



Coping Power-*Rural*: Iterative Adaptation of an Evidence-Based Preventive Intervention for Rural Upper Elementary and Middle Schools

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Abstract

Background Educators in rural schools are uniquely situated to address youth mental health disparities, yet often face challenges in delivering mental health supports. This paper describes the process of adapting the evidence-based Coping Power program, a small group prevention program for youth with aggressive behavior problems, to be a two-tiered (Tier 1 and Tier 2), transdiagnostic intervention to improve fit and feasibility for rural upper elementary and middle schools.

Method Identified challenges with the Coping Power program for rural areas included program length, substantial staffing and resource requirements, lack of universal programming, low caregiver engagement, and co-occurring problems. Initial adaptations included a classroom and small group format implemented by school staff, teacher consultations integrated into coaching and co-facilitation, and a technology-supported caregiver component. Implementer feedback forms, coaching notes, and individual interviews informed the iterative development and feasibility testing process.

Results Between 2019 and 2023, thirteen schools across six rural districts implemented the program. Student curriculum revisions included order and relative emphasis of content, classroom and small group overlap, necessary simplification of concepts, improved contextualization to the rural setting, and the addition of student workbooks. Supports for implementers included fully developed lesson plans and slides, a comprehensive implementation manual, video lesson overviews, action-focused training, and a 3-session coaching model to support implementer preparation and sustain motivation. Teacher and caregiver infographic text “nudges” were improved to promote generalization of concepts across settings.

Discussion By partnering with school-based implementers, the adapted program holds promise to be more feasible and appealing for rural schools than the original model. This fully developed program is now ready for larger-scale testing in rural schools.

Keywords Rural · School mental health · Social and emotional learning · Prevention · Coping Power

Introduction

Youth in the rural USA face substantial educational and socio-economic disadvantage, less access to mental health supports, and disproportionate impact of mental health problems (Fontanella et al., 2015; Monnat & Rigg, 2016; Morales et al., 2020). Rural Appalachia, for example, has one of the highest concentrations of low educational attainment areas in the country, coupled with higher rates of psychological distress, suicide, and some of the largest treatment gaps nationwide (Rainer, 2012; USDA, 2017). With barriers, such as provider shortages, transportation problems, and increased stigma, schools in rural areas play

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a critical role in supporting youth mental health (Michael et al., 2023).

However, the geographic context of schools in rural areas also presents additional challenges to service delivery. For example, whereas lack of access to mental health services is a community-wide issue, inequitable school funding formulas can lead to fewer resources to address this gap in schools in rural areas (Hartman et al., 2022). Relatedly, rural schools have been noted to have less experienced teachers, fewer support staff and services, higher staff turnover, and less access to effective training and coaching than non-rural schools (Ingersoll & Tran, 2023; Searcey Van Vulpen et al., 2018). These challenges reduce staff capacity to feasibly deliver multiple evidence-based programs (EBPs) to address a range of presenting problems in their students (Michael et al., 2023).

While service capacity issues are not unique to rural schools, rural schools are often overlooked in education research and policy, with the potential result that guidelines and recommendations fail to center their experiences. In response, rural education working groups have consistently highlighted research priorities related to capacity building for rural school mental health, including inquiry into models to support student, family, teacher, and leader mental health in rural areas (Hartman et al., 2022; National Rural Education Association, 2016). Interventions that have not been developed with the rural context in consideration may require substantial adaptations to both content and delivery to fit local experiences, meet needs, and leverage rural schools' unique strengths (D'Alessandri et al., 2003; Heflinger & Christens, 2006).

One promising approach to building mental health service capacity while considering human resource constraints is to develop more efficient and streamlined interventions, such as those that take a transdiagnostic approach to simultaneously address multiple, often co-occurring problems (Hersh et al., 2016). While few school-based EBPs were originally developed to follow this approach, many share similar elements that support adaptation to address a range of problems (Clifford et al., 2020). Coping Power is one such program, which was originally designed to reduce aggressive behavior problems in small groups of upper elementary school-aged children (Lochman & Wells, 2002b). In its original design, Coping Power included 34 group sessions for students delivered over a year and a half and 16 parallel group sessions for parents. Although the focus has been to reduce externalizing problems, Coping Power's cognitive behavioral treatment approach aims to improve emotion regulation and social problem-solving skills, thereby targeting the underlying processes of both internalizing and externalizing problems (Clifford et al., 2020).

Prior studies of Coping Power have documented reductions in a range of adverse outcomes, including delinquency,

aggression, and substance misuse, as well as improvement in academic achievement, self-regulation skills, and social competence (Lochman & Wells, 2002a, 2002b, 2003; Lochman et al., 2013). Data syntheses from multiple Coping Power studies highlight the intervention's impact on externalizing problems and suicidal thoughts and behaviors (McDaniel et al., In Prep.; S. C. McDaniel et al., 2023; H. L. McDaniel et al., 2023; Morgan-López et al., 2022). However, this evidence is based largely on studies in urban and suburban settings; a systematic review only identified two studies of Coping Power that had been conducted in rural schools (S. C. McDaniel et al., 2023). Of these two rural studies, one focused on cultural adaptations for Mexican American youth (O'Donnell et al., 2012) while the other reported impacts in only a subset of twenty participants (Jurecska et al., 2011). Given limited research in rural school contexts, there is value in additional adaptation and research centering rural schools. Several studies have adapted and evaluated Coping Power with changes in structure, settings and population, and implementation strategies with promising results (see S. C. McDaniel et al., 2023; Boxmeyer et al., 2021; Lochman et al., 2012; Muratori et al., 2017). The Early Adolescent Coping Power (EACP) is one such adaptation of Coping Power that is designed to meet the developmental needs of middle school students. EACP is a Tier 2 intervention that includes 25 small group sessions for students delivered over a single academic year, along with 12 in-person group caregiver sessions and individual student and teacher consultations delivered by a trained mental health specialist (Bradshaw et al., 2017). EACP retains a focus on emotion regulation and social problem-solving while addressing the shifting developmental issues faced by students entering the middle school grades (e.g., bullying, deviant strategies to resist peer influences, parental monitoring and disclosure, study skills) to improve positive outcomes. Findings from a recent randomized controlled trial of EACP suggested that the model had a significant impact on externalizing problems, with some moderated (baseline by intervention) impacts on internalizing symptoms (Bradshaw et al., 2023). In that study, the implementing clinicians were hired by the project team as a supplemental resource to lead sessions and provide face-to-face coaching for classroom teachers. Although that trial included 40 middle schools in Maryland and Alabama, some of which were rural, the program content was not specifically focused on youth in rural areas.

Current Study

Despite the promising effects described above, neither Coping Power nor EACP was developed to be sensitive to the unique needs and challenges faced by educators in rural schools. Through our experience developing and

testing EACP and initial discussions with partners in rural schools, we identified opportunities to adapt Coping Power to improve feasibility in the rural context. We consulted with Coping Power researchers, implementers, and the original intervention developer to explore common challenges to implementation and suggestions for adaptations. We also met with administrators and staff from rural schools, discussing the specific mental and behavioral health problems their students were facing, as well as current supports and what they would want from new programming.

Through this exploratory process prior to initiating our research, we identified four challenges for which adaptations to the EACP intervention could improve the fit and feasibility of the program for use in rural schools: (1) Program Intensity (e.g., length, resource demand); (2) Lack of a Universal, Classroom-Based Programming, (3) Co-occurring Internalizing Problems, and (4) Low Caregiver Engagement. Addressing these challenges required adaptations to the student curriculum, implementation strategy, teacher engagement, and caregiver delivery approaches. The purpose of this paper is to describe the iterative, stakeholder-engaged process undertaken to develop Coping Power-*Rural*, a two-tiered (Tier 1 and Tier 2), contextually relevant transdiagnostic version of the EACP Program that centers the needs and experiences of staff and students and to optimize the content and delivery of the program in rural upper elementary and middle schools.

Method

Coping Power-*Rural* (CP-R) adaptation and initial feasibility testing took place between 2019 and 2023. Following an ADDIE (Analysis, Design, Development, Implementation, and Evaluation; Dick & Carey, 1996) approach to intervention development, the process included three phases: (1) needs analysis and initial adaptation; (2) iterative, stakeholder-engaged implementation and refinement; and (3) feasibility evaluation.

Initial Adaptation

Initial conceptualization and adaptation began in spring, 2019. The intervention development team consisted of researchers, consultants, and graduate students in clinical psychology, child development, special education, intervention adaptation, and implementation science. Additionally, to ensure the adaptations maintained fidelity to the core elements of Coping Power while also considering the needs of rural communities, educators, and students, two advisory groups were established. These included (1) the original program developer and other nationally recognized researchers with expertise in school-based mental and behavioral health

services and the implementation of EBPs in rural communities, and (2) clinicians, educators, administrators, and other local school and mental health personnel with expertise in rural school behavioral and mental health issues.

Consistent with EACP, the CP-R theory of change (see logic model in Online Resource 1) maintains a focus on social-cognitive processes contributing to behavioral and mental health problems that impair academic functioning (Bradshaw et al., 2017). Following the core intervention team's a priori identification of the four areas of focus, initial EACP adaptations were made to the student curriculum, implementation strategy, teacher engagement, and caregiver engagement approaches. Decisions regarding adaptation were discussed as a research team, but the retention of core elements promoting emotion regulation and social problem-solving was prioritized. Existing materials were expanded to maximize transdiagnostic impact, as well as engagement of caregivers and teachers. Initial adaptations are described below (also see logic model details in Online Resource 1).

Student Curriculum

Our prior experience with EACP coupled with feedback collected prior to this study suggested that the 25-week program was challenging for school staff to implement over the course of a single academic year. In addition, many schools lacked access to universal, classroom-based programming, despite research indicating that all students benefit from exposure to foundational social and cognitive skills, thereby reducing need for more intensive supports (Bradshaw et al., 2019). In the absence of evidence-based universal programming, some teachers were dedicating substantial time and energy to creating their own lessons or attempting to piece together elements of various universal practices with minimal guidance—all of which could complicate implementation and undermine the potential impact of an indicated preventive intervention like EACP (Bradshaw et al., 2014).

To address both concerns, we adapted the EACP youth component into 12 weekly classroom lessons for all students, accompanied by 12 parallel small group sessions to support students with elevated behavioral and mental health concerns. All sessions are designed to be 30–45 min each and include a mixture of didactics, discussion, and application-based activities. Both classroom and small group lessons included this mixture, although the classroom lessons provide more direct instruction and examples with low emotional loading (e.g., curated videos), and the small group sessions encourage students to discuss and apply skills to their own lived experiences. This tiered approach allows implementation to occur over a 12-week period, maintaining more intensive supports for students with greater needs, while also expanding the reach of the program to include the entire classroom of students. Additionally, delivering

intervention content across multiple settings holds potential for promoting generalizability and strengthening the effects of the intervention for students in the small group (Lochman & Wells, 2002a).

The ability to directly address multiple problems within a single intervention holds promise for expanding the feasibility and significance of a program in supporting youth in rural areas, as these youth often have access to less resources and increased rates of comorbid behavioral and mental health challenges (Bearman & Weisz, 2015; Hersh et al., 2016; Michael et al., 2023). We reviewed Coping Power content alongside other small-group school-based interventions to identify common elements leveraged to target a range of outcomes (Clifford et al., 2020), including depression and anxiety. This guided content refinements across all lessons. For instance, we expanded and added content on building skills such as relaxation and altering how to think about a problem, similar to cognitive restructuring in cognitive behavioral therapy (CBT). In other cases, existing strategies were broadened to address additional emotions, such as presenting and discussing emotional intensity with different emotions such as anger, sadness, or anxiety. Lastly, we conducted a full content review of the student materials to update examples and terminology for contextual relevance. For example, scenarios about managing interactions at the mall or in the neighborhood were replaced with scenarios such as managing interactions on the school bus, where many students in rural areas spend a substantial amount of time.

Implementation Strategy

Given challenges with the availability of specialist providers in rural settings (Michael et al., 2023), rather than rely on expert clinicians, we conceptualized teachers being directly involved in classroom lesson delivery, with school counselors facilitating the small groups. These staff would be trained and supported by a project-trained coach. To increase implementation feasibility, we developed user-friendly materials including classroom lesson guides with accompanying scripts, instructional slides, and video explanations of lesson content.

Teacher Engagement

With greater teacher involvement in implementation, the separate EACP teacher consultations were incorporated into the training and coaching approach to both support implementation and further promote use of strategies related to student engagement, culturally responsive practices, social-emotional learning, and classroom management. We also developed Teacher Challenge Tasks for each lesson, which were prompts and tips to support teachers in generalization of CP-R lesson content to other instructional time.

Caregiver Engagement

Although the importance of the caregiver involvement is well recognized (Ellis et al., 2013; Herman et al., 2012), caregiver engagement is a common challenge in school-based programming (Ellis et al., 2013; McDaniel et al., 2014). Recognizing the geographic and time barriers faced by caregivers in rural areas, the 12-session EACP caregiver program was replaced with a single session for caregivers of students receiving the small group component. The session provides an orientation to CP-R as well as caregiver training in general behavioral management strategies. We also developed a series of infographics for caregivers that could be delivered via text message or email, providing a brief overview of the weekly lesson content and related tips, based on our work with Coping Power in urban high schools (Thomas et al., 2021). Technology-assisted approaches are increasingly used to promote engagement of rurally located caregivers with promising results (Castleman & Page, 2017; Ingersoll & Berger, 2015).

Setting and Partner Engagement

Setting

Following the initial adaptation of the classroom lessons, between 2019 and 2022 we partnered with upper elementary and middle schools in Virginia, West Virginia, and North Carolina over four rounds of iterative implementation, refinement, and additional intervention development prior to a fifth round of implementation for formal feasibility testing. Partner schools were public elementary and middle schools located in rural districts in the Appalachian Mountains as well as in central Virginia. School recruitment efforts leveraged both pre-existing connections (e.g., internship sites and university-school partnerships) and new outreach efforts.

Over the course of the project, 13 schools across six districts partnered in field testing elements of the intervention (see Table 1). Version 1 (V1; Spring, 2019) involved three implementers in District 1; version 2 (V2; 2019–2020) involved 22 implementers across Districts 1–4; version 3 (V3; 2020–2021) involved 19 implementers across Districts 2–4; version 4 (V4; 2021–2022) included four implementers from Districts 2 and 4; and final testing (feasibility; 2022–2023) included ten implementers across Districts 4–6. The majority of implementers each year were new; approximately 15% had repeat involvement.

All represented districts were classified as rural according to the National Center for Education Statistics and served predominantly white student populations (% White ranged from 76 to 97% across districts). Schools were primarily split between elementary (in which either 4th or 5th grades were targeted) and middle or K-8 (in which target grades

Table 1 Summary of iterative coping Power-Rural intervention development

Iteration	Version 1	Version 2	Version 3	Version 4	Feasibility
Year	Spring 2019	2019–2020	2020–2021	2021–2022	2022–2023
Implementers	3	22	19	4	10
Schools	1	8	5	3	4
Districts	1	4	3	2	3
Student Component	12 classroom lessons with activities and examples closely adhering to EACP but adapted for classroom-wide implementation	Shifts in content, improved examples; Included goal progress tracking toward goal; 12 small group sessions with classroom lesson overlap; Homework assignments with points and prize box	Re-organized 3-module framework; Improved examples (e.g., used more relevant images); Increased discussion of confidentiality and rule setting; Removed goal setting and progress toward goals; Decreased redundancy between classroom and small group content; Removed homework and point system from small group	Content updated to dedicate more time to active skill building; Improved examples and activities (e.g., replaced examples about parties, shopping at the mall, sports teams); Addition of student workbooks with guided note-taking for classroom and small group	Revised student workbooks
Teacher Component		Tips for classroom management and skill generalization integrated into implementer coaching contacts	Weekly teacher challenge tasks embedded in classroom lesson plans to support generalization of Coping Power content	Weekly “nudge” emails to implementers with reminders about teacher challenge tasks	Weekly teacher nudges expanded to full infographics with concept overview and generalization tips for all classroom teachers
Caregiver Component		Weekly “nudge” infographics with small group overview and generalization tips	Changes made to infographics per shifts in small group content	Kick-off orientation session developed with slides; Infographics updated	Kick-off orientation reformatted for both individual and group options
Implementation Supports	Basic lesson plans with scripts developed in Word; Basic program orientation but no formal training provided	Comprehensive lesson plans; Classroom lesson slides; Formal 3-h training with action planning and in-depth lesson review; Lesson plans printed and online; Weekly coaching with optional co-facilitation and observations	Reformatted lesson plans with visual cues supplemental scripts; Fully developed slides for classroom and small group with embedded scripts; Training reorganized to present modular framework; Lesson materials provided online; Weekly coaching and optional observation	Full formatting update for all materials; Comprehensive Implementation Manual; 2–3 informal coaching check-ins, transition toward remote tele-coaching model	Online navigation grid; Training focused on action planning and implementation supports; lesson overview videos; structured tele-coaching with individual action planning; Comprehensive Training Manual

ranged from 5 to 8th based on school preference). Schools ranged from using only the classroom lessons to delivering both classroom and small group content to the same students (e.g., in a self-contained classroom), and classroom lessons delivered gradewide with small group pull-outs. Implementation was paused in spring 2020 due to COVID-19 pandemic-related school closures. In 2020–2021, there was variation regarding in-person vs. remote learning; some implementers continued the program by developing pre-recorded videos and putting materials online.

Implementers

Implementers were predominantly women and predominantly White. Implementer roles in the schools included general and special education teachers, behavior specialists, and school counselors or social workers. Coaches were members of the research team involved in intervention adaptation who could both provide support to implementers while also gaining knowledge of potential improvements to the program. Over the course of the project, six authors served as coaches. Coaches held graduate degrees in clinical psychology, school psychology, and special education; most were women, and most were White.

Iterative Implementation and Refinement

Implementation

Collaboration with partner schools commenced with an initial action planning meeting. Schools were given flexibility in selecting implementers, students for participation, and intervention components for use. This flexibility allowed the study team to gain a deeper understanding of how the program fit the needs of rural schools. Identified implementers, along with coordinators and other relevant staff, attended an initial 2–3 hour training that provided an overview of the program as well as the coaching and implementation supports available. Each school was also assigned a coach who continued to provide support, initially through weekly check-ins, observation, and optional co-facilitation. Coaching sessions included implementer self-report of strengths and difficulties as well as coach-delivered feedback and modeling to improve content delivery. As described in the results, specific details about training and coaching varied across rounds of implementation.

Data Collection

During the first round of implementation, intervention feedback was collected solely via unstructured debriefing

notes taken by the project coaches. In subsequent iterations, a Coaching Log was used to record notes from coaching sessions, emails, and observations. Additionally, implementers completed an electronic Session Debrief Form in Qualtrics after each lesson to report basic information about implementation (e.g., number of participants, preparation time, lesson duration), lesson fidelity, and qualitative feedback on student engagement, successes and challenges, and suggested improvements. Lesson fidelity was reported as level of completion of each lesson component (warm up, didactic, applied practice, wrap-up) with ratings of *complete*, *partial*, or *not at all*. These were converted to percentages (100%, 50%, 0%) for calculating overall fidelity. Implementer-reported student comfort level with teachers and peers was similarly coded. These forms were adapted from those used in the previous EACP study (Bradshaw et al., 2017).

Data Analysis and Intervention Refinement

Qualitative data from the implementer feedback forms and coaching notes were organized by a priori codes of positives, challenges/issues, and suggestions. Within-session analysis focused on identifying key areas of need for further adaptation in each session (e.g., changing an example). Across-session analysis focused on general themes of feasibility and acceptability and overall changes needed (e.g., shorten lessons, change lesson order).

Following each round of implementation, results were reviewed and discussed by the team to guide development of additional intervention components, further adaptation, and refinement. Decisions were made by consensus with the principles of retaining core intervention elements, aligning with the intervention's theoretical framework, and promoting student and teacher engagement. For example, content or activities in which implementers perceived students to be disengaged were prioritized for revision, often using implementer-provided suggestions. On the other hand, whereas we attempted to be responsive to implementer feedback on lesson order, it became apparent that there was no implementer consensus on this, so decisions about ordering were ultimately based on clinical practice and theoretical rationale. Additionally, more urgency was placed on incorporating recommendations made by multiple implementers than those made by a single implementer. For example, it became clear from multiple implementers that homework was not going to be prioritized. Other suggestions, particularly the replacement of problematic examples, were incorporated even when feedback was made by a single implementer. When possible, we also reconnected with previous implementers to share the updated materials based on their feedback.

Feasibility Evaluation

After finalizing the intervention, school partners implemented the final model during the 2022–23 academic year with the expectation that schools implement all intervention components and engage in coaching. After completing implementation, the ten implementers who were involved during this final feasibility year were also invited to participate in semi-structured interviews regarding their experiences, focusing on implementation experience and perceptions of impact, student engagement, caregiver engagement, and coaching. For each category, the interview guide began with a general question asking their impressions of that aspect of the program, followed by probing questions that explored perceived impacts, what they liked and did not like, what went well, and suggestions for change. Within each category, open thematic coding of all individual responses was used to identify themes (Strauss & Corbin, 1990). Interviewing was led by KB, and coding was conducted by CN and KB; two transcripts were double-coded for training and coder alignment.

Research Ethics

The project was approved by the Institutional Review Boards at both the participating universities (IRB SBS# 2264, IRB-20-0021). While schools were involved in selecting implementers, written informed consent for data collection via session feedback forms and interviews was obtained from implementing staff directly by the study team. All participants were informed that study participation was optional and would not impact their employment.

Results

Below, we summarize major changes to each component that resulted from field testing and feedback.

Student Curriculum

Substantial revisions made to the student curriculum can be categorized by: (1) order of concepts; (2) relative emphasis; (3) level of intentional overlap; (4) small group simplification, and (5) improved contextualization. These changes are described in Tables 1 and 2.

Order of Concepts

In a classroom-wide format with a familiar teacher, we initially thought there would be less need for introduction and norm setting, sequencing the curriculum to instead start with emotion identification (lesson 4 of EACP). However,

feedback on V1 indicated that teaching of this content was novel and required an introduction to help teachers and students feel more comfortable discussing emotions. For V2, we brought back the program introduction, creation of program expectations, and goal setting in the classroom and small group.

Based on positive feedback about the *Problem Identification, Choices, and Consequences* (PICC) model, we moved this to earlier in the program and used it to frame the rest of the curriculum. In V2, the curriculum introduced goals, perspective taking, and the PICC model before moving to emotions in lesson 4. However, our experience and feedback indicated that emotion understanding should precede problem identification, leading to earlier introduction of emotions in V3. This reordering also facilitated the introduction of a modular framework in V3 with 4 lesson modules focused on Problem Identification (self and social awareness, introduction of the PICC model); Choices and Consequences (building specific coping skills); and Communication and Applied Practice (putting it all together).

Relative Emphasis

As students in V2 were guided to set goals, we also built into the program sequence check-ins with students regarding their goal progression. However, V2 implementers shared that the brief attention to SMART goals and goal monitoring made it difficult to teach and felt tangential to the rest of the program (e.g., “Students seemed very positive but continued to work toward understanding SMART goals,” and later, “did not readdress SMART goals”). Coach observations also identified this challenge (e.g., “Goal setting: SMART goals were difficult to understand by students, one student put head down at this point”). These difficulties led to removal of personal goal setting in V3.

Additionally, feedback indicated that the two lessons on emotions were “slow” and not novel for students (e.g., “Students weren’t engaged because pictures and video [were] too juvenile”; “Have students go deeper into emotions because this was mostly a review. Have them apply the skills”). For V3, this feedback led us to consolidate the emotion content into a single lesson; by V4, based on continued feedback highlighting a need to more quickly engage the students in the program and focus on active skill building (e.g., “they are thirsty for technique”), emotion awareness was combined with program introduction and norm setting as a single introductory lesson to leave more time for later expansion in skill-focused lessons.

Content expansion was needed in relation to thought-based coping and communication skills (e.g., “I think this section needs a LOT more time. This and next week’s lesson seem to be the bulk of what they’re dealing with.”). The lesson on thought-based coping initially provided a brief

Table 2 Mapping coping Power-*Rural* adaptation onto EACP 25-session model

Early adolescent coping power	CP-R iterative adaptation and refinement			
	Version 2	Version 3	Version 4	
CP-R initial classroom adaptation (Version 1)	CP-R iterative adaptation and refinement	CP-R iterative adaptation and refinement	CP-R iterative adaptation and refinement	CP-R iterative adaptation and refinement
SG1. Establish group structure and behavioral goal setting	CR1. Recognizing feelings and feeling states	CR1. Setting short- and long-term personal goals	CR1. Introduction to Coping Power SG1. Introduction to group structure & goal setting	CR1. Introduction to Coping Power and emotion awareness
SG2. Setting long-term and short-term goals	CR2. Triggers and physiological arousal related to feeling states	SG1. Intro to group structure & goal setting		SG1. Introduction to group structure and clues for emotions
SG3. Organizational and study skills				
SG4. Awareness of feelings and physiological arousal related to anger	CR2. Triggers and physiological arousal related to feeling states	CR2. Perspective taking	CR2. Emotion awareness	CR2. Perspective taking
	CR3. Coping with difficult emotions: Actions	SG2. Problem identification (PI)	SG2. Understanding emotions	SG2. Practicing emotional thermometer and perspective taking
SG5. Anger coping and self-control	CR3. Coping with difficult emotions: Actions	CR3. Social problem-solving (PICC model)	CR3. Perspective taking	CR3. Social problem-solving: PICC model
	CR4. Coping with difficult emotions: self-talk	SG3. Evaluating choices & consequences (CC)	SG3. Practicing perspective taking	SG3. Deeper dive into the PICC model
SG6-7. Coping self-statements for anger coping: parts 1 & 2	CR4. Coping with difficult emotions: self-talk	CR4. Recognizing emotion states	CR4. Social problem-solving: PICC model	CR4. Active coping
	CR5. Relaxation and overcoming barriers to self-control	SG4. Recognizing emotion states	SG4. Practicing the PICC model	SG4. Active coping: Strategies and practice changing behaviors
SG8. Relaxation and overcoming barriers to self-control and perspective taking	CR5. Relaxation and overcoming barriers to self-control	CR5. Understanding emotional reactions	CR5. Behavior coping	CR5. Thought-based coping: Automatic thoughts
	CR6. Perspective taking	SG5. Understanding emotional reactions	SG5. Practicing behavior coping	SG5. Thought-based coping: automatic thoughts practice
SG9. Perspective taking		CR6. Thought-based coping & self-talk	CR6. Relaxation	CR6. Thought-based coping: Interrupting and replacing unhelpful thoughts
SG10. Perspective taking and problem-solving		SG6. Coping practice: self-talk	SG6. Practicing relaxation	SG6. Thought-based coping: cognitive coping practice
SG11-13. Social problem-solving: Parts 1, 2, 3	CR7. Social problem-solving: PICC model	CR7. Behavioral coping & relaxation	CR7. Thought-based coping	CR7. Relaxation
SG14-15. Group creates own videotape: Parts 1 & 2	CR8. Practicing social problem-solving	SG7. Coping practice: behavior & relaxation	SG7. Practicing thought-based coping	SG7. Relaxation practice and additional calming tools
		CR8. Relaxation & overcoming barriers to self-control	CR8. Communication skill building	CR8. Active listening
		SG8. Communication skill building	SG8. Practicing social communication	SG8. Using effective communication strategies
SG16-18. Relationship development: Parts 1-3	CR9. Building effective communication skills	CR9. Communication skills & relationship management	CR9. Applied practice: Putting it all together	CR9. I messages
		SG9. Managing peer conflict	SG9. Managing peer conflict	SG9. Conflict management strategies

Table 2 (continued)

	CP-R initial classroom adaptation (Version 1)	CP-R iterative adaptation and refinement		
		Version 2	Version 3	Version 4
Early adolescent coping power	CP-R initial classroom adaptation (Version 1)	Version 2	Version 3	Version 4
SG19. Problem-solving: social aggression and romantic relationships	CR10. Application of social problem-solving to social aggression	CR10. Applied social problem-solving: Peer conflict management	CR10. Applied social problem-solving: Out of school contexts	CR10. Barriers and building your Coping Power toolbox
SG20. Problem-solving: damaged relationships and cyber bullying		SG10. Responding to risky situations in peer contexts	SG10. Peer groups	SG10. Practice refusal skills in a peer group
SG21. Problem-solving: peer pressure				
SG22. Refusal skills and problem-solving about neighborhood problems	CR11. Application of social problem-solving to out of school context	CR11. Applied social problem-solving: Cyberbullying	CR11. Applied practice: Cyberbullying	CR11. Applied practice: cyberbullying OR out of school context (choice)
SG23. Deviant peer groups		SG11. Positive relationship development	SG11. Positive relationship development	SG11. Building positive relationships with peers
SG24. Positive quality development		CR12. Wrap-up: positive peer relations, review, feedback, & celebration	CR12. Wrap-up: making posters & celebration	CR12. Wrap-up: making posters & celebration
SG25. Review and termination of the Coping Power program	CR12. Review and wrap-up celebration	SG12. Termination & wrap-up celebration	SG12. Wrap-up: strengths bombardment & celebration	SG12. Wrap-up: strengths bombardment & celebration

PICC = problem identification, choices, and consequences

overview of negative self-talk, but based on both implementer feedback and our clinical team's perspective of the transdiagnostic value of cognitive coping, we expanded thought-based coping to two lessons with a full introduction of the CBT cognitive triangle in the context of identifying, interrupting, and replacing unhelpful thoughts. As this was a more challenging concept for students to grasp, the triangle was integrated into all the coping skill lessons to review the connection between thoughts, feelings, and behavior. Likewise, implementers and students enjoyed the communication activities but felt these lacked sufficient time, leading to expanding active listening and I-messages into two separate lessons. Finally, as part of the celebratory wrap-up in V3, we introduced a final activity in which students create posters of key CP-R topics to hang in their classroom, facilitating continued review and generalization of skills.

Level of Intentional Overlap

One challenge we anticipated with a two-tiered intervention model was difficulty maintaining weekly sequencing in the face of scheduling disruptions. To accommodate this, the two components were initially developed with substantial overlap such that either the classroom or small group lesson could be implemented first. However, this led to implementer feedback about too much redundancy between the two components, which negatively impacted student engagement. In V3, content was refocused to first introduce the concept and provide low-risk opportunities for practice in the classroom (e.g., by using examples from media rather than personal sharing). The small group sessions then built on pre-introduced concepts, through discussion and personalized practice applied to situations from their everyday lives. Additionally, as the classroom lessons moved into applied practice, the small group lessons integrated a more targeted focus on additional EACP topics such as conflict management, peer pressure, refusal skills, and building/repairing positive relationships with peers than those represented in the classroom lessons.

Simplification

The small groups initially utilized homework assignments and a point system consistent with those used in EACP; however, implementers shared that the homework and point system were difficult to employ (e.g., "Students are not completing challenge tasks- not motivated by points to get them done" and later a suggestion: "Omit the challenge task from the curriculum- nobody was completing it"). Based on these suggestions, we provided review time for students to share experiences trying the challenge tasks but removed the formal homework and point system. Instead, in V4 we developed pre-printed student workbooks to consolidate handouts

and introduce guided notetaking to facilitate student engagement (Konrad & Heward, 2023).

Improved Contextualization

Over each iteration, implementers provided feedback to improve the examples and activities to increase applicability and student engagement. This included feedback on improving developmental match, such as replacing examples to be more interesting to middle schoolers than the originals, identifying areas where text on the slides was too dense, or indicating where explanations needed to be simplified. Other suggestions included more careful attention to context than may be needed elsewhere, such as discussions of confidentiality in a small town environment: "More time and clarity dedicated to confidentiality in small rural community where everything is shared with everyone, more time establishing ground rules/getting to know each other better." Other suggestions provided options for more applicable scenarios. For example, "Some students may not have experience with being on a sports team (it's very expensive and out of some families' budgets)... The bus scenario and the friend making fun of another are good examples." and "In general, we don't have a lot of 'parties'" at the middle school level in rural America. It may be better to talk about examples like where a child sits at lunch or if they are invited to play football at a friend's house."

Implementation Strategies and Supports

A second major domain of adaptation was implementation strategies and supports, where modifications related to: (1) lesson materials and (2) training and implementation supports.

Lesson Materials

Additional teacher support (e.g., developed slides and scripts for lessons) was a pre-identified need for the classroom lessons, whereas the small group content initially followed more closely the group materials and structure that we had previously used to run small groups with counselors in EACP, but with the updated content. However, as many V2 implementers were involved in both classroom and small group implementation, they reported a strong preference for the additional materials and consistency across delivery, leading to development of more comprehensive presentation slides for the small group component as well, following a similar visual format to reduce cognitive load on the implementer. Implementers also expressed that the initial lesson plans with embedded scripts were difficult to navigate, so between V2 and V4 these were redesigned into a more streamlined format with clear headings and colorful

visuals, ultimately including embedded slide images to increase coherence and clarity between the presentations, scripts, and activities. Longer scripts were retained in the slide notes and supplemental materials for each lesson. Based on implementer preference, printed materials were provided but also delivered electronically via a shared online folder. In V4, video clips were directly embedded into the presentation slides to facilitate greater accessibility across school division firewalls, and in the final version, all electronic materials were converted to Google Slides and Google Docs to improve efficiency. Lastly, a navigational matrix with hyperlinks was developed to allow for greater ease in navigation.

Training and Coaching Support

Although some implementers remained willing to participate in weekly coaching sessions, it quickly became clear that others viewed weekly meetings as burdensome. In addition to limited time, some implementers stated that the materials were self-explanatory and did not require additional coaching for their use. These weekly meetings were replaced with weekly check-in emails with the offer to meet upon request over successive rounds of implementation. Additionally, in-person coaching with co-facilitation and classroom observations was not feasible in all schools during COVID-19 pandemic restrictions. These restrictions emphasized the geographic challenges educators face in remote rural schools, leading us to transition to a remote tele-coaching model to expand reach. Both initial training and follow-up coaching sessions were conducted via Zoom with fully developed session agendas. The initial training, which was shortened to two hours due to school time constraints, provided a general curriculum overview, school-level action planning, and strategies for lesson preparation. Coaching sessions focused on individual support and motivation.

Three coaching sessions were held before, during, and near the end of implementation, which focused on: 1) implementer motivation and individual action planning; 2) reviewing progress and overcoming challenges; and 3) planning for termination of coaching and continued generalization of curriculum content. Table 3 provides an overview of the training and implementation support package. Together, this focus on support, preparation, and motivation seeks to overcome teacher-reported barriers to evidence-based intervention delivery (Silveira-Zaldivar & Curtis, 2019). To further support lesson preparation and implementer coaching, we recorded brief “Power Up” videos for each lesson that provided an overview of lesson content as well as demonstration of key activities. This aligned with feedback from educators to provide video overviews alongside lesson plans.

Teacher Component

As schools returned to in-person learning, we observed a shift in responsibilities in which fewer school staff were involved in implementation (e.g., using a “push in” model in which the small group facilitator also delivered the classroom lessons). This shift, which can be seen in V4 partner engagement (Table 2), highlighted the need for new strategies to engage teachers who were not directly involved in program implementation to promote shared understanding and generalization of concepts. In the final feasibility year, we reformatted the Teacher Challenge Tasks, which were originally embedded in lesson plans as a reminder for implementing teachers, to include more information relevant for non-implementing teachers and school staff. These weekly teacher materials assume no prior knowledge of intervention content, instead providing a brief overview of what students learned each week and tips for content incorporation into classroom instruction, using infographics similar to those described in the caregiver component below (Fig. 1).

Table 3 Overview of coping Power-Rural training and coaching model

	Time	Description	Delivery mode
Initial Training	2 h	Orientation to CP-R, school level action planning, strategies for weekly lesson preparation	Online group meeting
Coaching Session 1	20–30 min	Motivational interviewing and individual action planning for implementation	Online individual meeting
PowerUp! Lesson Overviews	5 min per lesson	Brief overviews of content and activities for each lesson, with tips and demonstrations of activities	Pre-recorded videos
Coaching Session 2	20–30 min	Review implementation progress, discuss successes and troubleshoot challenges, revisit motivation to continue implementation	Online individual meeting
Coaching Session 3	20–30 min	Review implementation progress, celebrate successes, prepare for program wrap-up, revisit motivation to continue using materials and reviewed strategies for ongoing generalization	Online individual meeting
Additional Coaching Sessions	20–30 min	As needed to support implementers with specific issues	Online individual meeting



Fig. 1 Sample teacher infographic

Caregiver Component

During initial outreach and training, school partners repeatedly expressed appreciation for attention to caregiver engagement. However, as we encountered several challenges with caregiver attendance at the sessions in our EACP trial (H. L. McDaniel et al., 2023), we opted to further reduce

the caregiver content to something more transportable and feasible to implement, particularly in rural communities. Modeled after the nudges used in our high school study of Coping Power (Thomas et al., 2021), we developed a series of caregiver infographic “nudges.” Our initial plans to pilot a single session kickoff in spring 2020 were interrupted by COVID-related school closures. The following year, schools were struggling to serve students and families amid remote learning, and thus, we did not attempt to introduce new components. The caregiver materials were also targeted specifically to caregivers of students in the small group, and during remote learning, our school partners were not running small groups. In 2022–2023 during feasibility testing, we provided the kickoff presentation to implementers. However, the two implementers who planned to lead the orientation during existing caregiver meetings reported that they ultimately would not have time because of a need to provide other information, while the implementers who arranged a one-off evening meeting reported that no caregivers attended. Based on this feedback, we revised the kickoff session to be delivered either in a group or individually via phone (using a brief outline of talking points) or video conference. Some implementers did successfully distribute the caregiver infographics using the schools’ regular communication strategies (e.g., email, text message).

Final Feasibility Evaluation

Seven out of ten implementers completed semi-structured interviews following program completion in 2022–23. Implementers reported high student engagement during active skill practice and mixed media content, and that students were not only understanding the concepts, but generating strong responses and engaging positively with one another (e.g., “we got some really good responses, so they completely understood a lot of the lessons that we were taking them through.”). Implementers reported that students were applying their new skills, such as regulating their emotions, expressing themselves in productive ways, and successfully working in pairs. The content of the small group curriculum was described as having an approach and messaging that was particularly critical for this age group. (e.g., “I think it’s got a very accepting feel to it. So it’s trying to promote the, you know, it’s okay to have worries, it’s okay to have negative thoughts, it’s okay to have intense emotions. I think that’s really important.”). More than one implementing teacher noted a sense of support amongst small group members. (e.g., “They felt that they developed friendships that they would not have developed otherwise in the group. And they felt like they were a unit instead of kind of being the troublemakers.”). Implementers also appreciated how the curriculum dug deeper into important skills that other programs often glaze over, and enjoyed the activities (e.g.,

“There were some things that we did in groups that I wasn’t quite sure about, but I tried it anyway, and it was great.”). However, they also reported challenges with the amount of content covered in each lesson and expressed a desire for more practice opportunities to ensure student understanding.

Fidelity

During the final feasibility year, classroom lessons ranged from 15 to 30 min in length (mean: 26 min), and small group sessions ranged from 15 to 43 min (mean: 26 min). Fidelity ratings across classroom lessons ranged from 75 to 100% (mean: 90%), and small group fidelity ranged from 59 to 100% (mean: 86%). Student engagement and comfort ratings were also high across all lessons. Implementer report of student comfort with the implementer was 100% for the classroom and 83% for the small group (range: 75–100%), and comfort with peers was 89% for the classroom (range: 50–100%) and 93% for the small group (range: 83–100%). Comfort ratings appeared to increase over time.

Implementation Supports

Even with lesson materials provided, most implementers spent longer than expected preparing for each lesson. The majority did find that the lesson overview videos were helpful in identifying key aspects of each lesson (e.g., “the short, quick snippet and the overview was very good. It was very informational, despite it being so short. I immediately started understanding what she meant by certain things.”). In addition, most implementers found the coaching helpful; although the amount of time spent interacting with coaches varied, coaches were perceived as accessible and quick to resolve any issues that arose.

Caregiver Component

Implementers struggled with caregiver attendance at their CP-R kickoff event and recommended offering a pre-recorded informational video or other strategy instead. However, the caregiver nudges were successfully utilized and shared via diverse delivery methods (e.g., email, text message, flyer). Implementers reported caregivers were appreciative for knowing what their child was working on in the program. One caregiver shared that their child had begun using the emotion thermometer and I-Messages to communicate emotional intensity at home.

Broader Context

Most implementers expressed interest in utilizing the program in the future, but also described lack of time as a common challenge in schools. For example, they described

repeated pressure to shorten session time due to academic work or scheduled school activities (e.g., picture day). Having to advocate for adequate blocks of time as well as physical spaces to deliver the program left implementers feeling undervalued and unsupported by the school community.

Discussion

This paper describes a multi-year, partnership-based approach to adapting an evidence-based prevention program for rural upper elementary and middle schoolers. The finalized intervention retains the overall structure, focus, and considerations of our originally conceptualized adaptation, including the two-tiered (Tier 1 and Tier 2) approach, less intense model, broader utility, and opportunities to engage caregivers and teachers to support generalization across contexts. However, school partners and external contextual realities steered us in surprising new directions, such as a “push in” classroom delivery approach with alternative strategies for teacher engagement and a fully remote training and coaching model. Findings are applicable to similar adaptations that seek to expand an intervention’s reach, either in terms of target audience or implementation strategy, and highlight the value of this school-engaged development process for developing a contextually appropriate intervention.

Although we were unable to address all challenges faced in rural schools, by providing tiered supports within a single model we were able to make some helpful changes to the materials that reduced preparation time and increased the implementation supports enabling school staff to deliver the program. Further, our coaching and engagement strategies minimized geographic barriers. As such, this adapted intervention holds promise for making CP-R more accessible and feasible to implement in rural schools than the original program. Moreover, the transdiagnostic adaptations may hold promise for expanding the application of the intervention to address a broader range of behavioral and mental health concerns in rural schools. However, it is also worth noting that while this adaptation process was *guided* by rural school-based implementation and centered the experiences of educators in rural areas, many of these same adaptations could also improve feasibility for urban and suburban schools. Some aspects are more critical for educators in rural schools than educators elsewhere; for example, when geographic location is less of an obstacle, there may be more interest in the in-person coaching and co-facilitation models our team has previously used, which allows for direct observation and modeling instruction in the classroom. Likewise, while we replaced examples with poor fit such as going to the mall and neighborhood, it is possible that some replacements such as riding the school bus would also not be a fit in other contexts. The contribution of this adaptation process

is not in creating an intervention so unique to rural schools that it lacks broader applicability; rather, the value in centering the rural school context is in ensuring that the resulting intervention does not present undue challenge or perceptions of poor fit for rural users.

Favoring adaptations to promote feasibility does not come without tradeoffs, including the potential for lost content and potential shifts in intervention impact. Taken together, the 12 classroom and 12 small group CP-R sessions approximate a similar intervention dose to that of the 25-session EACP model, yet the adapted program excludes content such as goal setting, organization, and study skills, which were included in EACP (Bradshaw et al., 2017). Homework and the related point system were also removed in response to teacher feedback. However, homework is a common element of CBT-based approaches that has been shown to promote skill development and symptom improvement (Kazantzis et al., 2010; Simons et al., 2012). Likewise, point systems (i.e., token economies) are evidence-based practices shown to improve student behavior (Soares et al., 2016). It is possible that by removing these elements, some value has been lost. However, by removing elements that are likely to be dropped in real-world implementation, we developed a model for testing that more closely matches what is likely to be implemented in regular practice.

Lessons Learned

Despite a stated interest in increasing social and emotional learning opportunities for students, most schools experienced legitimate challenges in trying to find the time or personnel to implement the intervention with fidelity. Even when implementation was prioritized at the district level, we quickly learned the value of buy-in from school-level administrators and counselors. Having these champions in the school improved program uptake and fidelity; without such a champion and in the face of competing obligations, some schools were ultimately unable to provide the program. Conducting formative research in which our community partners had the opportunity to inform program content and delivery increased buy-in; our partners seemed very appreciative of the opportunity to engage in a research project that actively sought their input in adapting the training and implementation plans.

During the initial curriculum iterations, we were pleased to offer coaching and co-facilitation, but it became apparent that this posed scheduling and logistical challenges for educators. As a result, our efforts to offer co-facilitation and observations seemed to serve as a barrier to engagement. When we shifted to email support, implementers were more open to engaging with their coach than previously. We interpreted this as implementers seeing value in the program and appreciating some level of support but struggling to find

time to engage with the research team in person. Implementers also faced difficulties setting aside time to consistently provide weekly feedback.

It is necessary to view the process and results of this project within the context of the broader educational landscape between 2019 and 2022, when schools and students were impacted by a global pandemic. The impact of these shifting realities can be seen both in terms of our limited ability to continually engage with schools and in the changes made to implementation strategies, training, and coaching support. Many of our school partners had an increased interest in supporting student mental health during this time; while we were able to work with our partners to support alternative implementation strategies, such as by using pre-recorded videos and online learning management systems, we necessarily reduced expectations of formal data collection and had greater difficulty monitoring implementation.

Even outside of a global pandemic, consideration needs to be given to other factors stakeholders and implementation sites are facing (e.g., high staff burnout). In our outreach, schools were also concerned about their teachers' wellbeing, expressed both through interest in ways to support their teachers and consideration of implementation approaches that did not place an additional burden on teachers. By prioritizing partnership and flexibility, we were able to maintain working relationships and implementation efforts to continue intervention development. There were schools that expressed appreciation for the program but were unable to partner with us due to the above concerns.

Limitations

While leveraging pre-existing relationships made our iterative implementation and refinement smoother, this group of early adopters is not representative of school staff overall. It was helpful to engage implementers who were comfortable sharing constructive feedback and asking for support when needed, but it remains unclear whether a wider group of educators will be willing and able to adopt the program. Additionally, both our implementers and the students they were serving were predominantly White; it is important to recognize that rural demographics are quickly changing (Johnson et al., 2018) and a sizeable minority of students in rural areas are people of color (Showalter et al., 2017). The adapted intervention and current impressions of feasibility and acceptability may not extend to more diverse user groups, including students of color. Further, although implementers are trained to engage students in real-world examples and experiences, it may not fully prepare implementers to engage with students from different backgrounds in a culturally responsive manner.

Another limitation was low caregiver engagement. Although we had experienced challenges with caregiver

attendance in EACP (H. L. McDaniel et al., 2023), the COVID-19 pandemic put considerable burden on both schools and caregivers, introducing new challenges to caregiver engagement during the CP-R pilot work. This broader contextual shift makes it difficult to meaningfully compare whether these new strategies may mitigate the challenges we and others experienced using different strategies pre-pandemic. Nevertheless, the infographic messaging was well received and appears promising as a method for delivering program content to caregivers in rural areas, overcoming some of the barriers to in-person programming (also see Thomas et al., 2021 for prior Coping Power work with urban high school parents).

We originally proposed to collect more data from staff, caregivers, and students, particularly during feasibility testing, but ultimately opted to minimize data collection due to the additional pressures school staff, caregivers, and students were facing and the ongoing COVID-recovery effort. Therefore, additional perspectives are necessary to further inform intervention development. Although our implementers reported perceptions of positive reception and behavior change among participating students, this has yet to be objectively tested. Likewise, fidelity and engagement ratings were dependent on implementers to complete their feedback forms, which placed another burden on already overworked staff and presents the potential for bias. Additionally, three of our ten implementers did not participate in a follow-up interview during the final feasibility test. While we believe that this was a scheduling issue, it is possible that those who chose not to participate had different perspectives not otherwise reflected in our current findings.

Future Directions

Although teachers were receptive to the CP-R curriculum, more research is needed to ensure that the intervention improves student outcomes. Our next phase of work will focus on addressing these limitations through further engagement and program testing, including a randomized controlled trial testing student and teacher outcomes. This will include collecting data on changes in student behavior, teacher stress and burnout, and students' perceptions of their ability to manage challenging situations. Additionally, it is important to collect social validity data to evaluate perceptions of the value and feasibility of the curriculum. We will also collect teacher and student demographic data and to integrate a more diverse participant pool to address the limitations of the current study regarding inclusion of predominantly White implementers teaching predominantly White students. Ultimately, research comparing CP-R to EACP would be valuable to examine the extent to which the adaptations achieve similar student outcomes while improving implementation outcomes.

Conclusions

Educators in rural schools are integral to student lives and are well positioned to deliver behavioral and mental health supports. But they need EBPs that are efficient and acceptable, including implementation strategies that fit the unique needs and experiences of young people in rural communities (Michael et al., 2023). Drawing from a well-tested EBP, Coping Power-*Rural* was adapted to fit the needs of rural schools. This fully developed, multi-component program was further strengthened with insightful stakeholder feedback at numerous points along the way and is now ready for larger-scale testing.

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Author Contributions CPB, AJN, KM, and JH provided project design and oversight. LB, LHS, CN, KB, JH, and KM served as coaches. All authors participated in school recruitment and intervention development. KB conducted qualitative interviews. LB, KB, and CN led data analysis. AJN and JH prepared the manuscript; all authors contributed to revisions and approved the final submission.

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Declarations

Competing interests The authors declare no competing interests.

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