

# REPORT ON Emotional & Behavioral Disorders in Youth<sup>TM</sup>

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## Editors' Corner

### Partnerships and School Behavioral Health

In this second of four issues of *EBDY* for 2017, we emphasize the value of partnerships and of advancing effective programs to improve social, emotional, behavioral, and academic functioning in children and youth. This four-issue series emphasizes work in schools, particularly through school behavioral health (SBH) programs involving collaboration between schools, Positive Behavioral Interventions and Supports (PBIS; Sugai & Horner, 2006), and community mental health staff working in schools through expanded school mental health (SMH) initiatives (Weist, 1997) toward interconnected and more effective programs and services (Barrett et al., 2013). The advancement of SBH directly addresses significant unmet mental and behavioral health needs of children and youth (Burns et al., 1995; Merikangas et al., 2010; President's New Freedom Commission, 2003) and contributes to the achievement of valued outcomes (Jaycox, 2004; Kataoka et al., 2003; Stein et al., 2003).

As SBH programs advance, a critical theme is the forging of genuine collaborative partnerships with diverse stakeholder groups, including families and youth, the education system, and other youth-serving systems such as child welfare, juvenile justice, disabilities, and primary healthcare (Lever et al., 2003). Resonating with the Community

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of Practice Framework in this work (see Cashman et al., 2014; Wenger et al., 2002), all stakeholders are viewed as equally important in the engagement process (Christenson & Reschly, 2010; Waxman et al., 1999). This genuine involvement of stakeholders in turn helps to enable effective implementation (Fixsen et al., 2013).

USC staff, a school district, and parents and families, working with support and guidance from a federal cooperative agreement to accomplish screening in a rural community. Pragmatic strategies for building relationships and moving toward a true partnership are emphasized, including “openness, willingness to work together,

Development through Effective Practices (PHDEP) program, an adaptation of the Incredible Years program focused on promoting social, emotional, and behavioral competencies among young children (Webster-Stratton, 2004; Webster-Stratton & Reid, 2003). Their article provides background on, and an outstanding example of, a partnership between a university and school system, with teachers collaboratively implementing the program along with graduate students in psychology, who provide critically needed hands-on support for the teachers and gain an excellent learning experience by implementing an evidence-based program in schools. The article also underscores that such collaborative relationships help to build capacity for effective measurement and intervention implementation, increasing the likelihood of achieving valued outcomes.

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***As SBH programs advance, a critical theme is the forging of genuine collaborative partnerships with diverse stakeholder groups, including families and youth, the education system, and other youth-serving systems.***

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In this spring 2017 issue of *EBDY*, we present three examples of authentic partnerships assisting in improving SBH in dimensions of screening and implementation of effective programs within the multitiered system of support (MTSS) involving promotion/prevention (Tier 1), early intervention (Tier 2), and intervention (Tier 3).

**Universal Behavioral/Emotional Health Screening in Schools: Overview and Feasibility**

First, Becky Siceloff, Josh Bradley, and Kate Flory from the University of South Carolina (USC) provide background on universal behavioral health screening and discuss a four-way partnership among

and acknowledgement of . . . expertise” of school staff and families. The article underscores how scientific accomplishments, in this case documenting community-wide data on emotional/behavioral problems in youth, rest upon collaborative relationships and partnerships.

**Partnering With Teachers in the Delivery of a Classroom-Based Universal Social-Emotional Intervention Program in Urban Elementary Schools**

Next, Mina Ratkalkar and colleagues from Drexel and Temple universities and the Northern Home for Children in Philadelphia discuss the Promoting Healthy

**Integrating Positive Behavioral Interventions and Supports Into an Afterschool Tennis Program for At-Risk Youth**

The third article, by Bob Stevens, of the Medical University of South Carolina, Coach John Farrelly, of the Charleston County School District, and Ashley Quell, from USC, presents findings from a program evaluation of a Tier 2 afterschool program focused on teaching at-risk students skills in tennis, integrated with PBIS principles and a PBIS program implemented in the school. The evaluation/pilot study documents

—REPORT ON—

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advantages of Tier 2 early intervention across contexts (i.e., school and tennis court) and the promise of integrating athletic involvement into PBIS programming. Support for the program from the United States Tennis Association is notable, and this pilot study points to a range of research and practice opportunities in enhancing PBIS-athletic connections for other sports.

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—Robert Stevens

([Robertnstevens@comcast.net](mailto:Robertnstevens@comcast.net)) and

Mark D. Weist

([weist@mailbox.sc.edu](mailto:weist@mailbox.sc.edu)) ■

### A Note From the Publisher

Mark D. Weist, Ph.D., is a professor in the Department of Psychology at the University of South Carolina. Prior to joining USC, he was on the faculty of the University of Maryland School of Medicine, where he helped to found and direct the Center for School Mental Health, one of two national centers providing leadership for the advancement of school mental health (SMH) policies and programs in the United States. Dr. Weist has published and presented widely in the SMH field and has edited or coedited nine books.

Robert Stevens, Ph.D., is an adjunct professor at Winthrop University and director of the South Carolina Association for Positive Behavior Support Network. Professor Weist will lead the School Behavioral Health Dissemination and Engagement Project within the School Mental Health Team (SMHT) of USC's Department of Psychology, with co-director Stevens providing leadership of the project through his role as director of the South Carolina Association for Positive Behavior Support Network. The Civic Research Institute is pleased to welcome Professors Weist and Stevens as coeditors of this issue and the next three issues of *EBDY*.

### From the Editors

Work on this four-issue volume of the *Report on Emotional & Behavioral Disorders in Youth* (Winter, Spring, Summer, Fall 2017) is supported by a grant from the Patient-Centered Outcomes Research Institute (PCORI) through the Eugene Washington Conference Award for the School Behavioral Health Dissemination and Engagement Project (#EAIN 2874; 2016–2018). We also convey our appreciation to the South Carolina Department of Mental Health and to the South Carolina Department of Education for their support of the community of practice and conference, and for efforts to link together education and mental health priorities and strategies through well-executed SBH programs. Finally, thanks are extended to Josh Bradley, Allison Farrell, Lee Fletcher, Elaine Miller, and Ashley Quell of the University of South Carolina School Behavioral Health Team, and to the Civic Research Institute for the opportunity to publish these four consecutive issues of *EBDY*.

# Universal Behavioral/Emotional Health Screening in Schools: Overview and Feasibility

by E. Rebekah Siceloff, W. Joshua Bradley, and Kate Flory\*

Addressing the emotional and behavioral health needs of children and adolescents is a critical public health challenge. As reflected in these four special issues of *EBDY*, schools are being increasingly used as a system for delivering mental health services for students and their families (Weist et al., 2003; 2014). School-based universal mental health screening provides important information about the emotional and behavioral health of students and school-level functioning and is recognized as an essential component of a multitiered school behavioral health (SBH) framework. Our purpose in this article is twofold. First, we provide an overview of school-based

found that approximately one in five children and adolescents meet criteria for an emotional or behavioral health disorder (Carter et al., 2010). In a national sample, 13.1% of children and adolescents ages 8 to 15 years met criteria for at least one mental health disorder in the previous 12 months (Merikangas et al., 2010a). Assessing a broader array of disorders in a national sample of 13- to 18-year-old adolescents, the prevalence rate was 40.3% for 12-month disorders (Kessler et al., 2012) and 49.5% for lifetime disorders (Merikangas et al., 2010b).

Despite the prevalence of mental health disorders among children and adolescents in the United States, the utilization of

source of services for youth with emotional and behavioral health concerns (Angold et al., 2002; Burns et al., 1995; Costello et al., 1996; 2014). However, the type and quality of services provided in schools vary considerably as do the underlying assumptions about what role schools should play in addressing students' mental health needs. Traditional mental health services in the school setting have largely operated under a refer-test-place model that focuses primarily on the assessment of individual students to determine their eligibility for special education services or referrals for other supports (Dowdy et al., 2010). This service model emphasizes assessment and treatment services for students at the highest levels of risk. Similarly, under the "wait-to-fail" model (Glover & Albers, 2007), students are referred for services in response to emotional or behavioral difficulties that are apparent and have become a cause for concern. Given the reactive nature of these traditional approaches, students with unmet mental health needs may be overlooked or their need for services may not be recognized until after their symptoms have intensified and early intervention services are no longer likely to be beneficial (Dvorsky et al., 2014). Further, because these approaches focus on emotional and behavioral health concerns at the level of the individual student, they are unlikely to have a meaningful impact at the population level.

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*Studies of community samples have generally found that approximately one in five children and adolescents meet criteria for an emotional or behavioral health disorder.*

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universal mental health screening, including benefits, limitations, and obstacles to implementation. Second, as evidence to support the feasibility of universal mental health screening in schools, we present our implementation experiences in a South Carolina school district serving students in grades K-12.

## Mental Health Disorders and Unmet Need in Children and Adolescents

The prevalence of emotional and behavioral health disorders and unmet mental health need among children and adolescents highlight the need for effective interventions. Studies of community samples have generally

services to treat these disorders is broadly lacking (Dvorsky et al., 2014). In national studies, 50% or less of children and adolescents with a mental health disorder had received services in the previous 12 months (Costello et al., 2014; Merikangas et al., 2010a). This low utilization is directly related to numerous barriers that limit service accessibility, including availability of services, lack of transportation, and financial and time costs (Owens et al., 2002). Left untreated, behavioral and emotional concerns are more likely to persist into adulthood and to require more intensive services (Heflinger et al., 2015; Torio et al., 2015). Therefore, timely identification of concerns and intervention are critical to disrupt this trajectory.

## School Behavioral Health

Over the past two decades, the field of SBH has been gaining momentum in the United States and in other countries (Foster et al., 2005; Rowling & Weist, 2004). Studies examining service use patterns have found SBH programs to be the primary

## Universal Mental Health Screening in Schools

SBH programs are most beneficial when appropriately tailored to meet a school's needs using comprehensive data on the functioning of the entire student body (Dowdy et al., 2010). Therefore, a critical first step in the effective implementation of a multitiered SBH model is to systematically evaluate all students in an identified group (e.g., within a school or district) on behavioral and emotional criteria using a universal screening procedure (Glover & Albers, 2007). A primary objective of this process is to differentiate students based on whether or not their behaviors and characteristics are associated with an elevated risk of having or of developing a mental health

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\*E. Rebekah Siceloff, Ph.D., is a research coordinator in the Department of Psychology at the University of South Carolina (USC). W. Joshua Bradley, B.A., is a research assistant in the Department of Psychology at USC. Kate Flory, Ph.D., is a professor in the Department of Psychology at USC. Dr. Siceloff can be reached by email at [sicelofe@mailbox.sc.edu](mailto:sicelofe@mailbox.sc.edu).



disorder (Dvorsky et al., 2014; Glover & Albers, 2007; Lane, Oakes, Ennis et al., 2014; Lane, Oakes, Menzies et al., 2013). Because all students are assessed, fewer students with unmet mental health needs are overlooked. In addition to individual-level data, universal screening provides comprehensive information about school-level functioning that allows a more data-driven approach to the delivery of SBH at all tiers (Humphrey & Wigelsworth, 2016).

Students identified as at-risk are referred for additional assessment or connected with appropriate, evidence-based supports, with the goal of meeting their individual needs through early intervention (Lane et al., 2010). Ideally, universal mental health screening should be implemented as part of a full continuum of SBH programs and services available to students (Weist et al., 2007). However, despite substantial evidence to support the provision of mental health care in schools using an expanded SBH model (Durlak et al., 2011; Wilson & Lipsey, 2007), challenges to implementation (e.g., funding constraints and other limited resources) impede widespread adoption. As we discuss throughout the remaining sections, overcoming these challenges requires the collaborative engagement of families, schools, and other relevant service providers, particularly those in the mental health system.

### **Implementing Universal Mental Health Screening: Challenges and Considerations**

Despite increasing recognition that universal mental health screening is an important means of identifying children and adolescents with emotional and behavioral difficulties, it is estimated that less than 15% of schools currently implement procedures to systematically evaluate students' mental health needs (Bruhn et al., 2014). This likely reflects the limited availability of resources necessary to support universal screening of students' mental health needs as well as misconceptions and other issues that reduce the acceptability of implementing these procedures in a school setting (Humphrey & Wigelsworth, 2016; Weist et al., 2007). We review these challenges and considerations in the sections that follow.

**Practical Challenges and Measurement Selection.** A central challenge to implementing universal screening in a school setting is the availability of resources necessary to systematically evaluate, identify, and monitor the mental health needs

of an entire student population (Dowdy et al., 2010; Weist et al., 2007). Therefore, a number of practical considerations related to implementation should be considered when building capacity for universal screening in schools (Dowdy et al., 2010). Critical to this process is the selection of a screening tool that is contextually and developmentally appropriate, psychometrically sound, and usable (Glover & Albers, 2007). For many schools, this may be challenging due to the limited availability of personnel with adequate training or time to identify psychometrically sound universal screening measures. This is often the result of personnel being constrained to a particular role (e.g., school psychologists only evaluating students, mental health counselors only delivering treatment) and budget limitations

screening instruments have demonstrated excellent sensitivity in identifying youth with behavior problems, but others have significantly lower sensitivity and specificity for identifying youth with less observable emotional problems or "internalizing" problems such as depression, anxiety, and symptoms of traumatic stress (Cook et al., 2011; Severson et al., 2007). A likely reason for this is that students with behavior problems are more easily identified by teachers completing the screening tool, because these behaviors often result in frequent distractions and other problem behaviors that are easily observed in the classroom. In contrast, students with internalizing problems are often more difficult for teachers to identify, because these children are withdrawn, quiet, and may fit the profile

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*Students with internalizing problems are often more difficult for teachers to identify, because these children are withdrawn, quiet, and may fit the profile of a successful student.*

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(see Glover & Albers, 2007; Splett et al., 2013). In addition, collecting data for hundreds of students in a school or thousands of students across an entire school district requires data infrastructure to efficiently collect and store universal screening data (Glover & Albers, 2007). Electronic data collection and management systems are available that can streamline the data acquisition process and automate scoring screening measures used to identify at-risk students. However, these systems are often costly and may not be economically feasible for many schools. Fortunately, a number of robust mental health screening measures are available that are brief and affordable or free to access, such as the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), making them well-suited for use in a school setting (Connors et al., 2015).

When choosing a screening instrument, it is important that the objectives for undertaking the screening process are clear so as to ensure that the selected measure not only meets the needs of the school but also has psychometric properties that align with the screening goals (Dvorsky et al., 2014; Humphrey & Wigelsworth, 2016). One issue to consider is the type of behaviors assessed by the instrument. Many universal

of a successful student (Cook et al., 2011; Gresham & Kern, 2004). Given this measurement limitation, some recently developed universal screening instruments place increased emphasis on the identification of youth with emotional problems, including the Student Risk Screening Scale—Internalizing and Externalizing (SRSS-IE; Lane, Oakes, Carter et al., 2013) and Student Internalizing Behavior Screener (SIBS; Cook et al., 2011). However, additional research is still needed to improve psychometric properties of universal screening instruments for identifying students with emotional problems.

Beyond screening students for existing emotional or behavioral health problems, research suggests that universal screeners should also focus on identifying known risk and protective factors associated with mental health disorders (Levine et al., 2005; Severson et al., 2007). Consistent with a public health approach to child and adolescent mental health, universal screening that assesses the presence of risk and protective factors and the presence of mental health difficulties can be used to identify not only students who require treatment, but also those who would benefit from early intervention or targeted preventative services.

**Misconceptions, Concerns, and Other Considerations.** In addition to the practical challenges to implementation, universal mental health screening in schools may raise other issues that have the potential to limit stakeholder “buy-in” (Humphrey & Wigelsworth, 2016; Weist et al., 2007). Involving stakeholders, including not only teachers and other school personnel but also families, in implementation planning is essential for building trusting relationships that foster collaboration. These collaborative efforts allow stakeholders to voice concerns and to help resolve issues that might otherwise pose a threat to the social validity of the universal mental health screening process. Social validity refers to the value or social importance attributed to a new method, idea, or product by direct

about informed consent and procedural safeguards likely contribute to these concerns. Further, concerns have been raised about possible stigmatization that may occur as a result of the problem-focused approach that is typical in mental health screening and the possible consequences of being identified as at-risk (Williams, 2013).

Utility refers to the extent to which universal screening is useful to stakeholders. It is important that the intended use of universal mental health screening data is clearly articulated and disseminated to stakeholders. Universal screening data provide important baseline information and allow monitoring of both individual and population-level change. However, consideration must be given to the ability to continue monitoring students’ mental health and what response

the selected screening measure for all of their students, which can seem like a burdensome addition to their regular responsibilities (Glover & Albers, 2007). Thus, it is important that the length of the screening measure is considered and that the value of school-wide universal screening as an effective means to identify youth with emotional and behavioral health concerns is effectively communicated to teachers and school personnel (Humphrey & Wigelsworth, 2016).

In addition to concerns about the time required to complete the screening measure, teachers may also question whether they are equipped with the knowledge necessary to evaluate their students’ emotional and behavioral health. Although it is widely accepted that multiple informants (e.g., parents and teachers) are important for comprehensive mental health evaluation in children (Hunsley & Mash, 2007; Sowerby & Tripp, 2009), this is likely inconsistent with the need for universal screening procedures that are minimally intrusive and maximally efficient and cost-effective. Supporting the role of teachers as informants, teacher ratings have been shown to have greater predictive validity than ratings of other informants (e.g., parents)—that is, they are better able to predict a theoretically relevant future state, such as whether a student will meet diagnostic criteria for a mental health disorder (Dowdy et al., 2010). However, teachers may be less accurate in their evaluation of internalizing difficulties than externalizing behaviors (Atzaba-Poria et al., 2004). To assuage teachers’ concerns, it is important to clearly communicate any necessary training required to complete screening measures and to provide teachers with other relevant information to bolster their confidence to complete the measures.

These issues and other aspects of implementation have the potential to influence the extent to which stakeholders perceive a universal mental health screener to be feasible. Thus, it is important to understand and address relevant issues to bolster the feasibility of the process. Much of the available research evaluating the feasibility of implementing a universal mental health screening in a school setting is based on small-scale implementation or systematic evaluations conducted within a restricted range of grades (Burke et al., 2012; Chin et al., 2013; Dowdy et al., 2015; Owens et al., 2015). In the sections that follow, we provide an applied example of a universal mental health screening that was implemented across all schools in a school district, representing all students enrolled in grades

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and indirect consumers (Hurley, 2012). The extent to which universal mental health screening is viewed as socially valid is critically relevant to its adoption in school settings (Humphrey & Wigelsworth, 2016).

The social validity of universal mental health screening in schools is dependent upon the extent to which stakeholders regard the process to be acceptable, to be feasible, and to have utility. Each of these components is important to consider when planning to implement universal screening procedures in a school setting. Acceptability refers to the extent to which stakeholders view universal mental health screening as necessary or socially important. Although well-being and mental health promotion are likely to be broadly considered important, stakeholders should be able to see the value in conducting universal mental health screenings in the school setting as an acceptable means to accomplish these broader objectives. Stakeholders who do not find value in this process may have concerns that diminish the acceptability of universal screening. For example, families may perceive mental health screening as an intrusive over-reach of the government or a violation of their right to privacy. Misconceptions

is required of schools and parents to address the needs of students identified as at-risk (e.g., intervention services/pharmaceutical treatment). Ideally, universal mental health screening should be one aspect of a full continuum of programs and services available to address the emotional and behavioral health needs of students in the school setting. Capacity for the expanded model of SBH is often achieved through a collaborative relationship between school- and community-based mental health providers (see Weist, 1997). However, in many schools and districts, infrastructure may not exist to support this model.

Finally, feasibility refers to the extent to which the proposed *procedures* for implementing universal screenings in schools are satisfactory and are able to be implemented. To increase the likelihood that screening procedures are viewed as feasible for teachers and school personnel, screening measures should be viewed as acceptable and not overly burdensome by the staff completing them (Dowdy et al., 2010; Glover & Albers, 2007). Teachers often serve as the primary or sole informants in universal mental health screening (Dowdy et al., 2010). As such, teachers are often tasked with completing

K-12. We thoroughly describe all steps in the process of implementing the screening because these are important for insuring the acceptability, utility, and feasibility of the screening process.

### Applied Example: Overview of Project

Our universal mental health screening took place as part of the ongoing University of South Carolina (USC) Project to Learn about Youth, a study of children's and adolescents' mental health, funded by the U.S. Centers for Disease Control and Prevention (CDC) and conducted in collaboration with a school district in central South Carolina. The USC Project to Learn about Youth has three purposes:

1. To estimate the proportion of children and adolescents in grades K-12 in the school district with emotional or behavioral health concerns, including tic disorders;
2. To describe rates of current and previous mental health treatment in this population; and
3. To quantify the misuse of medications prescribed to treat emotional or behavioral health concerns in this population.

An additional objective is to examine change in prevalence rates of emotional or behavioral health concerns, including tic behaviors, over time. To meet this objective, identical data collection procedures were conducted twice over two consecutive academic years, representing two distinct iterations of the project. Data collection began in the fall of each academic year (AY), with the first iteration in AY 2014–2015 and the second iteration in AY 2015–2016. Throughout this report, these iterations of the project are referred to as “Fall 2014” and “Fall 2015,” respectively.

The objectives of the USC Project to Learn about Youth are addressed in two stages of data collection: Stage 1—A districtwide, universal teacher screening of emotional/behavioral concerns, including tic disorders, among students in grades K-12, and Stage 2—A comprehensive evaluation of these health concerns among a subset of screened students. This report describes Stage 1 procedures and results pertinent to feasibility of universal mental health screening.

### School District Description

All regular and special education students in grades K-12 in the participating school

district were eligible for the Stage 1 universal screening for emotional/behavioral health concerns, including behavioral tics. The district, situated in central South Carolina, includes urban, suburban, and rural areas and subsumes an entire county. According to census data, the racial distribution of county residents under the age of 18 is 30% African American, 67% Caucasian, and 3% other, and the median household income is \$38,804. The school district includes 20 schools: 11 elementary, four middle, and three high schools, as well as one vocational school for high school students and one personally tailored, alternative learning center for middle and high school students. According to the South Carolina Department of Education district “report card,” 58% of students in the district were in poverty in

as those not previously identified as having a mental health issue, families directed to appropriate services), to the district (e.g., received a report summarizing screener results to be used to better understand the emotional and behavioral health needs of the student population and/or to document need for SBH funding in potential grant applications), and to the field of science. We also allocated time during meetings to address concerns and answer questions. District-level administrators and principals who attended these meetings articulated strong support for the project and felt it would be beneficial to the students and their families as well as to the school district.

Importantly, in each of our meetings with district personnel, we emphasized our desire to work collaboratively with the district by

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*In each of our meetings with district personnel, we emphasized our desire to work collaboratively with the district by bringing not just a fully planned research project to implement in the district, but by including district personnel feedback and suggestions into each step of the project during the planning process.*

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2016. In fall 2014, the first year of our Stage 1 universal screening, the K-12 enrollment of the district was 10,443; in fall 2015, our second year, enrollment was 10,454.

### Study Procedures

**Building a Relationship With the District.** Before beginning the first Stage 1 universal mental health screening for the USC Project to Learn about Youth, our research team invested a great deal of time and energy in developing a collaborative, working relationship with the participating school district. This entailed meeting with district office personnel, including the public relations coordinator, and principals of all 20 schools in the district. In addition, we presented information about the project to teachers at all 20 schools during in-service trainings at the beginning of AY 2014–2015. Finally, we presented the project to members of the district's school board, including the superintendent. In each meeting or presentation, we summarized the goals of the project and the potential benefits to participating students and their families (e.g., identification of students in crisis as well

bringing not just a fully planned research project to implement in the district, but by including district personnel feedback and suggestions into each step of the project during the planning process. For example, in developing a website describing the project for teachers and parents, we asked the district school psychologist and public relations coordinator to make suggestions. Similarly, these personnel suggested revisions on drafts of parent mailings about the project and assisted us in preparing press releases and scripts for automated parent informational calls. We also worked with district personnel to develop a procedure for the Stage 1 screening that was believed to be feasible and acceptable to principals and teachers, and we pilot-tested this procedure with a small group of teachers before the project began. This openness, willingness to work together, and acknowledgement of the expertise of school district personnel about their own students and parents likely played a large role in the establishment of a strong working relationship, as well as in the success of our universal screening procedures. In addition, in the rare instances in which a parent has voiced



concerns or complaints about our study, or other unforeseen events have occurred, we have had the full support of district personnel in handling these situations.

**Consent Process.** To meet the research objectives of the USC Project to Learn about Youth (e.g., to estimate the proportion of youth in grades K-12 in the school district with emotional or behavioral health concerns, including tic disorders), it was crucial to include the majority of the students in the district in each year's universal screening phase. To accomplish this, in consultation with the district lawyer and other central office personnel, and USC's Institutional Review Board (IRB), we elected to use a "passive consent" or opt-out procedure for the Stage 1 screening. Passive consent means that consent is

To circumvent this concern, with the district's help we undertook an extensive campaign to inform parents of the USC Project to Learn about Youth universal screening phase prior to any data collection. This included multiple opportunities for parents to opt out of the screening for their child. All procedures described below were repeated for the second iteration of the project.

First, we constructed a detailed website describing the project to parents. The website included project funding information, a thorough description of procedures, risks and benefits, biographies of study staff, a copy of the online teacher screener questionnaire, frequently asked questions, and contact information for study staff if parents had concerns or questions or wished to opt out for their child. All other correspondences

**Universal Screening.** Once the passive consent procedure was completed, we began collecting screening data from teachers for all children in the district, except for those whose parents opted out of the study. We used an online screener survey, administered through Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)), composed of items from widely used and validated measures of teacher-reported internalizing and externalizing symptoms among youth in grades K-12. This included the 25-item Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) and the 28-item BASC-2 Behavioral and Emotional Screening System (BESS; Dowdy et al., 2011; Kamphaus & Reynolds, 2007)). Two additional items were used to assess whether students displayed tics currently or in the past. The 55-item survey took appropriate four to five minutes to complete per child.

One teacher for each student was identified as the survey respondent. For elementary school students, the primary teacher was asked to complete the survey. For middle school students, the first-period teacher was selected to be the survey respondent. Surveys were completed for high school students by their second-block teacher. Prior to beginning data collection, teachers were instructed to use the students' school ID (not their names) and to keep responses confidential. In recognition of their contribution to the project, teachers received a small monetary incentive valuing \$4 for each completed survey.

### Results Supporting Feasibility

Of the 10,443 students enrolled at the start of Stage 1 in fall 2014, teachers completed an online screener survey for a total of 7,159 students, yielding an overall screener completion rate of 68.6%. The completion rate was highest among students in elementary and middle school (74.4% and 71.4%, respectively) and lowest among students in high school (56.9%). Students whose parents/caregivers opted out of the study represented approximately 10% of all enrolled students. Excluding these students, the overall screener completion rate was 76.7%.

Of the 10,454 students enrolled at the start of Stage 1 in fall 2015, teachers completed an online screener survey for a total of 7,161 students, yielding an overall screener completion rate of 68.5%. The completion rate was highest among students in elementary and middle school (73.9% and 72.8%, respectively) and lowest among students in high school (56.5%). Students whose parents/caregivers opted out of the study

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***This openness, willingness to work together, and acknowledgement of the expertise of school district personnel about their own students and parents likely played a large role in the establishment of a strong working relationship, as well as in the success of our universal screening procedures.***

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assumed unless parents (or legal guardians) opt out of the screening procedure for their child. This is contrasted with active consent, in which parents (or legal guardians) must explicitly give permission (i.e., through a signed consent form or permission slip) for involvement in the screening process. Passive consent typically results in much higher study participation rates and is appropriate when study procedures carry little to no risk for participants. In our case, we believed that having teachers complete a short, online, anonymous (i.e., only school ID numbers were used and no other identifying information was collected) survey on students' emotional and behavior health in the classroom posed little risk to teachers, students, or families, and thus was appropriate for a passive consent process.

The biggest concern with using passive consent is that when parents do not opt out for their children, it is unclear whether this is because they did not receive information on the study (i.e., either study information never made it to the parent, or the parent did not look at the information provided) or because they processed the information and decided to allow their child to participate.

with parents about the project included the website address.

Second, with the help of the district public relations coordinator, we prepared a press release about the study and the script for an automated phone call to parents that originated from the superintendent's office.

Third, we sent parents two informational mailings, both of which included a postage-paid opt out postcard parents could complete and return if they did not want their child to participate in the screening phase. The first of these mailings was sent through the USPS to the address the district had on record for the child. The second was sent home with the child from school and addressed to the parents. The press release and automated phone call from the district went out on the day the first letter was mailed and encouraged parents to look for the letters. We allowed parents two to three weeks to return the opt-out postcards before we moved into the data collection phase. It was our hope that the multiple opportunities parents had to receive information about the study would reduce concerns associated with the passive consent process. Opt-out rates are described below in the results section.



represented approximately 7% of all enrolled students. Excluding these students, the overall screener completion rate was 73.9%.

The survey completion rates observed in fall 2014 and fall 2015 were highly comparable and provide evidence that teachers completed the universal screener for the majority (68.6% and 68.5%, respectively) of students in the district. In both 2014 and 2015, completion rates were highest for elementary (74.4% and 73.9%, respectively) and middle school students (71.4% and 72.8%, respectively) and lowest for high school students (56.9% and 56.5%, respectively). These rates suggest that, across all grade levels, the universal screening process was acceptable to most teachers. Further, the stability of these rates indicates that support for the process remained stable over time.

### Comment

This article describes our experiences implementing a universal mental health screening as part of the ongoing University of South Carolina (USC) Project to Learn about Youth, a study of children's and adolescents' mental health. Based on our observations during this process and as evidenced by teacher and school personnel feedback and the overall screener completion rate, we were able to successfully implement a district-wide universal mental health screening that was acceptable, feasible, and had utility.

Critical to the success of the mental health screening process was a collaborative approach that was established prior to implementation and that we continue to foster. During planning, we sought out the feedback of school administrators, teachers, and other personnel, and we allowed their input to help guide implementation planning. Having the support and buy-in from these key stakeholders was essential for ensuring the acceptability of the screening procedures and for identifying and addressing obstacles that might otherwise have diminished the feasibility of the universal mental health screening. Further, by engaging stakeholders in the planning, we were able to engage in discourse about the importance of students' mental health, with regard to both general well-being and academic achievement, and the role of schools in identifying those with unmet mental health needs. This provided a platform for district and school personnel to discuss their experiences and concerns and to consider the benefits of universal mental health screening within an educational

setting. These conversations have helped bolster support for the utility of universal mental health screening among district and school personnel, who in turn, enthusiastically endorsed our project.

Importantly, buy-in from the school district was critical for earning the trust and support of the families it serves. The school district conveyed support for the project by sending out a press release, initiating automated calls, and countersigning letters that were sent to families with information about the mental health screening. It is likely that families were more willing to support the universal mental health screening knowing that the school district was involved in implementation planning and had vetted and approved the screening instrument

Despite efforts to advance universal mental health screening in schools and the broader SBH agenda, a lack of funding for necessary resources along with other obstacles (e.g., stigmatization of mental health disorders) have impeded the systematic adoption of evidence-based practices in schools (Bruhn et al., 2014; Humphrey & Wigelsworth, 2016). Overcoming these obstacles will require the attention and collaborative engagement of stakeholders across various contexts who are committed to promoting the mental health of children and adolescents by advocating for meaningful SBH policies and practices. Such advocacy should represent not only mental health professionals, school personnel, researchers, and families, but also members

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### *The school district conveyed support for the project by sending out a press release, initiating automated calls, and countersigning letters that were sent to families with information about the mental health screening.*

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and procedures. Further, the school district helped support an extensive campaign to inform parents of these procedures and that included multiple opportunities for parents to opt out of the process.

The success of our universal mental health screening notwithstanding, there are a number of important caveats. First, our screening procedures were implemented in a school district with research funding support from the CDC. This funding allowed the formation of a research team at the University of South Carolina, composed of the principal investigator, paid staff, and undergraduate and graduate student volunteers. This team took the lead in all aspects of planning and implementation of screening procedures, including coordinating meetings with district and school personnel, selecting acceptable screening instruments, establishing and providing technology support for an online data collection system, and maintaining and managing screening data. In the absence of the funding to support the formation of a university-affiliated research team, district and school personnel would be responsible for this process. This raises important issues regarding the ability of schools to access the resources necessary to implement and maintain universal mental health screening procedures.

of the broader community, legislators, and policymakers. Further, data are needed that demonstrate the need for policies that support universal mental health screening as well SBH programs to address the mental health needs of students. Universal mental health screening in the school setting is an important tool for gathering these data; however, the issues that are prompting the need for policy change are the same issues that make it difficult to implement these screening procedures. Therefore, funding for studies such as we describe in this article plays an important role in achieving greater advocacy for meaningful SBH policy change by providing a means to gather universal screening data.

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# Partnering With Teachers in the Delivery of a Classroom-Based Universal Social-Emotional Intervention Program in Urban Elementary Schools

by Mina Ratkalkar, Ke Ding, Margaret H. Clark, Melissa Morrison, Janette Thames, Lila Elmished, Brigid Garvin, Jean Boyer, and Brian P. Daly\*

## Addressing Children's Behavioral Health Needs

Extensive research supports that social, emotional, and behavioral competencies are necessary for effective life functioning and that these skills can be taught. It is also true that many students have, or are at risk for developing, significant social, behavioral, and/or emotional problems, to which many teachers and schools struggle to effectively respond and intervene (Reinke et al., 2011). The gap between students' behavioral health needs and schools' ability to effectively respond is concerning because students in the early grades who already demonstrate poor social and behavioral functioning are at significant risk for continued behavioral challenges, low academic achievement, school dropout, and compromised economic outcomes (Bradshaw et al., 2008), resulting in significant costs to these individuals and society at large (Walker, 2007). Unfortunately, this pattern is particularly evident for students of color from impoverished neighborhoods and/or low-income households, because these students are at the greatest risk of experiencing social-emotional and academic challenges that negatively affect their long-term development (Guyer et al., 2009). Compounding this issue, economically disadvantaged and ethnic minority children are also the least likely to receive needed preventative and early intervention behavioral and social-emotional programming (O'Connell, 2009).

In the absence of intervention programming, low-income and minority children are often left to receive substandard behavioral health services through the juvenile justice or welfare systems (Alegria et al., 2000).

To address these gaps in services, there has been an increased focus on developing and implementing universal intervention programs that promote positive behavioral and social-emotional development for at-risk children, especially in under-resourced schools located in low-income neighborhoods (Daly et al., 2013). Delivering and evaluating these programs in schools situated within impoverished neighborhoods is

difficulties (Raver & Knitze, 2002). When teachers spend a significant amount of time ineffectively dealing with challenging classroom behaviors, their ability to deliver quality academic instruction is compromised. For example, a survey of more than 800 members of the American Federation of Teachers Union revealed that 21% of teachers in urban areas said they lost four or more hours per week of instruction time due to disruptive student behavior (Walker et al., 2003). Teachers with poor classroom management skills tend to have higher levels of student aggression and peer rejection in their classrooms, which

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*Extensive research supports that social, emotional, and behavioral competencies are necessary for effective life functioning and that these skills can be taught.*

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especially critical given that socioeconomic status (SES) is a key factor in the behavioral and social outcomes of school-age children (Spencer et al., 2002). Some of the primary advantages of providing universal school-based prevention and intervention programming include increased accessibility to disadvantaged and vulnerable populations, improved teacher engagement in fostering the mental health of children, and enhanced opportunities for broad mental health promotion (see Weist et al., 2003).

## Challenges Associated With Teaching in Urban Schools

Although much is known about successful classroom management strategies, many teachers report receiving inadequate training or support for learning effective methods for helping students with social, emotional, and behavioral problems in the classroom (Reinke et al., 2011). This gap in teacher training is particularly concerning because teachers report that 16% to 30% of students in their classrooms pose ongoing problems in terms of social, emotional, and behavioral

in turn may impede the development of appropriate self-regulatory and behavioral skills in students (Webster-Stratton & Reid, 2003). One important consequence is that many teachers, especially those working in urban schools, leave the profession due to challenges in managing student behavior and social and emotional skill deficits (Hinkel, 2009). Under-performing schools in high-poverty areas have the highest rates of teacher turnover and attrition (Simon & Johnson, 2013), and this educational instability contributes to poorer student performance (Terry & Kritsonis, 2008). African-American children are more than twice as likely as students from other racial and ethnic groups to encounter ineffective teachers, highlighting a notable challenge in educational equity faced by urban public schools (Darling-Hammond et al., 1999). High teacher turnover in urban schools can be reduced when teachers are provided with resources and training to manage student behavior, the area they find most challenging to address. Partnering with teachers in the delivery of universal interventions to

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\*Mina Ratkalkar, LCSW, M.S., is a doctoral student at Drexel University. Ke Ding, M.S., is a master's student at Drexel University. Margaret H. Clark, B.S., is a clinical trial coordinator at Drexel University. Melissa Morrison, B.A., is a doctoral student at Temple University. Janette Thames, Psy.D., is a BHRS clinical manager at Northern Children's Services. Lila Elmished, B.S., is a recent graduate of Drexel University. Brigid Garvin, Ed.S., NCSP, is a school psychologist at Drexel University. Jean Boyer, Ph.D., is a clinical teaching faculty member at Temple University. Brian P. Daly, Ph.D., is an associate professor at Drexel University. Mina Ratkalkar can be reached by email at [mina.ratkalkar@gmail.com](mailto:mina.ratkalkar@gmail.com).



enhance behavioral and social skills and competencies of youth can result in wide-ranging positive effects, including fewer disciplinary and special education referrals, increased student academic achievement, and an enhanced school climate of respect (Polirstok & Gottlieb, 2006).

### Agents of Implementation

Early models of behavioral and social skills curricula for prevention and intervention programs for elementary school students were primarily designed to be delivered by clinical or specialist staff. This was considered a necessary element because of research findings supporting that intervention leaders' qualifications

which may be cost-prohibitive for schools with limited financial resources, thus affecting long-term sustainability.

University-school partnerships represent a model that potentially addresses training concerns and sustainability challenges by combining specialist staff with teachers as dual interventionists. These partnerships use a program-delivery system in which students and faculty from universities partner with teachers and school staff to implement programs that focus on preventing problem behaviors and promoting prosocial behaviors (Blank et al., 2012; Freeman, 2011). Collaborative endeavors such as these are important because teachers working in urban schools and students from institutions

management, being friendly, and talking with friends.

The Small Group Dinosaur Program (Webster-Stratton & Reid, 2003) was designed to be delivered by specialists such as counselors, therapists, or special education teachers and utilizes a curriculum primarily focused on treatment. Students in these groups are usually screened in because they have challenges with conduct problems, attention deficit hyperactivity disorder, and/or internalizing problems. This program is implemented in two-hour weekly small group sessions for 18 to 22 weeks. Each lesson uses a variety of activities, including role plays, games, group discussions, and video vignettes to teach children about main program themes that include communicating feelings, having empathy for others, solving problems, being a good friend, and effectively managing anger (Webster-Stratton & Herman, 2010). The curriculum also emphasizes the development of academic skills, such as following classroom rules and listening to the teacher, which are honed through a reward system (Webster-Stratton, 2004).

Studies examining the efficacy of the Classroom Dina program have revealed positive impacts on child behavior, social competence, and classroom management. For example, children who receive the intervention demonstrated increased interest and enthusiasm for school (Baker-Henningham et al., 2009) and enhanced problem-solving and conflict management skills (Webster-Stratton et al., 2004). Positive outcomes associated with participation in Classroom Dina have been demonstrated in diverse populations, including children who are socioeconomically at risk and/or display early-onset conduct problems (Webster-Stratton & Reid, 2003), and Hispanic children (Barrera et al., 2002).

Findings from multiple randomized controlled trials of the Small Group Dinosaur Program reveal that children who participated in the program demonstrated more positive interactions with peers, improved problem-solving and friendship skills, and reductions in conduct problems (Drugli & Larsson, 2006; Webster-Stratton et al., 2008; 2011). For example, students who participated in the Small Group Dinosaur Program demonstrated significant reductions in the frequency and severity of problem behaviors and higher levels of social competence relative to control groups (Webster-Stratton et al., 2004) as indicated by independent observer and teacher ratings. This program also has demonstrated positive effects with

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## *Children who receive the intervention demonstrated increased interest and enthusiasm for school and enhanced problem-solving and conflict management skills.*

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significantly affected the impact of the intervention (Scheckner et al., 2002). However, Shucksmith and colleagues (2007) suggested that the use of specialist staff was both unsustainable in the short term and also not necessary for large-scale and universal interventions. The challenge of sustainability prompted more recent versions of universal behavioral and social skills programs to rely exclusively on teachers as interventionists. However, the evidence is mixed when comparing effectiveness of teachers relative to specialist staff in delivering behavioral and social skills interventions. For instance, findings from three reviews suggested that teachers are less effective than specialist staff when delivering interventions (Beelmann & Lösel, 2006; Wilson et al., 2003; Wilson & Lipsey, 2006a), but results from three other reviews indicated that teachers can be just as effective as specialists (Adi et al., 2007; Diekstra, 2008; Wilson & Lipsey, 2006b). There are additional concerns that teacher-implemented intervention programs in urban schools face significant challenges, including lack of time for training and problems with sustainability. For example, schools with limited resources and high turnover of teachers and school personnel may not be able to adequately train staff to deliver interventions with fidelity. In addition, many evidence-based programs require training from certified trainers,

of higher education receive practical training opportunities in delivering evidence-based programs to at-risk populations and low-income children attending schools with limited resources receive effective behavioral and mental health care services at no cost. The sections below briefly describe the process of adapting and modifying several evidence-based programs into a single curriculum that was co-delivered by classroom teachers and psychology students from several universities in proximity to the schools.

### **The Incredible Years Series: Classroom Dinosaur Curriculum (Classroom Dina) and Small Group Dinosaur Program Curriculum**

Classroom Dina is a curriculum implemented by teachers as a prevention program for an entire classroom of students that can be used with students' aged three to eight years (Webster-Stratton & Reid, 2003). Delivery of the curriculum occurs two to three times a week for 20 to 30 minutes during circle time lessons. Following the lessons, students participate in small group activities and teachers encourage students to use their skills throughout the school day. Lesson plans focus on topics such as doing your best in school, understanding and detecting feelings, problem solving, anger

diverse preschoolers from low-income homes (Brotman et al., 2003).

### Description of the PHDEP Program and Study Objectives

The Promoting Healthy Development through Effective Practices (PHDEP) program was designed with the intent of using dual interventionists (teachers and psychology students). We primarily used the content from the Classroom Dinosaur Curriculum (Classroom Dina), which is intended to be delivered by teachers, but we also incorporated and adapted some activities from the Small Group Dinosaur Program Curriculum, which is typically delivered by specialists. Because our lesson plans were delivered in units spaced across two weeks, we used activities from the Small Group Dinosaur Program to supplement Classroom Dina activities that were used in the first week of each lesson plan.

The PHDEP program is unique in its emphasis on interdisciplinary collaboration, pairing psychology students with teachers to deliver and reinforce the prevention program, and adding consultants who help participating children and teachers generalize the skills learned through the program. The PHDEP program involved a total of 18 sessions and was administered one hour per week in each designated classroom. There are several notable differences between PHDEP and the Dinosaur programs. First, in the PHDEP program, we included three review weeks (weeks 5, 10, and 15) so that the students could continue to practice the skills learned in the lessons (see Table 1 for program content). We also added in some lesson plans that were requested by the teachers (i.e., conflict resolution, bullying prevention). Because the two schools in which the program was implemented would allot only one hour per week of nonacademic programming, we were limited to weekly sessions of 60 minutes duration. In terms of training, all group leaders (teachers and psychology students) received an initial three-hour training on the curriculum. Teacher participation was included in every aspect of the curriculum such as didactic teaching, role plays, small group activities, and larger group activities. We hypothesized that:

- Students who participated in the PHDEP intervention in their classrooms for 18 weeks would exhibit significantly better skills at post-test in two domains: behavioral self-regulation and social competence;

**Table 1: Overview of Curriculum**

Week	Topic
1	Introduction to school rules
2	Learning/ following school rules
3	Detecting and understanding your feelings
4	Detecting and understanding others' feelings
5	Review
6	Relaxation and emotion regulation I
7	Relaxation and emotion regulation II
8	Problem solving I
9	Problem solving II
10	Review
11	Positive play and friendship skills I
12	Positive play and friendship skills II
13	Conflict resolution I
14	Conflict resolution II
15	Review
16	Bullying Prevention I
17	Bullying Prevention II
18	Final review and graduation party

- The majority of students participating in the intervention would demonstrate positive change scores at post-intervention; and that
- Teachers who participated in PHDEP would report high levels of acceptability and satisfaction with the program.

### Study Method and Sample

Participants in this study included 151 students (57% male, 43% female) from two public elementary schools in a large urban city in the Northeast. These schools were selected based on location in disadvantaged neighborhoods and characteristics of students in the schools. More specifically, both of the schools are located in neighborhoods primarily composed of minority, low-income children and families. For example, in School 1, approximately 65% of residents belong to a minority ethnic group, the median household income is \$23,509, and nearly 40% of families live below the poverty line (U.S. Census, 2013). In School 2, approximately 65% of residents belong to a minority ethnic group, the median household income is \$19,236, and nearly 53% of families live below the poverty line (U.S. Census, 2013). In terms

of student characteristics, approximately 95% of children across both schools are from economically disadvantaged families, and the vast majority of students are African American.

The schools were recruited by contacting and then meeting with the principals at the respective schools. Both principals were enthusiastic about the program. The only condition requested by the principals was that the intervention be delivered to all classrooms in the different grade levels. Six classrooms and their respective teachers participated in the intervention program. The breakdown of classroom grades was two kindergarten classrooms ( $N = 42$ ), two first-grade classrooms ( $N = 62$ ), and two second-grade classrooms ( $N = 47$ ). We secured university institutional review board approval, and both schools agreed to a waiver of active consent procedure (passive). No parents from either school requested that their child not participate in the program.

### Study Procedures

The intervention lasted for 18 weeks from October 2015 through March 2016. The lessons were held on a weekly basis, except for school holidays. Graduate- and undergraduate-level psychology students from two large urban universities partnered with teachers to serve as group co-leaders for implementing this preventative intervention program. Four group leaders (one teacher and three students) and one consultant were assigned to each classroom. The consultant worked directly with teachers to ensure consistency in using positive behavior management strategies throughout the school day. The consultant also worked with the group leaders to problem solve any challenging behaviors exhibited by students. Formal supervision was provided weekly and off-site by a licensed psychologist. The supervision meetings focused on helping group leaders achieve a balance between treatment fidelity and flexibility to address the unique challenges and needs of students in the respective classrooms.

The intervention utilized a structured reward system. Group leaders were instructed to use labeled praise and stamps to reinforce students' positive behaviors. This method helped build consistent skills and social norms across the classroom. At the beginning of each lesson group, leaders set a "magic stamp number" to encourage students to achieve the specified number of points so they could receive a reward. Students who earned the target number of stamps were awarded with prizes that

were provided by the group leaders. The number of target stamps increased each week and/or became more difficult to earn as students progressed through the intervention. Review weeks were also built into the curriculum to allow students to rehearse and practice topics they had learned. Throughout the intervention, teachers were included in delivering the lessons by being given specific assignments, such as using labeled praise to promote a target behavior, and setting clear classroom rules and routines.

### Study Measures

Outcome data included teacher ratings of students' social, emotional, and behavioral functioning before and after completion of the program. We also assessed teacher satisfaction with the PHDEP program. Pre-test data were collected in early October of the academic year. October was selected (rather

this scale indicate more adaptive behaviors. Although reliability data are not available for the abbreviated version, the SSRS has demonstrated adequate internal consistency for reliability for the Total Social Skills ( $\alpha = 0.93$ ) and Total Problem Behaviors ( $\alpha = 0.88$ ) scales. Cronbach's alpha reliability for our sample was excellent ( $\alpha = 0.93$ ).

**Social Competence (Teacher Rating) Scale.** At baseline and post-intervention, teachers individually rated students using a shorter version of the Teacher Social Competence (TSC) scale (Conduct Problems Prevention Research Group, 1995). The TSC used in the current study is a 12-item measure assessing several different dimensions of social behavior including prosocial behavior and emotional regulation. Each item asks teachers to rate behaviors on a 6-point scale ranging from 1 (Almost Never) to 6 (Almost Always).

data exist for the ASSRS change scores. In our sample, Cronbach's alpha reliability for the ASSRS change scale was excellent at 0.98, as was the TSC change scale at 0.99.

**Behavior Intervention Rating Scale.** Post-intervention, teachers rated their acceptability and satisfaction with the PHDEP intervention on the Behavior Intervention Rating Scale (BIRS; Von Brock & Elliott, 1987). This instrument assesses teachers' perceptions of treatment acceptability and perceived effectiveness of classroom intervention. The BIRS comprises 18 items, which are rated on a 6-point Likert scale from 1 (Strongly Disagree) to 6 (Strongly Agree). In a study assessing the reliability and construct validity of the BIRS, Von Brock and Elliott (1987) reported  $\alpha$  coefficient of 0.97 for the total score. Cronbach's alpha reliability for our sample was excellent ( $\alpha = 0.91$ ).

### Study Analyses and Results

In order to address our research questions, we ran paired sample t-tests with pre-and post-intervention total scores from the ASSRS and TSC. We examined descriptive statistics for the post-intervention change scores on the ASSRS and TSC, as well as for the BIRS, which is a measure of teacher acceptability and satisfaction with the intervention.

Results suggest that students' prosocial behaviors and social competence skills improved over time, as demonstrated by teachers' responses on the ASSRS and TSC rating scales. A paired-samples t-test was conducted to compare scores on both the ASSRS and the TSC measures. There was a significant difference between the baseline ( $M = 13.07$ ,  $SD = 6.37$ ) and post-intervention scores ( $M = 15.38$ ,  $SD = 4.31$ ) on the ASSRS;  $t(83) = -3.38$ ,  $p = 0.001$ . There was also a significant difference on the TSC rating scale between baseline ( $M = 31.65$ ,  $SD = 14.65$ ) and post-intervention scores ( $M = 38.72$ ,  $SD = 14.16$ );  $t(73) = -3.14$ ,  $p = 0.002$ .

When reviewing descriptive statistics for teachers' endorsement of change for all items on the ASSRS, the mean scores trended toward the response item of "a little improved." These data are detailed in Table 2. Notably, on the ASSRS, teachers endorsed that 25% of the students were "much improved" on the item that asked about "overall behavior." Teachers responded similarly on the TSC, the mean score ranging between "a little improved" to "somewhat improved." These data are shown in Table 3.

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*Because children who are emotionally well-adjusted have greater likelihood of early school success, the first and second grades are an ideal time to intervene by teaching effective strategies for promoting adaptive emotional, behavioral, and social skills.*

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than August or September) to give teachers more time to get to know their students in order to more accurately rate their social, emotional, and behavioral competencies and needs. Post-intervention data were collected in April 2016.

**Abbreviated Social Skills Rating Scale.** The Abbreviated Social Skills Rating System-Teacher (ASSRS) is a shorter version of the Social Skills Rating System-Teacher (Gresham & Elliott, 1990). We chose the abbreviated version to reduce teacher burden in completing the assessment measures. The ASSRS contains 11 items and is completed by teachers to assess social skills and competing problem behaviors of students in the school setting. Domains of social skills on this measure include Cooperation (e.g., "volunteers to help peers"), Assertion (e.g., "accepts peers ideas"), Responsibility (e.g., "follows your directions"), and Self-control (e.g., "responds appropriately when he/she is hit or pushed by a peer"). The items on the scale are answered on a 3-point scale: Never/Rarely, Sometimes, Often/Always. Higher scores on

Higher scores indicate more prosocial behaviors and higher levels of emotional regulation. Although reliability data are not available for the abbreviated version, the TSC has demonstrated adequate internal consistency for reliability for Prosocial Behavior ( $\alpha = 0.93$ ), Emotion Regulations ( $\alpha = 0.88$ ), and the combined score from these scales ( $\alpha = 0.95$ ) (Gifford-Smith, 2000). Cronbach's alpha reliability for our sample was adequate ( $\alpha = 0.67$ ).

**ASSRS and TSC Behavior Change Scores.** Teachers rated each student's behavior change between pre- and post-intervention on the ASSRS and TSC. Each item on these scales allowed the teacher to rate improvement in social competence and behavior over the course of the 18-week intervention on a 7-point scale (ranging from "much worse" to "much improved"). The TSC change scale has demonstrated adequate internal consistency for reliability for Prosocial Behavior ( $\alpha = 0.88$ ), Emotion Regulations ( $\alpha = 0.90$ ), and the combined score from these scales ( $\alpha = 0.93$ ) (Gifford-Smith, 2000). No psychometric



**Table 2: Abbreviated Social Skills Rating System (ASSRS) Change Scores (N = 95)**

Item <sup>a</sup>	Min	Max	M	SD
Responds appropriately when hit or pushed by a peer	0	6	3.81	1.58
Follows your directions	0	6	3.98	1.58
Ignores peer distractions	0	6	3.69	1.59
Cooperates with peers	0	6	3.92	1.52
Gives compliments to peers	0	6	3.91	1.41
Joins ongoing activity or group	0	6	3.88	1.49
Volunteers to help peers	0	6	3.96	1.42
Accepts peers' ideas	0	6	3.92	1.42
Disturbs ongoing activities	0	6	3.82	1.50
Is easily distracted	0	6	3.67	1.48
Argues with others	0	6	3.77	1.57

<sup>a</sup>All items were rated on a 6-point scale (0 = much worse; 1 = somewhat worse; 2 = a little worse; 3 = no change; 4 = a little improved; 5 = somewhat improved; 6 = much improved).

**Table 3: Teacher Rating of Social Competence (TSC) Change Scores (N = 101)**

Item <sup>a</sup>	Min	Max	M	SD
Show empathy and compassion for others' feelings	0	6	4.37	1.38
Provide help, share materials, and act cooperatively with others	1	6	4.41	1.35
Take turns, play fair, and follow the rules	0	6	4.39	1.36
Listen carefully to others	0	6	4.30	1.38
Initiate interactions and join in with others in an appropriate and positive manner	0	6	4.45	1.36
Stop and calm down when excited or upset	0	6	4.22	1.40
Recognize and label his/her feelings and those of others appropriately	0	6	4.29	1.37
Handle disagreements in a positive manner	0	6	4.24	1.42
Get angry when provoked by other children	0	6	4.14	1.44
Easily get irritated when he/she has trouble with some task (e.g., reading, math, etc.)	1	6	4.21	1.31
Show verbal or physical aggression to other persons	0	6	4.10	1.52
Obey classroom rules and teachers' directions	0	6	4.25	1.48

<sup>a</sup> All items were rated on a 6-point scale (0 = much worse; 1 = somewhat worse; 2 = a little worse; 3 = no change; 4 = a little improved; 5 = somewhat improved; 6 = much improved).

At post-intervention, teachers rated items on the BIRS intended to reflect their opinions about the acceptability and perceived effectiveness of the PHDEP and their satisfaction with it. Teacher satisfaction with the PHDEP was high. Findings reveal that the mean score for most items

ranged from slightly agree to strongly agree that the PHDEP intervention was acceptable, feasible, and effective (see Table 4). Additionally, all teachers agreed or strongly agreed that they would suggest the use of the PHDEP to other teachers and that they would be willing to use the intervention

again in their own classroom (all of these ratings are one of the two most favorable options on a 6-point scale).

## Discussion

There is a compelling need for effective prevention and early intervention efforts that support the development of social and emotional skills in at-risk children, thereby reducing the likelihood of long-term behavioral and academic problems. The PHDEP program specifically targeted students in kindergarten through second grade, because problems with behavioral and social functioning often begin in these early years. Moreover, children who live in poverty are more likely to have social and behavioral problems during the first two years of elementary school (Macmillan et al., 2004), including early and persistent peer rejection, mostly punitive contacts with teachers, and school failure (Center for Evidence-Based Practice, 2003). Conversely, children who are emotionally well-adjusted have greater likelihood of early school success (Raver, 2002). Therefore, the first and second grades are an ideal time to intervene by teaching effective strategies for promoting adaptive emotional, behavioral, and social skills. Results from this study are encouraging in that we found significant pre- to post-intervention improvements in prosocial behaviors and social competence per teacher report. Moreover, the mean for change scores on the ASSRS TSC obtained at post-intervention suggested improvement in behavior and social skills. Overall, our pattern of results are consistent with the extant literature on the benefits of early prevention and intervention programs for youth, but they extend the literature by providing support for the use of a dual-interventionist model in urban elementary schools with youth of color.

Another notable finding from the current study is that teacher acceptability and satisfaction with the PHDEP was high. Pairing graduate students with teachers as co-leaders has bi-directional benefit whereby psychology students learn how to intervene with a whole classroom and teachers learn specific behavior management strategies for their students. Having professionals across disciplines working together helps to create a full continuum of top-quality care including prevention, mental health promotion, and early intervention services that has the potential to prevent more severe behavioral problems during later childhood and adolescence.

**Table 4: Behavior Rating Intervention Scale (BIRS) Scores (N = 6)**

Item <sup>a</sup>	Min	Max	M	SD
Was an acceptable intervention for behavior problems in the classroom setting	3	6	5.00	1.10
Was an acceptable intervention for social skills/competence problems in the classroom setting	4	6	5.33	0.82
Was effective in reducing behavior problems in the classroom setting	2	6	4.50	1.64
Was effective in promoting social skills/competence in the classroom setting	3	6	5.00	1.27
Was appropriate for a variety of children	5	6	5.33	0.52
Quickly improved students' behavior	1	6	4.17	1.72
Quickly improved students' social skills/competence	2	6	4.67	1.51
Produced a lasting improvement in students' behavior	2	6	4.33	1.51
Produced a lasting improvement in students' social skills/competence	2	6	4.33	1.51
Improved behavior to the point that students who had behavior problems now do not noticeably deviate from their other classmates' behavior	1	6	4.00	1.79
Not only improved students' behavior in my classroom but also in other settings (e.g., other classrooms, home)	1	5	3.50	1.52
Produced enough improvement in students' behavior such that this is no longer a problem in my classroom	1	6	4.00	1.79
I would suggest the use of Dino School to other teachers	5	6	5.50	0.55
Most teachers would find Dino School suitable for behavior problems in the classroom setting	5	6	5.33	0.52
I would be willing to use Dino School in the classroom setting in the future	5	6	5.50	0.55
I like the procedure and strategies used in Dino School	5	6	5.50	0.55
Other behaviors related to students' problem behaviors were also improved by Dino School	3	6	4.50	1.23
Overall, Dino School was beneficial for my students	2	6	4.67	1.51
<sup>a</sup> All items were rated on a 6-point scale (1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = slightly agree; 5 = agree; 6 = strongly agree).				

Finally, the use of consultants can serve a crucial role because they can help group leaders promote the generalization of skills beyond the classroom.

### Study Limitations

Several limitations of the current study should be noted. Most notably, because teachers who participated as group leaders in the intervention also completed the rating scales, we cannot rule out the possibility of positive bias when completing the outcome measures. Future studies can partially address this limitation by using trained independent observers to rate students' behavior and prosocial behavior during class time.

In addition, some of the measures used in this study were abbreviated versions of longer psychometrically sound scales. The decision to use scales with fewer items was deliberate in an effort to reduce burden on teachers. However, a limitation of using the abbreviated scales in this study is that they lack estimates of internal reliability.

Another limitation is the lack of a control or comparison group for this study. One condition of being allowed to deliver this intervention in the respective schools was that all classrooms in a certain grade would receive the intervention. Therefore, it is possible that changes in student behavioral and social-emotional outcomes were due

to other factors such as time, historical events in the schools, maturation, and/or nonspecific treatment effects rather than the PHDEP program. A randomized controlled trial testing the efficacy of the PHDEP against common school practices or other intervention approaches will be an important next step to evaluate this intervention.

Finally, this study did not examine any academic achievement or performance outcomes, a metric that is important for educators, parents, and students.

### Practice, Research, and Policy Implications

Although the primary responsibility of schools and teachers is the education of students, schools also have essential roles to play in promoting children's positive behaviors and prosocial skills. When teachers and specialist staff such as psychology graduate students work together as partners, they create important opportunities for children to develop the necessary behavioral and social competencies that promote optimal short-term and long-term developmental outcomes. There is an ongoing study funded by the Institute of Education Sciences (IES) (PI: M.K. Rosanbalm) that is evaluating the combined effects of the Dinosaur Classroom Prevention Program and the Teachers Classroom Management Program. However, in contrast to the current study, teachers are trained as the sole interventionists. In addition, the IES study is using full versions of the curriculum and professional development program. Our program adapted and reduced material. To the best of our knowledge, our study is the first to use a dual interventionist approach that adapted and combined material from the Classroom Dina and Small Group Dinosaur Program Curriculums.

In relation to practice, findings from the current study extend support for collaborating with teachers to deliver universal social-emotional programming for elementary school students of color attending school in an urban environment. The PHDEP program was associated with improvements in prosocial behaviors and social competence skills per teacher report. In addition, ratings for acceptability and satisfaction with the program were very high. Taken together, these results suggest that the use of a dual-interventionist model is acceptable and can produce positive effects.

Future research efforts should focus on designing studies that examine whether partnering with teachers as dual interventionists

results in a positive impact on intervention outcomes. Much of the prior research that has looked at agents of implementation has focused on specialist staff or teachers as separate interventions and has not investigated the independent effects of combining them as group co-leaders.

Future studies are also needed to better understand the facilitators to and barriers against partnering with teachers for implementing universal programs designed to promote positive social behavioral skills.

From a policy perspective, our results found that the majority of teachers indicated that they would be willing to use this program in the classroom setting in the future. As is true with all university-school partnerships, coordination and support is needed for these types of programs at the school and district levels. One avenue of advocacy is to affirm how these types of programs are aligned with the Every Student Succeeds Act (ESSA) because they deliver social-emotional programming for struggling students and schools. ESSA is landmark legislation that governs the country's K-12 education policy and replaces the No Child Left Behind Act. One of the main provisions in ESSA is a focus on implementation and evaluation of efforts to improve student academic and social and emotional behavioral functioning. Within this context, effective early intervention programs for young students, as explored in the current study, will be of critical importance (Darling-Hammond et al., 2016).

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***Future studies are also needed to better understand the facilitators to and barriers against partnering with teachers for implementing universal programs designed to promote positive social behavioral skills.***

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# Integrating Positive Behavioral Interventions and Supports Into an Afterschool Tennis Program for At-Risk Youth

by Bob Stevens, John Farrelly, and Ashley Quell\*

## Interventions for At-Risk Youth

For many youth, the sound of the ringing school bell signals the end of the school day and the return to home; however for up to 15 million youth in the United States, the sound of the school bell signals the commencement of unsupervised self-care (Chung, 2000). With an increase in mothers returning to the workforce, more single-parent households, parents holding multiple jobs, and a lack of quality and affordable child care options, many families are left little option but to allow their child to remain unsupervised for the time between the end of the school day and the end of the work day (Bureau of Labor Statistics, 2015; Goyette-Ewing, 2000). Because children and youth caring for themselves without supervision have a higher likelihood of being involved in gang activity, criminal activity, risky sexual activities, and experimentation with drugs and alcohol (Newman et al., 2000; Weisman & Gottfredson, 2001), they are at significant risk of having negatively altered life trajectories (Atherton et al., 2016).

The impact of afterschool programming for youth has been shown to be beneficial for not only the student, but also the school and community (Durlak & Weissberg, 2007; Sarampote et al., 2004; Weisman & Gottfredson, 2001). Youth who engage in structured afterschool activities are afforded the benefits of adult supervision, constructive activities, and accountability for their actions, and they show increases in confidence, self-esteem, school connectedness, and academic achievement (Durlak & Weissberg, 2007). There has been little

research studying afterschool activities conducted within a Positive Behavioral Intervention and Supports (PBIS) framework for students who would otherwise engage in unsupervised self-care, and particularly for those students requiring more intensive supports. This study attempts to address that gap.

As discussed in this series of *EBDY* special issues, PBIS is a widely used, scaled-up evidence-based practice (Fixsen et al., 2005) implemented in more than 23,000 schools nationwide. It involves emphases on positive behavior, data-based decision making, and the implementation of evidence-based

place of the universal or Tier 1 programs; rather, Tier 2 supports are intended to layer upon and complement the universal plan. Student's individualized intervention goals should relate to the schoolwide expectations (e.g., respect, responsibility, best effort), and reinforcement should be consistent with those offered through the universal, Tier 1 program (Lane et al., 2015).

Afterschool athletic and health interventions as a whole have yielded positive results, primarily in improved physical health and general social-emotional functioning among children and youth (Dauenhauer et al., 2016; Hinton & Buchanan,

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practices in a multi-tiered system of support involving promotion/prevention (Tier 1), early intervention (Tier 2), and more intensive intervention (Tier 3) (Sugai & Horner, 2006; Swain-Bradway et al., 2015). PBIS endorses a proactive approach to behavior and does not wait for students to fail to provide support. Instead, data are used to identify soft signs of risk and interventions combining the least amount of resources with the greatest impact (Lane et al., 2012; Sugai & Horner, 2009).

Tier 2, or secondary interventions, are beneficial for 10% to 15% of students and are characterized by proactive and flexible approaches that are of relatively low intensity (Lane et al., 2015). Eligibility for Tier 2 interventions is determined through multiple sources of data, such as student school performance, behavioral functioning, teacher nominations, and other sources. It is important to note that Tier 2 interventions are not offered to students in

2015; Huberty et al., 2009). Effective outcomes in the areas of discipline and academic achievement have also been reported. Students engaging in afterschool programs are found to be less likely to have unexcused absences than nonparticipating peers (Grossman et al., 2012) and to have lower rates of truancy (Durlak et al., 2010). These programs have also been associated with improved student attendance, social behaviors, and school connectedness (Durlak et al., 2010; Schwartz et al., 2011; Wheeler et al., 2010).

Notable among the very few studies evaluating the effects on student attendance and discipline of afterschool programming operating within a PBIS framework is a study by Hinton and Buchanan (2015), who conducted a summer camp that was targeted toward underserved youth and used a PBIS framework. Youth were divided into two activity stations—one implementing PBIS and one that did not. All students were

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\*Bob Stevens, Ph.D., is a member of the scientific review committee of the Medical University of South Carolina and a member of the leadership team of the South Carolina Association for Positive Behavior Support. John Farrelly, M.Ed., is a teacher at the Charleston County School District and a professional tennis instructor. Ashley Quell, M.Ed., is a research associate on the School Behavioral Health Team at the University of South Carolina. Bob Stevens can be reached by email at Robertstevens@comcast.net.

engaged in the same activity; however, students in the PBIS condition received reinforcement for positive behavior. Layering upon the Tier 1 plan, the study also included a Tier 2 component for four students presenting more intensive behavioral needs. Students receiving the Tier 2 intervention were asked to sign a behavior contract and were expected to meet specific requirements to receive additional reinforcement. Results of the study documented improved behavior for students in the PBIS condition as compared to the non-PBIS condition, and behavioral improvements for students receiving the Tier 2 intervention were especially notable, providing evidence of the benefits of anchoring summer and after-school programs within a PBIS framework.

### The ACE Afterschool Tennis Program

In response to the large number of students engaging in unsupervised care after school hours and considered to be “at-risk,” the ACE Afterschool Tennis Program was created to provide a structured afterschool experience for middle school students in a rural/suburban district of the South Carolina Low Country. Sponsored and funded by a local nonprofit, the Low Country Youth Tennis Association (LYTA, see [www.lytatennis.org](http://www.lytatennis.org)), the program implemented the United States Tennis Association’s (USTA) Academic Creative Engagement (ACE) curriculum to improve outcomes for students enrolled in the program (ACE, 2016). The program goal was to provide a structured afterschool experience layering upon the existing PBIS framework implemented in the students’ middle school.

**Setting.** The middle school selected for the program evaluation/pilot study was a rural/suburban school district of the South Carolina Low Country. The middle school included 539 total students in grades six, seven, and eight and served a primarily African-American population. Of this population, 52% of students were female and 48% were male. Student ethnicity was 23% white, 18% Hispanic/Latino, 56% African American, 2% Asian, and 1% Native American. Additionally, 76% of students receive free and reduced lunch (see Table 1).

**Program Leadership.** The ACE Afterschool Program was conducted under the leadership of a program director having more than 10 years of experience in PBIS and who was trained as a professional youth tennis coach. Prior to the start of the program, the program director was trained in the ACE curriculum, a curriculum

**Table 1: Participant Demographics**

Demographic Variable	N	% of Sample
Gender		
Male	8	57.14
Female	6	42.86
Race/Ethnicity		
White	3	14.29
African American	8	57.14
Hispanic	4	28.57

originally envisioned by Arthur Ashe. The ACE Afterschool Tennis Program was ultimately developed as a result of a shared vision among USTA Foundation officials, the program director, and a school district PBIS coordinator to meet the unique needs of the students they served. The middle school selected had an appropriate student population, an existing afterschool program that needed additional services, a significant number of students who were not receiving needed Tier 2 interventions, and an existing working relationship with both the program director and LYTA. This made the selected middle school an ideal location to implement the ACE Afterschool Program.

**Recruitment.** To be considered eligible for the program, students must have received six or more office discipline referrals (ODRs) and be nominated by their classroom teacher for the program. The *Getting Started Workbook* from the Center on Positive Behavior Interventions and Supports (2010) recommends that students who reach the threshold of six ODRs be considered for appropriate secondary or tertiary interventions. Based on the inclusion criteria, 36 students met the requirements and were then reviewed by the school counselor and administrator to determine program participation. The school counselor, along with a school administrator, selected 14 students to participate in the afterschool tennis program. These 14 students were selected from the original pool of 36 students based on (1) the counselors’ understanding of the student, (2) the counselors’ belief that the student could benefit from the program, and (3) whether the student was already receiving other support services. Once student assent was collected, students were provided with a permission slip to participate in the ACE Afterschool Tennis Program to be signed by his/her parent/guardian. Active consent to participate in afterschool programming was required of all participants.

The Afterschool Tennis Program was accepted as a pilot program by the area’s District Office of Community Education during the 2013–2014 school year. This office is responsible for the supervision and implementation of all afterschool programming. As part of the ACE Afterschool Tennis program evaluation, group data were reviewed to measure program success. These group data are used in this report.

### The ACE Curriculum

The curriculum used in the Afterschool ACE program (ACE, 2016), was developed by the USTA and envisioned by Arthur Ashe. This curriculum is designed to be an out-of-school academic curriculum connecting to national educational standards to improve youth attitudes and behaviors in various areas including school climate and academics. Activities within the ACE curriculum encourage academic achievement, health and wellness, and social and emotional skills. When connected to a tennis program, they also provide children with important life skills (ACE, 2016).

Consideration was given to ensure that the interventions implemented in the afterschool program were consistent and transferable to the school day. To accomplish this goal, the USTA Foundation’s ACE curriculum was implemented within the school’s PBIS matrix framework. This included reinforcement for behavior expectations using a version of the school’s PRIDE matrix and reinforcement of the PRIDE lesson plans used throughout the school day. Table 2 provides a sample afterschool tennis program matrix.

### Program Procedures

Participants were expected to meet for 60 minutes twice each week for a total of eight weeks per quarter over the last three quarters (Q2, Q3, and Q4) of the school year. The first quarter (Q1) was reserved



**Table 2: Tennis PRIDE Matrix**

	ACE Classroom	Tennis Courts	Matches
Personal responsibility	Take ownership of your surroundings and your education.	Keep trying/working. Practice what you need to improve.	Be on time. Know your court number. Know your match start time.
Respect (self, others, property)	Use positive words and actions, and appropriate voice levels.	Use positive words and actions. Work as a team. Take care of equipment and courts.	Use positive words to yourself, your team, and your opponents.
Individual readiness	Arrive on time. Have needed equipment and materials.	Wear the correct attire. Practice shots as instructed.	Be on time and ready for the match.
Demonstrated learning	Commit to understanding work. Complete work to mastery level. Invest in learning.	Be able to state your tennis goal. Practice hitting hit shots as instructed at your ability level.	Play intelligently (shot selection). Play your game (your strengths). Do your best. Shake hands, congratulate yourself, your opponent, and thank the officials.
Effective behaviors (all environments)	Follow instructions politely. Gain teacher's attention appropriately. Accept no for an answer. Accept feedback appropriately. Use proper negotiation skills. Deal with accusations appropriately.		Disagree appropriately. Make a request appropriately. Make effective decisions. Resist peer pressure. Properly respond to teasing. Apologize appropriately.

to identify student participants, to train school staff on progress monitoring procedures, and to communicate with parents or guardians.

Program meetings were scheduled after-school twice per week and took place in a classroom and on the tennis courts. Usually, students would meet one day a week in the classroom and one day a week on the tennis courts. However, weather and student needs could affect the meeting schedule. Program time could be shared between the classroom and court, or classroom lessons could be presented on the court. The program director would make this decision based upon needs and conditions.

The classroom portion of the afterschool program implemented the evidence-based USTA ACE curriculum materials to reinforce academic lessons, but the primary function was to teach character education lessons. Using the middle school's PBIS structure, the character education lessons in the ACE program layered upon the pre-existing school PBIS lesson plans taught by the school faculty to reinforce expected

student behavior. Specifically, lessons included topics such as "how to take no" for an answer and how to "disagree agreeably" (a valuable skill when your opponent calls a tennis shot "out" that you think was "in"). Other examples include how to work within an expected social framework and positive character traits for success. The tennis court portion of the afterschool program provided tennis instruction to the group by a trained and USTA recognized coach. Standard resources for a beginning youth tennis player such as balls, racquets, and shoes (if necessary) were provided at no cost to the students, who were allowed to keep all of these resources. Student ownership of racquets and other materials supported lessons about equipment care and personal responsibility.

The program director used the tennis instructional time to reinforce positive character traits and appropriate behavior as exemplified within the PBIS matrix. Although not a focus of this paper, improvement of the student's tennis skills was also tracked. Additional opportunities for

students to meet and play tennis occurred on a voluntary and non-regular basis. These "extra" times included Saturday tennis playdates and several tennis matches with students from other schools.

The role of the program director was to create a caring mentoring/teacher/coach relationship with the students while presenting the ACE curriculum and providing tennis instruction within a PBIS framework. In addition to the behavioral supports offered during the afterschool program, the program director had the opportunity to meet with students exhibiting challenging behaviors during noninstructional times during the school day. Teachers of all students in the program completed daily progress monitoring forms, which were collected by the program director. Progress monitoring from the school day allowed the afterschool program to better address student needs (Table 3).

### Data Collection and Analysis

Data points were collected for the second, third, and fourth grading quarters for the 2014–2015 school year—Q2, Q3, and Q4. Data points included unexcused absences and behavior referrals. Attendance data were collected from the school's Student Information System (PowerSchool). All staff were trained by both the school district and the state department of education to ensure school attendance accuracy. ODR data were collected from the School-Wide Information System (SWIS), which was developed to support PBIS team decision making. "The SWIS Suite is a reliable, confidential, web-based information system that will collect, summarize, and use student behavior data for decision making" (SWIS, 2016).

Three sets of pre- and post-test data were used in each area (unexcused absences, and behavior referrals) and are represented in Table 4. Test 1 looks at the difference between the student's absences and behavior referrals from Q1 and Q2. Test 2 compares the student's absences and behavior referrals for Q1 and Q3. Finally, Test 3 compares the student's absences and behavior referrals for the year, or Q1 and Q4. In all but one measure (Q4 ODRs), both ODRs and unexcused absences were reduced each quarter (Table 4 and Figure 1).

**Pre- and Post-Test (Program) Data Points.** For each test, the difference between the pre- and post-test (program) data was calculated. The means of this group data was analyzed through the use of dependent group t-tests to compare the mean changes of unexcused absences and behavior referrals.

**Table 3: Program Features**

	<b>Tennis Intervention Essential Features</b>
Data to monitor progress	Weekly data reports from teachers while using ACE curriculum during tennis instruction: A+ Helps others and achieves higher than the objective A Achieves objective B Needs some help C Needs more instruction or needs to complete work
Schoolwide criteria: Outcome data	School/teacher recommendations; Reduction in major referrals; Successful completion of ACE curriculum; Improved engagement as measured by attendance.
Connect points to classroom and/or other settings (generalization)	Teachers use same skills and language in the classroom; Same skills and language are used during tennis instruction, during tennis camp, and in tournaments and playdates.
Strategies for communication with home	Introductory letter about the program; Monthly communication about student progress; Communications with parents about tennis events; Parents invited to tennis events, end of semester celebration.

**Table 4: T-test Results**

	<b>Attendance</b>	<b>ODRs</b>
Test 1: Q1–Q2	$p > 0.0694$	$p < 0.02450$
Test 2: Q1–Q3	$p < 0.0211$	$p < 0.00025$
Test 3: Q1–Q4	$p < 0.0209$	$p < 0.00054$

and Q4 for unexcused absences. There were 13 students who participated in the entire afterschool tennis program. Of those students, 10 students (approximately 75% of the group) had fewer ODRs in Q4 than they did in Q1. For unexcused absences, nine students (approximately 66% of the group) had a reduction between Q1 and Q4.

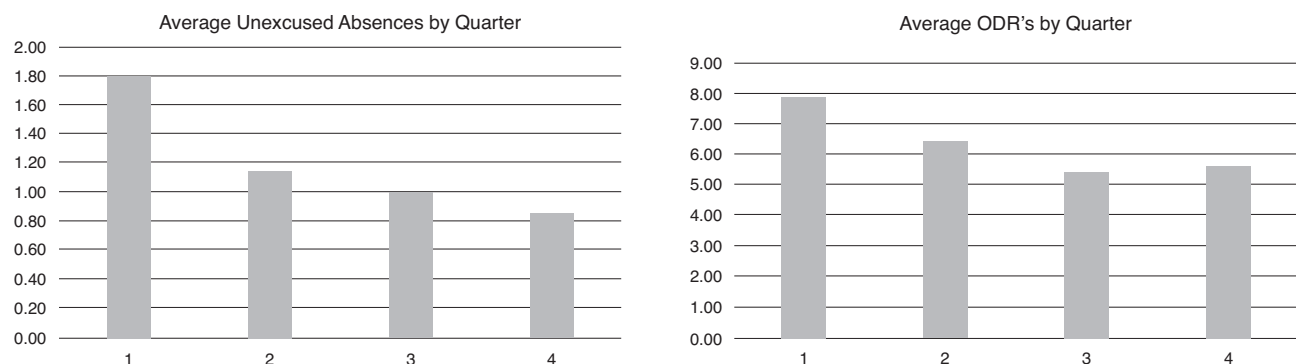
Anecdotal information from participating students and school staff indicated that the program was successful in improving student behavior. In a local newspaper article about the program, the assistant principal said:

It's not so much about giving students tennis lessons, it's more about how to play a sport that will keep you healthy, but one that includes the life lessons you can learn from being out there (Braden, 2015).

The school guidance counselor said:

The Tennis Program is also used as a Tier 2 intervention and has helped improve behaviors for our students who needed small group supports. Our participating students are always excited about the Tennis Program and are held to a high standard because of their participation (Braden, 2015).

A typical student observation is from program participant Jane (pseudonym). Jane is an African-American female who received subsidized meals and is an only

**Figure 1: Average Unexcused Absences and ODRs by Quarter**

One participant left the school at the beginning of Q4 and did not complete the program. Due to the small group size (14), data for this student were included in Test 1 and Test 2 results but were not included in Test 3 results. As indicated in Table 4, significant differences between the baseline

pre-test (program) means occurred in all calculations except Test 1: Attendance.

**Outcomes.** Data analysis indicated that there was a significant difference between the Q1 baseline and Q2, Q3, and Q4 for ODRs. Data also showed significant differences between the Q1 baseline and Q3

child of a single parent. The more value Jane saw in the program, the more her belief in herself grew. The more skills that she learned, the more she could see herself as using her new skills to move successfully forward into high school and college. Teachers noted that her academic

work started to improve, and she would go above and beyond her previous efforts in her classwork. She began sharing goals and working diligently. During afterschool tennis character-building activities, she was encouraged to develop a personal motto. She adopted as hers: “you’ll never do what you believe until you believe what you do.” Jane committed herself to applying her motto not only to tennis, but to her daily schoolwork as well.

## Conclusion

The literature indicates that afterschool programs can be beneficial in engaging students and can lead to improvements in both social/emotional and academic outcomes. The ACE Afterschool Tennis Program was designed to use tennis as a catalyst for these student improvements. The program’s tennis activities were supported by integration with the school’s PBIS initiative and the use of USTA’s evidence-based character education program. Outcome data indicated that students were more engaged with school as measured by ODRs and absences. These data were supported by positive anecdotal information from school staff and from participating students.

Limitations of this program evaluation/pilot study include the small sample size and the limited time that students were engaged in the program (two hours per week). Another confounding factor is that program participants were exposed to other social/emotional interventions during the school day. These limitations are somewhat moderated by the longevity of the program, which lasted for three-quarters of the school year. Additional activities such as Saturday tennis playdates and matches provided extra opportunity for the reinforcement of program goals. In addition, the program director had regular interactions with students in school, enabling him to provide encouragement, guidance, and reinforcement in multiple contexts.

This program evaluation/pilot study confirmed the promise of the ACE Afterschool Tennis Program for improving student engagement among students needing additional Tier 2 support. Based on positive pilot findings, future experimental research—for example, random assignment of students presenting similar challenges to the tennis intervention or not—will aid in determining causal impacts of the program. In addition, studies should explore the potential incremental impacts of

afterschool tennis programs provided within the context of PBIS.

Finally, it would be interesting to see if other non-tennis organizations such as First Tee (golf), or Youth FIFA (soccer) have similar programs that could be implemented using a PBIS approach. Further development of these programs would be responsive to the overwhelming majority of parents who believe that there should be “some type of organized activity or place for children and teens to go after school every day that provides opportunities to learn” (Afterschool Alliance, 2009).

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

by Michelle Charlin\*

## *Treating Anorexia Nervosa*

### **An Exploration of Social Functioning in Young People With Eating Disorders: A Qualitative Study**

Patel K., Tchanturia K., and Harrison A.  
*PLOS ONE*  
11(7): e0159910, 2016

Anorexia nervosa has the highest mortality rate of any mental illness and is one of the most difficult to treat. How youth with eating disorders are affected by their social skills and the strength of their social networks is not well understood. The participants of this study were 17 adolescents in the United Kingdom who were diagnosed

(4) limited coping strategies, (5) impact of hospitalization, and (6) suggestions for service provision.

Issues associated with group belonging included friendships dissolving, interpersonal adversity as well as fear of missing out, and impoverished social networks. Many youth felt they had not had enough social outlets prior to hospitalization. Friendship challenges during hospitalization (especially after multiple stays) included loss of friends because their peers from home and school were not able to travel to the facility on a regular basis and communications by telephone, text messages, Facebook, and other electronic means were restricted. Friendships forged in the wards were not likely to be maintained after

could be taught social skills and use them without feeling like frauds.

Learning who their true friends were, the ones who had remained close to them despite their illness and time away, was a positive impact of hospitalization. A negative impact was that quickly bonding with and establishing friendships with other patients "was a way of potentially staying in the eating disorder."

Suggestions for improvements to their treatment included eating meals with others, taking walks to relieve anxiety, spending additional time away from the facility, and having some time alone. Before returning home, they thought it would be useful to be taught skills related to handling criticism, being mindful, telling people where they had been, and developing a support system.

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***Fear of rejection and distrust of others were characteristics of social sensitivity. The girls could be easily upset by "any form of perceived rejection" concerning their looks or actions.***

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with restricting or binge-purge subtypes of anorexia nervosa. They ranged in age from 12 to 17 and resided in a hospital specializing in eating disorders. Most of them had been admitted multiple times, and the average length of hospitalization was six months. Some youth were two to three hours away from their homes. All except one patient were female, and most were white. Four voluntary focus groups were established, and open-ended, semistructured questions were asked, such as: "In a social situation, what are the things that worry you the most?" and "How has coming to hospital affected your social lives?"

It was decided that three girls should be interviewed individually because they had been too uncomfortable to provide input during group sessions. Reviews of their responses revealed six themes that affected their lives: (1) group belonging, (2) self-monitoring, (3) social sensitivity,

release for similar reasons. Being bullied, teased, gossiped about, rejected, physically fought, and influenced to commit crimes in order to fit in were some of the kinds of interpersonal adversity described.

Two themes of self-monitoring were fear of negative evaluation and inter- and intra-personal perceptions. The participants had difficulty starting conversations and worried about being judged. They paid much attention to their appearances and questioned others' motives with regard to compliments. Some adolescents concentrated on employment or schoolwork in order to conceal their social deficits.

Fear of rejection and distrust of others were characteristics of social sensitivity. The girls could be easily upset by "any form of perceived rejection" concerning their looks or actions. They were afraid others would not be genuine with them and would turn against them. With such beliefs, they were often embarrassed to admit they had been ill and had been hospitalized. They believed people are born with traits that ensure popularity and success, and it was difficult for them to accept the fact that they

## *Math and ASD*

### **Math Interventions for Students With Autism Spectrum Disorder: A Best-Evidence Synthesis**

King, S.A., Lemons, C.J., and Davidson, K.A.

*Exceptional Children*  
82(4): 443–462, 2016

Improving the math skills of all students, including those who are differently abled, is one of the aims of the Common Core State Standards in mathematics (CCSS-M). Autism spectrum disorder (ASD) "is the fastest growing disability category identified under the Individuals with Disabilities Education Act (IDEA)," and 30% of students with ASD also have an intellectual disability (ID). Teachers who do not specialize in special education instruct these students in general classes and require innovative ways of assisting them. Interventions that have been proven effective by scientific scrutiny are most likely to be implemented. The authors of this study performed exhaustive searches of several databases for English-language, peer-reviewed studies published before May 2014 focusing on as many search terms as possible related to mathematics, autism, and learning. Nearly 2,000 studies were evaluated. Among the reasons for exclusion were not meeting What Works Clearinghouse (WWC) guidelines, having results that were not replicated three times, and not having disaggregated data for those involved in the

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\*Michelle Charlin has a B.A. in English from Emory University and an M.L.I.S. from the University of South Carolina. She can be reached by email at mcharlin@progressivetel.com.

studies. In the end, 28 cases in 14 studies were coded for participants' demographics, methodological features, interventions, and target skills. Twenty of the 28 participants were male. Twenty had autism; six had ASD; one had pervasive developmental disorder not otherwise specified (PDD-NOS); and one had Asperger's syndrome. Seventeen of the 28 had ID. Most of those studied were between the ages of six and nine, but there were also eight high school students and one preschool-age child. This study has messages for three audiences: teachers, researchers, and the WWC. Instructors' use of prompting methods (constant-time delay and least-to-most) as well as rewards, praise, and modeling seemed to relate to improvements. However, many of these students received remedial attention on an individual basis, and such instruction might be difficult to carry out in a classroom with many students of differing abilities. Peer tutoring could be one way to bridge that gap and assist with the "social challenges" experienced by many students with ASD. Teachers might also find that these youth are more capable of solving word problems than one might expect. For researchers, not being familiar with or following WWC guidelines could result in a lack of "funding and federal recognition of qualifying interventions as an evidence-based practice." Including information in studies about the persistent progress resulting from interventions would be useful. Further research could be done on the needs of students with high-functioning autism spectrum disorder (HFASD) with regard to higher level mathematics. Social validity is a subject the WWC could consider adding to its guidelines.

### ***Measuring Treatment Outcomes***

#### **Measuring Child and Adolescent Psychiatric Treatment Outcomes: The Development and Validation of the Symptom Acuity Rating Scale**

Sperbeck, D.J., and Mayo, M.A.

*SIS Journal of Projective Psychology and Mental Health*

23: 82–87, 2016

Results matter. With regard to treatment outcomes, people want to know if treatments helped, if they wasted their money, and if additional care may be needed. Vague reporting of results can lead to payments and further therapies being delayed or denied by government agencies, insurance companies, and individuals. The few psychiatric treatment outcome measures being

used for children and adolescents have been criticized for failing to take into account the numerous issues that affect youth, for being too narrow or too broad in scope, for being troublesome to carry out, and sometimes for leading to inaccurate diagnoses. Acknowledging this gap, the authors sought a better rating scale for North Star Behavioral Hospital in Anchorage, Alaska, which is the state's only acute psychiatric hospital specifically for children and adolescents. The population served differs greatly culturally, economically, and ethnically. Because of their caregivers' employment, many youth relocate frequently because of seasonal or military assignment changes.

Three studies were carried out to create and refine the rating measure. In the first study, a content analysis was performed of more than 3,000 admission evaluations during a nearly five-year period at a private facility. Sixty-three primary symptoms were found to be responsible for more than 98% of admissions. These symptoms were used to formulate the Symptom Acuity Rating Scale (SARS).

In the second study, nearly 200 patients aged four to 17 were rated on the 63 symptoms both at admission and discharge via a five-point Likert scale. Three other common scales were also administered at admission and discharge to test the validity of SARS. Information gained from SARS led to the identification of nine clinical domain factors: (1) high risk behaviors, (2) affective instability, (3) social dysfunction, (4) family functioning, (5) aggressive behaviors, (6) self-harm behaviors, (7) academic problems, (8) cognitive dysfunction, and (9) outpatient treatment failures.

The third study focused on using SARS at admission and after 30 days of inpatient care to evaluate the changes in symptoms of 269 youth in four hospital units (children's, preteen, adolescent girls, and adolescent boys). The greatest differences in improvements between the units were related to social dysfunction, self-harm behaviors, and cognitive dysfunction. The authors note that: "Interactive effects based upon treatment units, age of patient, nature of symptom cluster, and static vs. dynamic clinical problems require further study." A SARS form can be completed in 25 minutes or less, and it was determined to be a trusted and valid way of noting changes in youth who had been hospitalized for 30 days. One of the most heartening results of the scale's creation was that clinicians discovered they were tailoring more thorough treatment plans because they were being prompted

to rate issues across all nine domains rather than focusing on the two to three main issues necessitating admission. The article includes a sample SARS rating scale form.

### ***Trauma During Hospitalization***

#### **A Qualitative Analysis of Children's Emotional Reactions During Hospitalization Following Injury**

Ramsdell, K.D., Morrison, M., Kassam-Adams, N., and Marsac, M.L.

*Journal of Trauma Nursing*

23(4): 194–201, 2016

Treatment in an emergency room and/or hospital for traumatic injury can itself cause stress and can lead to posttraumatic stress syndrome or disorder (PTSS/PTSD). Determining which children are highly stressed and intervening early can result in full recovery of the body and mind. This study investigated how children and parents perceived the stress of admission to a level 1 pediatric trauma center and how the children felt and thought about what was happening to them. Ten children between the ages of eight and 16 and an accompanying parent participated in semistructured interviews. The children were asked what they were thinking and feeling when injured and how they felt about being in the hospital. The parents were asked what they thought their children might have been thinking or feeling. Five types of stressors were identified: procedural concerns, uncertainty, sleep and nutrition challenges, being confined to the hospital, and home preparation. Despite being asked about thoughts, both the children's and parents' responses related to feelings. This study is believed to be the first to present parental impressions of injured and hospitalized children's feelings. The researchers had hoped to learn about "maladaptive trauma-related appraisals" because being able to speak and think about what has happened is important to recovery. The authors speculated that a structured questionnaire might have been more effective in obtaining specific cognitions. To assist children, it is recommended that hospital staff remember to treat the whole child, not just the injury. Discussing feelings, procedures, pain management, and what can be expected upon returning home can reduce fear. Distracting youth during treatment and teaching them relaxation methods can also be beneficial. Hobbies and visits with family and friends should be encouraged. Before discharge, parents should be provided with mental health information and resources. ■

**Calendar of Events, April 2017 – June 2017****April**

**27-28**     **The Southeastern School Behavioral Health Conference.** Myrtle Beach, SC. Sponsor: SSBH. Website: <http://schoolbehavioralhealth.org/conference/>

**June**

**22-24**     **National Family and Community Engagement Conference.** San Francisco, CA. Sponsor: National Family and Community Engagement. Website: <http://www.readyby21.org/events/2017-national-family-and-community-engagement-conference>

**30-July 3**     **National Association of School Nurses 46th Annual Conference.** San Diego, CA. Sponsor: NASN. Website: <http://schoolnursenet.nasn.org/nasn2017/home>





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