4zm5c>.
- Frank, H. E., Becker-Haimes, E. M., & Kendall, P. C. (2020). Therapist training in evidence-based interventions for mental health: A systematic review of training approaches and outcomes. *Clinical Psychology: Science and Practice*, 27(3), e12330. <https://doi.org/10.1111/cpsp.12330>.
- Gruber, J., Prinstein, M. J., Clark, L. A., Rottenberg, J., Abramowitz, J. S., Albano, A. M., Aldao, A., Borelli, J. L., Chung, T., Davila, J., Forbes, E. E., Gee, D. G., Hall, G. C. N., Hallion, L. S., Hinshaw, S. P., Hofmann, S. G., Hollon, S. D., Joormann, J., Kazdin, A. E., Klein, D. N., La Greca, A. M., Levenson, R. W., MacDonald, A. W., III, McKay, D., McLaughlin, K. A., Mendle, J., Miller, A. B., Neblett, E. W., Nock, M., Olatunji, B. O., Persons, J. B., Rozek, D. C., Schleider, J. L., Slavich, G. M., Teachman, B. A., Vine, V., & Weinstock, L. M. (2020). Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to action. *American Psychologist*. <https://doi.org/10/gg7t67>.
- Hedegaard, H., & Curtin, S. (2018). Suicide mortality in the United States, 1999–2017. (NCHS Data Brief No. 330). National Center for Health Statistics. <https://stacks.cdc.gov/view/cdc/60894>.
- Helgadóttir, B., Forsell, Y., Hallgren, M., Möller, J., & Ekblom, Ö. (2017). Long-term effects of exercise at different intensity levels on depression: A randomized controlled trial. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 105, 37–46. <https://doi.org/10.1016/j.ypmed.2017.08.008>.
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., ... Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547–560. <https://doi.org/10/ggszjz>.
- Kendall, P. C., & Hedtke, K. A. (2006). *Cognitive-behavioral therapy for anxious children: Therapist manual* (3rd ed.). Workbook Publishing.
- Kendall, P. C., & Suveg, C. (2006). Treating anxiety disorders in youth. In *Child and adolescent therapy: Cognitive-behavioral procedures*, pp. 243–294. Guilford Press.
- Koschmann, E., Abelson, J. L., Kilbourne, A. M., Smith, S. N., Fitzgerald, K., & Pasternak, A. (2019). Implementing evidence-based mental health practices in schools: Feasibility of a coaching strategy. *The Journal of Mental Health Training, Education and Practice*, 14(4), 212–231. <https://doi.org/10/ghfrxx>.
- Liu, R. T., & Alloy, L. B. (2010). Stress generation in depression: A systematic review of the empirical literature and recommendations for future study. *Clinical Psychology Review*, 30(5), 582–593. <https://doi.org/10/dvs5xc>.
- Manzoni, G. M., Pagnini, F., Castelnuovo, G., & Molinari, E. (2008). Relaxation training for anxiety: A ten-years systematic review with meta-analysis. *BMC Psychiatry*, 8(1), 41. <https://doi.org/10/ddxmhs>.
- McCauley, E., Gudmundsen, G., Schloretd, K., Martell, C., Rhew, L., Hubble, S., & Dimidjian, S. (2016). The adolescent behavioral activation program: Adapting behavioral activation as a treatment for depression in adolescence. *Journal of Clinical Child & Adolescent Psychology*, 45(3), 291–304. <https://doi.org/10.1080/15374416.2014.979933>.
- McDavid, L., Cox, A. E., & McDonough, M. H. (2014). Need fulfillment and motivation in physical education predict trajectories of change in leisure-time physical activity in early adolescence. *Psychology of Sport and Exercise*, 15(5), 471–480. <https://doi.org/10.1016/j.psychsport.2014.04.006>.
- Merikangas, K. R., He, J., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980–989. <https://doi.org/10/bz9v5v>.
- Mittal, V. A., Firth, J., & Kimhy, D. (2020). Combating the dangers of sedentary activity on child and adolescent mental health during the time of COVID-19. *Journal of the American Academy of Child and Adolescent Psychiatry*, 59(11), 1197–1198. <https://doi.org/10/ghhdn3>.

- Muris, P., Meesters, C., Pierik, A., & de Kock, B. (2016). Good for the self: Self-compassion and other self-related constructs in relation to symptoms of anxiety and depression in non-clinical youths. *Journal of Child and Family Studies, 25*(2), 607–617. <https://doi.org/10.1007/s10826-015-0235-2>.
- Mychailyszyn, M. P., Brodman, D. M., Read, K. L., & Kendall, P. C. (2012). Cognitive-behavioral school-based interventions for anxious and depressed youth: A meta-analysis of outcomes. *Clinical Psychology: Science and Practice, 19*(2), 129–153. <https://doi.org/10/f4b2h6>.
- Pina, A. A., Villalta, I. K., Ortiz, C. D., Gottschall, A. C., Costa, N. M., & Weems, C. F. (2008). Social support, discrimination, and coping as predictors of posttraumatic stress reactions in youth survivors of Hurricane Katrina. *Journal of Clinical Child & Adolescent Psychology, 37*(3), 564–574. <https://doi.org/10/bhq28k>.
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(2), 65–76. <https://doi.org/10.1007/s10488-010-0319-7>.
- Rebar, A. L., Stanton, R., Geard, D., Short, C., Duncan, M. J., & Vandelanotte, C. (2015). A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations. *Health Psychology Review, 9*(3), 366–378. <https://doi.org/10.1080/17437199.2015.1022901>.
- Ritschel, L. A., Ramirez, C. L., Cooley, J., & Craighead, W. E. (2016). Behavioral activation for major depression in adolescents: Results from a pilot study. *Clinical Psychology: Science & Practice, 23*(1), 39–57.
- Rusch, A., Rodriguez-Quintana, N., Youn Choi, S., Lane, A., Smith, M., Koschmann, E., Smith, S. (2021). School professional needs during the COVID-19 pandemic to support student mental health [Manuscript submitted for publication]. University of Michigan.
- Terry, M. L., & Leary, M. R. (2011). Self-compassion, self-regulation, and health. *Self and Identity, 10*(3), 352–362. <https://doi.org/10.1080/15298868.2011.558404>.
- Trickey, D., Siddaway, A. P., Meiser-Stedman, R., Serpell, L., & Field, A. P. (2012). A meta-analysis of risk factors for post-traumatic stress disorder in children and adolescents. *Clinical Psychology Review, 32*(2), 122–138. <https://doi.org/10/d4bfdq>.
- Valikhani, A., Ahmadnia, F., Karimi, A., & Mills, P. J. (2019). The relationship between dispositional gratitude and quality of life: The mediating role of perceived stress and mental health. *Personality and Individual Differences, 141*, 40–46. <https://doi.org/10.1016/j.paid.2018.12.014>.
- de Voogd, L., Wiers, R. W., de Jong, P. J., Zwitser, R. J., & Salemink, E. (2018). A randomized controlled trial of multi-session online interpretation bias modification training: Short- and long-term effects on anxiety and depression in unselected adolescents. *PLOS ONE, 13*(3), e0194274. <https://doi.org/10.1371/journal.pone.0194274>.
- Weersing, V. R., Gonzalez, A., Campo, J. V., & Lucas, A. N. (2008). Brief behavioral therapy for pediatric anxiety and depression: Piloting an integrated treatment approach. *Cognitive and Behavioral Practice, 15*(2), 126–139. <https://doi.org/10.1016/j.cbpra.2007.10.001>.
- Williams, N. J., & Beidas, R. S. (2019). Annual Research Review: The state of implementation science in child psychology and psychiatry: A review and suggestions to advance the field. *Journal of Child Psychology and Psychiatry, 60*(4), 430–450. <https://doi.org/10.1111/jcpp.12960>.
- Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review, 30*(7), 890–905. <https://doi.org/10.1016/j.cpr.2010.03.005>.
- Zoogman, S., Goldberg, S. B., Hoyt, W. T., & Miller, L. (2015). Mindfulness Interventions with Youth: A Meta-Analysis. *Mindfulness, 6*(2), 290–302. <https://doi.org/10/ggs6b6>.

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