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Mental Health Interventions

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Abstract

This chapter reviews youth mental health interventions that promote behavioral, emotional, and cognitive engagement among school-aged youth within a three-tier framework. We first summarize empirical relationships between positive indicators of student engagement (e.g., subjective well-being; SWB) and negative indicators (e.g., internalizing and externalizing symptoms of psychopathology) of mental health. Then, we describe interventions that can be implemented in the school context to target the specified mental health indicators. At Tier 1, universal schoolwide and classwide prevention strategies that promote students' SWB and emotional health and demonstrate positive improvements on student engagement are reviewed. At Tier 2, we describe how selective mental health interventions utilizing a motivational interviewing approach can promote students' engagement. At Tier 3, we present cognitive-behavioral therapy as an evidenced-based approach to treating externalizing and internalizing symptoms that pose barriers to student engagement. We illustrate interventions within each tier through providing a case study based on our work with adolescents enrolled in rigorous accelerated high school courses.

Keywords: Dual-factor model of mental health, multi-tiered system of support, motivational interviewing, accelerated courses

Mental Health Needs of Children and Adolescents

Individual students bring a host of unique environmental and personal circumstances to school that can serve to either optimize their learning in that classroom or, conversely, pose barriers to learning. Mental health problems are acknowledged to pose barriers to learning (Adelman & Taylor, 2010) in part because diminished mental health limits students' ability to engage at school. In this chapter, we offer a contemporary definition of youth mental health, as operationalized through a dual-factor model that recognizes that psychological wellness and illness are interrelated yet separable, and both matter to student success. We illustrate ties between students' mental health and their engagement at school through a summary of findings from observational studies that have examined aspects of student engagement (behavioral, emotional/affective, cognitive engagement) in relation to indicators of mental health. Then, we summarize universal, selective, and intensive evidence-based school mental health interventions, with a focus on those that directly target student engagement and/or have demonstrated positive effects on student engagement.

What is Mental Health?

Traditionally, youth mental health has been viewed from a problem-focused lens, with attention to symptoms of various forms of mental illness that can be conceptualized as internalizing (e.g., depression, anxiety, and social impairments) or externalizing (e.g., conduct problems, delinquent behaviors, health-compromising behaviors such as substance use and early sexual activity). Since the turn of the century and aligned with the positive psychology movement, an increasing number of scholars contend that mental health is not solely defined by the presence or absence of psychological deficiencies (Seligman & Csikszentmihalyi, 2000). Within positive psychology, subjective well-being (SWB) is a key indicator of mental health,

and includes both cognitive and affective dimensions. Life satisfaction- the cognitive and most studied dimension- entails a global appraisal of the quality of one's life holistically or in key domains (e.g., school, family, friends, living environment, self). Affect refers to the frequency with which one experiences a range of positive emotions (e.g., cheerful, joyful, lively) and negative emotions (e.g., scared, mad, sad). A student with high SWB is content with his or her life and experiences positive emotions more often than negative emotions. Research on a dual-factor model of mental health establishes that youth with the best academic, social, and physical health outcomes have *Complete Mental Health*- defined by both high SWB, and few symptoms of internalizing and externalizing forms of psychopathology (Suldo & Shaffer, 2008; Suldo, Thalji-Raitano, Keifer, & Ferron, 2016). Those studies demonstrate that about 1/3 of students have early or progressive signs of mental health needs, in terms of diminished happiness and/or elevated psychopathology symptoms.

Empirical Links between Student Engagement and Mental Health

Adolescence is identified as a critical transition period in which youth from diverse backgrounds experience a range of physical, social, and emotional changes. This is also a time in which students' engagement in school begin to decline, and symptoms associated with various mental health disorders are more likely to emerge. As such, much of the research establishing the relationship between youth mental health and student engagement has been conducted with upper elementary and secondary students. This section summarizes the correlates of student engagement based on that body of research, with a focus on positive and negative indicators of youth mental health deemed relevant in a dual-factor model. This body of knowledge underscores the need for universal prevention strategies, as well as selective and targeted mental health interventions to promote opportunities for behavioral, cognitive, and affective engagement

among school-aged youth.

Though the terms *student engagement* and *school engagement* are often used interchangeably, throughout this chapter we focus purposefully on *student engagement*. Appleton, Christenson, and Furlong (2008) emphasized that “*student engagement* (italics added) is preferred over *school engagement* (italics added) because schools engage students as learners, and they are engaged to varying degrees” (p. 380). Appleton et al. (2008) also suggested that the term school engagement seems to place more emphasis on the school setting while minimizing factors outside of the school that influences students’ engagement. The term *student engagement*, however, places students at the center of efforts rather than the school, as student engagement refers to a student’s active involvement in the social and academic aspects of school (Fredricks, Blumenfeld, & Paris, 2004). Student engagement is a multicomponent construct that typically includes an affective, behavioral, and cognitive dimension. Affective engagement refers to students’ emotional reactions towards school and class, including students developing strong connections with adults and peers at school; behavioral engagement refers to students’ participation in class and school (e.g., involvement in extracurricular activities), and their demonstration of appropriate behaviors; and cognitive engagement is typically represented by students’ being invested in their education such as valuing school and using various self-regulation strategies to engage in deeper learning (Christenson et al., 2008; Fredricks et al., 2004). Although we primarily focus on school-based mental health support as a mechanism to foster and maintain students’ engagement at school, we acknowledge that variables outside of the school setting are also influential (e.g., family and community). This stance is reflected in our discussion about mental health interventions at the tertiary level in which we note that some students may require more intensive therapy through community agencies to adequately address

symptoms associated with various mental health disorders that may pose a barrier to students' affective, cognitive, and behavioral engagement in school.

Internalizing problems. Many common symptoms of internalizing forms of psychopathology such as social withdrawal, avoidance, and lethargy logically pose barriers to student engagement. Case in point, Conner and Pope (2013) examined the relationship between youth mental health and the affective, behavioral, and cognitive dimensions of engagement within high-achieving schools. Students who reported high levels of engagement across all three dimensions reported significantly fewer feelings of hopeless, sadness, and despondency. Wang and Peck (2013) found that 9th and 11th grade students who reported low levels of emotional, behavioral, and cognitive engagement reported higher rates of depression compared to their peers. In addition to these associations between engagement and depressive symptoms, researchers have also found a significant negative relationship between student engagement and symptoms associated with anxiety disorders, such as excessive worrying (Conner & Pope, 2013).

Externalizing problems. Research suggests that students' engagement may be thwarted by the presence of externalizing problems. For example, samples of adolescent students who reported higher levels of affective, cognitive, and/or behavioral engagement were significantly less likely to report elevated rates of substance use and sexual activity (Carter et al., 2007; Li & Lerner, 2011; Simons-Morton & Chen, 2009). Moreover, middle and high school students who reported being more affectively, cognitively, and/or behaviorally engaged reported lower rates of conduct problems/delinquent behaviors, such as fighting, bullying, stealing, cheating on assignments, and carrying a weapon (Carter et al., 2007; Conner & Pope, 2013; Li & Lerner, 2011; Simon-Morton & Chen, 2009).

Subjective well-being. Several studies have found students' life satisfaction and positive

affect are positively correlated with their affective, behavioral, and cognitive engagement, whereas students' negative affect is inversely associated with all three dimensions of student engagement (Heffner & Antaramian, 2016; Lewis et al., 2011). For instance, among students in 7th-10th grades, Reschly and colleagues (2008) found that frequent positive emotions were associated with higher levels of cognitive and affective engagement, whereas negative affect was associated with lower levels of student engagement. Furthermore, positive affect (but not negative affect) was associated with adaptive coping, which, in turn, predicted student engagement. Reschly et al. (2008) concluded that the association between positive emotions and student engagement was partially mediated by adaptive coping. Some research further suggests that students' SWB and engagement in school may have a bidirectional relationship. Backman (2016) explored 5th-9th grade students' happiness in school. The results of the qualitative study indicated that students believed happiness promoted their engagement at school and being engaged at school promoted their happiness. In a study of middle school students who rated their life satisfaction, and behavioral, affective, and cognitive engagement at two times in the school year (5 months apart), Lewis et al. (2011) found a bidirectional relationship between life satisfaction and cognitive engagement.

Mental Health Interventions

A growing number of experimental studies support the notion that interventions designed to foster youth mental health—be it promotion of SWB or prevention/reduction of psychopathology—can result in improvements in multiple dimensions of student engagement among school-aged youth. Taking a public health approach that promotes mental health and prevents mental health disorders (World Health Organization, 2004), schools are increasingly addressing students' mental health needs through interventions organized within a three-tier

framework. Tier 1 includes universal school- and class-wide prevention strategies that promote all students' mental health and demonstrate positive improvements on student engagement. Tier 2 includes selective mental health interventions for students with risk factors for, or early signs of, mental health problems. For example, in this chapter we describe a motivational interviewing intervention that can promote at-risk students' engagement, emotional well-being, and academic success. Tier 3 includes evidenced-based mental health interventions (e.g., cognitive-behavioral treatment approaches) that target youth displaying externalizing and internalizing symptoms which pose barriers to student engagement.

Interventions of most relevance within this chapter include those that can be implemented in the school context to target (a) the specified mental health indicators relevant to student engagement, or (b) student engagement directly, using psychological strategies. To illustrate the approaches described in the remaining portions of the chapter, we present several short case studies based on our clinical work with adolescents (note: all names in cases studies are pseudonyms). Much of that work has involved teenagers in Advanced Placement and International Baccalaureate (AP/IB) courses. These youth are typically achieving well enough to maintain enrollment in these courses, but the potential emotional toll stemming from this rigorous coursework may go unnoticed. Students in accelerated curricula (AP and IB) self-report higher levels of stress compared to general education students (Suldo & Shaunessy-Dedrick, 2013), primarily due to their heavy academic workload and pressure for success (Suldo et al., 2009). As students' stress increases, so does their risk for internalizing and externalizing symptoms and reduced life satisfaction (Suldo et al., 2009). A study of over 2300 AP/IB students found that positive mental health and academic outcomes were predicted by students' motivation and engagement, in addition to use of effective coping skills in response to academic stressors

(Suldo, Shaunessy-Dedrick, Ferron, & Dedrick, 2018). Specifically, academic motivation as well as cognitive and affective forms of engagement predicted higher life satisfaction as well as lower psychopathology and school burnout; motivation and cognitive engagement also uniquely predicted superior academic outcomes. Although not a robust predictor in multivariate analyses, this study also identified a small, positive association between behavioral engagement (students' extracurricular activity involvement) and life satisfaction.

With funds from the Institute of Educational Sciences (Suldo & Shaunessy-Dedrick, 2015), we are developing universal and selective interventions to promote AP/IB student success holistically, by targeting the development of student engagement and coping skills early (i.e., first semester of freshmen year). Later in this chapter, we describe the Advancing Coping and Engagement (ACE) program, a universal curriculum under development designed to increase AP/IB students' use of adaptive (problem-focused) coping strategies (deemed effective due to empirical links between the coping styles emphasized and positive student outcomes), limit their use of avoidance coping strategies deemed ineffective due to empirical links with negative outcomes, and promote student engagement--specifically students' involvement in extracurricular activities and connectedness with their teachers, AP/IB program, and school. Then, we describe the Motivation, Assessment, and Planning (MAP) intervention, a selective intervention intended for delivery to students who, at mid-year, evidence risk factors for diminished mental health or academic success. Last, we present cognitive-behavioral therapy as an approach for supporting students who demonstrate significant mental health problems that preclude engagement.

Tier 1: Universal Prevention Strategies that Target Mental Health and Engagement

In a multi-tier framework, Tier 1 includes programs offered to all students regardless of

current risk level. Such interventions often occur through schoolwide initiatives or through selected classrooms; classroom-based social and emotional learning (SEL) curricula are often implemented by teachers or interventionists outside the school, such as school mental health providers. In the following sections we provide examples of universal programs developed to promote student mental health- either through prevention and reduction of psychopathology symptoms *or* through increasing SWB- that also found positive impacts on at least one dimension of participants' student engagement during efficacy studies. We also provide two examples of universal programs that target student engagement directly, as a means of fostering students' mental health. In particular, we describe a recently piloted universal intervention—ACE—that the chapter authors developed for high school youth taking accelerated courses.

Interventions to promote SWB. Universal programs and practices designed to promote happiness—sometimes referred to as positive psychology interventions (PPIs)—target the empirically identified correlates of high SWB. These correlates include ways of thinking (e.g., gratitude, optimism), behaving (e.g., using one's signature strengths in daily activities, pursuing goals), and relating to other people at home and school. PPIs entail activities that provide individuals with opportunities to develop intentional thoughts and behaviors that mimic the features of naturally happy people. Case in point, during a 4-week PPI intended to foster gratitude, teachers prompted elementary school students to journal daily in their classroom about things at school for which they were grateful (Diebel, Woodcock, Cooper, & Brignell, 2016). Compared to their peers who journaled about neutral school events, students who completed the daily gratitude journals experienced greater gratitude as intended, as well as significant improvements in school belongingness. Such research demonstrates that a classwide PPI-gratitude journaling in which students are asked to “write down two or three things that you are

thankful or grateful for today at school” (Diebel et al., p. 123) can serve as an evidence-based practice for fostering affective engagement.

Awesome Us is a classwide program that focuses on recognition and use of character strengths through six weekly 1.5-hour sessions led by an outside interventionist with support from the classroom teacher (Quinlan, Swain, Cameron, & Vella-Brodrick, 2015). Students practice spotting strengths in themselves and others, and plan how to use strengths to manage challenges, reach personal goals, and strengthen friendships. Students in grade 5 and 6 classrooms that participated in Awesome Us experienced gains in strengths use and positive affect as intended, as well as increases in behavioral and emotional engagement, whereas students in classes in a no-treatment control condition experienced declines in engagement during the same period (Quinlan et al., 2015).

The Maytiv School Program is a universal intervention--implemented schoolwide or classwide—in which educators and students alike apply multiple PPIs through activities intended to foster positive emotions, gratitude, goal fulfillment, hope, optimism, perseverance, flow experiences, character strengths, compassion and positive relationships (Shoshani, Steinmetz, & Kanat-Maymon, 2016). In a series of 15 90-minute workshops held every other week, teachers learn positive psychology practices through didactic material and experiential activities for adults, and learn ways to share the content and activities with their students. The following week, teachers instruct their students in PPIs through delivery of a parallel student curriculum. Middle school students in classes that took part in the Maytiv School Program experienced significant and sustained growth in positive affect and reductions in negative affect, whereas students in classes in a no-treatment control condition incurred decreased SWB during the same time (Shoshani et al., 2016). Further, both teacher and student reports of engagement indicated

positive impact of intervention on cognitive engagement, and even stronger positive effects on emotional engagement. Taken together, the emerging literature on positive psychology programs and practices suggests that school-based applications of PPIs to all students in a classroom not only increase aspects of emotional well-being as intended, but also have positive collateral effects on multiple dimensions of student engagement.

Interventions to prevent psychopathology. Universal programs and practices designed to ameliorate psychological problems often target correlates of emotional distress, and accordingly develop students' skills in identifying and regulating emotions, managing/coping with stress, utilizing problem-solving, and challenging negative thoughts. For example, the Transformative Life Skills program aims to reduce adolescents' stress through providing students practice in yoga, breathing techniques, and other mindfulness strategies during classwide lessons throughout the school year (Frank, Kohler, Peal, & Bose, 2017). Frank and colleagues found that middle school students who took part in Transformative Life Skills experienced gains in coping and engagement. Findings also indicated improvement in the students' use of adaptive coping styles to manage stressors, as well as increases in behavioral engagement (i.e., fewer unexcused absences and problem behaviors resulting in detentions) and affective engagement (i.e., greater sense of belongingness and attachment to school) when compared to peers randomly assigned to a business-as-usual control condition.

FRIENDS for Life is a universal prevention program intended to lessen anxiety through teaching elementary school children how to recognize and respond to worries with cognitive-behavioral strategies such as relaxation and cognitive restructuring throughout a 10-session curriculum (Ruttledge et al., 2016). In addition to positive impacts on reducing anxiety symptoms as intended, Ruttledge and colleagues found that children who participated in

FRIENDS for Life, as delivered by trained classroom teachers, reported sustained increases in affective engagement (school connectedness), as compared to outcomes of students in a delayed-intervention control condition. Such studies document the improvements in student engagement that follow interventions put in place to reduce the youth mental health symptoms that, among other consequences, pose barriers to learning.

Interventions targeting engagement to improve mental health. The Bridges to High School program aims to prevent the adverse mental health and academic problems for which Mexican American youth are particularly at risk, through a universal family-focused intervention for students in urban schools. The nine weekly 2-hour group sessions held in the evenings contain activities intended to build parents' and adolescents' skills in four factors that influence emotional and academic outcomes: (1) effective parenting, (2) youth coping efficacy, (3) youth engagement with learning and at school, and (4) family cohesion. To improve student engagement, parent sessions aim to increase caregivers' "understanding of school expectations, improve parent-teacher communication, and strengthen parenting practices associated with academic success" while adolescent sessions focus on how to "explore possible selves and pursue relevant goals to increase academic motivation and engagement" (Gonzales et al., 2012, p. 4). Seventh grade students whose families participated in Bridges to High School experienced greater affective and cognitive engagement (i.e., valuing and bonding to school) immediately post-intervention compared to peers in a minimal dose control condition—a single 1.5 hour family workshop without skills building (Gonzales et al., 2012). Further, this positive impact on student engagement predicted lower levels of internalizing psychopathology as well as better grades one year later. An examination of program effects five years later indicated that the significant, positive impact of intervention on student engagement contributed to an indirect

effect on reduced internalizing symptoms in 12th grade (Gonzales et al., 2014). Such research underscores student engagement as a critical target within multicomponent programs developed to prevent mental health problems among at-risk groups. Just as the Bridges to High School program was developed to foster the unique competencies hypothesized to be particularly salient to the success of Mexican American early adolescents, we are developing the ACE program to target the hypothesized mediators of emotional and academic outcomes for another at-risk and underserved population--students in rigorous curricular contexts.

Advancing Coping and Engagement (ACE). ACE is a universal intervention (a 12-module curriculum for students, with companion components for their caregivers and AP/IB teachers) with didactic content and activities to build AP/IB students competencies in responding to academic stressors with effective coping styles and proactive engagement at school. Within the classwide curriculum, delivered to 9th grade students in Pre-IB and AP classes, are three modules (lessons) focused on student engagement. Our earlier research with 2379 AP/IB students (Suldo, Shaunessy-Dedrick, et al., 2018) found associations between AP/IB students' affective and behavioral engagement and optimal academic and mental health outcomes. These research findings are the backbone of the ACE program curriculum and integrated into the didactic activities. Thus, a quarter of the ACE Program addresses engagement. Within these modules we address engagement with the school, AP/IB academic programs, and classes (Module A); student relationships with teachers and classmates (Module B); and student participation in extracurricular activities (Module C). The curricular activities are tailored to students in accelerated curricula who are often able to engage in high-level, abstract thinking and appreciate seeing the empirical evidence that underlies suggestions offered by adults, including their teachers or other interventionists.

Module A: School connectedness. In the first module students are taught the concept of a “fully engaged student”—a learner who (1) feels positively about his or her school, program, and teachers; (2) participates in extracurricular activities; (3) holds high motivation to achieve; and (4) takes an interest in learning experiences in each class. The content in Module A emphasizes developing positive attitudes and feelings towards one’s school, program, and teachers, termed *school connectedness* for students. To convey the importance of purposefully building connectedness to school, students work in teams to interpret a chart of correlations that illustrate the positive associations between aspects of school connectedness and desirable student outcomes (e.g., life satisfaction, GPA) as well as inverse associations between school connectedness and student stress, psychopathology levels, and school burnout. The subsequent activities aim to foster positive emotional connections to school, academic program (AP/IB), and teachers. After acknowledging that each school has downsides, school pride is built by drawing attention to student-identified strengths of their school and its reputation (e.g., unique features of administrators or teachers, diversity of student body, building appearance, challenging course offerings, availability of vending machines, etc.). Learners also critique a variety of statements that students might be overheard stating within or outside of school and determine whether they are evidence of school pride. The module ends with prompting students to recall why they pursued their curricular program and how they may benefit from this experience.

To allow students to focus on individual goals related to their choice to pursue AP/IB coursework and to reinforce their understanding of the importance of school connectedness, students work independently to identify goals and connect these goals to their participation in AP/IB classes. Students are provided a table with columns labeled short-term goals, long-term goals, and ways that AP/IB classes allow them to reach social, academic, career, and life goals.

For example, students may identify a career goal of becoming a psychologist. In the short-term they could register for an AP Psychology course and in the long-term make plans to major in psychology in college. Their current AP class can help them reach this goal by preparing them for the rigor of upper-level high school AP classes. This activity serves to remind students that while the rigors of accelerated coursework may dominate their daily lives, the benefits of participation are related to several short- and long- term goals that are aligned with their accelerated curricular program.

Module B: Relationships with teachers, peers, and others at school. This module provides students guidance in establishing and maintaining positive school relationships. Though AP/IB students may be advanced academically, they may need support in understanding the importance of fostering a network of supports with their teachers and other individuals within the educational community so that when academic stress becomes a challenge to manage, students have a network of supports that have been cultivated. To help students recognize the ways to initiate relationships with teachers, classmates, counselors, club sponsors, or other individuals within the school community, the class discusses the *Who, When, What, and How* of establishing relationships. Students come to recognize an array of people with whom they may form connections, when to approach individuals at school in order to be mindful of their time, what topics are appropriate at the early stages of a relationship, and how to overcome barriers to initiating these relationships. Following these recommendations, students are tasked with conducting a group interview of their teacher during that class period with appropriate initial questions provided on written prompts (e.g., *What led you to become an AP/IB teacher?*). Also with the teacher, a few volunteers act out a scenario that illustrates a before-class conversation between two students and a teacher, in which participants discuss favorite books, time spent over

summer break, and places in common that they have visited. The class debriefs about the effective techniques the students used to establish a relationship with the teacher.

For independent practice, students plan next steps for approaching individuals at school with whom they will purposefully initiate or strengthen relationships. With respect to how to sustain relationships, students learn that when challenges arise, there are effective ways to successfully navigate difficult times rather than avoid or abandon the relationship. To guide students in dealing with social conflicts, a step-by-step guide is offered that helps students identify the problem, perspectives of all parties, possible solutions, pros and cons of prospective solutions, an appropriate solution, and how to reflect on the outcome (Joyce-Beaulieu & Sulkowski, 2015; Kendall, 2012). Students practice applying this process to multiple scenarios, such as a student's teacher insists the student attempt an assignment independently before receiving additional help, and a student is assigned to complete a group project with a classmate who has a very different work style. In each case, the class engages in a discussion about the social problem-solving steps, including recognition of effective and ineffective ways of managing the conflict in a manner that involves completion of the academic work and maintenance of the relationship.

Module C: Investing in extracurricular activities. This module provides students information about the relationships between involvement in one or more extracurricular activities and a host of positive outcomes, including grades, exam scores, life satisfaction, and diminished mental health problems. Students also are provided information regarding the benefits of participation in extracurricular activities beyond these positive outcomes, such as learning new skills in different settings, finding purpose, structuring free time, and cultivating relationships with a community of peers and adults that can provide support in times of academic stress (Farb,

& Matjasko, 2012). This module begins with an overview of the various types of experiences available to students at their specific school, including sports, performing arts, academic teams, and service clubs. Students list the extracurricular activities in which they participate within one of these categories. Students can also provide classmates with more information about the nature of the activities as a way to increase awareness of options available to students at the school. Then, presenters share data relevant to AP/IB students' extracurricular involvement academic and mental health outcomes (Suldo & Shaunessy, 2010). Data are organized by range (types of activities in which one participates) and intensity (number of hours per week spent on a given activity) of their extracurricular activities within the past year.

To engage students with the data a number of strategies are utilized including a self-assessment on range and intensity of extracurricular activities and an anticipatory guessing game about the research findings (e.g., *How many types of extracurricular activities do you think the average 9th grade AP/IB student is involved in? How many hours participating in extracurricular activities do you think is associated with the ... highest GPA? highest life satisfaction?*). Students then check their responses against the findings from our research on AP/IB students. Students also learn that in contrast to positive outcomes associated with time spent in extracurricular activities, extensive time spent in after-school jobs has few benefits with respect to academic and mental health outcomes. Despite the evidence of benefits of extracurricular involvement, some students may still be reluctant to engage or experience common barriers to involvement, including access barriers (e.g., transportation, financial constraints), personal barriers (lack of confidence in skills), and social barriers (feeling like s/he will not fit in with students in the club). Students work in teams to brainstorm ways to overcome these barriers and are provided a list of potential solutions to each type of barrier.

Evidence of promise. During the 2017-18 school year, the ACE Program was pilot tested in three districts, in a total of 16 classes of AP/IB students within 8 schools randomly assigned to the intervention condition (Suldo & Shaunessy-Dedrick, 2015). Pre- and post-intervention data from students in the intervention condition will be compared to end-of-year outcomes from students in 7 schools randomly assigned to a delayed-intervention control group. The following data presented are findings pertinent to feasibility and acceptability of the aforementioned modules during an implementation trial from the 2016-2017 school year, when the ACE Program was delivered in 15 classes in 2 schools (with no control group).

During the implementation trial, we served 331 9th grade high school students enrolled in either an IB program ($n = 155$) or in AP Human Geography class ($n = 176$) at two high schools within the same district. These students completed brief acceptability surveys after each weekly module delivered by project staff. Data collected from acceptability surveys indicated high levels of satisfaction with intervention content and delivery for each of the three modules. For instance, using a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), student mean ratings to “The material was easy to understand” were 4.2 and 4.3 for IB and AP students, respectively, on average across the three modules. Students rated positively “I am likely to use what I learned today inside and outside of school” (IB student $M = 3.8$; AP student $M = 4.0$). Students also rated the extent to which module objectives were achieved; 73 – 90% of students agreed or strongly agreed with statements like “This module helped me understand the benefits of forming affective connections at school.”

Students also responded to open-ended questions, including “What main ideas did you learn from this module?” and “What parts did you find most interesting or most useful?” For Module A, several students indicated they (a) liked the game with graphs they had to interpret

using findings about the relationships between school connectedness and academic and emotional outcomes from research with AP/IB students; (b) learned about the correlations between school connectedness and grades and being happy; and (c) liked the opportunity to set short- and long-term goals regarding their academics, social life, college, and career and to relate how participation in AP/IB helps them with these goals. For Module B, students commented positively on the opportunity to learn how to initiate a relationship and saw value in the six steps for resolving interpersonal conflict for making logical decisions about dealing with conflicts. For Module C, students commented on the many benefits of participating in extracurricular activities, and noted they learned there are not many benefits for those who work in afterschool jobs. In all, students generally found the modules understandable, appropriately designed for the class time, and relatable to their lives both in and out of school. The qualitative feedback confirmed that they found the major concepts stressed were indeed noteworthy and important to them.

Case Study: Delivery of ACE with Mr. Paxton's Classes of IB Inquiry Skills

Beyond working with AP/IB students, the ACE program research team collaborated with educators at the participating sites during the implementation trial. We began our relationship with the AP/IB teachers with a 2-day summer workshop, where we introduced teachers to the student curriculum through teacher-friendly learning experiences that mirrored the content to be provided in the fall to their students. The teacher featured in this case, Mr. Paxton, participated with interest and enthusiasm with our summer workshop, readily connected the module purposes and content to the objectives within his assigned class (IB Inquiry Skills), and showed great support for the research effort to evaluate the feasibility and acceptability of the modules.

Mr. Paxton permitted an interventionist from our university-based research team to work with both of his sections of IB Inquiry Skills during a class period (approximately 1 hour) on one

designated day per week throughout the fall semester, beginning the 3rd week of the year (September) through the end of November. The three engagement modules were scheduled to take place in Weeks 3 – 5 of the student curriculum, placed strategically early in order to arm his students with skills and motivation to form connections during the first quarter of high school. We delivered the modules to one section in the cafeteria (to enable Mr. Paxton’s 21 students to be served alongside another teacher’s section of IB Inquiry Skills with another 24 students), and to a second section of 22 students in his classroom. When introducing the interventionists, he conveyed to his students the value of the ACE program to their immediate learning and long-term outcomes as IB students. During module delivery, Mr. Paxton offered thoughtful remarks during the lesson that supplemented the planned materials and further personalized the experience for students. He also assisted with classroom management at times when students became excitable or off-task, and provided occasional feedback to the interventionists about how to maximize lesson delivery (e.g., how best to organize students into small groups).

The research team reflected on Mr. Paxton’s valuable role in delivery of the classwide lessons, and noted how the learning experience appeared more meaningful to students when Mr. Paxton took part than when the interventionist was the sole deliverer of module content. When Mr. Paxton contributed, his students evidenced greater interest and participation in the lesson, and fewer behavioral issues arose. The research team modified the delivery of subsequent modules to include sections designated for teacher delivery and input, in a manner that did not overburden teachers but still capitalized on their valuable experiences and relationships with AP/IB students. Mr. Paxton also continually discussed with the interventionists his interest in continuing to utilize the ACE program materials in coming years, particularly since he perceived alignment between the ACE materials and activities and Inquiry Skills course objectives. Each

subsequent academic year, when Mr. Paxton's class was no longer a part of the ACE program project, he requested an updated version of the ACE program facilitator guide, student materials, and the program slides for independent use with his classes. His roles as an observer and co-facilitator of the modules with a university-based interventionist prepared him well for independent implementation of the modules with different cohorts of students. This classroom teacher learned strategies for systematically building all of his freshmen's school connectedness and behavioral engagement through classroom-based learning activities. Considering student engagement has been shown to predict better emotional outcomes among AP/IB students, this provides a way for Mr. Paxton to promote student SWB and prevent psychopathology.

Tier 2: Selective Interventions that Target Mental Health and Engagement

In a multi-tier approach, Tier 2 (selective interventions) include programs focusing on youth who are at-risk for academic, emotional, or behavioral difficulties. These interventions often occur through individual sessions or small group formats and frequently are implemented by school counselors or psychologists. Currently there is limited research available on evidence-based interventions with a dual focus of promotion of student engagement and improved mental health outcomes. There are several well-researched selective interventions that address student engagement, but majority of these interventions focus on students who are at-risk for dropping out of school (see research on *Check & Connect*; Christenson, Stout, & Pohl, 2012) or youth who are targets of peer victimization or bullying (Espelage & Swearer, 2004). We hope to add to this literature by describing a new selective intervention—*Motivation, Assessment, and Planning (MAP) meetings*—that we developed for high school youth in accelerated courses. During the 2016-17 year, we field tested the MAP intervention in the spring semester with 49 students who had completed the ACE program during the fall semester.

Motivation, Assessment, and Planning (MAP) meetings. The MAP meetings are intended to help students reflect on and further develop healthy coping skills and student engagement practices that are linked to emotional and academic success in AP/IB courses. The MAP meetings follow a multi-step process that includes: (1) identification of students at-risk for academic and/or emotional challenges, (2) assessment of student’s current coping strategies; behavioral, affective, and cognitive engagement and motivation; and perceived parenting practices, and (3) collaborating with the student throughout 1-2 individual motivational meetings aimed at improving the student’s functioning through collaborative action planning.

Identification of students. We use a multimethod, multisource approach to identify students who may benefit from the MAP intervention (for a description of the screening process, see Suldo, Storey, et al., 2018). Students are identified as “at-risk” if they show signs of academic risk (i.e., $GPA \leq 3.00$ or course grade $\leq C$) or emotional risk (i.e., elevated ratings of stress or low school satisfaction). In addition, teachers can nominate students who they perceive to be “at risk for diminished success in AP/IB”; example student behaviors address aspects of behavioral, affective, and cognitive engagement. During our spring 2017 implementation trial, 40 students identified as at-risk—as well as 9 who did not emerge in the screening process but accepted an opportunity to receive extra help—completed at least one MAP meeting. Of the 49 students who participated in Map Meeting One, 42 students (85.7%) returned for MAP Meeting Two.

Assessing student engagement. Prior to the first MAP meeting, students complete a pencil-and-paper questionnaire on their current coping strategies, indicators of student engagement, and perceived parenting practices. Regarding student engagement, the questionnaire addresses: (1) *Behavioral Engagement* (how many types and how many weekly hours they are

involved in extracurricular activities) (2) *Affective Engagement/School Connectedness* (student perceptions of relationships with AP/IB teachers, satisfaction with AP/IB classes, and pride in school); (3) *Cognitive Engagement* (focus and interest in AP/IB classes, persistence, and high performance standards), and (4) *Motivation to Engage* (academic self-efficacy and flow experiences in the AP/IB classroom). An interventionist enters the student's survey data into a computerized scoring system to compare his or her responses to a normative sample of 2000+ AP/IB students across the state of Florida, funded from our 2010 grant. Once a student's ratings are converted to *T*-scores for each factor, a MAP coach (interventionist from our research team, with a M.A. or Ph.D. in School Psychology) schedules a 50-minute meeting with the student.

MAP meetings. We use motivational interviewing techniques (Miller & Rollnick, 2012) to discuss a student's current level of coping and engagement in relation to the normative database of other AP/IB students. Students receive feedback on their strengths and weaknesses relevant to multiple factors related to AP/IB student success, including motivation and cognitive, behavioral, and affective forms of engagement, and identify a target for improvement. The MAP coach and student collaboratively create an action plan to improve the selected target. The MAP meeting is broken into four core components/stages that align with a motivational interviewing framework: Engage, Focus, Evoke, and Plan. The case study that follows highlights the four core components and how they can promote student engagement and mental health.

Case Study: Implementation of MAP with An At-Risk Student from Mr. Paxton's Class

Allie was a 9th grade female student who participated in the ACE program and the mid-year screening process through her IB Inquiry Skills class. Allie's screening data revealed elevated stress, academic performance lower than her high-achieving peers (grade of "C" in IB Biology), and her satisfaction with school was not in the positive range. Although Allie's teacher

did not identify her as needing additional support, she was identified as “at-risk” by the team due to her elevated stress level and grade less than “B” in IB Biology. Allie was offered the opportunity to participate in MAP coaching meetings and a parent information letter was returned signed to provide consent for the selective intervention.

The first stage of the MAP meeting is *Engage*. During the *Engage* stage of the meeting the MAP coach establishes a positive alliance with the student through (1) a review of the meeting goals and objectives, (2) exploration of the student’s character strengths, values, and goals, and (3) discussion of the student’s primary reasons for positive change. Allie reported valuing family and companionship/friendship as these people help her “keep going when things get really hard.” She identified curiosity and open-mindedness as her character strengths, and noted both traits have helped her in the IB program. She expressed a desire to be the first person in her family to attend college with the eventual hopes of becoming a teacher. She acknowledged a discrepancy between her current and ideal GPA, and commented that her lack of academic progress may impede her ability to reach her long-term goals.

In the *Focus* stage, the MAP coach provided feedback regarding Allie’s current levels on the factors associated with success among AP/IB students. Allie’s results on the pre-MAP questionnaire indicated her affective engagement ($T = 39$), cognitive engagement ($T = 31$), and motivation to engage ($T = 43$) were lower than other AP/IB high school youth. Items within cognitive engagement indicated she had relatively low performance standards and persistence, and she rarely strategized or self-monitored to complete classwork. Conversely, her behavioral engagement ($T = 49$) was similar to other AP/IB students. Beyond engagement, Allie’s scores showed relative weaknesses in effective coping (e.g., minimal use of time and task management strategies), overuse of ineffective coping strategies (e.g., frequent skipping school), and low

parental warmth and support at home. Through open-ended questions and reflective listening, the MAP coach helped Allie affirm her relative strengths and acknowledge personal weaknesses.

Allie identified her extracurricular involvement as a personal strength, and recognized her lack of focus in her IB coursework (i.e., cognitive engagement) as problematic. The MAP coach used motivational interviewing techniques to develop a discrepancy between her weaknesses and her current functioning, through posing questions like: *How is your current level of focus likely affecting your performance in IB? How would improvement in focus and persistence in class be in line with your goals and values?*

During the third stage, *Evoke*, the MAP coach posed questions that elicited change talk. Questions like “*What are the three best reasons for improving your focus in class?*” are designed to allow the student to voice her rationale for positive change on the factors she wants to address further. This style of questioning resulted in Allie reporting that focusing more would allow her to understand more of the content in class, increase the likelihood she will participate in class discussions, and be better prepared to complete her homework since she will correctly hear the teacher’s directions. MAP coaches can also ask questions that help the student identify why they need to change (*What do you suppose the future holds if you are 100% successful in staying focused in class?*). Allie shared that by improving her cognitive engagement she will have better grades and feel less stressed throughout the day. At the end of this stage, the MAP coach asked “*On a scale of 1-10, how important is it for you to be more focused in school and succeed in your IB class?*” Allie reported being focused is a “7 or 8” on the importance ruler, as she believes it will not only help her follow the teacher’s directions but it might also help her remember things her parents ask her to do at home.

The last stage of the MAP meeting is *Planning*. The MAP coach assisted in the

development of an action plan that targeted her ability to focus better in class. Allie generated four action steps: (1) think about the outcomes of finishing my schoolwork (by end of week), (2) complete my schoolwork (every day), (3) ask teacher for help if I get stuck on an assignment (tutoring on Wednesday), and (4) reward myself after I finish my work (end of each week). The MAP coach and Allie also attempted to problem-solve any potential barriers that may interfere with her goal. Allie identified “Being distracted by my phone” as potentially problematic, but a solution would be to “give my parents the phone until my schoolwork is complete.” The MAP meeting concluded with the coach reviewing Allie’s past successes, re-affirming her strengths, and boosting her confidence in making this change. Finally, the MAP coach offered Allie an additional meeting as follow-up support and arranged for a copy of her individualized action plan to be provided to her.

Following the meeting, Allie and the MAP coach independently rated the acceptability of the session. Allie perceived the meeting positively as evidenced by strongly agreeing with statements like *“I am likely to use ideas discussed today inside and outside of school”* and *“I am ready to make a positive change in a target discussed during today’s meeting.”* In response to open-ended questions, she reported the most interesting part of the session was “creating a plan for me to stick with in order to stay focused” and noted “I really hope I will stick through with my plan.” The MAP coach agreed that Allie appeared to benefit from the session, and noted Allie was “engaged and cooperative.”

In MAP Meeting Two (5 weeks later), the same four core MI stages (Engage, Focus, Evoke, and Plan) formed the basis of the meeting content. During Engage, the MAP coach re-established a positive alliance with Allie through expressing warmth over the opportunity to meet again; re-affirming her character strengths, values, and goals; and inviting a discussion of

her progress since the last meeting. Allie reported making some progress on her goal of focusing more in class; however, she faced a couple of barriers, including getting distracted by her phone while doing homework and not reaching out to teachers if she has a question about an assignment. The MAP coach invited Allie to choose the direction of the meeting: (1) collaborate on a new action plan or (2) address barriers to the initial plan. Allie indicated that she wanted to continue working on her level of focusing in classwork (cognitive engagement) since this still posed a challenge for her.

Through evocative questions posed by the MAP coach, Allie identified additional reasons for making a change (*“I want to be a role model;” “I don’t want to be viewed as lazy;” “I want to experience success similar to my peers.”*). In the planning stage, the MAP coach and Allie collaboratively identified new action steps: (1) tell her friends she can’t talk/text when doing homework; (2) better communicate her homework needs to her mom; (3) talk to her teacher before/after school regarding homework questions; and (4) attend after-school tutoring for subjects in which she is struggling. By the end of the meeting, Allie expressed a strong commitment to change and left with a copy of her action plan.

Similar to the first meeting, Allie’s acceptability data suggested she benefitted from the additional support. She strongly agreed with statements about readiness for change, and reported *“Going over my plan again and creating more steps to reach my goal”* as being the most useful part of the session. The MAP coach also rated the session positively and felt that Allie would likely make positive changes due to this meeting. The coach noted Allie was more engaged and reflective as compared to MAP Meeting One, and rated their working alliance as strong.

For students with few stressors aside from school, sufficient social and academic supports, and minimal or managed biological barriers (e.g., impulsivity), the MAP meetings are

anticipated to generate sufficient internal motivation for a student to continue on a positive self-managed change trajectory. In Allie's case, despite the high acceptability of the MAP meetings, at the end of the year she demonstrated poor mental health as indicated by low life satisfaction ratings and increased symptoms on a brief measure of mental health problems. While it's unclear the exact determinants of her trajectory, Allie's frequent use of ineffective coping, limited support at home, and elevated family and life stressors suggest that she is a student who may need additional support beyond those offered through the ACE Program's universal curriculum and brief, preventative selective intervention (MAP). Allie was referred to her school's mental health team for consideration of intensive interventions to address her persistent needs.

Tier 3: Evidenced-Based Mental health Interventions that Target Externalizing and Internalizing Symptoms that Pose Barriers to Student Engagement

Despite universal and targeted support, some students will experience more significant mental health needs that adversely impact their day-to-day functioning. Thus these students will require more individualized and perhaps long-term interventions, such as therapeutic support provided by school and/or community mental health providers (Doll, Nastasi, Cornell, & Song, 2017), to target externalizing and internalizing symptoms that pose barriers to their engagement.

Cognitive-behavioral therapy. Cognitive-behavioral therapy (CBT) is well-established as an evidence-based intervention for treating multiple internalizing and externalizing problems experienced by children and adolescents (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). Successful school-based applications of CBT have demonstrated its promise for treating symptoms of depression, anxiety, and aggression in school settings. CBT includes a range of change strategies that are frequently utilized in unison to improve individuals' outcomes and mental well-being (Joyce-Beaulieu & Sulkowski, 2015; Kendall, 2012; Stark, Arora, & Funk,

2011). Although a comprehensive description of all cognitive-behavioral intervention strategies (including how to use them) is beyond the scope of this chapter, a brief description of some of the key approaches that are well-established as appropriate and efficacious in school-based applications are included next (see Kendall, 2012 or Joyce & Sulkowski, 2015 for additional information and resources relevant to CBT).

Psychoeducation. Psychoeducation is intended to help the client (or student) comprehend the nature of his or her challenges and how to manage those challenges. Specific areas of focus include increasing the youth's awareness of his or her emotions, triggers, and/or physiological responses to specific triggers; teaching the youth various coping strategies that can be employed when symptoms emerge; and helping the youth understand the interrelationship between one's thoughts, feelings, and behaviors.

Cognitive restructuring. Cognitive restructuring is grounded in the assumption that maladaptive beliefs and irrational thoughts maintain emotions and behaviors associated with various mental health disorders. The objective is to help the individual improve his/her functioning by challenging, stopping, and restructuring negative and distorted thought patterns.

Relaxation training. Relaxation training involves teaching individuals multiple techniques that can be used to reduce high levels of internal arousal associated with intense feelings of anxiety or anger. Specifically, individuals are typically taught diaphragmatic breathing, progressive muscle relaxation, and visual imagery to manage physical tension (i.e., tensed muscles) and abnormal physiological responses (e.g., fast breathing, racing heart beat) that may make it difficult to think and behave in a more productive and rational manner.

Problem-solving and social skills training. Problem-solving training is employed to help youth learn how to become more adept at utilizing constructive coping skills. Youth are taught to

use a multi-step process to inform the way in which they respond to a challenging situation. These steps typically include: 1) identify the problem, 2) identify multiple solutions to address the problem, 3) consider the consequences of each solution 4) pick a solution and try it out and 5) evaluate the outcome of the chosen solution (Kendall, 2012). Social skills training can also be beneficial, as aggressive, anxious, or depressed youth may experience difficulty maintaining healthy interpersonal relationships. Social skills training may focus on helping the youth learn how to resolve conflicts, communicate assertively, make friends, and/or accurately interpret the actions of others.

Other CBT strategies. Additional CBT strategies may be utilized to address specific disorders or related symptomology. For example, *exposure/response prevention* is often employed to help individuals overcome intense fears. During exposure/response prevention, individuals are exposed to an anxiety-provoking experience, and encouraged to refrain from avoiding or escaping the experience. *Behavioral activation* is implemented to help individuals cope with depressed moods. The goal of behavioral activation (or coping skills training as noted by Kendall [2012] and Stark et al. [2011]) is to encourage the client/student to engage in a fun, distracting, or productive activity to lift his or her mood. *Parent training* is intended to help parents learn how to support youth who experience a variety of symptoms (Kendall, 2012), and is especially relevant to the treatment of youth aggression. Parent training for aggressive youth is intended to help parents learn how to appropriately reinforce desired behaviors, deliver effective consequences for problematic behaviors, communicate effectively, set boundaries and rules, and use stress management strategies (Joyce & Sulkowski, 2015; Kendall, 2012).

Efficacy of school-based CBT in treating mental health problems. With regard to internalizing psychopathology, Hilt-Panahon, Kern, Divatia, and Gresham's (2007) review of

school-based interventions for children and adolescents with and at-risk of depression concluded that CBT was implemented most often compared to other interventions (e.g., reinforcement only), with moderate to large effective sizes reported for the majority of the CBT studies. The most frequently used CBT strategies were cognitive restructuring, pleasant activity scheduling (behavioral activation), and problem-solving training. Cullen's (2013) meta-analysis indicated that school-based CBT is also effective for treating anxiety disorders and related symptoms. Cullen reviewed the effects of nine studies that examined the impact of school-based interventions for anxiety disorders. Again, CBT was the primary treatment approach implemented across the studies. Overall, Cullen found that several of the studies demonstrated moderate to strong evidence of treatment efficacy. CBT interventions were especially effective when they included the use of multiple techniques such as psychoeducation, cognitive restructuring, exposure, and social skills training.

Research also shows that school-based CBT can be an effective intervention for treating externalizing problems, such as aggression among children and adolescents. Case in point, short-term targeted interventions can effectively address factors that may influence students' display of higher levels of aggression (e.g., self-control and early drug/alcohol use; Sukhodolsky et al., 2000). Lochman and Well (2002) suggested that school-based CBT implemented at a more intense level may yield more significant reductions in aggression displayed by school-age youth. The CBT intervention outlined by Lochman and Well (2002) included a child-focused and parent-focused component. The child-focused component was a 16-month program that focused on psychoeducation, problem solving training, cognitive restructuring, and relaxation training. The parent component was delivered during the same time period and focused on the appropriate use of behavior management techniques, effective communication structures, family problem

solving, and parental stress management.

Parker, Joyce-Beaulieu, and Zabonski (2016) reported the results of a non-controlled case study illustrating the effects of a school-based selective intervention for a middle school student who displayed aggressive behaviors. Evidenced-based CBT strategies such as psychoeducation, relaxation training, and cognitive restructuring were embedded in the intervention, alongside a home-school daily report card plan. Parker and colleagues found that there was a reduction in the student's aggressive behaviors upon the end of the intervention period and at a one-year follow-up. In sum, school-based CBT evaluated through controlled and case study approaches show promise for addressing significant aggression displayed by school-age youth.

Case Study: CBT for a Student with Internalizing Symptoms and Low Engagement at School

Alex was a 10th grade male who was referred to the school psychologist after missing several days of school, refusing to complete his school work, and withdrawing from teachers and peers. The school psychologist conducted interviews with Alex, his teachers, and his parents; observed Alex in several of his classes; and administered rating scales to help identify his needs. Alex's teachers and parents described him as a kind student who quickly comprehended complex concepts. However, he often refused to complete his English assignments, and rarely participated in class. The school psychologist observed that Alex was disengaged and isolated during classroom activities in most of his classes. Alex later explained that he refused to complete his English assignments because he believed that he was a poor writer. He preferred to stay home instead of attend school, because he believed that no one liked him and he was not capable of being a successful student (although he maintained a 3.8 GPA prior to 10th grade). Scores on norm-referenced narrowband measures of depression and anxiety fell within the

elevated/clinically significant and at-risk ranges, respectively. Alex began participating in individual counseling with the school psychologist to reduce internalizing symptoms and increase engagement in class.

Phase 1: Psychoeducation and cognitive restructuring. Phase 1 of the counseling intervention focused on psychoeducation and cognitive restructuring. The school psychologist first introduced the triadic relationship between one's thoughts, feelings and behaviors. This was followed by teaching Alex to identify common maladaptive thought patterns (cognitive distortions) that impact one's feelings and behaviors, and prompting Alex to determine which cognitive distortions he most commonly experienced. Alex noted that he tended to think that others were thinking negative things about him (mind-reading), and he tended to make negative predictions about the future (fortune telling). After he learned to identify how his thoughts contributed to his emotions and behaviors, he learned how to replace his cognitive distortions with more healthy and balanced thoughts. Homework activities were assigned to Alex between counseling sessions to reinforce his understanding and application of the introduced concepts. For example, Alex logged his thoughts (both maladaptive and adaptive), feelings, and behaviors in response to situations that triggered his negative thinking (e.g., being required to work with peers during group work). In turn, the psychologist began each session discussing the weekly events and highlighting his progress (i.e., replacing negative thoughts with healthy thoughts more frequently).

Phase 2: Behavioral activation and relaxation training. The goal of the middle phase was to increase Alex's participation in fun and distracting activities that could elevate his mood, and to increase his use of relaxation techniques to help him stay calm when completing his school work. Alex was encouraged to list and circle (the school psychologist brought a

prepopulated list of activities to the session) activities that he would commit to engaging in throughout the week. Alex agreed to monitor his mood before and after engaging in each activity. This helped Alex further understand how his mood can be elevated by being active rather than isolated and docile, and it allowed Alex to identify which activities he found most beneficial. Although Alex's self-reported level of anxiety was not severely elevated, he noted that he felt heightened stress (e.g., racing heartbeat) when completing select assignments, because he did not feel confident in his ability to successfully complete them. Soon thereafter he learned a variety of relaxation techniques-visual imagery, diaphragmatic breathing, counting down from 1 to 10- to use when completing schoolwork. The school psychologist utilized modeling, direct teaching, role playing, and corrective feedback to teach Alex how to correctly use these relaxation techniques.

Phase 3: Social skills training and evaluation of the CBT intervention. The last phase was geared towards teaching Alex how to ask for help appropriately and assertively. The school psychologist and Alex discussed why asking for help was beneficial, and role played several scenarios to practice reaching out to teachers and peers for academic-related support.

Upon the end of the counseling intervention, Alex was re-evaluated with the clinical measures completed at intake. His scores on scales indexing depression and anxiety fell in the average range. In addition to these symptom reductions, he demonstrated improvement in behaviors indicative of student engagement—academic records showed that he was turning in more assignments and attending school more consistently. Given his improvements in academic and emotional outcomes, the school psychologist terminated counseling and recommended continued monitoring of his progress for the next semester.

Implications for Future Research and Practice

This chapter documents how student engagement is affected by and impacts youth mental health status and needs. The proportion of students in a given school who have Complete Mental Health—that is, high subjective well-being and few psychopathology symptoms, both assessed in accordance with a dual-factor framework (Suldo & Shaffer, 2008)—is likely to vary as a function of the strength of the school’s multi-tiered system of supports for student mental health. The foundation of such entails universal interventions that are implemented with fidelity, and matched to the risk factors most common to the population. A rationale for preventative attention to student mental health will be strengthened by additional demonstrations of how universal programming results in improved outcomes across indicators of engagement, mental health, and academic success. Examining all aspects of youth functioning in outcome evaluations is needed in part to illustrate how these constructs are connected, but also to document that supports that foster engagement or mental health ultimately impact high-stakes educational outcomes such as course grades, progression and graduation, and postsecondary and occupational attainment.

Our review of the literature on mental health interventions also revealed a paucity of selective (Tier 2) supports, particularly those that target students with diminished subjective well-being. Practitioners need additional frameworks for how to provide effective early interventions for students with low happiness, elevated psychopathology symptoms, or signs of risk such as elevated stress or low engagement. Additionally, guidance is needed on best practices in monitoring student success during and after selective interventions, in a manner that helps practitioners to triage and provide supports matched in intensity to students’ changing levels of mental health. The proportion of students in need of intensive supports would be expected to decline as the provision of evidence-based universal and selective interventions with fidelity rises, but data from the field are needed to support this logic model.

Fortunately, this literature review illustrates the increasing number and breadth of evidence-based intervention options available to educators as they consider how to systematically promote students' subjective well-being and/or reduce mental health problems. This chapter focused on mental health interventions that have been evaluated with regard to effects on student engagement; numerous additional programs and practices at the universal and tertiary levels are reviewed in other comprehensive descriptions of school-based mental health services (e.g., Suldo, 2016; Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017). In sum, schools have a growing body of professional guidance to consult as well as intervention options to consider when developing a multi-tiered system of support for student mental health.

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