

Evaluation of the Courage and Confidence Mentor Program as a Tier 2 Intervention for Middle School Students with Identified Internalizing Problems

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Abstract Internalizing disorders among youths represent a significant public health concern due to associated risk for future psychopathology, physical health costs, and the likelihood that affected children will experience difficulty transitioning to adult life. Despite the troubling aspects of internalizing disorders, there is a dearth of selective, Tier 2 interventions that educators can implement for students with identified internalizing problems as part of their school's multi-tiered system of support. To fill this void, the purpose this study was to evaluate the efficacy, acceptability, and integrity of a structured mentor-based program, the Courage and Confidence Mentor Program (CCMP), which represented a modified version of the Check-In/Check-out program. Single-case experimental methods, consisting of a multiple baseline across participants design, were used to evaluate the efficacy of the CCMP with five students. The results of visual analysis and single-case effect size estimates revealed that all participants demonstrated noticeable reductions in internalizing problems as measured by self-ratings of subjective units of discomfort and teacher reports on a standardized behavior rating scale. Limitations of the methods and directions for future research involving Tier 2 interventions for students with internalizing problems are discussed.

Keywords Internalizing symptoms or disorders · Tier 2 intervention · Selective or targeted intervention · Mentoring

Introduction

There is growing evidence that the prevention of internalizing disorders should be at the top of the national public health agenda (President's New Freedom Commission on Mental Health, 2002). Internalizing disorders, such as anxiety and depression, represent some of the most common pediatric mental health disorders, with prevalence rates approaching 10–15 % among school-aged children (Cartwright-Hatton, McNicol & Doubleday, 2006; Costello, Egger & Angold, 2005; Essau, Conradt, Sasagawa, Ollendick, 2012). Approximately half of all children with diagnosable mental health disorders have an internalizing disorder (Levitt & Merrell, 2009), and estimates from the World Health Organization project that internalizing disorders will be the leading cause of illness among children and adolescents by the year 2020 (World Health Organization, 2012).

Internalizing disorders are characterized by over-controlled or covert forms of emotional distress, which individuals struggle to regulate effectively (Levitt & Merrell, 2009). Internalizing disorders have behavioral, affective, physiological and cognitive features that are likely to follow a chronic course and cause impairment in school and other domains of functioning (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Gresham & Kern, 2004; Ialongo, Edelsohn, Werthamer-Larsson, Crockett, & Kellam, 1995; Woodward & Fergusson, 2001). The onset of internalizing disorders often occurs during the elementary school years (Kessler, Berglund, Demler, Jin, & Walters, 2005a; Kessler

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et al., 2005b), at which time they are associated with significant problems with academic performance and adjustment to school, interpersonal relationships, and extracurricular demands (Beesdo et al., 2007; Grills & Ollendick, 2002; La Greca, Silverman, & Lochman, 2009; Muroff & Ross, 2011). If left untreated, internalizing problems tend to be chronic and unremitting, and even with remittance, children can experience high rates of recurrence (Cantwell & Baker, 1989; Last, Perrin, Hersen, & Kazdin, 1996). In sum, internalizing disorders represent a significant public health concern due to the increased risk for further psychopathology, associated physical health costs, and the likelihood that affected children will experience significant impairment as adults if they do not receive the appropriate care (Donovan and Spence, 2000; O'Connell, Boat, & Warner, 2009; Rapee, Kennedy, Ingram, Edwards, & Sweeney, 2005).

Despite the prevalence of and negative outcomes associated with internalizing disorders, schools do very little to detect students with these emotional and behavioral problems and, thus, fail to provide them with needed targeted services as a result (Gresham, & Kern, 2004; Romer & McIntosh, 2005). The idiom, “falling through the cracks” captures the reality of many students with internalizing problems, because they are substantially under-referred and underserved by school-based personnel (Bradshaw, Buckley, & Ialongo, 2008; Buckley, & Ialongo, 2009; Kauffman, 1999). The research is quite clear that students with internalizing problems are rarely referred for remedial interventions and often are underrepresented in special education services under the category of emotional disturbance, especially in comparison with students with externalizing behavior patterns (Kauffman, 2001; Walker, Reavis, Rhode, & Jenson, 1985).

Researchers have lamented for decades that students with internalizing problems are frequently overlooked in schools because their behaviors fit the profile of the ideal classroom student: docile, quiet, and still (Gresham & Lopez, 1996; Hersh & Walker, 1983; Winett & Winkler, 1972). Gresham and Kern (2004) note that students with internalizing problems are difficult to observe because many do not disrupt ongoing activities of other students, do not challenge the teacher's authority, and often conform to classroom behavioral expectations. Moreover, internalizing disorders are often characterized by emotional dysregulation, which involves efforts to avoid uncomfortable emotional arousal, as well as engagement in maladaptive behaviors (e.g., escape and withdrawal behaviors) to regulate intense emotions when they have been provoked (Gratz & Roemer, 2004). As a result, students with internalizing problems could benefit from being taught strategies to increase emotional regulation in the context of school and other life experiences. For the reasons stated above, there is a need to engage in coordinated, school-

wide efforts to prevent internalizing problems from developing in the first place, identify students who are exhibiting internalizing symptoms, and provide them with the needed targeted interventions to ameliorate these problems, which serve as barriers to social, emotional and academic success. Although few schools provide services that specifically target students with internalizing problems (Cook, Volpe, & Livanis, 2010b), there is growing recognition and pressure from researchers and policymakers that schools should adopt and implement a continuum of school-based mental health supports to prevent and treat mental health problems that interfere with academic success (Cook, Burns, Browning-Wright, & Gresham, 2010a; Doll & Cummings, 2008).

Public Health Model and Multi-Tiered System of Support

The public health model (PHM) represents a population-based approach that focuses on preventing societal-level health concerns, such as cancer, obesity, or diabetes through a continuum of high-quality practices that can be matched to the level of each person's need (Merrell & Buchanan, 2006; Natasi, 2004). The model employs a tiered system of prevention (e.g., primary, secondary, and tertiary) to minimize risk factors and promote wellness across all individuals in a particular system (e.g., nation, state, community, or school; Strein, Hoagwood, & Cohn, 2003). The PHM has gained widespread popularity in education as a way of organizing and delivering supports to prevent the development of disorders and promote student success (Atkins, Hoagwood, Kutash, & Seidman, 2010; Cook et al., 2010a; Doll & Cummings, 2008).

A multi-tiered system of support (MTSS) represents an application of the PHM in schools (Hawken, Vincent, & Schumann, 2008; VanDerHeyden & Snyder, 2006; Walker et al., 1998). The focus of a MTSS is on delivering a continuum of evidence-based services in which universal (Tier 1), selective (Tier 2), and intensive (Tier 3) supports are implemented to prevent, remediate, and/or treat academic, social, and emotional barriers to school success and make important educational decisions based on data (e.g., universal screening and progress monitoring). Tier 2 interventions are particularly important within an MTSS because they address the needs of students for whom Tier 1, universal supports, are insufficient. Moreover, these interventions are often less time intensive and more cost effective than intensive, individualized Tier 3 interventions that require a high level of expertise and time to implement (Anderson & Borgmeier, 2010; Sprague, Cook, Browning-Wright, & Sadler, 2008). As a result, Tier 2 interventions provide students with intermediary supports to be socially,

emotionally, and academically successful in school without the level of resource investment required for more intensive services (Gresham, 2005).

Mentor-Based Program as Tier 2 Intervention

A systematic review of the school-based literature on Tier 2 interventions for students with internalizing problems reveals a paucity of empirical studies relative to studies examining interventions for externalizing behaviors (Bruhn, Lane, & Hirsch, 2014). Of the extant research, nearly all of it focuses on small group skills instruction, such as the Cognitive Behavior Intervention for Trauma in Schools (Stein et al., 2003), Coping with Depression Course (Lewinsohn, Clarke, & Hops, 1990), and other similarly structured interventions. However, to date, there are currently minimal Tier 2 interventions for students with internalizing problems that are low cost, do not require students to be removed from class for significant proportions of time to participate in weekly small group or individualized skills instruction, and do not require extensive training to ensure the delivery of a manualized curriculum with fidelity. Recent advancements have been made by particular researchers to develop mental health-related Tier 2 interventions that are low cost and reduce the time spent in intervention (Lyon et al., 2014), but there remains much room for the development and evaluation of additional Tier 2 interventions.

Given the dearth of research in this area, there is a need to develop innovative, feasible, and effective Tier 2 interventions that can be implemented for students with identified internalizing problems. One approach to developing Tier 2 interventions for this population is to select extant Tier 2 interventions that have been shown to be effective for students with externalizing behavior patterns and modify them to address the underlying needs of students with internalizing problems. This represents a beneficial avenue to pursue given the fact that the scientific research on students with externalizing patterns outpaces the research on student with internalizing problems at a ratio of nearly 10–1 (Cook et al., 2010b).

Driven primarily by an interest in reducing externalizing problems and promoting general wellness, researchers have developed school-based and mentor-based programs to help address students' externalizing behaviors and prevent negative outcomes, such as academic failure, truancy, school dropout, and delinquency (Cheney et al., 2009; King, Vidurek, Davis, McClellan, 2002; Todd, Kaufman, Meyer, & Horner, 2008b). Mentor-based supports have been suggested as a promising Tier 2 support for students with internalizing problems, which employ modeling, coaching, and reinforcement practices that teach adaptive cognitive and behavioral skills (Dart et al., 2014; Hunter, Chenier, & Gresham, 2013).

Unfortunately, few studies have evaluated mentor-based programs specifically for students with internalizing problems (Herman, Merrell, Reinke, & Tucker, 2004).

As indicated above, the vast majority of the literature on evidence-based Tier 2 interventions is focused on externalizing problems (Cook et al., 2010b; Gresham & Kern, 2004). Check-In/Check-Out (CICO; Hawken & Horner, 2003) and Check, Connect, and Expect (CCE; Cheney et al., 2009), are widely used Tier 2 mentor-based program for students with externalizing behavior problems. Research has shown that these programs have been successful at reducing problem behaviors and improving school success (Lehr, Sinclair, & Christenson, 2004; Filter et al., 2007; Todd, Campbell, Meyer, & Homer, 2008a). Programs such as CICO focus on implementing several key intervention components that lead to positive outcomes, assigning an adult mentor or coach to provide unconditional positive regard, reminders of expected behaviors, delivery of praise and performance feedback, and daily ratings of performance to enhance self-monitoring and self-awareness. CICO allows this brief, rewarding and positive interaction between mentor and student to occur once in the morning before class, and once in the afternoon when the school day is coming to an end.

In one of the first studies of its kind, Hunter, Chenier, and Gresham (2013) evaluated the effectiveness of a CICO procedure on reducing the internalizing symptoms of elementary school students who were identified as being “at risk” for internalizing problems using the Student Internalizing Behavior Screener (SIBS; Cook et al., 2011). Using a modified check-in that incorporated elements of cognitive behavioral intervention strategies—such as thought challenging (i.e., cognitive restructuring) and problem-solving—the authors demonstrated a moderate increase in teacher ratings of the student replacement behaviors (e.g., responds to questions within 5-s) selected as intervention targets. Furthermore, three of the four students no longer met the at-risk cutoff following intervention. An important limitation of the study, however, was the lack of focus on emotion regulation as a component of the intervention and the absence of student-report measures of behavior or internalizing symptoms. These shortcomings neglect the covert nature of internalizing disorders and make it difficult to determine whether the intervention was effective at reducing student-level distress (Cantwell, Lewinsohn, Rohde, & Seeley, 1997).

Additionally, in a school setting, where educators are asked to implement many of the behavioral interventions, treatment acceptability is an important construct to take into consideration, because the adoption of an intervention involves more than whether the intervention has been shown to produce positive effects. In this way, even the most effective treatments may not be adopted or implemented with fidelity if they are not viewed as acceptable

(Witt & Elliott, 1985). Thus, acceptability of intervention should be assessed based on the implementers' familiarity or direct experience with implementing different aspects of the intervention (Proctor et al., 2011).

Purpose of this Study

The purpose of this study was to evaluate the efficacy, integrity, and acceptability of a school-based mentor program, the Confidence and Courage through Mentoring Program (CCMP), as a Tier 2 intervention for middle school students with identified internalizing problems. In this way, this was framed as a “proof of concept” study with the collection of implementation outcomes (e.g., integrity and acceptability). The CCMP was adapted from existing school-based mentor programs, such as CICO and CCE, to include specific intervention components that target internalizing problems and promote students' self-efficacy (i.e., confidence) and emotion management (i.e., emotional awareness and regulation). To evaluate the CCMP as a Tier 2 intervention, it was critical to conduct this study within a setting that was actively implementing a MTSS for behavior.

Methods

Setting

This study took place in a middle school in the Pacific Northwest region of the USA. The middle school was located in an urban environment that served a diverse student body with regard to ethnicity (30 % Asian, 29 % African American, 29 % White, 11 % Latino, and 1 % Native American) and socioeconomic status (77 % free and reduced lunch). At the time of the study, the school had been actively implementing school-wide positive behavior intervention and support (SW-PBIS) for 4 years as a MTSS model-targeting behavior. The school received a score of 86 % implementation on the school-wide evaluation tool (SET; Horner et al., 2002), which indicates acceptable implementation (>80 %) at the universal level.

Participants

The participating students were identified via a multiple gating process. First, five teachers completed the Student Internalizing Behavior Screener (Cook et al., 2011) on all students enrolled in their classes. Ratings were completed on a total of 384 students and those with scores above the cutoff of 8, but below 15 (minimum score = 0 and maximum score = 21), were then considered further for inclusion. A score between 8 and 15 indicated moderate levels

of internalizing problems and an ideal candidate for a Tier 2 intervention. This step resulted in the identification of 24 students who were rated by teachers as having moderate internalizing problems. The next step consisted of identifying students who were struggling to manage their emotions, which was based on collecting subjective units of discomfort/distress ratings from students directly (see description below). In order to be eligible for inclusion in the study, the student needed to have a SUD rating that exceeded 6 across two consecutive days of ratings prior to implementing the intervention. This inclusionary criterion reduced the pool of potential participants to 13 out of the 24 identified students. Finally, parental consent and child assent were obtained from five students randomly selected from the pool of 13, yielding an ethnically diverse sample of students. Below, each student's specific presentation is described using a pseudonym.

Mark

Mark was a 6th grade African American male student. He received a score of 12 on the SIBS and his internalizing problems consisted of spending time alone, nervousness and worrying, and withdrawing from social situations. Mark was a general education student and prior statewide academic assessment results indicated that he performed slightly below the 25th percentile in both language arts and mathematics. According to the Internalizing Scale from the Teacher Report Form (TRF; Achenbach & Rescorla, 2001) completed by his homeroom teacher, Mark had a T score of 70, which corresponded to the 98th percentile and placed him at the low end of the clinical range for that type of problem (i.e., $T = 70 +$).

Ashley

Ashley was a 7th grade European American female student. She received a score of 15 on the SIBS and her internalizing problems consisted of appearing sad or “bummed out,” withdrawing from class participation, and making occasional negative self-statements. Results from the previous year's statewide academic assessment indicated that she performed at the 86th percentile in language arts and the 66th percentile in mathematics. Results from the TRF Internalizing Scale completed by Ashley's homeroom teacher indicated that she had a T score of 66, which corresponded to the 95th percentile, placing her in the “borderline” clinical range for internalizing distress ($T = 65-70$).

John

John was a 6th grade Asian American male student. He received a score of 11 on the SIBS and his internalizing

problems consisted of withdrawing from class participation, appearing nervous or worried, and a preference for spending time alone. Results from the previous year's statewide academic assessment indicated that he performed at the 8th percentile in language arts and the 16th percentile in mathematics. Results from the TRF Internalizing Scale completed by John's homeroom teacher indicated that he had a T score of 68, which corresponded to the 97th percentile (borderline clinical).

Megan

Megan was an 8th grade European American female student. She received a score of 14 on the SIBS and her internalizing problems consisted of withdrawing from class participation, appearing nervous or worried, and preference for spending time alone. Results from the previous year's statewide academic assessment indicated that she performed at the 82nd percentile in language arts and the 54th percentile in mathematics. Results from the TRF Internalizing Scale completed by her homeroom teacher indicated that she had a T score of 69, which corresponded to the 98th percentile (borderline clinical).

Ben

Ben was an 8th grade Asian American male student. He received a score of 13 on the SIBS and his internalizing problems consisted of withdrawing from class participation, appearing nervous or worried, and preference for spending time alone. Results from the previous statewide academic assessment indicated that he performed at the 54th percentile in language arts and the 26th percentile in mathematics. Results from the TRF Internalizing Scale completed by Ben's homeroom teacher indicated that he had a T score of 68, which corresponded to the 97th percentile (borderline clinical).

Procedures

This study took place through a collaborative partnership between the first author and the administrator of a middle school, who facilitated applied research in the context of professional development workshops for school staff. As a result, this research was conducted under typical educational conditions. The school administrator was invited to have input into all aspects of the study design as well as the time line for implementation in the context of a single-case experimental design. As a result, this study is consistent with participatory action research in which researchers and stakeholders collaborate to design and conduct the research (e.g., formulating research questions, research design, data collection, data analysis, and dissemination) (Nastasi et al.,

2000). The study was initiated in the Winter academic semester.

Two personnel from the existing school staff were selected by the school administrator to serve as mentors in this study. The first mentor was a school psychologist and had 14 years of experience working in schools. The other mentor was a special education resource teacher who had 3 years of experience working in schools. The two mentors received a 60-min training that followed a tell-show-do format (Birman, Desimone, Porter, & Garet, 2000) during which they were provided with materials to support implementation (i.e., implementation scripts and progress monitoring forms). The first author was also available to answer questions and provide feedback throughout the intervention phase. Following the training, baseline data were collected on the participating students. The order in which participants received the CCMP was randomly determined as was their assignment to one of two multiple baseline design groups (see Research Design below). For the first group, Mark was selected to receive the intervention first, followed by Ashley and John. For the second group, Megan was selected to receive the CCMP first followed by Ben. As determined by the school administrator and first author at the outset of the study, the intervention was implemented for a total of 3 weeks for each of the participating students. No follow-up data were collected as part of this study given the site administrator's desire for the study to end, as well as the general purpose of the study was conduct a preliminary examination of the acceptability and impact of the CCMP. At the outset of the study, based on the administrator's request, the researchers agreed to stop the study after each of the participating students received the CCMP for approximately 3 weeks, regardless of whether the participant responded favorably to the intervention. If the participant failed to respond positively to the intervention, then the authors were prepared to recruit and implement the intervention with another dyad or triad of participants from another school, while also reporting the results of the non-responsive participant. The total length of the study was 5 weeks, given the single-case experimental multiple baseline design methods and the 3-week duration of implementing the CCMP for each of the participants.

Research Design

To evaluate the impact of the CCMP, a single-case experimental method was used. Specifically, a concurrent multiple baseline across participants design was utilized. A multiple baseline across participants design represents an internally valid approach that enables experimental control, evaluation of level and trend in performance across baseline and intervention, and replication across participants (Kazdin, 2008). The intervention was not implemented

until steady-state responding was established for the baseline (i.e., a pattern of responding that exhibits relatively little variation in its measured dimensional quantities over a period of time), the last data point in baseline was not decreasing to confound the interpretation of the results (i.e., positive response in the desired direction), and the previous participant receiving the intervention demonstrated positive response to the intervention. These three criteria were an important aspect of the multiple baseline design to demonstrate experimental control and systematically show a functional relation between the independent and dependent variable.

Mark, Ashley, and John were included in one multiple baseline design, and Megan and Ben were included in the other one. The inclusion of two multiple baseline designs in this study enabled another level of interpretation with regard to the replication of the effects produced by the CCMP. For additional discussion of the rationale behind the inclusion of two multiple baseline designs, see the Procedures section above.

Intervention

The Courage and Confidence Mentor Program (CCMP) represents a Tier 2, selective intervention for students identified as at risk because of internalizing problems. The CCMP was developed based on widely used school-based mentor programs that were designed primarily for students with externalizing behavior problems, such as Check-In/Check-Out and Check, Connect, and Expect (Cheney et al., 2009; Lehr et al., 2004; Filter et al., 2007; Todd et al., 2008a). These school-based interventions share a number of characteristics including: (a) assignment of a mentor or behavioral coach who provides unconditional positive regard, (b) morning meeting time to positively interact with the student, pre-correct problems, and offer words of encouragement, (c) daily monitoring of performance, and (d) afternoon meetings to positively interact with the student and provide performance-based feedback.

The same basic structural components mentioned above were integrated into the design of the CCMP, but specific modifications were made to address the needs of students with internalizing problems. These modifications mainly consisted of altering the nature of the communication between the mentor and the student. The CCMP was designed to be delivered by any educational professional who could serve as a mentor and has received the necessary training and resources to carry out the intervention with integrity. It is important to note that the CCMP was not designed to be a counseling intervention delivered by a person who has specialized training and a mental health credential. Rather, the daily morning and afternoon meetings between the mentor and student were designed to

provide mentoring and support without delving into internal processes and life circumstances.

Prior to beginning the implementation of the daily morning and afternoon meetings with students, mentors held two 40-min sessions with their mentees 2 days between the baseline and intervention phases and before beginning the twice daily check-ins. No ratings were collected during these 2 days. The content of the CCMP was delivered in two relatively brief sessions in an effort to remain consistent with the purpose of Tier 2 interventions within a MTSS. That is, Tier 2 interventions should be relatively feasible and easy to implement without requiring a high degree of training and time (Cook et al., 2010b). The first session was designed to build rapport with the students, present the *life bus metaphor* (LBM), and discuss the importance of keeping emotions in check to do what matters most (i.e., personal values). The LBM represents a critical aspect of the CCMP because it normalizes emotions, such as worry, fear, dread, frustration, sadness, and/or anger, yet provides students with the language to understand and talk about their emotions, as well as improve their ability to manage emotions by recognizing them, using a cool down technique, and choosing to engage in behaviors that matter the most. The basic premise of the LBM is to empower the student to manage their emotions, before the emotions get the best of the student. As part of the LBM, the student is also asked to name the emotion and draw a picture of it to externalize the emotion. The LBM provides mentors with a common language they can use to communicate effectively with their mentees by asking questions or making statements, such as “Who’s driving your bus?” “Where is the “emotion” on your bus?” “What are you going to do to make sure you stay in the driver’s seat today?” and “Remember, it’s okay to have unwanted passengers in your bus, but it is important that you are the driver.” The last part of the LBM session is to increase students’ emotional awareness of when the emotion is trying to take over the driver’s seat. The mentor explores body (i.e., somatic sensations) and thought cues that help the students identify times when they need to be courageous by using specific tools to stay in the driver’s seat, which are discussed in next session.

The second 40-min session consisted of performing a brief review of the content discussed in the LBM and then working with the students on the idea of “being courageous” and learning to use specific “courage tools.” Being courageous was presented in simple terms and defined as fighting or “bossing back” uncomfortable thoughts and feelings due to an emotion and continuing to do what is most important in the moment. The goal for each student was to stand up to negative emotions and to prevent them from taking over the driver’s seat and steering them in the wrong direction. The courage tools were communicated to

students as strategies they can use to stay in the driver's seat or regain control of the steering wheel when a passenger on the bus (i.e., the emotion) becomes unruly and tries to steer the bus in an unwanted direction. Specifically, three courage tools were discussed and reviewed with the students using a tell-show-do approach: (a) deep breathing in the moment, (b) going to a "happy place" through the five senses (guided imagery), and (c) courageous self-statements. The courage tools provided a way for the mentors to offer daily encouragement to students, practice coping skills that could help them regulate their emotions, as well as provide feedback to them about why and when it is important to use the skills.

The morning and afternoon meetings between mentors and students were designed to occur before classes begin and after school ends, respectively, and lasted no more than 5–10 min per student. During these meetings, students were instructed to provide daily ratings of their distress/discomfort using SUD ratings. These meetings took place in an office on campus and students were instructed to mark in their school calendars the morning and afternoon check-ins. If the student did not show up to the check-in, the mentor was instructed to find the student.

Measures

Subjective Units of Discomfort/Distress Rating

In order to monitor each participant's response to the CCMP, subjective units of distress/discomfort ratings

(SUD, Wolpe & Lazarus, 1966; Stanley & Averill, 1998) were collected and plotted on a daily basis. SUD ratings consist of measuring the subjective intensity of disturbance or distress experienced by an individual. Prior research has demonstrated that SUD ratings are valid indicators of a person's discomfort, particularly when rating internalizing symptoms (Kaplan, Smith, & Coons, 1995; Sloan & Mizes, 1999; Wolpe, 1990). Moreover, research has shown that students are the best reporters of their own internalizing problems than other informants, such as teachers or parents (Cantwell et al., 1997; Edelbrock, Costello, Dulcan, Conover, & Kala, 1986; Herjanic & Reich, 1997). An example of the SUD rating is included in Fig. 1.

Student Internalizing Behavior Screener (SIBS)

The SIBS is a screening instrument that was designed to measure seven key behavioral indicators of internalizing behavior patterns, identified via a comprehensive literature search and validated via expert review and agreement (Cook et al., 2011). The indicators include: appears nervous, worried or fearful; bullied by peers; spends free time alone; clings to adults; withdrawn; seems sad or unhappy; and complains about being sick or hurt. Items are rated on a 4-point Likert format ranging from never (0) to frequently (3), with higher scores indicating more internalizing problems. The SIBS produces a total score of 21. Prior research has demonstrated that the SIBS possesses adequate reliability, validity, and classification accuracy as a universal screening instrument (Cook et al., 2011).

Fig. 1 Subjective units of discomfort/distress rating



Teacher Report Form Internalizing Scale (TRF)

The TRF (Achenbach & Rescorla, 2001), from the Achenbach System of Empirically Based Assessment, was used as a norm-referenced standardized behavior rating scale. The TRF is one of the most popular and technically adequate measures of student problem behavior that produces several narrow and broadband indices of behavior (Geisinger, Spies, Carlson, & Plake, 2007). However, for the purposes of analyses in this study, only the internalizing composite was used. The Internalizing Scale is comprised of the Social Withdrawal, Somatic Complaints and Anxiety/Depression subscales. Items are measured on a 3-point Likert scale ranging from Not True (0) to Very True or Often True (2). Teachers responsible for leading advisory periods completed the TRF prior to the implementation on the participating students given that this period was designed to check-in with students about academic progress, build relationships and a sense of community, and deliver homework and studying support. These teachers were chosen given their relationships with students, were aware of the intervention being implemented for the students, and were asked to complete the TRF for only the participating students in this study. The reliability estimates for the Internalizing Scale have been shown to fall between 0.80 and 0.95 on indices related to stability and internal consistency (Achenbach, 1991).

Acceptability

Acceptability was measured with the Intervention Rating Profile (IRP-15) and Children's Intervention Rating Profile (CIRP). The IRP-15 was selected because it is widely used to assess teachers' perceived acceptability of interventions (Martens, Witt, Elliott, & Darveaux, 1985). The CIRP includes seven items that assess students' acceptability of an intervention (Witt & Elliott, 1985). Both of these measures include items that are completed on a 6-point Likert format that range from "strongly disagree" to "strongly agree." These measures were administered after the last data collection period for each of the participating students. Both the IRP-15 and CIRP have demonstrated evidence supporting their reliability and validity (Lane et al., 2009).

Dosage and Treatment Integrity

Dosage and treatment integrity were assessed via attendance and a self-report adherence checklist, respectively, and completed by the mentors. Attendance was tracked according to morning and afternoon meeting roll sheet. The self-report checklist was collected on 25 % of the days on a randomly selected basis and contained four items that were

completed by each mentor according to a Yes/No format: (1) positive greeting and conversation with student to get day off to a good start or end the day on an encouraging note, (2) reference to LBM and brief assessment of whether the student was staying in the driver's seat, (3) encouragement to be courageous, and (4) review and reminder of courage tools.

Results

Descriptive Statistics

Descriptive statistics in the form of means, percentile ranks, and change scores were calculated for the two dependent measures. The results are depicted in Table 1. As one can see, the average change across participants from baseline ($M = 68$) to intervention ($M = 57$) for TRF Internalizing scale was 11, which corresponded to a 22-point reduction in the average percentile rank. Mark demonstrated the greatest amount of change on the TRF from baseline to intervention, while John showed the least. With regard to the SUD ratings, the average rating across participants during baseline was 7.33 and it reduced to an average rating of 3.33 during intervention, which represented a four-point reduction in ratings of distress/discomfort. Consistent with the descriptive statistics from the TRF, Mark's SUD ratings demonstrated the most change, while John's showed the least.

Dosage and Treatment Integrity Results

The results of attendance indicated that the participants attended the vast majority of morning (Mark = 100 %, Ashley = 87 %, John = 95 %, Ben = 100 %, and Megan = 95 %) and afternoon (Mark = 95 %, Ashley = 83 %, John = 85 %, Ben = 100 %, and Megan = 87 %) meetings. Moreover, the self-report checklist indicated that the mentors implemented the CCMP components with fidelity

Table 1 TRF internalizing T scores and % rankings pre- and post-intervention

Subject	Pre-intervention		Post-intervention		Change	
	T Score	% Rank	T Score	% Rank	T Score	% Rank
Mark	70	98	52	55	18	43
Ashley	66	95	56	78	10	17
John	68	97	63	91	5	6
Megan	69	97	60	84	9	13
Ben	68	97	57	75	11	22
Average	68	97	57	75	11	22

across all five participants (Mark = 92 %, Ashley = 94 %, John = 98 %, Ben = 98 %, and Megan = 92 %).

Social Validity Results

The post-implementation results for the IRP-15 indicated that mentors found the CCMP to be reasonable, acceptable, and effective. The average rating across all 15 items was 5.3 on a scale from 1 to 6, indicating that the mentors either agreed or strongly agreed with items assessing the acceptability of the CCMP, which "... is the perception among implementation stakeholders that a given treatment, service, practice, or innovation is agreeable, palatable, or satisfactory" (Proctor et al., 2011; p. 67). Four of the 15 items received an average rating of 6, indicating that the mentors strongly agreed with the statement. These items included: "This was an acceptable intervention to address the child's problem behavior," "I would suggest this intervention to other educators," "I would be willing to use this intervention again in this school setting," and "this intervention is reasonable for the problem behavior described."

The post-implementation results for the CIRP indicated that student participants also found the CCMP to be highly acceptable. The average rating across participants and all items was 5.6, indicating that they endorsed responses that they agreed or strongly agreed with items assessing their perceptions regarding the acceptability and fairness of the intervention. All five participants rated the following three items as "strongly agree:" "The mentor support helped me do better in school," "I liked the intervention," and "the CCMP would be a good one to use with other students."

Visual Analysis

Mark, Ashley, and John's Multiple Baseline Design

In single-case experimental methods, visual inspection is the primary method of interpreting the effects of an independent variable on a dependent variable (Kahng et al., 2010). The results of Mark, Ashley, and John's SUD ratings across time are depicted in Fig. 2. Overall, visual inspection of the participants' SUD ratings in the multiple baseline design graph provided support for the efficacy of the CCMP. In particular, the graph depicts a functional relation between the intervention and participants' SUD ratings. Whereas participants' SUD ratings were deemed to be relatively stable at baseline (i.e., steady-state responding), systematic decreases in ratings were not observed until the CCMP was introduced. Latency of change (i.e., time points prior to a level shift after a change in condition) varied somewhat across cases, but all demonstrated decrease by the third time point. In particular, while Mark

demonstrated an observable decrease in SUD ratings, once the CCMP was initially implemented, Ashley and John's SUD ratings continued to remain relatively high in the absence of the intervention. It was not until the CCMP was implemented that Ashley and John's SUD ratings also decreased. Visual analysis of the slope of each participant's ratings revealed a decreasing trend, with all three participants' ratings moving toward less discomfort and distress.

Ben and Megan's Multiple Baseline Design

The results of Ben and Megan's SUD ratings across baseline and intervention phases are depicted in Fig. 3. Overall, visual inspection of the participants' SUD ratings in the multiple baseline design graph provided support for the efficacy of the CCMP. Again, like the previous multiple baseline design graph, results revealed evidence supporting experimental control and a functional relation between the CCMP and participants' SUD ratings. Specifically, whereas Megan's SUD ratings were relatively stable at baseline, there was not a systematic decrease in her ratings until the CCMP was implemented. Moreover, while Megan demonstrated an observable decrease in SUD ratings, once the CCMP was implemented (with a short latency period), Ben's SUD ratings continued to remain relatively high in the absence of the intervention. It was not until the CCMP was implemented that Ben too demonstrated a systematic reduction in the severity of SUD ratings.

Collectively, across both multiple baseline designs, with regard to level, all participants mean SUD ratings decreased from baseline (mean = 7.33) to intervention (mean = 3.33) conditions, as shown in Table 2.

Single-Case Effect Size Estimates

To cross-validate the results from visual analysis, two single-case effect size estimates were computed: percentage exceeding median (PEM) and the non-overlap of all pairs (NAP; Parker & Vannest, 2009) (see Table 3). To calculate the PEM, the median level in baseline was identified and then the percent of intervention data points that were below the median was computed. As shown in Table 3, the PEM estimates for Mark, Ashley, John, Ben, and Megan were 100, 93, 100, 93, and 100 %, respectively, indicating that the vast majority of the participants' intervention data points were below their respective medians. The NAP represents an estimate of the extent to which each baseline data point overlaps with each intervention data point and was determined by calculating the percent of non-overlapping pairs across all comparisons between baseline and intervention data points. The NAP results for Mark, Ashley, John, Ben, and Megan were 96, 84, 85, 88, and 87 %, respectively, indicating that the majority of the

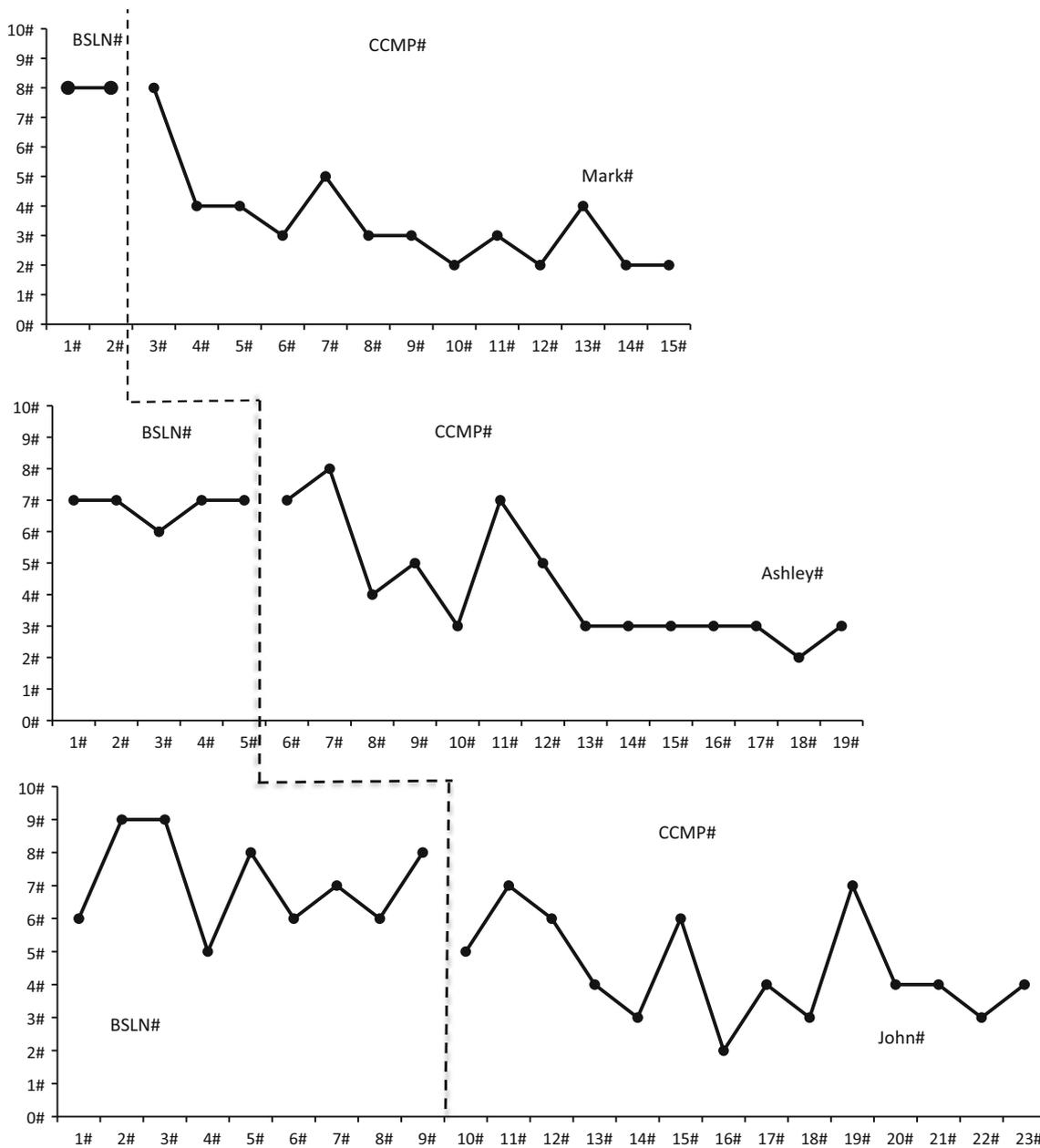


Fig. 2 Multiple baseline across participants design depicting SUD ratings for mark, Ashley, and John across baseline and intervention phases

intervention data points did not overlap with baseline data points. Together, the results from the PEM and NAP estimates corroborated the findings from visual analysis, further evidencing the efficacy of the CCMP across all participants.

Discussion

This study was guided by the recognition that students with internalizing problems are currently under-identified

and underserved in schools. Students with internalizing problems are often untreated in school settings, because their behaviors are not disruptive to the learning environment (Gresham & Kern, 2004). This is troubling considering that prior research has demonstrated that these students are at risk for impairments in academic, social, and extra-curricular domains of performance (Beesdo et al., 2007; Grills & Ollendick, 2002; La Greca et al., 2009; Muroff & Ross, 2011). Furthermore, a review of the extant research on the topic of school-based interventions for moderate severity students with internalizing

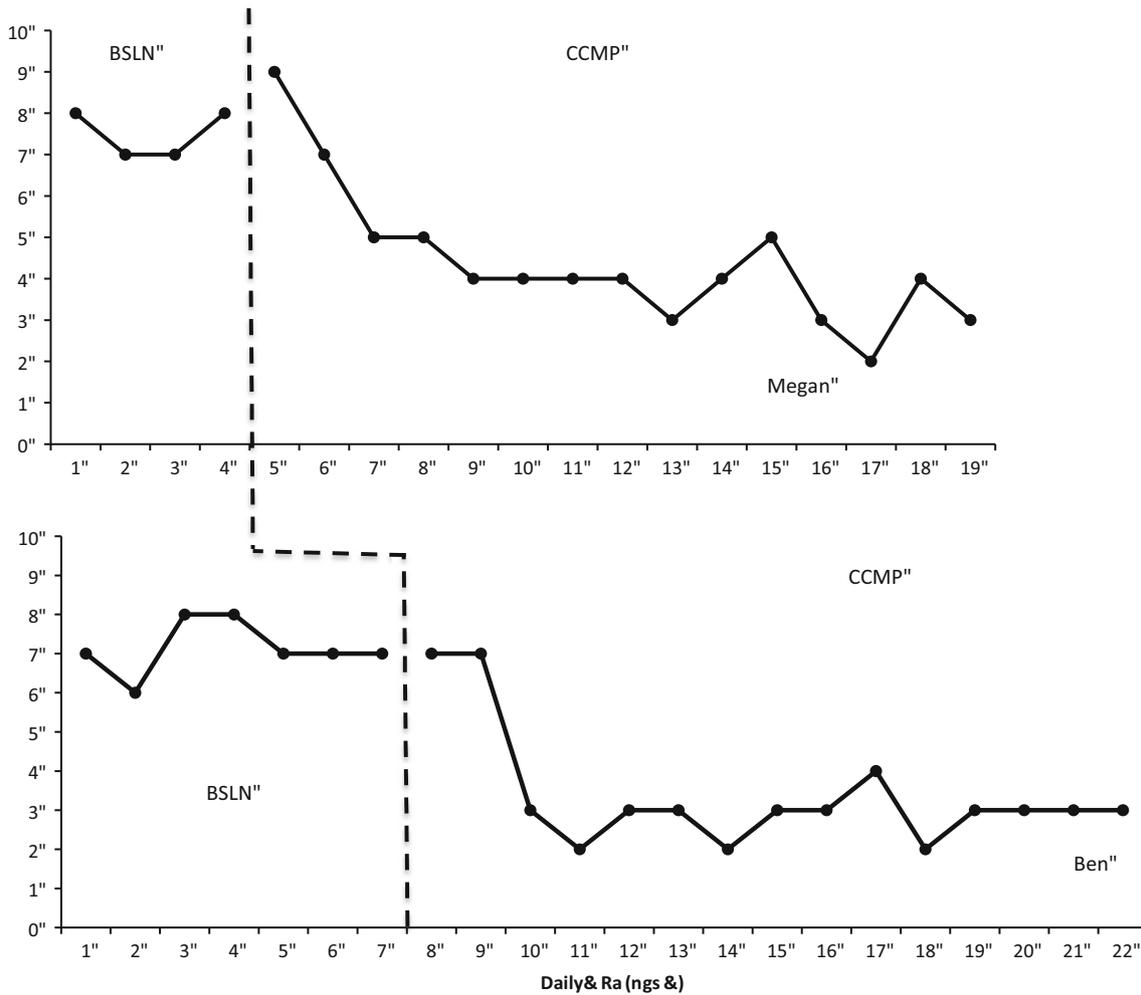


Fig. 3 Multiple baseline across participants design depicting SUD ratings for Megan and Ben across baseline and intervention phases

Table 2 Average SUD ratings before and after intervention

Subject	Subjective units of distress ratings		
	Baseline average	Intervention average	Change
Mark	8	3	5
Ashley	7	3	4
John	7	4	3
Megan	7.5	4.4	3.1
Ben	7.1	3.4	3.7
Average	7.33	3.33	4

Table 3 Non-overlap of all pairs and percentage exceeding median for SUD ratings

Subject	Non-overlap of all pairs	Percentage exceeding median
Mark	0.99	1.00
Ashley	0.84	0.93
John	0.85	1.00
Megan	0.87	1.00
Ben	0.88	0.93
Average	0.89	0.98

problems reveals a dearth of feasible and effective interventions for this group of students that are cost efficient and do not require a high degree of training and expertise to implement. With the growing popularity of MTSS, there is a need for acceptable, feasible, and effective Tier 2 interventions for students identified with internalizing problems that serve as barriers to social-emotional and

academic success. In this vein, this study evaluated the acceptability and efficacy of the CCMP as a Tier 2 intervention for middle school students who were identified as at risk with internalizing problems.

The results of the single-case multiple baseline designs revealed that the structured mentor-based support provided by the CCMP was effective at reducing internalizing

problems across all five participants, with some participants responding more favorably than others. SUD ratings systematically reduced as a function of the CCMP, with a significant drop in self-reported levels of distress from baseline to intervention phases. This is noteworthy given the research showing that self-ratings are more likely sensitive when it comes to assessing internalizing symptoms (De Los Reyes & Kazdin, 2005; Youngstrom, Loeber, & Stouthamer-Loeber, 2000). In addition to the SUD ratings, findings were corroborated by teacher ratings on the TRF. Results revealed reductions in all participants' levels of internalizing problems, with an average change of 22 percentile points from pre to post. Together, these results provided support for the efficacy of the CCMP to successfully decrease internalizing problems for middle school students identified via a universal screening process.

Although all participants appeared to respond favorably to the CCMP, variability in outcomes was observed between Mark, Ashley, and John, with John showing the least improvement post treatment. John's pretreatment, baseline SUDS ratings showed the most variability, which may be attributed to individual differences. This indicates that the CCMP intervention may not have been specific enough for his needs or that the intervention did not account for other key factors, such as the alliance with the mentor or acceptability of the intervention. In fact, John's acceptability ratings were the lowest among the participants.

Adding to the data supporting, the CCMP's efficacy were results indicating high acceptability by both the interventionists and participants. Acceptability is often identified as a necessary precondition to effective implementation, as low acceptability can prove to be a significant challenge (Proctor et al., 2011). These findings speak to the applicability of CCMP in a real-world setting, with its potential to be adopted within schools as part of a multi-tiered system of support.

It is important to consider the notable effect produced by a relatively low-intensity intervention, particularly when more intensive forms of direct therapy have been shown to produce modest effects (Marcus, O'Connell, Norris, & Sawaqdeh, 2014). Although the CCMP is relatively simple in its structure and delivery, there are several common elements from effective treatments (Chorpita, Daleiden, & Weisz, 2005) that are integrated into the intervention (e.g., self-monitoring, positive reinforcement, positive mood scheduling, emotion regulation skills). Foremost, the twice daily mentoring aspect of the CCMP provides a mechanism to promote the generalization and use of specific skills which may be limited in other direct forms of cognitive and/or behavior therapy (Gresham, Robichaux, York, O'Leary, 2012). Moreover, unlike direct therapy, the CCMP provides ongoing, daily contact with a mentor who provides an emotional "check-in," specific prompts to use

emotional regulation strategies, and ongoing encouragement and social support. In addition to use as a standalone intervention, the CCMP could also be used as a complementary intervention to enhance the effects of more time intensive one-on-one direct therapy that emphasizes the acquisition and use of cognitive, emotional, and social skills.

Implications

The findings from this study have several implications for school mental health services. First, the CCMP was not intended to be the sole intervention for all students with internalizing symptoms; rather, it is designed to be a simple and efficient Tier 2 intervention that can address the needs of many lower-severity students with internalizing problems. As such, the CCMP could be a part of a larger menu of Tier 2 interventions that school systems could provide to students depending on the type and severity of the problem. Also, the feasibility of implementing the CCMP suggests that students who are identified as needing Tier II intervention for internalizing problems can readily receive tailored mentor-based supports, during which they can be assessed regarding whether they require additional supports (e.g., in John's case) through simple progress monitoring (Cook and Browning-Wright 2009). The high acceptability ratings from both mentors and students alike further validate the CCMP's usefulness as a Tier II intervention within a MTSS framework. There is also value in having a mentor already identified that could facilitate a return to services if problems return, which may be the case for some students with internalizing problems (Last et al., 1996). The results also have significant implications for the prevention of more intensive internalizing disorders that negatively interfere with school and life success.

Limitations and Future Directions

Despite the promising findings noted above, results from the present study warrant further consideration in light of a few methodological limitations. One of the limitations of this research is the small number of students. Due to the preliminary nature of the study, we intentionally sought out a narrow sample size for the purpose of evaluating the promise of this newly developed school-based mentor program. Future research should attempt to replicate this study with a larger number of students who are identified with internalizing problems. Although the purpose was to evaluate the promise of this newly developed school-based mentor program, future research should attempt to replicate this study with a larger number of students who are identified with internalizing problems. The intent of this study was to document the effectiveness of the CCMP for

internalizing youth, though the long-term effects of the intervention have yet to be documented. It is possible that the large improvement was due to the daily contact and prompting. If this is indeed the case, then it stands to reason that once CCMP has been removed, the gains could diminish. Without follow-up data, it is impossible to know about maintenance of gains and further utilization of skills. Future research should also investigate whether students are able to sustain the positive effects and continue to use skills they learned and practiced without the continued support of their mentors.

Another area of investigation should aim to better understand the indirect benefits that this intervention may have on the academic performance and overall social adjustment of the student. Indeed, documenting the connection between mental health intervention and educational outcomes has been a vexing problem for school mental health researchers (Pullmann, Bruns, Daly, & Sander, 2013). There are also many avenues to further explore the efficacy and generalizability of this intervention among a wider range of students, with expansion into other grade levels, and with a wider array of faculty and staff acting as mentors.

There are several other limitations that are worthy of mentioning. The lack of measurement of externalizing problems is a limitation, considering that comorbid internalizing and externalizing problems are common (Lilienfeld, 2003) and the CCMP was based on a program to treat externalizing behaviors. In addition, future research would benefit from including measures of emotion regulation since this seems to be a core component of the CCMP and one of the mechanisms by which it resulted in significant effects. Finally, the integrity ratings collected for the CCMP only involved provider self-report, which may differ from the “gold standard” of treatment integrity assessment, direct observation (e.g., Hurlburt, Garland, Nguyen, & Brookman-Frazee, 2010).

Though much work remains in documenting the widespread applicability of this intervention, the findings from this study demonstrate that mentor-based support for students with internalizing problems represents a promising avenue to continue to explore and advance with future research. Effective Tier 2 interventions for this population provide an important and resource and time efficient option for addressing problems of anxiety and depression before they develop into more severe conditions that may require more resource-intensive strategies.

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