Editors' Corner

The Patient-Centered Outcomes Research Institute (PCORI) and Support for School Behavioral Health

This is the fourth quarterly issue of a year-long publication effort of the *Report on Emotional & Behavioral Disorders in Youth* (*EBDY*) that highlights the tenants of the Patient-Centered Outcomes Research Institute (PCORI). PCORI is an independent nonprofit organization created by Congress to fund research that helps patients and their families make informed healthcare decisions. It supports studies that compare which treatment options work best for different people based on the outcomes that are most important to the patients and their families. This approach, known as Patient-Centered Outcomes Research, or PCOR, requires the engagement of patients, caregivers, insurers, clinicians, and others across the healthcare community throughout the research process (PCORI, 2016). As noted by

Weist and Stevens (2017) in the first issue of this series (*EBDY*, Vol. 17, No. 1), we use the term "school behavioral health" (SBH) to reflect more comprehensive mental health programs in schools (Weist et al., 2014), working closely with systems of positive behavioral interventions and supports (Horner & Sugai, 2015) to develop interconnected programs that result in greater depth and quality of multi-tiered prevention, early intervention, and treatment efforts to achieve enhanced student and school outcomes (Barrett, Eber & Weist, 2013).

With the support of PCORI, a key goal in the work to advance SBH has been to engage all relevant stakeholders in providing guidance on needed enhancements and directions regarding research, policy, and practice. A community-of-practice approach (see Wenger, McDermott & Snyder, 2002) is being used to build the Southeastern School Behavioral Health Community (SSBHC; see *www.schoolbe-havioralhealth.org*), and we have prioritized involving diverse stakeholder groups in this community. These groups include students and families who have emotional/behavioral (EB) concerns, family and youth advocates, and leaders and staff from the full range of relevant youth-serving systems, including education, mental health, juvenile justice, child welfare, disabilities, primary healthcare, and allied health services, as well as leaders from the faith and business communities. As emphasized and supported by a Eugene Washington PCORI

Engagement Award to our group in 2015, we believe this diverse and deep stakeholder involvement is leading to innovation and practice improvements in SBH.

Prior to receiving support from PCORI, the SSBHC held two conferences focusing on SBH in South Carolina—in Columbia in 2014 and in Charleston in 2015 (Weist & Stevens, 2017). With a view toward PCORI funding, we convened a forum at the conference in Charleston with diverse stakeholders to gain their recommendations on key themes for advancing SBH in the state and region. The forum was supported by the Medical University of South Carolina (MUSC) Clinical and Translational Research Institute (SCTR), which provided guidance about which stakeholders to involve and which questions to ask. More than 20 stakeholders, reflecting most of the stakeholder groups referenced above, gathered for this meeting. Questions asked were:

- What outcomes of SBH programs are most important to students, families, and schools?
- How can diverse stakeholders work better together to improve SBH?
- What barriers are getting in the way of stakeholder partnerships?
- How can these barriers be overcome?
- What critical themes should be focused on to most effectively advance the field?

These questions resulted in the identification of five key themes that stakeholders felt should be emphasized as the SSBHC develops. We determined that we should:

1. Improve collaboration among families, educators, clinicians, and other youth-serving system staff;
2. Enhance school-wide approaches for prevention and intervention;
3. Improve the quality of services;
4. Increase implementation support for effective practices; and
5. Enhance cultural humility and reduce racial, ethnic, and other disparities.

We developed a plan for addressing these themes in our application for the Eugene Washington PCORI Engagement Award, which we received in 2015.

Eugene Washington PCORI Engagement Awards provide funds to groups that conduct projects that increase the meaningful engagement of patients, caregivers, clinicians, and other healthcare stakeholders in comparative Clinical Effectiveness Research (CER), and Patient-Centered Outcomes Research (PCOR) by expanding their knowledge and skills and creating opportunities for them to build connections and to share research findings (PCORI, 2016). The 2015 award received by SSBHC specifically supported the Southeastern School Behavioral Health Conferences in April 2016 and F2017, which were held in Myrtle Beach with more than 400 diverse participants each year and strong and positively rated conference programs.

Our engagement effort was intended not simply to hold conferences and create publications to provide information about effective SBH. It was meant to engage all stakeholders in a meaningful way so as to change the cultures of research, practice, and policy from being driven by university and systems leaders to being broadly driven by diverse stakeholders. To accomplish true stakeholder engagement, we provided multiple opportunities for stakeholder input. Prior to the 2016 conference, we held a stakeholder pre-conference to discuss the five key conference themes. We subsequently held research forums (focus groups) on each theme separately, and we are currently conducting formal qualitative analyses of the focus group data. Following are highlights from ideas generated for each of the five themes from notes taken at the pre-conference and during each forum.

Theme 1: Improve Collaboration and Partnerships

- Reduce stigma and shaming and blaming of students and families presenting with mental health problems;
- Provide broad training on mental health promotion for all groups: school staff, students, families, and community collaborators;
- Increase peer-to-peer support for students and for family members;
- Involve family members in making decisions about choosing evidence-based practices (EBPs) to implement within the multi-tiered system of support (MTSS);
- Increase student leadership within all tiers of the MTSS, including Tier 1 (promotion/prevention), Tier 2 (early intervention), and Tier 3 (intervention);
- Increase the role of family advocates and provide advocacy training;
- Improve abilities of parents to effectively and consistently communicate with school and SBH staff;
- Increase parent-to-parent support for managing emotional/behavioral (EB) problems in children;
- Increase time options for services for families, including during afterschool hours;
- Connect mental health promotion in schools to physical health promotion.

Theme 2: Strengthen School-Wide Approaches

- Improve the inclusiveness of teams to include all stakeholder groups and youth and families;
- Improve processes within teams to assure consistent, well-planned, and executed meetings with strong follow-up;
- Assure active, ongoing, and high-quality professional development for all school staff, collaborating with staff from mental health and other systems, and for students and families;
- Improve sharing of information and team planning to support students from one grade to the next;
- Develop messaging and social marketing strategies to assure broad buy-in and support for multi-tiered SBH efforts and prominently involve families in this social marketing;
- Implement school-wide approaches to train students and staff on mental health and behavioral health promotion, integrated with less stigmatizing health promotion strategies (e.g., stress management, improving coping, and improving nutrition, sleep, and exercise).

Theme 3: Enhance the Quality of Services

- Improve systems of crisis response to enable greater involvement of clinical staff in Tier 1 and Tier 2 programs and strategies;
- Increase family engagement and empowerment strategies, treat families as collaborators, and assure that Tier 3 services are evidence based and actually supportive of families;
- Enhance the impact of SBH through better connections with health promotion;
- Increase training and support for trauma-sensitive practices;
- Develop guides for resources available to students and families in the school and in the community and keep these resources up to date (e.g., through an evolving website);
- Analyze the roles of school-employed mental health staff (e.g., counselors, psychologists, social workers) and work to expand roles for all to enable greater involvement in prevention and intervention.

Theme 4: Improve Implementation Support

- Involve family members and students in training on EBPs within the MTSS;
- Systematically focus on improving the functioning of teams and on assuring effective plans for providing ongoing coaching support for EBPs;
- When implementing interventions with families, enhance empathy and acknowledge that they may feel "blamed" for presenting problems in their children;
- Provide broad training on common challenges people have had, such as adverse childhood experiences (ACES) and the impact these have on functioning;

> *Our effort was intended . . . to engage all stakeholders in a meaningful way so as to change the cultures of research, practice, and policy from being driven by university and systems leaders to being broadly driven by diverse stakeholders.*

- Provide pragmatic support to families, giving them information on available school and community programs and resources and actively helping them connect with these resources;
- Identify exemplars of effective implementation of EBPs at each of the tiers and develop communication strategies about these exemplar sites and about how they are overcoming barriers to EBP implementation.

Theme 5: Promote Cultural Humility and the Reduction of Disparities

- Move away from the "us versus them" idea of mental health challenges, recognizing that everyone has challenges, whether personally or with a family member or friend;
- Broaden and improve mental health education for all groups, including specific approaches to reduce stigma;
- Improve cultural awareness and understanding for all groups: What cultural, ethnic groups are represented in the school? What are their needs, priorities, and recommendations? How can

SBH programming be enhanced to include such cultural awareness and understanding?

• Increase efforts to understand issues and dynamics occurring within students' neighborhoods;

• Involve diverse people on MTSS teams and in advising the school on effective SBH programming;

• Provide ongoing training and implementation support on cultural humility and responsiveness for all staff and stakeholders involved in SBH;

• Integrate self-assessment of cultural humility and responsiveness into quality improvement efforts;

families, youth, mental health and education staff, and other stakeholder groups from the southeastern region of the United States as well as other states and countries. The keynote address from the 2016 conference—which focused on school-wide wellness (Lever, Mathis & Mayworm, 2017)—and the address from the 2017 conference—which focused on precision in our behavioral science approach in the current national climate (Sugai et al., 2017)—have been important contributions to this *EBDY* series, and all of the articles published in the series have a connection to one of these two conferences. The intention for these SSBH conferences was to provide a forum for training and dissemination of

be doing, youth are now helping to co-create programs with family members and with adults from the full range of youth-serving systems (Hart, 1997).

The conferences emphasize "leading by convening" (Cashman et al., 2014), helping diverse groups to meet with one another and enter discussion, with a goal for some groups to move beyond discussion to dialogue, collaboration, policy change, and resource enhancement. This is facilitated by the SSBH conference listserv, which has grown to nearly 15,000 stakeholders, primarily from seven states (Florida, Georgia, Kentucky, North Carolina, South Carolina, Tennessee, and Virginia) in the southeastern region of the United States, and a conference website (*www.schoolbehavioralhealth.org*) that also serves as a repository of key documents, presentations, and lessons learned from the community. The SSBHC is also embracing technological advances, using all forms of social media (e.g., Facebook, Instagram, Twitter) to publicize community events, and a conference app (*advancingSBH*) that was extremely popular at the 2017 meeting. It is our hope that the SSBH community and conferences continue to gain strength in the years to come, providing a platform for diverse stakeholders to collaborate on the advancement of SBH in the region.

> *In contrast to the norm of having adults lead almost all efforts and telling students what they should be doing, youth are now helping to co-create programs with family members and with adults from the full range of youth-serving systems.*

• Identify problematic policies within schools and youth-serving systems that contribute to negative outcomes for particular cultural/ethnic groups (e.g., the social maladjustment exclusion from special education for youth presenting "willful misconduct"; see Becker et al., 2011).

During the pre-conference of the 2017 SSBH Conference, a group of more than 30 diverse stakeholders reacted to the points from each of the five themes. Attention then focused on improving SBH for three priority underserved populations: youth in the child welfare system, youth with connections to the juvenile justice system, and youth from military families. At the time of this writing, research forums are scheduled to occur with diverse stakeholder representatives focusing on advancing SBH for each of these three priority populations. There will also be an emphasis on connecting key points of the five critical themes for service improvement for each of these three populations.

The 2016 and 2017 Southeastern School Behavioral Health Conferences

With the support of PCORI, the 2016 and 2017 SSBH conferences each included more than 400 diverse participants from

information on cutting-edge issues in the SBH field and to promote coherence in research, practice, and policy agendas within the region and the participating states. Our goal was for each state to send representatives, including families and youth and all of the stakeholder groups mentioned above, for the sharing of information and best practices and the adoption of these practices across community and state boundaries, reflecting "multi-scale learning" to escalate the pace of positive change. As mentioned, a community-of-practice approach has been used (Wenger, McDermott & Snyder, 2002), based on the recognition that the systematic work (e.g., evidence-based SBH in all schools in a district) rests on the foundation of genuine collaborative relationships. In addition, with support from WestEd (*https://www.wested.org/*), the Federation of Families of South Carolina (*http://fedfamsc.org/*), and the South Carolina Clinical and Translational Research Institute (SCTR) at the Medical University of South Carolina (MUSC), both conferences prioritized youth leadership and included youth summits for students from local high schools. Our goal is to increase the numbers of youth who feel invested in the SBH agenda. In contrast to the norm of having adults lead almost all efforts and telling students what they should

This Four-Issue Volume of *EBDY*

Consistent with the priorities of the Eugene Washington PCORI Engagement Award on training and dissemination as guided by patients and diverse stakeholders, we are grateful for the opportunity to have published this 2017 four-issue volume of *EBDY* (Volume 17, Nos. 1–4). As noted, all articles published in the journal this year have a connection to the SSBH conferences and cover diverse concepts relevant to the advancement of SBH. In addition to the four editorials providing general background on the SSBH and on cross-system and interconnected approaches to SBH (Barrett, Eber & Weist, 2013), articles have focused on school and staff wellness, classroom behavior management, SBH programming, and adverse childhood experiences (*EBDY*, Vol. 17, No. 1), universal screening, social and emotional learning programs, and afterschool programs (*EBDY*, Vol. 17, No. 2), and climate and precision in behavioral sciences, effective implementation, and social exclusion and peer rejection (*EBDY*, Vol. 17, No. 3). This final issue for 2017 (*EBDY*, Vol. 17, No. 4) includes two important articles, both

of which reinforce the need for the concept of patient centeredness when developing effective practices.

In the first article, Andy Frey and colleagues present the Motivational Interviewing Training and Assessment System (MITAS), an evidence-based strategy for counselors to improve student engagement. The article documents the feasibility of the MITAS and the large gains to be made in school counselor competencies through its implementation, providing a new direction for enhancing student engagement in SBH.

The second article, by Kathleen Lane and colleagues, builds on an earlier article in *EBDY* by Siceloff, Bradley, and Flory (2017; *EBDY*, Vol. 17, No. 2) and discusses the importance of early identification of problems through behavioral health screening. Through school, family, and mental health system partnerships, screening strategies including teacher- and student-report are presented, along with pragmatic ideas for accomplishing these screenings and for providing directions for future research, practice, and policy.

As we conclude this 2017 volume of *EBDY*, we extend our thanks to PCORI for its support of the advancement of SBH in the southeastern region of the United States, and to PCORI project officers Lia Hotchkiss and Marina Broitman for their ongoing support and guidance. We also express our appreciation to Deborah Launer, of the Civic Research Institute, for the opportunity to publish these four issues and for her visionary work in founding and leading *EBDY* since its inception in 2000.

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Motivational Interviewing Training and Assessment System (MITAS) for School-Based Applications

by Andy J. Frey, Jon Lee, Jason W. Small, Hill M. Walker, and John R. Seeley*

Motivational Interviewing

Miller and Rollnick (2012, p. 29) define motivational interviewing (MI) as "a collaborative, goal-oriented style of communication with particular attention to the language of change . . . designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person's own reasons for change within an atmosphere of acceptance and compassion." MI is based on empirical

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The more someone talks about or argues for change, the more likely it is that he or she will change. Conversely, the more one verbalizes reasons against change, the less likely it is that he or she will change.

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evidence that documents the basic principle that the way people talk about change can be related to the way they act. Simply stated: The more someone talks about or argues for change, the more likely it is that he or she will change. Conversely, the more one verbalizes reasons against change, the

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less likely it is that he or she will change. MI helps accelerate the change process "by literally talking oneself into change" (Miller & Rollnick, 2012, p. 168).

Several studies have shown that when MI is used in substance abuse and health care settings, the clients are more likely to stay in treatment longer, put forth more effort during treatment, adhere more closely to the intervention protocol or recommendations, and experience significantly more improved outcomes than clients who receive identical treatment without the MI component (Aubrey, 1998; Bien et al., 1993; Brown & Miller, 1993; Saunders et al., 1993). Recently, adaptations of MI, created for use with parents of children in mental health settings, have demonstrated promise for removing motivational barriers and producing desirable changes in adult behavior. These positive effects have been associated with subsequent changes in child behavior (Connell, et al., 2008; Dishion et al., 2008, 2010; Gardner et al., 2009; Lunkenheimer et al., 2008; Shaw et al., 2006; Smith et al., 2013).

Motivational Interviewing in Schools

MI has important potential applicability to address similar problems related to parent, teacher, and student engagement and poor implementation of evidence-based practices within schooling contexts. Several research groups have leveraged MI as a mechanism of change within educational settings to improve the social and academic functioning of students who are at risk of developing emotional and behavioral disorders that interfere with their academic performance and formation of social support networks (Frey et al., 2011; Herman et al., 2014; Reinke et al., 2013). In some

situations, MI has also been influential as a guiding framework for developing the intervention protocol (Frey et al., 2014; Reinke et al., 2008, 2011; Strait et al., 2012; Terry et al., 2013). Additionally, coaching procedures based on the MI approach have been employed to improve implementation fidelity of well-established interventions such as First Step to Success (Lee, Frey, Walker, et al., 2014), Parent Coping Power (Herman et al., 2012), and Promoting Alternative Thinking Skills (Reinke et al., 2012). The promise of MI's effective use within the context of school-based intervention research and practice is substantial and is likely to be the focus of considerable future research and practice.

Relatively little is currently known about the feasibility of establishing MI competency among school personnel or how to evaluate it. Yet, the successful transfer of MI's full impact and advantages into educational settings will likely depend on the extent to which specialized instructional support providers (e.g., school social workers, school psychologists, school counselors, behavioral coaches) implement the approach competently. To date, few studies have examined training procedures and MI skill acquisition of school-based personnel. Burke, Da Silva, Vaughan, and Knight (2005) conducted a single MI training session on the principles of MI with high school counselors. From anecdotal counselor reports, they concluded that the participants had identified several benefits of learning the MI approach. As well, Caldwell and Kaye (2014) employed a single-group post-test-only design in which 84 student services staff were able to demonstrate limited MI skills when presented with a structured student role play following a one-day training. Caldwell and Kaye advocate continued learning opportunities as well as integration of skills development into everyday practice to sustain acquired skills. Finally, Frey, Lee et al. (2013) reported that interventionists demonstrated acceptable levels of MI proficiency via conversations with teachers and parents following participation in a developmental grant to infuse MI principles into the First Step to Success early intervention program (Frey et al., 2014).

There are several key questions that must be addressed before MI can be considered a viable approach to improve implementation fidelity within school settings (Herman et al., 2014). They are:

- How much training, supervision, and practice are required to improve one's MI proficiency?
- What level of competency is sufficient to affect teacher, parent, or adolescent behavior change?
- What standards should be used to evaluate MI competency?

The MITAS Training Component

This article describes the Motivational Interviewing Training and Assessment System (MITAS), and presents the results of a feasibility study conducted to evaluate some of the questions posed by Herman and colleagues.

Miller and Moyers' (2006) eight-stage model of learning MI has been the primary theoretical framework guiding MI professional development efforts to date. Hartzler and colleagues (2010) suggest that the development of MI competency is a multi-stage process whereby relational and technical skill development occurs in contrived settings with practice and feedback. Proficiency, which is defined by the application of these skills within context-specific clinical encounters, is, however, developed in later stages.

The MITAS contains a training component and an assessment component. Both are described below and depicted in Figure 1. The training component consists of a multi-session workshop, delivered flexibly, depending on the needs of the participants. The training component may also include up to three individualized coaching sessions in which participants receive performance feedback on their use of MI from a practitioner who is well versed in school-based MI. Finally, the training component may include monthly consultation groups, or professional learning communities, in which school personnel come together to code conversations they have had with teachers, parents, or adolescents and to discuss the successes and challenges of implementation. The workshop topics, which are derived from the four MI processes described by Miller and Rollnick (2012), cover the following topics:

1. Introduction to MI;
2. OARS and Values;
3. Focusing and Evoking;
4. Exchanging Information, Sustain Talk, Discord and Evoking Confidence; and
5. Planning for Change.

During the workshops, several didactic and interactive teaching methods are used, including lectures, discussions of key concepts, modeling (through video and live demonstration), and role playing. Workshops are available in one-hour, six-hour, and 15-hour options. A summary of the guiding principles and objectives of MI workshops is provided in Table 1.

Prior to the in vivo coaching feedback sessions, school personnel audio record a 20-minute conversation with teachers, parents, or adolescents during which they use MI in support of the participant's consideration of behavior change. An MI expert evaluates the recording and then provides performance feedback via a 30-minute coaching session. The Motivational Interviewing Treatment Integrity (MITI) Code 4.0 (Moyers et al., 2014), described in the next section, is used to code the session and provide data that can be used for individualized feedback to participants using the Elicit-Provide-Elicit framework (E-P-E; Miller & Rollnick, 2012). The E-P-E approach is a strategy to provide feedback, and also to promote reflection. Specifically, the facilitator begins the coaching session by eliciting the participant's perception of the audio recording, providing a limited amount of data from the coding (e.g., ratio of open-ended questions to close-ended questions), and then elicits the participant's reaction to the data. Thus, the MITI data provide a structure through which the MI expert can analyze the recording and provide performance feedback. During the professional learning communities, school personnel bring in audio recordings of their use of MI in conversations about behavior change with teachers, parents, and adolescents. During these meetings,

they code audio recordings using the MITI and discuss the successes and challenges of implementation. The professional learning communities start with support from an MI expert, which is faded as learning communities gain confidence with their coding skills. As indicated in this description, tools that can be used to measure competency in MI are necessary to evaluate the efficacy of the training component of the MITAS.

The MITAS Assessment Component

The MITAS assessment component contains measures to determine engagement and satisfaction, MI competency, MI proficiency, self-efficacy, and perceived proficiency.

Engagement and Satisfaction. The facilitator's checklist requires facilitators to indicate which training components the participant attended and to assess the participant's engagement in the learning process. The six engagement items are rated on a five-point Likert scale. Facilitators report on each participant's engagement in the training by responding to five items assessing:

1. Attentiveness during training sessions;
2. Responsiveness to comments during feedback sessions;
3. Overall motivation to participate;
4. Willingness to ask questions; and
5. Willingness to try new techniques.

The MITAS satisfaction survey consists of 17 items, scored on a five-point scale from Strongly Disagree to Strongly Agree. Items examine participants' perceptions of program usability, effectiveness, and value based on impact within the school setting for the five workshops (overall satisfaction; nine items) and the feedback sessions (eight items).

Figure 1: Motivational Interviewing Training and Assessment System for School-Based Applications
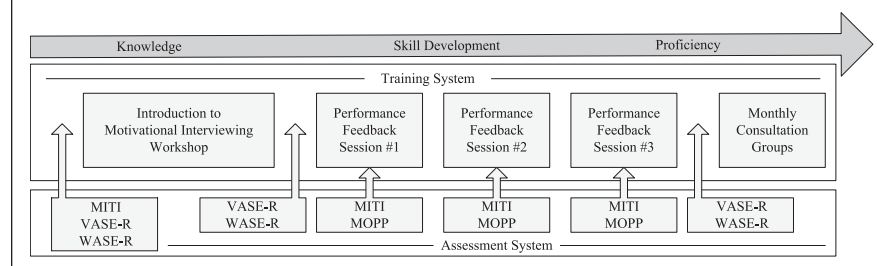
Table 1: MITAS Guiding Principles and Workshop Objectives

I. Introduction to MI

Guiding Principles

√ The way in which persons are engaged can either block or support the likelihood of their changing their behavior.
√ We all experience ambivalence around change; how we talk about this affects what we do.
√ A client-centered, non-authoritarian approach increases the client's level of engagement and willingness to consider change.
√ Client-centered skills (OARS) are necessary, but not sufficient for MI.
√ Using client-centered skills and evoking the client's ideas about change involves doing the opposite of what we are trained and naturally inclined to do. Because the clients are the experts, they—not we—should do most of the talking (i.e., articulating the reasons for change).

Objectives

1. Compare and contrast the motivational interviewing approach to predominately directing and following styles.
2. Identify the definition of MI and the components of the MI spirit.
3. Identify and describe each of the client-centered counseling skills (OARS).

II. OARS and Values

Guiding Principle

√ Discrepancy between a current behavior and a core value can be a powerful motivator for change when explored in a safe and supportive atmosphere.

Objectives

1. In the context of work with teachers, demonstrate the use of open-ended questions and affirmations.
2. Define/describe simple and complex reflections.
3. Demonstrate the use of reflection in the context of a support staff-teacher interaction.
4. Define/describe a summary and demonstrate its use in the context of a support staff-teacher interaction.
5. Identify the critical role of values in any discussion of change.
6. Generate at least two open-ended values questions.
7. Identify OARS skills within a verbatim transcript.

III. Evoking and Focusing

Guiding Principles

√ Evoking involves guiding the client to voice their arguments for change.
√ Change talk can be significantly increased depending on how the interviewer responds.
√ MI involves a process for developing and maintaining a specific direction (toward one or more change goals) in the conversation about change.

Objectives

1. Identify at least two methods of evoking change talk.
2. Demonstrate at least two MI adherent responses to change talk.
3. Identify the choices for focus most frequently on the table in working with teachers and parents.
4. Demonstrate the use of agenda mapping.

IV. Exchanging Information, Sustain Talk & Discord, Evoking Confidence

Guiding Principle

√ It is easy to overestimate how much information and advice clients need. When needed, these must be given in a way that honors the clients' expertise and autonomy.
√ Sustain talk can be decreased (or increased) depending on how the interviewer responds.
√ The way in which discord is handled significantly affects future engagement.
√ Client reluctance may be related to the importance of change and/or to clients' confidence in their ability to change.

Objectives

1. Demonstrate the use of elicit-provide-elicit technique.
2. Distinguish between change and sustain talk in client statements.
3. Demonstrate at least one MI-adherent response to sustain talk.
4. Identify at least one origin of and one MI-adherent way to respond to discord.
5. Demonstrate the use of at least one technique for evoking hope and confidence.

V. Planning for Change

Guiding Principle

√ When clients reach a point where they are ready to change, MI involves developing commitment to change and a plan of action.
√ For some, *deciding* to make the change is enough to lead to substantial and lasting change, even without treatment or educational intervention.

Objectives

1. Provide experiences in recognizing readiness for change.
2. Demonstrate negotiating a plan and consolidating commitment.
3. Introduce steps to closure for each (a) premature, (b) no plan selected, and (c) plan selected.

MI Competency. We used recommended steps for scale development from McCoach et al., (2013) and DeVellis (2011) to identify and adapt two assessment measures to evaluate MI competency. These steps include (1) conceptual definition and literature review, (2) pre-test, (3) expert panel review, and (4) pilot test (see Small et al., 2014). Following the conceptual definition and literature review, we identified the Helpful Response Questionnaire (HRQ; Miller et al., 1991) and the Video Assessment of Simulated Encounters-Revised (VASE-R; Rosengren et al., 2008) as promising measures for adaptation in the context of school-based intervention practice and research.

The Written Assessment of Simulated Encounters-School Based Applications (WASE-SBA; Lee, Small & Frey, 2013), formerly the HRQ, measures a person's ability to generate reflective responses and is scored by rating each response on five-point scale, with a rating of 1 being indicative of weak reflective practice containing MI-non-adherence skills, 3 being indicative of simple reflective practice, and 5 being indicative of complex reflective practice that infers potential parent, teacher, or adolescent behavior change. The scores for each of the six responses can be combined to reflect the overall level or degree of reflective practice across the measure. The WASE-SBA contains directions, item stems and prompts, a scoring guide, and a scoring form.

The Video Assessment of Simulated Encounters-3-School Based Applications (VASE-3; Lee, Frey & Small, 2013) is a modified version of the VASE-R (Rosengren et al., 2008). The VASE-3 uses three video-recorded vignettes with eight opportunities to respond in each vignette (24 items total). Respondents are prompted to generate written responses consistent with the MI skills. The measure contains four subscales: open-ended questions, affirmations, reflections, and summaries. All responses are rated on a three-point scale with 1 reflecting responses of Elicits/Reinforces Sustain Talk or Engenders Discord, 2 reflecting responses that were neutral, and 3 reflecting responses of Elicits/Reinforces Change Talk. Subscale scores are derived for each skill, as is a total score from the sum of the subscale scores. The VASE-3 also contains directions, item stems and prompts, a scoring guide, and a scoring form.

MI Proficiency. The Motivational Interviewing Treatment Integrity Code (MITI 4.0) evaluates component processes within motivational MI, including engaging, focusing, evoking, and planning (Moyers et al., 2014). Sessions without a specific change target or goal may not be appropriate for evaluation with the MITI, although some of the elements may be useful for evaluating and giving feedback about engaging skills. The MITI has two components: the global scores and the behavior counts. According to Moyers and colleagues (2016), interrater reliability based on interclass correlations (ICC) ranged from 0.77 to 0.86 for global ratings, from 0.58 to 0.88 for behavior counts, and from 0.53 to 0.92 for MITI summary measures.

Motivational Interviewing Self-Efficacy. Young (2010) developed the MI Knowledge Questionnaire (MIQ) to assess counselor trainees' understanding of the basic ideas and principles of MI and their feelings of proficiency in their ability to use MI in practice. The original MIQ consists of 12 questions that participants respond to using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Our adapted version of the questionnaire uses the seven items that assess respondent's perceived ability to use MI.

Perceived Proficiency. The Measure of Perceived Proficiency (MOPP) consists of 10 items assessing a participant's perceived proficiency at implementing MI-specific skills. The MOPP assesses 10 MI-specific skills explicitly taught during workshops and reinforced during individualized feedback sessions with participants. Items are scaled on a five-point rating scale ranging from 1 (I am not highly competent at doing this) to 5 (I am highly competent at doing this). The measure is collected from participants and the coach (who will report the participant's level of proficiency) and triangulated with observation data (i.e., MITI) to facilitate identification of gaps between a participant's perceived and actual proficiency, identify points of agreement between perceived proficiency and skill level, and encourage self-reflection.

The training and assessment components of the MITAS were based on the extensive available MI literature and a modification of currently available tools so that they are applicable in schools. In order to determine if the MITAS is useful for training school personnel to use MI to enhance intervention fidelity, we employed a single group, pre-/post-test design to assess the feasibility of and satisfaction with the MITAS. Research questions were:

1. To what extent will participants engage and participate in the MITAS training component?

2. To what extent is the training potentially efficacious for improving MI skill?

3. Do participants perceive the training to be socially valid?

The study participants attended five three-hour workshops and completed and received performance feedback on audio recordings of their practicing MI in consultation with teachers or parents.

Study Sample

Early childhood support staff, who regularly consult with parents and teachers within a large, urban early childhood program in the Midwest were recruited during a 30-minute overview presentation of the study. Of the 35 support staff who were invited to participate, 15 consented and 12 completed the training. The mean age of the 12 participants was 48 (SD = 9.0). Eleven participants were female, three were African-American, and nine were Caucasian. Six participants had earned master's degrees in education, counseling, or social work. The participants represented the following job titles: curriculum resource teacher (N = 3), disability liaison (N = 3), special education resource teacher (N = 3), and social worker (N = 3). They had an average of 9.1 (SD = 10.6) years of experience in their current position, had been teaching on average 14.6 (SD = 9.4) years, and all were former classroom teachers. None of the participants reported having had any prior training or exposure to MI.

Study Procedures

The study participants attended five three-hour workshops and completed and received performance feedback on audio recordings of their practice of MI in consultation with

teachers or parents, as described in the training component section. Facilitators led the workshops and provided individualized feedback to the participants through coaching sessions. The first two authors of this manuscript served as two of the facilitators.

Study Measures

We used adapted versions of the HRQ and VASE-R for this pilot study. The pilot study was completed before the description of the MITAS was finalized for this manuscript. These pilot data were used to make subsequent changes to the study measures,

which included renaming the WASE and the VASE-3, as described above. The adapted version of the HRQ consisted of six written paragraphs that simulate conversations with teachers who have specific concerns. After each paragraph, the participant was asked to write a helpful response. Responses were scored on a five-point ordinal scale, rating the nature and quality of the coach's use of client-centered counseling techniques (i.e., open-ended questions, affirmations, reflections, and summaries). The original HRQ has high interrater agreement (Martino et al., 2006). Prior to the study, we modified

this instrument by creating vignettes that were judged relevant to school-based support staff, and we also modified the scoring criteria (see Small et al., 2014). We collected a version of the VASE-R (as modified from Rosengren et al., 2008) adapted for use with school-based personnel that utilizes three video-recorded portrayals of two teachers and a parent commenting on specific concerns. Coaches were prompted to identify or generate written responses consistent with particular MI principles. The VASE-R includes 18 items (six per vignette) that produce a total score and five subscale scores (i.e., Reflective Listening, Responding to Resistance, Summarizing, Eliciting Change Talk, and Developing Discrepancy). Participant responses were coded using a three-point system, with response options including 0 (Confrontational or Likely to Engender Resistance), 1 (Neutral or Inaccurately Represents the Content of the Client's Speech), and 2 (Accurately Reflects the Content of the Client's Speech).

Data Collection and Statistical Analyses

At baseline, participants completed the adapted HRQ and VASE-R. Following the last workshop, the participants again completed the HRQ and VASE-R. Additionally, the facilitators completed the facilitator's checklist, and participants completed the MITAS satisfaction survey. For interrater reliability, we calculated intra-class correlations (ICC) using two-way mixed effects models (Shrout & Fleiss, 1979). We used Cicchetti's (1994) recommendations to assess ICC sufficiency. We examined within-in-subject effects for the HRQ and VASE-R in an analysis of variance (ANOVA) framework using the general linear model (GLM) procedure in SPSS 19. We report partial point-biserial r as a measure of effect size (Rosnow & Rosenthal, 2008). Effect sizes of 0.14, 0.36, and 0.51 are considered small, medium, and large, respectively, for the derived partial r (Cohen, 1988). Descriptive statistics were used to evaluate social validity.

Study Results

Our first research question addressed participants' engagement in the training component of the MITAS. We answered this question using a facilitator checklist. On average, participants attended 4.8 (SD = 0.4) of the workshops. Ten of 12 participants attended all five workshops. The remaining two participants participated in four of

Table 2: Outcome Summary by Participant

CID	HRQ			VASE-R		
	Pre M(SD)	Post M(SD)	Pre-Post Change	Pre Raw Score	Post Raw Score	Pre/-Post Change
101	14	21	+7	—	33	—
102	6	16	+10	10	24	+14
103	13	22	+3	24	29	+5
201	9	16	+7	12	17	+5
202	6	19	+13	7	14	+7
203	6	21	+15	11	19	+8
301	10	12	+2	11	22	+11
302	6	16	+10	10	24	+14
303	9	21	+12	17	27	+10
401	7	18	+11	7	—	—
402	9	22	+13	17	28	+11
403	13	16	+3	27	27	0
Total/Mean	9.0 (3.0)	18.3 (3.2)		14.60 (6.6)	23.10 (5.0)	

Table 3: Mean Baseline and Post-VASE-R Subscale and Total Scores and Effect Sizes

	Baseline M (SD)	Post M (SD)	F	P-Value	r_{part}
Total score	14.6 (6.6)	23.1 (5.0)	37.26	< 0.001	0.90
Reflective listening	2.0 (2.1)	5.0 (1.4)	31.15	< 0.001	0.88
Responding to resistance	2.7 (2.5)	5.4 (1.8)	15.58	0.003	0.80
Summaries	1.5 (1.7)	3.3 (1.2)	16.57	0.003	0.80
Eliciting change talk	2.0 (1.2)	2.8 (1.6)	3.27	0.104	0.52
Developing discrepancy	3.4 (1.5)	3.5 (1.2)	0.04	0.847	0.07
Affirmations	3.0 (1.7)	3.1 (1.4)	0.04	0.840	0.07

five workshops. All participants attended workshop sessions two through four. Overall, participants attended an average of 2.7 (SD = 0.5) coaching sessions.

Workshop facilitators assessed each participant's engagement in the MITAS using the facilitators' checklist. We computed a mean rating across the six items with higher scores indicating higher levels of engagement. The mean engagement rating (five-point Likert scale) was 4.40 (SD = 0.4).

The second research question addressed the efficacy of the MITAS training procedures. The coefficient alpha for the HRQ across the two raters was 0.71 and 0.76; for the VASE-R scale, coefficient alpha was 0.81 and 0.77. HRQ item level, intra-class correlations were all in the acceptable range (i.e., ICC > 0.40). Interrater reliability was lowest for items one and two (ICCs = 0.58 and 0.54, respectively), with considerably higher ICCs for the remaining four items (mean ICC = 0.90; range = 0.82–0.95). For the HRQ total score, interrater reliability was excellent (ICC = 0.92). ICCs for the VASE-R subscales ranged from 0.79 for the Change Talk subscale to 0.99 for the Reflective Listening and Developing Discrepancy subscales. The intra-class correlation for the VASE-R total score was 0.99. VASE-R total scores and HRQ total scores were highly correlated (r = 0.89).

Participants' scores from pre-test to post-test on both measures are shown in Table 2. Total HRQ scores increased from 9.0 (SD = 3.0) to 18.3 (SD = 3.2). The gains ranged from +2 to +15 on the HRQ and from +5 to +18 on the VASE-R. All participants improved from baseline to post-test. The within-subject partial r effect size was 0.92 (large). The average ICC at the item level was 0.79 (range = 0.54 to 0.95). All 10 participants who completed baseline and post-test VASE-R assessments improved on this measure; specifically, the total mean VASE-R scores increased from 14.60 (SD = 6.6) at baseline to 23.10 (SD = 5.0) at post-test, with a within-subject partial r effect size of 0.90 (large). In addition to examining the overall VASE-R scores, we also examined the subscale scores. As can be seen in Table 3, the largest effect sizes were obtained in the Reflective Listening (0.88), Responding to Resistance (0.80), and Summaries (0.80) subscales. Minimal changes were noted in the Developing Discrepancy (0.07) and Affirmations (0.07) subscales. The ICCs for the VASE-R ranged from 0.79 to 0.99 across the subscales.

The third research question addressed the workshops and the coaching sessions using participant ratings of satisfaction. The satisfaction mean rating for the workshops was 4.6 (SD = 0.4), with scores ranging from 3.9 to 5.0; the mean rating for the feedback sessions (also a five-point Likert scale) was 4.7 (SD = 0.5), ranging from 3.5 to 5.0.

Discussion

We have been encouraged with the successful infusion of MI into school-based practices. Few studies to date, however, have trained school-based personnel to use MI skillfully or have measured their MI proficiency as a component of implementation fidelity within the context of intervention research. The ability to evaluate MI quality, and to eventually scale up MI efforts, will depend on the emergence of training and assessment infrastructures supporting skill acquisition and maintenance. We have

> *Also noteworthy are the encouraging skill gains they showed from pre- to post-test, a result suggesting that the training component of the MITAS is potentially efficacious.*

reported here a small but important step in developing MI staff training methods and measures that preliminary data suggest may be feasible, sustainable, effective, and perceived as needed by school professionals.

This feasibility study is the fourth attempt that we know of to train school personnel to use an MI approach (Burke et al., 2005; Caldwell & Kaye, 2014; Frey, Walker et al., 2013). Our results indicate that the participants attended a majority of the MITAS training sessions (e.g., workshops and feedback sessions) and that the facilitators rated these MI participants' engagement as high. This is noteworthy, given the amount of time required to participate fully in the MI training coupled with the very busy schedules maintained by most school personnel. Because participation was voluntary, the high level of participation suggests that learning these skills was important to the participants. Also noteworthy are the encouraging skill gains they showed from pre- to post-test, a result suggesting that the training component of the MITAS is potentially efficacious. These results must be interpreted with caution, however, due to the small sample size and failure to control for threats to internal validity in this study.

The MITAS provides a framework for the promising transfer of MI from substance abuse and health settings to school-based applications. It is our hope that this framework will help facilitate the interpretation of school-based MI research and also help to answer the critical questions Herman and colleagues (2014) posed:

1. How much training, supervision, and practice are required to improve one's MI proficiency?
2. What level of competency is sufficient to affect teacher, parent, or adolescent behavior change?
3. What standards should be used to evaluate MI competency?

We believe all researchers using MI as a component of their intervention framework should include MI fidelity assessment as a process measure. The MITAS provides a readily available and flexible framework for training and assessing MI competency and proficiency.

Future research should examine the efficacy of the MITAS by employing designs that control for threats to internal validity. Additionally, future research should use all the measures contained in the MITAS in the assessment component. Finally, it will eventually be important to demonstrate that changes in the behavior of school personnel are associated with positive changes in teacher, parent, or adolescent behavior.

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Building Strong Partnerships: Education and Mental Health Systems Working Together to Advance Behavioral Health Screening in Schools

by Kathleen Lynne Lane, Wendy Peia Oakes, John Crocker, and Mark D. Weist*

Behavioral Challenges in Students

Students with emotional and behavioral disorders (EBDs) include a large and diverse group of children and youth who have a range of externalizing (e.g., aggressive, noncompliant) and internalizing (e.g., anxious, withdrawn) behaviors. Externalizing behaviors are often easily detected in the school setting given that the overt nature of these behaviors frequently disrupts the learning environment and impedes instruction (Lane & Walker, 2015). In contrast, internalizing behaviors are less often recognized—at least initially—because the covert nature of these behaviors rarely impedes the learning environment until the characteristic behaviors become quite severe (McIntosh et al., 2014). Inquiries by Achenbach (1991) and Willner, Gatzke-Kopp, and Bray (2016), suggest students frequently have co-occurring behavioral challenges in both domains. These students suffer from both externalizing and internalizing behavior challenges and demonstrate the greatest need for intervention or support.

Left unchecked, these behavioral challenges result in a range of difficulties for students, their teachers, their families, and society as a whole. Descriptive studies have demonstrated students with and at risk for EBDs experience a host of negative outcomes, such as peer rejection, impaired interpersonal relationships, academic underachievement, limited school engagement, unemployment and underemployment, and high need for mental health supports (Wagner & Newman, 2015).

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Although many individuals erroneously conclude that students with EBDs will access special education services under the emotional disturbance (ED) category, the Individuals with Disabilities Education Improvement Act (IDEA, 2004) suggests this is most often not the case. Forness and colleagues (2012) report 20% of school-age youth experience mild to severe EBDs and 12% of students exhibit moderate to severe challenges. Moreover, evidence suggests the majority of adults with EBDs experienced characteristic behaviors during their school years (Merikangas et al., 2010).

Considering fewer than 1% of school-age students receive special education services under the ED category, the general education community must be prepared to support the behavioral and mental health needs of the majority of students with EBDs. Yet, studies of teachers' experiences suggest general education teachers feel less than optimally prepared to effectively support students with EBDs. Teachers indicate their teacher preparation experiences did not sufficiently empower them with the skill sets needed to meet students' behavioral and social-emotional needs (Greenberg et al., 2014). In fact, the absence of adequate classroom management skills is one of the main reasons teachers leave the field.

There have also been concerns about the lack of connections between school and mental health systems, leaving well-intentioned individuals struggling to meet students' academic, behavioral, *and* social-emotional needs. Many individuals are seeking a framework for providing students with the full scope of supports needed within effective and efficient partnerships between educational and mental health professionals (Santiago et al., 2014). Essential

to this framework is the use of systematic tools to feasibly and accurately detect students with externalizing and internalizing behavioral challenges. School leaders are responding to this need (Oakes et al., forthcoming).

Moreover, many national and state leaders have recognized the importance of meeting students' mental health needs. For example, in 2014, Michael Yudin offered a compelling keynote address at the Positive Behavior Intervention and Support Implementer's Forum, in which he urged all educators to place as much priority on students' behavioral and social skills as they put on academic skills. Kansas Commissioner of

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Yet, studies of teachers' experiences suggest general education teachers feel less than optimally prepared to effectively support students with EBDs.

Education Randy Watson (2015), called for a similar emphasis on "soft skills" following a one-year listening tour across the state during which he learned from employers that students graduating from K-12 schools lacked the requisite soft skills to excel in employment. Given that lifetime mental health challenges begin during students' school years (Merikangas et al., 2010), it is encouraging to see schools prioritize graduating students with a comprehensive set of skills, empowering them to succeed academically, behaviorally, and socially. These developments indicate we are well positioned to build strong partnerships between education and mental health systems to advance behavioral health screening in schools and that these efforts are being guided by the full range of stakeholders with interests in this critical work, especially youth and families contending with EBDs (Weist et al., 2017).

In this article, we introduce a key challenge confronting the fields of education and mental health: the need for early detection. We also offer a potential solution:

prioritizing strong, integrated partnerships between education and mental health systems (Weist et al., 2014). We offer two examples of behavioral health screening in schools. The first involves teacher-completed screenings within a Comprehensive, Integrated, Three-Tiered (Ci3T) model of prevention at the elementary level; the second involves self-reported measures of anxiety and depression by high school students. We close the discussion with a call to action and considerations for next steps for researchers, practitioners, and policymakers.

The Challenge: A Need for Early Detection

Given the breadth of externalizing and internalizing behavior patterns, the magnitude of these challenges for school-age youth, and the long-term negative outcomes associated

more prominent concerns, and expectations across classrooms and school settings become more varied (Farmer et al., 2015). Thus, "early" detection refers not only to early in a student's school experience, but also to the early stages of a student's manifestation of behavioral challenges.

Fortunately, a number of systematic screening tools are now available for use across the PK-12 grade span. Some of these are:

- Behavior Assessment System for Children, 3rd Edition: Behavioral & Emotional Screening System (BASC-3: BESS; Kamphaus & Reynolds, 2015);
- Social, Academic, and Emotional Behavior Risk Screener© (SAEBRS; Kilgus et al., 2013);
- Social Skills Improvement System–Performance Screening Guide (SSiS-PSG; Elliott & Gresham, 2008a);

measurement error, namely, false positives (saying a student has a concern such as internalizing behaviors, when in reality they do not) and false negatives (saying a student does not have a concern, when in reality they do have the concern of interest). In prevention efforts, a false positive is preferred to avoid overlooking a student in need of assistance, and this "screening in" results in additional support and/or supplemental instruction (e.g., self-monitoring, cognitive restructuring; Vannest, Reynolds, & Kamphaus, 2015).

We emphasize that it is also important to select a tool feasible for use within a district, with attention to access to high-quality professional learning to support all stakeholders in understanding the rationale as well as the logistics for conducting systematic screenings. We encourage the interested reader to see Oakes et al. (forthcoming) to learn more about the screening tools available to detect social, emotional, and behavioral concerns in students as well as the practical considerations and recommendations for selecting and installing such systematic screening tools.

In the first illustration that follows, we focus on teacher-completed screening procedures. Teachers completed the selected screening tool for all students in their assigned class three times a year: in the fall, winter, and spring. Screenings were conducted as part of regularly scheduled faculty meetings so as not to encumber instructional or planning time. Unlike academic screening tools, teacher-completed behavior screening tools do not require any time with students to administer. Teachers independently complete these brief screenings following specified procedures and then use the composite scores in conjunction with other data collected as part of regular school practices (e.g., academic screening scores, attendance, office discipline referrals [ODRs]) to inform instruction. For example, these data can be used to examine the overall level of student risk in a school building, inform the use of low-intensity teacher-delivered supports (e.g., instructional choice), and connect students with relevant strategies, practices, and programs should primary prevention efforts be insufficient for meeting a student's multiple needs (Lane, Oakes, Ennis & Hirsh, 2014).

Data from screening tools can be used to facilitate communication among a range of individuals committed to supporting students' academic, behavioral, and social-emotional health (Lane et al., 2012). This helps to address the challenge of wide-ranging

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When selecting a screening tool, it is important to choose a tool with established reliability and validity to accurately detect students with and at risk for both externalizing and internalizing disorders.

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with these disorders, early detection is critical. Negative behavior patterns (e.g., persistent negative thoughts, aggression) are more amenable to intervention before they have become ingrained through years of practice (Walker, Forness & Lane, 2014).

Early detection is a core feature of prevention frameworks, and "early" means more than just early in a students' educational career (e.g., preschool and kindergarten). "Early" also means early in the onset of the behavioral concern (Lane et al., 2013). For example, rather than waiting for aggressive behaviors to emerge and then responding with evidence-based practices such as functional assessment-based interventions (FABI; Umbreit et al., 2007), one could focus on detecting precursors to aggression such as noncompliance or peer rejection (Farmer et al., 2015; Moore et al., 2017). Such behaviors may emerge for the first time in early childhood or as students are transitioning from the elementary to middle school years. This transition, as well as the transition to high school, can be challenging for even the most talented students as curricula become more precise, social standing and peer acceptance become

- Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001);
- Student Risk Screening Scale (SRSS; Drummond, 1994);
- Student Risk Screening Scale–Internalizing and Externalizing (SRSS-IE; Drummond, 1994; Lane & Menzies, 2009); and
- Systematic Screening for Behavior Disorders (SSBD; Walker, Severson & Feil, 2014).

These screening tools provide a range of behavioral health screening options and capabilities, including some free-access tools (e.g., SDQ, SRSS, and SRSS-IE) to ensure all schools have a screening option while being fiscally responsible (Lane, Oakes, et al., 2017). When selecting a screening tool, it is important to choose a tool with established reliability and validity to accurately detect students with and at risk for both externalizing and internalizing disorders. We encourage decision makers to carefully review the evidence for each tool's psychometric properties to ensure an appropriate selection for the population of interest. All tools have some degree of

terminologies and definitions among education, research, and mental health communities that have served to impede communication between professionals, as well as to increase barriers for students to receive needed supports (Weist et al., 2012).

Fortunately, many school systems across the country are emphasizing behavioral and social-emotional competencies in addition to academic competencies (Lane, Oakes, Menzies & Germer, 2014; Weist et al., 2014). To this end, they are constructing tiered systems to provide a graduated continuum of supports that include primary (Tier 1) prevention efforts for all, secondary (Tier 2) prevention efforts for some, and tertiary (Tier 3) prevention efforts for a few. Ideally, each level of prevention is composed of evidence-based practices (Cook & Tankersley, 2013), with movement between the levels determined by data-informed decision making.

There is a wide variety of tiered systems, such as Response to Intervention (RTI; Fuchs et al., 2010) emphasizing academic performance and Positive Behavioral Interventions and Supports (PBIS; Horner & Sugai, 2015). More recently, an emphasis has been placed on developing systems with integrated approaches such as:

- Multi-Tiered Systems of Support (MTSS; McIntosh & Goodman, 2015);
- The Interconnected Systems Framework (ISF; Barrett et al., 2013); and
- Comprehensive, Integrated, Three-Tiered models (Ci3T; Lane et al., 2010; integrating academic, behavioral, and social domains).

Illustration 1: Teacher-Completed Systematic Screening Within Ci3T Models

Ci3T models provide a framework designed to meet students' academic, behavioral, and social skill needs and to support strong, positive productive partnerships between education and mental health communities. As part of Tier 1 efforts in the social domain, all students have access to primary prevention efforts targeting social and emotional learning. During the Ci3T design process, school-site Ci3T leadership teams and district-level decision makers collaborate to select a validated curriculum to install at Tier 1 (primary prevention) along with validated strategies and practices at Tier 2 and Tier 3 to assist students requiring more than primary prevention efforts. Ci3T models have been designed, implemented,

and evaluated in a number of districts for 20 years, with initial development in California to system-wide implementation in a number of districts in Alabama, Kansas, Missouri, Tennessee, and Vermont.

As part of a practitioner-researcher partnership grant funded by the Institute of Education Sciences (IES), Ci3T is currently being implemented districtwide in a medium-size district in the Midwest. Specifically, elementary schools (ES; n = 14) designed Ci3T models in the 2013–2014 academic year; traditional middle schools (MS; n = 4) and high schools (HS; n = 2) designed models in 2014–2015; and the College and Career Center designed a model in 2015–2016. At the launch of this practitioner-researcher partnership, all 20 PK-12 schools were in the first or second year of implementing Ci3T models in 2015–2016, and the College and Career Center was preparing for year one implementation.

At this time, all schools are implementing Tier 1 practices according to their individual Ci3T plans with many common district-guided elements. For example, all schools have:

1. Established leadership teams with district representatives;
2. Clearly defined roles and responsibilities for stakeholders;
3. Clearly defined expectations, a system for teaching them, and a uniform system for providing reinforcement;
4. Procedures for monitoring using district-level systems for implementing academic and behavior screenings;
5. A system for responding to student needs at Tiers 2 and 3;
6. Regular communication from the district partner leadership team and principal leaders; and
7. Professional development for Ci3T leadership teams and faculty and staff district wide.

As part of their design and implementation processes, school-site Ci3T leadership teams and district decision makers selected a validated curriculum to support students' social and emotional development according to school board and community priorities. The decision-making process occurred in two phases: first, for elementary students, and then, for middle and high school students for year one Ci3T implementation. In the next section, we offer an illustration of Ci3T in action at the elementary level.

> *As part of their design and implementation processes, school-site Ci3T leadership teams and district decision makers selected a validated curriculum to support students' social and emotional development according to school board and community priorities.*

In our partnership work, elementary Ci3T leadership teams engaged in a systematic process for selecting a behavior screening tool and Tier 1 social skills curriculum. The process followed similar steps:

1. Team review of options and a short list of recommendations;
2. Review of published evidence of tools and curricula for evidence to support their intended use and expected outcomes;
3. Discussion by district and school leaders;
4. Examination of materials and structures for implementation; and
5. Adequacy of resources to support implementation.

The selection of a social skills curriculum followed a process by which Ci3T leadership teams first reviewed information from the What Works Clearinghouse (WWC; U.S. Department of Education), the National Registry of Effective Programs and Practices (NREPP) of the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Collaborative for Academic, Social, and Emotional Learning (CASEL) to identify effective—and feasible—social-emotional curricula. Next, each team provided its district decision makers with a list of its top three curricula for further review. The compiled list was shared with the district leadership team and the principal leadership team, who conducted additional research by reviewing publisher websites, reviewing articles of treatment-outcome

studies published in refereed journals, and contacting publishers to access and review sample curricular materials. The curricula were listed in order based on their meeting of the priorities and needs of the district students, evidence for effectiveness, and feasibility given district resources. The top two curricula were made available to school counselors, teachers, and Ci3T leadership team members (which included one parent on each team) for review. Then, in the spring of their designing year, a decision was made to adopt and install Positive Action (2008) at Tier 1 the following fall. Positive Action is a social-emotional learning program developed for students in elementary and middle schools and has been shown to improve school climate as well as to improve student behavior. A classroom-based curriculum (which includes teacher- and counselor-taught lessons) teaches social and self-management skills, with universal support of program implementation school-wide (Flay & Allred, 2003).

To support installation, district leaders offered multiple professional learning opportunities to prepare teachers for fall implementation. First, they allowed each Ci3T leadership team to establish its own implementation schedule, providing district-guided expectations for implementation (e.g., school-wide instruction by teachers and school counselors, a minimum number of teacher-taught and counselor-taught lessons,

pacing to provide year-long instruction). Second, they secured a complete Positive Action curriculum with a kit for each teacher and counselor to ensure intervention agents had the full scope of materials needed for instruction. Third, they created optional professional learning sessions prior to and during summer break, followed by a required elementary-wide professional learning session a few days before students returned. Those responsible for teaching the curriculum could attend any or all opportunities, but they were required to attend at least one professional learning session.

To ensure high-fidelity implementation and a coordinated effort for all behavioral and mental health supports, the district invested in a new position, a mental health facilitator. The mental health facilitator supported implementation by developing structures to monitor treatment integrity, meeting regularly with counselors assigned to each building, and providing ongoing professional learning in suicide prevention, crisis training, trauma-informed practices, and social skills instruction. The professional learning provided an understanding of the "why" for school-wide implementation and created structures to support equitable, transparent access to Tier 2 and Tier 3 supports for students requiring more than primary prevention efforts. For example, during the third year of implementation, four elementary

schools partnered with university collaborators to install and test the efficacy and social validity of two Tier 2 social skills interventions using a validated curriculum: the Positive Action and Social Skills Improvement Systems–Intervention Guide (SSiS-IG; Elliott & Gresham, 2008b; see Figure 1 for one intervention grid; Lane, Common, et al., 2017).

During the same time, the mental health facilitator collaborated with community mental health providers to create transparent access for Tier 3 supports. As part of their initial conversation, community health providers learned about the Ci3T models in place at each school so they could understand the Tier 1 experience for all students and be able to incorporate common language systems to program for generalization. The goal was three-fold, to:

1. Ensure students are exposed to primary prevention efforts through the use of validated social skills curricula to prevent challenges from occurring;

2. Create opportunities within the school day to support students who have soft signs for externalizing and internalizing behaviors; and

3. Establish strong partnerships with community-based mental health providers available for offering Tier 3 supports for students with intensive intervention needs in social-emotional learning.

Figure 1: Sample Elementary School Comprehensive Integrated Three-Tiered (Ci3T) Model of Prevention Intervention Grid

Support	Description	School-Wide Data: Entry Criteria	Data to Monitor Progress	Exit Criteria
Social Skills Improvement System (SSiS): Counselor-led small group	Counselors and/or social workers will lead small group SSiS sessions for approximately 30 to 40 minutes 2 to 3 days per week. Students will acquire new skills, learn how to engage more fully in instructional experiences, and learn how to meet more school-wide expectations. Small groups will run for up to 24 sessions (8 to 12 weeks depending on the number of sessions conducted per week) using a subset of SSiS lessons appropriate for student skillsets as identified using SSiS-Rating Scale (teacher and parent version).	**Behavior** ☐ SRSS-E7 score: Moderate (4–8) and/or ☐ SRSS-I5 score: Moderate (2–3) **AND** ☐ 2 or fewer absences in first 3 months of school **AND** ☐ Evidence of teacher implementation of Ci3T primary (Tier 1) plan (treatment integrity: direct observation) **AND** ☐ Parent permission **AND** **Academic** ☐ Student is in grade 2 or 3	**Student measures** • SSiS-Rating Scale (Pre/Post) • Skills for Greatness (Pre/Post) • Daily behavior report (DBR; daily) • Attendance and tardies **Social validity** • Teacher: IRP-15 • Student: CIRP **Treatment integrity** • Daily completion of component checklist of key lesson practices • Tier 1 Ci3T Treatment integrity: Direct observation (30 minutes)	☐ Review student progress at end of 24 sessions ☐ Team agrees goals have been met or no further SSiS small group sessions are warranted ☐ SRSS-E7 and I5 scores are in the low-risk category

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For these most intensive intervention efforts, it is important for schools, community providers, and families to partner closely with a carefully constructed plan for assisting students who require community-based supports.

As illustrated in the Tier 2 intervention grid (see Figure 1), systematic screening plays a key role in the early detection of who may need these tiered supports. Namely, systematic screening data are used in conjunction with other data collected as part of regular school practices to connect students to relevant Tier 2 and Tier 3 supports. We emphasize that screening data also provide important information about the overall level of risk for all students in a school for monitoring the intended effects of Tier 1 prevention and that the data inform teachers' use of low-intensity supports to facilitate engagement and minimize the occurrence of challenging behaviors (Lane et al., 2016). For example, in each elementary school, following each behavior screening window, Ci3T leadership teams reviewed the percentage of students whose scores indicated low, moderate, and high risk for externalizing and internalizing behavior challenges for the school as a whole as well as for each grade level. These data were analyzed with treatment integrity data to determine (1) if Tier 1 efforts were in place as planned and (2) how students were responding to primary prevention efforts.

Ci3T leadership teams also encouraged their teachers to review screening data for their class as a whole. If the percentage of students in their class at moderate or high risk exceeded 20%, the teachers selected and implemented low-intensity supports (e.g., increased opportunities to respond). If these low-intensity, teacher-delivered supports were insufficient, students requiring additional assistance were connected to Tier 2 or Tier 3 supports according to individual needs.

By designing and implementing Ci3T models, schools prioritize healthy academic, behavioral, and social-emotional development for all learners. Schools' Ci3T implementation manuals make transparent roles and responsibilities, expectations, procedures for teaching, reinforcing, and monitoring, and Tier 2 and Tier 3 supports. These transparencies facilitate communication among all stakeholders: teachers, counselors, administrators, parents, community mental health staff, and community members. The intended outcome is to support the social, emotional, behavioral and academic well-being of all students, including those with EBDs.

Illustration 2: Districtwide Mental Health Screening in a Mid-Sized Urban School District

Methuen Public Schools (permission was obtained to share the name of the district; Crocker, personal communication, 2017) is a district located approximately 30 miles north of Boston, Massachusetts. The district serves approximately 700 students across four K-8 grammar schools and one high school of approximately 2,000 students. The district's focus on school mental health has dramatically increased over the past two years, owing in large part to its selection to participate in the University of Maryland's Center for School Mental Health (CSMH) School Mental Health Collaborative for Improvement and Innovation Network (CoIIN). Through its participation in the CoIIN, the district has sought to adopt the CSMH's School Mental Health National Performance Measures and to establish a Comprehensive School Mental Health System (CSMHS). The impetus to implement mental health screening in Methuen stemmed from the district's self-assessment during the initial phase of the CoIIN work that no formal method of collecting, analyzing, or utilizing psychosocial data existed and that this lack posed a considerable barrier to improving the quality and sustainability of Methuen's CSMHS. The mental health team identified the high school as the pilot site for conducting mental health screening after considering the information gained through needs assessments and counseling logs, which indicated mental health concerns were most prevalent in grades 9 through 12. Additionally, logistical considerations, such as availability of technology and number of available mental health staff members at the high school factored into the decision as well. The team also decided that introducing mental health screening to an older population at the outset of the pilot, as opposed to students in the grammar or middle schools, would serve to normalize the idea of mental health screening in a manner that was less threatening to the larger population in Methuen.

A number of questions arose as the district mental health team began planning to pilot mental health screening. Associated costs, consent, selection of tools, method of administration, staff readiness, and the ways in which collected data would be used were all considerations that needed to be addressed prior to making mental health screening a reality. For this reason, the district started small and began rapidly testing at the micro-level to ensure that practices and resources could be vetted using a quality improvement approach prior to scaling up implementation. Plan-Do-Study-Act cycles were completed regularly to assess the efficacy of new practices and to evaluate next steps for implementation (Associates in Process Improvement, 2017).

By designing and implementing Ci3T models, schools prioritize healthy academic, behavioral, and social-emotional development for all learners.

Individual students were screened after securing consent from their guardians as part of the first phase of testing mental health screening. As mental health staff reported back their findings, questions related to the utility of the data gathered were posed, including how the collection of psychosocial data could inform progress monitoring efforts, serve as a measure of the effectiveness of interventions, and, when aggregated, serve as an ongoing mental health needs assessment. It became apparent early on that the collection of psychosocial data had various meaningful applications that supported the decision to begin scaling up to groups of students and, eventually, to whole grade levels.

As the practice of screening students scaled up, preparing for the first large administration became a focus. Selecting the specific screening tool and the means of administering the screening were identified as priorities, and the team also considered the degree to which staff were prepared to provide follow-up services to students who scored in the moderate and severe ranges on the measures used. At this phase of implementation, a number of key practice and policy implications were adopted that have been identified as having a significant impact on the quality and sustainability of the screening program in Methuen.

Methuen Public Schools sought to use only free assessments in the public domain when designing the mental health screening program in order to ensure that sustainability of the program would not be affected by fluctuations in the local budget. The district dedicated time and staffing to ensure that the practice of mental health screening was implemented successfully; however, it is worth noting that there is no dollar cost associated with sustaining this practice in the future. Neither the assessments used nor the means of administering them have associated costs that are contingent on the local budget.

Through an analysis of needs assessments that were conducted in the 2013–2014 and 2014–2015 school years, measures were selected that matched the student population's reported areas of greatest need.

concerns. The idea of directly addressing and openly discussing school mental health was still a relatively novel concept for a large percentage of the population in Methuen. The mental health team thus took steps toward normalizing the idea of mental health screening in a manner that was safe for the larger population and that would serve as a foundation for future expansion of the type and frequency of screenings.

Securing consent to administer student-completed mental health screening in schools is a major consideration for any district considering implementing this practice. During the initial phase of implementation in which select students were identified for pilot screening, active consent was secured from the students' parents/guardians. As the first large-scale administration was being planned, the mental health team decided to

survey, or screener that they are not interested in taking and you can opt-out your son or daughter at any time by contacting the Guidance Office of your son's/daughter's school or filling out the opt-out form here. A list of the questionnaires, surveys, and screeners is available below for you to review. We are committed to ensuring your son or daughter is supported academically, socially, and emotionally, and we look forward to partnering with each of you toward achieving this goal.

The opt-out procedures that were established constitute a major success of Methuen's screening program. Because fewer than 1% of parents/guardians have opted out of mental health screening, the mental health team has been able to proactively screen the vast majority of the adolescent student population in Methuen. As an added measure to ensure buy-in from the larger community and account for student input, prior to the administration of all screenings, a slightly adapted message is read to students, which indicates students may opt out of completing any screeners that they are uncomfortable taking.

One practice adopted early on and piloted for the first large-scale screening was the use of computer-based administration for screening. This practice constituted one of the greatest innovations associated with implementation of mental health screening in Methuen because it served to establish an efficient system for the administration of screening, collection of data, and identification of students who required follow-up. Methuen High School has made a significant investment in technology in recent years, the hallmark of which is the issuing of iPads to all students at the high school. During the high school advisory block, the adapted opt-out message was read to students, and they were then given an opportunity to complete the screener on their school-issued iPad.

Owing to the use of computer-based administration, data were readily accessible to mental health staff immediately following the screenings. Student responses populated a secure data sheet that could be filtered by score to produce a referral list for mental health staff to use in order to conduct follow-up clinical interviews. The need to hand-score screeners, organize the results, and generate a referral list has traditionally posed a significant barrier to scaling up this practice in many districts; however, the use

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Unsurprisingly, anxiety and depression were identified as the top areas of concern reported by students and mental health staff, and this finding led to the selection of measures that focused on these two presenting concerns. The decision to use more targeted measures also supported the belief that by using multiple measures across several screenings, a robust dataset could be compiled that would lend itself to a richer and more comprehensive understanding of the needs of the students in Methuen.

For the first large-scale administration, the mental health team selected a measure that focuses on symptoms of generalized anxiety disorder (GAD-7; Patient Health Questionnaire [PHQ] Screeners, 2017a). Because school mental health had become a much greater topic of conversation in the recent past when screening was being implemented, the team decided to select a targeted measure that focused on a presenting problem that would leverage the greatest amount of support from the parent, student, and larger community and that would broach the issue of mental health screening in schools in a manner that would not trigger

adopt a passive consent, or opt-out, procedure. This practice involved notifying all parents/guardians in the district that mental health screening would be taking place and creating a process that would provide them with the opportunity to opt out of mental health screening.

A message was developed that described the purpose and intent of implementing mental health screening in Methuen, as well as procedures for accessing the opt-out form on the district's webpage and other methods for opting out one's son/daughter. The statement read as follows (Methuen Public Schools, 2017):

> In an effort to promote the health and well-being of students in Methuen Public Schools, students will be periodically provided with questionnaires, surveys, and screeners that address issues related to mental health. The information gained will support the school's ability to provide comprehensive and timely support for your son or daughter if they require any assistance. Students can opt-out of filling out any questionnaire,

of computer-based screening allowed for a coordinated follow-up to be conducted with identified students approximately 20 minutes following the screening administration. Additionally, collecting data in this manner allowed the mental health team to quickly aggregate results to assess the needs of the larger population.

Follow-up and response are of primary importance when considering a district's readiness to engage in mental health screening (Weist et al., 2007). Therefore, it is imperative to determine whether or not the school has the mental health staffing not only to administer screenings, but also to conduct follow-up interviews and provide services to students who are identified. Implementation of mental health screening is not recommended if a school lacks the capacity to respond to identified students' needs. It is inadvisable and highly questionable from an ethical standpoint to screen for the sake of screening or as a means of solely collecting data.

Professional development was provided to the mental health staff in Methuen in preparation for and throughout the process of scaling up mental health screening. Additionally, procedural manuals were developed that outlined best practices related to conducting a clinical interview, interpreting screening results, and referring students for therapeutic services. The readiness of the staff allowed for the adherence to follow-up procedures that were established at the outset of the planning phase. All students who scored in the moderate to severe ranges received follow-up by a mental health staff member within 72 hours. As screening scaled up and other measures were used that contained questions related to suicidal ideation, the corresponding window of time for follow-up was significantly reduced, resulting in students who indicated any level of self-harm or suicidal ideation receiving follow-up on the same day as the screening. Additionally, as a proactive measure, local mental health agency partners were alerted in advance of the screenings to ensure they were prepared to manage a potential uptick in referrals for evaluation following the screenings.

Aside from the obvious use of screening data to identify students who may require services, mental health screening supports a number of other important features of a healthy and well-functioning CSMHS. Individual results serve as a baseline for ongoing progress monitoring, which is conducted using the same tools that are used for the screenings. In this manner,

the psychosocial functioning of students and the effectiveness of the therapeutic interventions provided are continually being assessed, which improves the quality of the services provided and adds a layer of accountability to the system. As previously discussed, aggregated results serve as an ongoing needs assessment to determine which Tier 2 and Tier 3 interventions would best serve the needs of the student population.

Data from each screening yielded important information about the prevalence of mental health concerns in Methuen. The first large-scale screening was conducted in January of the 2015–2016 school year and used the GAD-7 anxiety screener, a widely used measure in the public domain with adequate psychometric properties (Spitzer et al., 2006). Of the students screened (N = 839), approximately 22.5% scored in the moderate to severe ranges for anxiety. These findings supported not only the identification of specific students who would require mental health services and supports, but also a larger understanding of the population's needs and an underscoring of the importance of designing and implementing interventions that would directly address the prevalence of anxiety in schools.

The success of the first large-scale screening prompted the mental health team to scale up this practice to include additional measures, including the PHQ-9 (PHQ Screeners, 2017), a screener that focuses on symptoms of depression, and the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001; Youth in Mind, 2017), a global scale that yields a total difficulties score and a number of subscales that are focused on specific problem areas

(e.g., hyperactivity and peer problems), with both measures also having adequate psychometric properties. The first screening using the PHQ-9 underscored the degree to which depression was also a considerable concern in Methuen. Of the 852 students who completed the PHQ-9 in April 2016, approximately 20% scored in the moderate to severe ranges for depression.

Plans for administering mental health screening in the 2016–2017 school year included replicating the previous two screenings and adding a third administration using the SDQ. In October 2016, students completed the SDQ, with 12.5% (N = 1,344) of students scoring in the high or very high range on total difficulties. Following that screening, students were administered the PHQ-9 in November 2016, resulting in a larger sample (N = 1,135) completing the screening and approximately 16% of students scoring in the moderate to severe range for depression. Finally, the GAD-7 was administered in January 2017. A sample of 943 students was screened, with 18.5% of students scoring in the moderate to severe ranges for anxiety (Table 1).

School staff reached out to all of the above students with identified anxiety and/or depression concerns and connected them, as appropriate, with treatment services matched to the intensity of presenting needs. Without these data, the degree to which a district can document and report on the impact of the therapeutic interventions being offered is limited, and the level of need of the student population is difficult to ascertain. Through the adoption of practices that generate psychosocial data, the ability to generate a data-rich accountability system for the CSMHS has become

Table 1: Summary of Elevated Mental Health Screening Scores by Administration

Screening Measure	Screening Date	N	% of Students in the Moderate or Severe Ranges
Generalized Anxiety Disorder (GAD-7)	Jan. 2016	839	22.53
Patient Health Questionnaire (PHQ-9)	Apr. 2016	852	20.07
Strengths and Difficulties Questionnaire (SDQ)	Oct. 2016	1,344	12.73
Patient Health Questionnaire (PHQ-9)	Nov. 2016	1,135	16.04
Generalized Anxiety Disorder (GAD-7)	Jan. 2017	943	18.56

Note: The Moderate and Severe score ranges for each measure are as follows: GAD-7: Moderate (10–14) and Severe (15–21); PHQ-9: Moderate (10–14), Moderately Severe (15–19), and Severe (20–27); SDQ: High (18–19) and Very High (20–40).

a reality. Progress monitoring data related to students receiving Tier 2 and 3 supports is used to highlight the efficacy of therapeutic interventions offered, and aggregated data gathered at key points throughout the year show how the level of need of the larger student population changes as a function of the services offered through the tiered system of mental health.

A Call to Action: Considerations for Next Steps

As we move forward with the goal of prioritizing strong, integrated partnerships between education and mental health systems, we offer the following considerations for implementing districtwide screening and response systems using tiered systems such as Ci3T models of prevention as a framework to structure and facilitate service delivery within these partnerships. We respectfully offer the following considerations for research, practice, and policy.

Research

- Design, test, and install free-access and low-cost screening tools that are reliable, valid, and feasible for use in detecting preschool through 12-grade students with characteristic patterns of externalizing and internalizing disorders.

- Design, test, and install feasible on-demand resources for professional learning for various stakeholders (e.g., administrators, general and special education teachers, related service providers, clinicians from the community, parents, community members, and students) to learn more about the rationale, procedures, and uses for conducting behavior screenings in schools.

- Design, test, and install district-level data structures that enable efficient access by teachers, principals, and district leaders to multiple sources of data (e.g., academic and behavioral screening scores, ODRs, and attendance) in an integrated manner to inform decision making.

- Develop, test, and install effective and socially valid interventions for general and special education communities to support PK-12 students who are experiencing externalizing and internalizing behavior challenges.

Practice

- Select and install systematic screening three times per year (fall, winter, and spring) to support early detection of externalizing and internalizing behavioral challenges as well as academic challenges.

- Provide high-quality, ongoing professional learning to support the installation of systematic screening tools along with explicit instruction on how to use these data to inform instruction and provide tiered supports within the school setting and through community partnerships.

- Build and implement with integrity tiered systems of support composed of evidence-based practices, with data-informed decision making conducted using data from systematic screening tools to connect teachers and students to appropriate supports.

- Commit to a systems change perspective that supports high-quality implementation of systematic screening, honoring the lessons learned from implementation science literature about the time needed (two to three years) for high-fidelity implementation before seeing desired shifts in student performance.

- Create systems for transparency in practices and a fully informed parent/guardian community.

- Develop practices that are responsive to parent/guardian and community concerns.

Policy

- Make transparent state and federal laws that support early detection efforts.

- Enhance communication between education and mental health systems by committing to common language frameworks to ensure transparency and clarity in communication among educators, mental health providers, and families.

- Address issues of funding to provide for students' access to needed mental health supports within the regular school day.

Summary

In this article, we have introduced a key challenge confronting the fields of education and mental health: the need for early detection of EBDs among students and a framework for early response to their needs. Next, we offered a potential solution: prioritizing strong, integrated partnerships between education and mental health systems. Following this discussion, we provided two illustrations (1) teacher-completed behavior screening within a Ci3T model of prevention in an elementary school setting and (2) student self-reported mental health screening in the high school setting. The differences in the screening measures used in the two illustrations are important. The first illustrates universal behavior screening conducted as part of regular school practices to inform instruction. Teacher-completed screeners are based on observed student behaviors, with screening as a way to measure and monitor teachers' observations. The second illustrates the use of mental health screening (student self-report). Additional protections for self-report measures must be afforded, such as parent/guardian permission and opt-out options as discussed in the high school illustration.

Finally, we have offered a call to action, posing considerations for next steps for researchers, practitioners, and policymakers. We hope this concluding article in the four-issue 2017 volume of the *Report on Emotional & Behavioral Disorders in Youth* will help to propel improvements in research, practice, and policy of the foundational issue of early identification of students in need of successful school behavioral health programs.

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From the Literature: What's Hot . . . What's Not

by Michelle Charlin*

Social Emotional Learning

Effects of a Summer Learning Program for Students at Risk for Emotional and Behavioral Disorders

Zeng, S., Benner, G.J., and Silva, R.M.
Education and Treatment of Children
39(4): 593–616, 2016

It is common for students to regress academically during the summer. Summertime learning programs, categorized as afterschool programs (ASPs), can be a preventative measure. This study demonstrated the effectiveness of integrating social emotional learning (SEL) into a literacy program for low-income, incoming fourth graders at risk for emotional and behavioral disorders (EBDs) and is the first to document "summer social emotional backslide." In groups of five to six students per teacher, the control group and treatment group both received two and a half hours of literacy instruction per day for five weeks. The control group's program lasted half a day. The treatment group spent the entire day at a Boys & Girls Club of America (BGC) site in the northwestern United States. Their day included three hours of enrichment activities as part of each literacy session. The additional activities were based on the BGC's Triple Play program, which promotes healthy habits, physical activity, and behavioral skills. Among the topics taught were emotional regulation, appropriate peer interaction, and conflict resolution. At the end of the program, there was no significant difference between the reading and writing improvements of the groups. However, the treatment group's social emotional behavior significantly improved while the control group's behavior declined with regard to emotional symptoms and peer problems. Post-surveys of the treatment group indicated that 64% of students believed they were thinking more positively and 68% felt they were better able to understand friends' feelings. Parental responses concurred. Not attending to the social emotional needs of youth during long academic breaks can lead to "reactive and remedial strategies." The authors propose that school districts, youth clubs, and communities work together to pay for and provide summer programs with SEL components.

Risperidone and ADHD

Comparison of the Effects of Methylphenidate and the Combination of Methylphenidate and Risperidone in Preschool Children With Attention-Deficit Hyperactivity Disorder

Safavi, P. Dehkordi, A.H., and Ghasemi, N.
Journal of Advanced Pharmaceutical Technology & Research
7(4): 144–148, 2016

Few controlled clinical trials have investigated the psychopharmacological treatment of preschool-age children. In 2015, Iranian children aged three to six who had ADHD comorbid with disruptive behavior disorders (DBDs) were divided randomly into two groups. Over a period of six weeks, one group received methylphenidate, a psychostimulant commonly known as Ritalin; the other group received methylphenidate and risperidone, an atypical antipsychotic. Conners' rating scale total and subscale scores were significantly reduced, but there was no significant difference between the two groups.

The authors had hoped to and did find that the addition of risperidone lessens methylphenidate's side effects such as insomnia and anorexia and lowers the dosage of methylphenidate required for ADHD improvement. Only five of the 47 participants had to withdraw from the study before its completion because of side effects. Other studies had investigated this drug combination but not with this age group. The authors' findings differed from those of earlier work in that the symptoms of children in the current study did not significantly improve with the addition of risperidone.

ASD and Vitamin D

Vitamin D Status in Autism Spectrum Disorders and the Efficacy of Vitamin D Supplementation in Autistic Children

Saad, K., Abdel-Rahman, A.A., Elserogy, Y.M., Al-Atram, A.A., Cannell, J.J., Bjørklund, G., Abdel-Reheim, M.K., Othman, H.A., El-Houfey, A.A., Abd El-Aziz, N.H., Abd El-Baseer, K.A., Ahmed, A.E., and Ali, A.M.
Nutritional Neuroscience
19(8): 346–351, 2016

This study furthered the research on the role of vitamin D deficiency in people with autism spectrum disorder (ASD) by focusing on children, using controls, and having a large sample size. One hundred and twenty-two Egyptian children aged three to nine with ASD and 100 healthy controls of similar age, sex, and social status were screened and classified by DSM-IV-TR criteria and the Childhood Autism Rating Scale (CARS). The first part of the study was conducted during May and June to prevent the influence of seasonal fluctuations in vitamin D levels.

A mere 16 of the study group participants were found to have normal serum 25-OHD concentration (>30 ng/ml); more than half were deficient in vitamin D (<20 ng/ml), and 30% had vitamin D insufficiency (20–30 ng/ml). Eighty-three subjects complied with taking oral vitamin D3 (300 IU/kg/day, which did not exceed 5,000 IU/day) for three months. Because this was an open-label trial, parents and children were aware of what was being administered. Side effects such as skin rashes, itching, and diarrhea were mild and short-lived. After supplementation, the CARS scores of 16 children with final serum 25-OHD levels >40 ng/ml had gone down by 3.5 to 6.5 points. Scores of 31 of the 49 youth with final serum 25-OHD levels between 30 ng/ml and 39 ng/ml decreased by 1.5 to 4.5 points. Comparisons of aberrant behavior checklist (ABC) subscales before and after treatment showed statistically significant improvements in irritability, lethargy/social withdrawal, hyperactivity, and stereotypic behavior.

Screening for Anxiety

Quantifying Risk for Anxiety Disorders in Preschool Children: A Machine Learning Approach

Carpenter, K.L.H., Sprechmann, P., Calderbank, R., Sapiro, G., and Egger, H.L.
PLOS ONE
11(11): e0165524, 2016

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Preschool children who have significant anxiety issues are likely to become youth and adults who suffer from anxiety and mood disorders. Although early intervention could be of great benefit to these preschoolers, few will be screened or treated. It is expensive to use current diagnostic tools such as the Preschool Age Psychiatric Assessment (PAPA). The interviewer must be highly trained, and hours are required for the questions to be asked, answered, and coded. The authors of this study, mental health professionals and engineers, are using an alternating decision trees algorithm (ADtrees) to develop brief screening tools that could one day be used to calculate risk scores for two frequently occurring anxiety disorders: generalized anxiety disorder (GAD) and separation anxiety disorder (SAD).

At sites where young children receive primary medical attention, caregivers could be asked questions such as: "Does your child ever get up at night to check that family members are OK?" (SAD) or "When your child is anxious or frightened, do his/her muscles get tensed up?" (GAD). Yes/No responses to questions could be followed by: "How often does this occur?" or "When did this start?" Over the past 10 years, data from two different PAPA studies of children aged two to five from Durham, North Carolina, and its rural surrounds have shown that higher risk scores for SAD were associated with greater sensory hypersensitivities, sleep disturbances, and irritability. Higher GAD and SAD risk scores were associated with increased rates of conduct disorder and oppositional defiant disorder. It is hoped that refinement of the machine learning process and the evidence it provides will lead to additional services being offered to this age group.

Environment and Depression

Trajectories of Neighborhood Cohesion in Childhood, and Psychotic and Depressive Symptoms at Age 13 and 18 Years

Francesca S., Colman, I., Weeks, M., Lewis, G., and Kirkbride, J.B.
Journal of the American Academy of Child & Adolescent Psychiatry
56(7): 570–577, 2017

Children and adolescents living in deprived neighborhoods seem to experience worse mental health outcomes than their peers from more affluent areas, including more internalizing and psychotic symptoms

and greater mental health service use. However, very few studies have investigated whether neighborhood social cohesion is associated with mental health problems in adolescence. This study recruited a total of 14,541 women and 13,988 children from the Avon Longitudinal Study of Parents and Children (ALSPAC), a birth cohort study of children born to women in Avon (Bristol, UK) from April 1, 1991 through December 31, 1992, and followed them from pregnancy onward through self-report questionnaires and clinic visits.

The main exposure variables were trajectories of neighborhood social cohesion, neighborhood discord, and neighborhood stress as reported by the mother by questionnaire during pregnancy, at eight months postpartum, and when the child was

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Children who were persistently exposed to greater neighborhood social adversity had higher odds of reporting psychotic experiences and depressive symptoms at 13 and 18 years.

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approximately two, three, five, seven, and 10 years old. At each point, mothers were asked the same set of questions about their relationship with neighbors and the overall rating of the neighborhood. From the time children reached two years of age, mothers were asked about the quality of the physical and social environment. Data on psychotic experiences and depressive symptoms were collected at 13 and 18 years of age during clinic assessments

The authors found that children who were persistently exposed to greater neighborhood social adversity had higher odds of reporting psychotic experiences and depressive symptoms at 13 and 18 years after controlling for a number of confounders including maternal deprivation, family socioeconomic status, and area-level deprivation. The specific type of neighborhood adversity associated with adolescent mental health varied. At 13 years, neighborhood stress emerged as the strongest predictor of psychotic experiences and depressive symptoms, whereas at 18 years, lower neighborhood social cohesion and higher neighborhood stress were more strongly associated with depressive symptoms than with psychotic experiences, which were predicted by greater neighborhood discord.

Social Skills Training

Social Skills Training for Children and Adolescents With Autism Spectrum Disorder: A Randomized Controlled Trial

Olsson, N.C., Flygare, O., Coco, C., Görling, A., Råde, A., Chen, Q., Lindstedt, K., Berggren, S., Serlachius, E., Jonsson, U., Tammimies, K., Kjellin, L., and Bölte, S.
Journal of the American Academy of Child & Adolescent Psychiatry
56(7): 585–592, 2017

Although social skills group training (SSGT) for children and adolescents with autism spectrum disorder (ASD) is widely applied, its effectiveness in practice has not been properly evaluated. This 12-week randomized controlled trial of SSGT compared to standard care alone was conducted at 13 child and adolescent psychiatry outpatient units in Sweden. Twelve sessions of manualized SSGT were delivered by regular clinical staff to 296 patients aged eight to 17 years who had been diagnosed as having ASD without intellectual disability. Eighty-eight of the participants were females, 208 were males; 172 were children and 124 were adolescents.

The primary outcome was the Social Responsiveness Scale rating by parents and blinded teachers. Secondary outcomes included parent- and teacher-rated adaptive behaviors, trainer-rated global functioning and clinical severity, and self-reported child and caregiver stress. Assessments were made at baseline, post-treatment, and three-month follow-up. Moderator analyses were conducted for age and gender. Significant treatment effects on the primary outcome were limited to parent ratings for the adolescent subgroup and females. Secondary outcomes indicated moderate effects on adaptive functioning and clinical severity.

Although the authors concluded that SSGT for children and adolescents with ASD in regular mental health services is feasible and safe, the modest and inconsistent effects underscore the importance of continued efforts to improve SSGT beyond current standards. ∎

Calendar of Events, November 2017 – January 2018

November

Oct 31-
Nov 2 | **Youth Development Symposium.** Chicago, IL. Sponsor: National Association of Workforce Development Professionals. Website: *http://www.nawdp.org/Training/YouthDevelopmentSymposium.aspx*

6-8 | **44th Annual Conference for Middle Level Education.** Philadelphia, PA. Sponsor: Association for Middle Level Education. Website: *http://www.amle.org/annual/Home/tabid/244/Default.aspx?gclid=CLTGoabh_9QCFVFffgodx9MIpA*

9-12 | **National Federation of Families for Children's Mental Health 28th Annual Conference.** Orlando, FL. Sponsor: NFFCMH. Website: *https://www.ffcmh.org/conference*

December

11-14 | **World Congress on Special Needs Education.** University of Cambridge, UK. Sponsor: WCSNE. Website: *http://csmh.umaryland.edu/Conferences/*

January

10-12 | **Beyond Housing: A National Conversation on Child Homelessness and Poverty.** New York, NY. Sponsor: Institute for Children, Poverty, and Homelessness. Website: *http://www.cvent.com/events/beyond-housing-2018/event-summary-6d083e57e642485cb-c3f48f9f5211217.aspx?p=10*

17-19 | **2018 ACSSW Advancing School Social Work Practice National Institute, Makin' It Real: Moving Beyond the Basics.** New Orleans, LA. Sponsor: American Council for Social Work. Website: *http://www.acssw.com/*