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# Schooling and Children's Mental Health: Realigning Resources to Reduce Disparities and Advance Public Health

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Annu. Rev. Clin. Psychol. 2017. 13:123–47

First published online as a Review in Advance on  
March 24, 2017

The *Annual Review of Clinical Psychology* is online at  
[clinspy.annualreviews.org](http://clinspy.annualreviews.org)

<https://doi.org/10.1146/annurev-clinspy-032816-045234>

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## Keywords

education, unmet needs, community mental health, ecological principles, collaboration, sustainability, children, youth

## Abstract

Schools have long been the primary setting for children's mental health services but have neither the resources nor the expertise to manage these services independently. The critical importance of school success for children's adjustment provides a strong rationale for schooling as an essential component of children's mental health services. In this article, we review evidence for how schooling and mental health coalesce, suggesting an alignment of school and community mental health resources that prioritizes successful schooling as a key mental health outcome. We describe collaborative principles and ecological practices that advance a public health focus on children's mental health while also reducing the burden on schools to maintain mental health services. We close with a model of mental health services illustrating these principles and practices in high-poverty urban schools and propose future directions for research and practice to promote positive mental health for all children and youth.

## Contents

INTRODUCTION .....	124
UNMET MENTAL HEALTH NEEDS OF CHILDREN AND YOUTH .....	125
THE NEED FOR COLLABORATIVE SCHOOL-BASED MENTAL HEALTH PARTNERSHIPS .....	125
SOCIAL DETERMINANTS AND ECOLOGICAL MODELS .....	128
KEY PRINCIPLES OF COLLABORATION BETWEEN SCHOOLS AND MENTAL HEALTH SERVICES .....	128
Shared Indicators of Behavioral Health .....	128
Integrating Prevention-to-Intervention Services .....	129
Leveraging Indirect Service-Delivery Models .....	130
Eliciting Administrator and Teacher Support .....	131
KEY ECOLOGICAL PRACTICES .....	132
Enhancing Classroom Relationships .....	132
Building Strong Home-School Partnerships .....	132
Promoting Effective Classroom Instruction and Behavior Management .....	133
Addressing Teachers' Stress .....	134
SUSTAINING EFFECTIVE PRACTICES: DISSEMINATION AND IMPLEMENTATION SCIENCE .....	134
LINKS TO LEARNING: AN EXAMPLE AND PROOF OF CONCEPT .....	135
FINAL REFLECTIONS ON THE POTENTIAL OF SCHOOL-BASED MENTAL HEALTH SERVICES .....	138

## INTRODUCTION

The broad societal forces that are driving policy reforms in education and mental health in the United States have rarely been discussed concurrently, but in many ways both initiatives are central to a new understanding of mental health in schools. From the perspective of schools, children's emotional well-being is critical to their academic success and also a central concern of educators (Atkins et al. 2010, Cappella et al. 2008). From the perspective of mental health, school success is among the most reliable indicators of children's well-being and strongly predictive of adult success (Topitzes et al. 2009). Yet although schools have long been the primary setting for the delivery of children's mental health services, this is less a reflection of the importance of schooling and more a result of problems with the accessibility of community mental health services. In fact, in many communities, schools are the only reliable community resource available to respond to children's mental health needs (Rose et al. 2003). This is especially problematic for schools located in communities of concentrated poverty that struggle to manage the unrelenting political mandates for high student achievement while simultaneously addressing the many known emotional and behavioral sequelae of poverty (Cappella et al. 2008, Drzal & Miller 2015). The consequence of schools in communities of poverty being forced to operate beyond capacity is that low socioeconomic status is a marker of both inadequate education and poor health and mental health, much to the detriment of children, families, and our nation (Bradley & Corwyn 2002, Campbell et al. 2014).

In this article, we review the large and unmet mental health needs of children across the United States, especially those living in poor communities, and present what has been the main role of schools in meeting that need by maintaining and managing school mental health programs. We

discuss how the current model of school mental health services faces challenges to its sustainability through competing priorities and programs, and challenges to its effectiveness through insufficient quality. These limitations, and the unique opportunities schools afford, call for a paradigm shift in how mental health is defined and how mental health services are delivered. Such a shift will require (a) strong partnerships between schools and community mental health agencies and (b) a focus on the social determinants of health via an ecological framework. This shift promises not only to reduce the burden on schools of housing mental health programs but also to more successfully promote positive behavioral health outcomes for all youth (Atkins et al. 2010, Stephan et al. 2007).

We identify a set of core principles underlying the collaboration between schools and mental health agencies, including a focus on shared indicators of behavioral health, on linking prevention to intervention programs, on leveraging models of indirect service delivery, and on activating administrative and peer supports in education and mental health systems. Based on a review of the theoretical and empirical literature, we also suggest a set of ecological practices on which to focus the collaboration: enhancing classroom relationships, home–school partnerships, effective classroom instruction and behavior management, and addressing teachers’ stress. Last, we provide an exemplar of these principles and practices as a proof of concept for this approach, and we reflect on how to advance research policy and practice to produce more consistent and positive school and mental health outcomes for children.

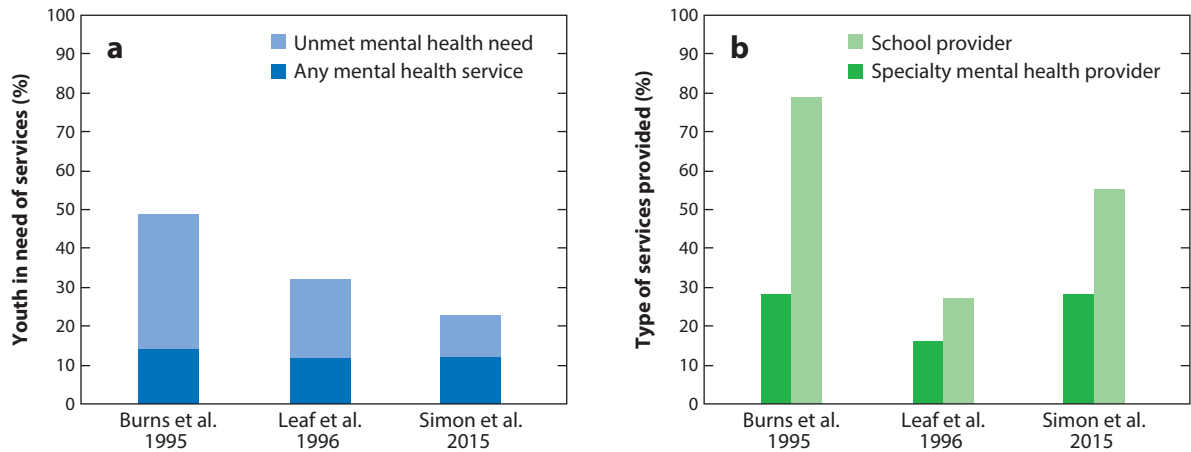
## UNMET MENTAL HEALTH NEEDS OF CHILDREN AND YOUTH

From the inception of public education as a right of all children at the turn of the twentieth century, the mental health needs of students have been a primary concern of US schools (Flaherty & Osher 2003). The expansion of mental health services in schools can be traced to the high demand for mental health services in the first school health programs in Los Angeles high schools in the 1980s (Flaherty et al. 1996). Confronted with this identified need and the reality that community mental health services for children were inadequate and unavailable to the large majority of socioeconomically disadvantaged children (Knitzer & Olson 1982), schools became the de facto primary setting for the delivery of mental health services to children. However, this arrangement was neither ideal nor sustainable, and research has shown that schools alone have been unable to reduce the burden of mental health problems in children and youth.

Three nationally representative studies spanning more than two decades documented the unmet mental health needs of children and youth (Burns et al. 1995, Leaf et al. 1996, Simon et al. 2015). Data from these studies show the percentage of youth in need of mental health services and the percentage of those who received any services (**Figure 1a**), as well as the percentage of specialty care and school-based services provided (**Figure 1b**). Although the studies differed in the criteria used to define the need for services, the results showed that since the early 1990s, schools have been, and continue to be, the dominant setting for children’s mental health services. Equally clear is that the expansion of mental health services in schools has not sufficiently reduced the burden of mental health problems in children and youth, as large gaps were evident, especially for the most disadvantaged youth (Bringewatt & Gershoff 2010).

## THE NEED FOR COLLABORATIVE SCHOOL-BASED MENTAL HEALTH PARTNERSHIPS

School-based services are highly advantageous due to persistently high no-show rates in community clinics (McKay et al. 2004). However, there are serious concerns about the burden on schools of delivering mental health services, most obviously due to the competing demands of social



**Figure 1**

(a) Percentage of youth in need of mental health services across three nationally representative studies. Dark blue indicates the proportion of those youth who received any type of mental health service. (b) Data from youth who received any type of mental health service. Compare the percentage of services provided by specialty mental health providers with the percentage of services provided by school providers. Data from Burns et al. (1995), Leaf et al. (1996), and Simon et al. (2015).

services and academic programming. Schools in most communities, and especially in high-poverty communities, have neither the capacity nor the expertise to deliver effective academic programming and mental health services concurrently. As federal education standards have intensified to require more resources to support learning, many schools have contracted with local community agencies to manage the mental health needs of their students (Slade 2003).

A national survey of US school districts during the 2002–2003 school year, the most comprehensive study of school mental health resources and characteristics to date, confirmed that not only are school-based services insufficient to manage the large need for mental health services but also that these services are largely unsustainable (Foster et al. 2005). One-half of the districts had outside contracts for mental health services, and more than 80% maintained dedicated mental health providers on staff. Yet more than 60% of districts reported having insufficient staff to manage the mental health needs of their students, and 69% had noted increased needs for mental health services compared with the prior school year, with 85% of districts reporting a corresponding decrease in funding for mental health services. As expected, 70% of districts reported that competing priorities with academic instruction interfered with the availability of mental health services. A recent survey of state spending on education suggested that this trend is continuing. Most states have cut spending on education since the recession of 2008, with 31 states providing less funding in 2014 than in 2008, adjusting for inflation, and local spending on education has also declined (Leachman et al. 2016).

The second troubling implication of schools serving as the primary setting for mental health services is that the quality of these services is largely unknown. The only systematic review of research on school-based mental health services was conducted almost two decades ago, and the results indicated there were many gaps in the literature (Rones & Hoagwood 2000). A recent meta-analysis examining mental health services in low-income urban schools found modest effects for internalizing disorders and negative effects for externalizing disorders (Farahmand et al. 2011). In addition, it is not clear whether either review reflected actual practice in schools, as most research does not, in fact, reflect community practice (Weisz et al. 2015). The lack of

evidence for the effectiveness of school-based mental health services adds to long-standing concerns that these services will not effectively meet the needs of children and youth (Adelman & Taylor 1993, Cappella et al. 2008). Furthermore, guidelines for evidence-based mental health practice in special education are only newly developed (Cook et al. 2014), and there is reason to think that their implementation will be challenging, given long-standing skepticism about evidence-based practices within the field of special education (Forness 2005). Even when instructed on the use of an evidence-based practice, many factors affect school personnel's sustainment of these practices, including perceptions of the effectiveness of the practice and of support from classroom teachers (Lochman et al. 2015).

A third challenge to schools' management of mental health services is the competition with school-wide prevention programs. In response to increasing pressure on schools for high academic standards through the concurrent federal initiatives of No Child Left Behind and Race to the Top (Fusarelli 2004, McGuinn 2011), school-wide prevention programs were rebranded to present them as learning goals in a national initiative labeled social-emotional learning (SEL) (Payton et al. 2000). As the new catchphrase for the link between children's emotional needs and academic performance, SEL provided educators with a valuable and deeply appreciated counter to the unrelenting national pressure to focus narrowly on improving test scores (Robinson et al. 2015). In fact, a widely cited meta-analysis of more than 200 studies of SEL programs involving more than 200,000 students found positive effects on relevant skills and behavior, and, when programs are implemented with high fidelity, improvements in students' learning (Durlak et al. 2011). Although subsequent research has suggested a more nuanced effect of SEL programs that is based on school, student, and family characteristics (Bierman et al. 2010, McCormick et al. 2015), the popularity of SEL programs has provided new opportunities for addressing mental health in schools by integrating programs with schools' priorities (Greenberg et al. 2003). However, a notable limitation, which is similar to concerns about sustaining other school-based mental health programs, is that the high cost of SEL programs limits their utility, especially for schools in high-poverty communities (Hoagwood et al. 2013). In addition, the lack of integration of SEL programs into the ongoing practices of schooling further limits their potential impact (Jones & Bouffard 2012). Thus, although SEL programs undoubtedly represent an important advance in providing for children's behavioral health needs, they have many of the same limitations with regard to access and impact that are evident in other school-based mental health programs.

As these concerns highlight, there are limits to the extent to which schools can manage the diverse educational needs, as well as the health and mental health needs, of all children. Clearly, schools should remain an important setting for mental health promotion, given their prominence in children's lives; it is equally important that the community mental health workforce becomes a strong partner in efforts to offset the burden on school personnel (Atkins et al. 2010). Nevertheless, although school-based mental health services are growing in influence (George et al. 2013), they remain a poor stepchild to the dominant clinic-based models in children's mental health services (Garland et al. 2010). The passage of the Patient Protection and Affordable Care Act in 2010 presented an opportunity to promote universal access to health care, with incentives for community-based care and health promotion (Koh & Sebelius 2010, Mechanic 2012). To date, however, children's services remain seriously underdeveloped (Halfon et al. 2014), and the lack of sustained national attention limits the potential for progress. There remains a critical need to coordinate school and community mental health resources to develop a behavioral health model for children that reduces mental health disparities and advances a long-called-for public health approach (Atkins & Frazier 2011, Stiffman et al. 2010).

## SOCIAL DETERMINANTS AND ECOLOGICAL MODELS

Focusing explicitly on the social determinants of health through an ecological framework recognizes that children are influenced by the interplay of the multiple physical, social, structural, and cultural dimensions that characterize their environment (Braveman et al. 2011, Cappella et al. 2008) and acknowledges the extent to which the environment can foster substantive supports across these domains to promote healthy psychological development. This leads to a broader consideration of the boundaries of children's mental health services beyond traditional clinic-based models. Aligning mental health services with the predictors of school success can enhance the health-promoting capacity of one of children's most common natural settings, thus increasing the fit between children's needs and the resources and supports available in their environment (Atkins & Frazier 2011, Atkins et al. 2010).

Ecological models of children's mental health services provide a compelling unifying framework for guiding research, policy, and practice. Ecological models identify mental health needs by assessing children's functioning and competencies in the settings that, and with the people who, most profoundly shape their lives (Atkins et al. 1998, Ringeisen et al. 2003). There may be no setting more appropriate in which to perform this task than schools. Children spend approximately 6 hours a day, 5 days per week, and 9 months per year in school, and their school experience is strongly influenced by the key supports of parents, teachers, and peers. With increased access to prekindergarten education, the duration of schooling for many children extends from age 4 to age 18. Increasing awareness that success in school is critical for student development across multiple domains of health and well-being, and that school performance predicts long-term functioning in work, family, and civic contexts, identifies school-related functioning as a critical locus of intervention (Pellegrino & Hilton 2012).

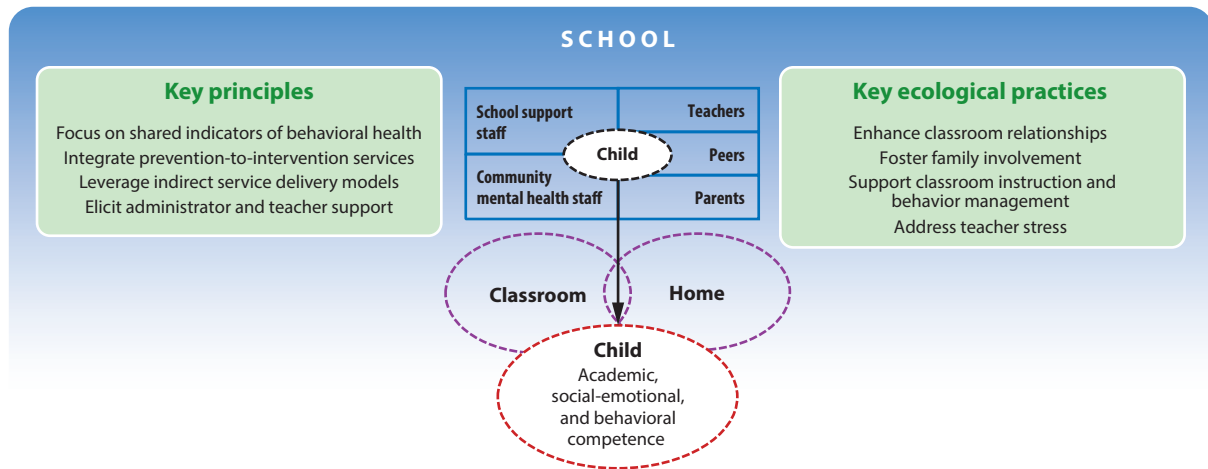
School success also conforms to advances in mental health policy, with federal and state agencies adopting the concepts of impairment, functioning, and competencies within their definitions of a mental health disorder that impacts real-world functioning (O'Connell et al. 2009). Complementary to this focus on enhancing competencies related to the core function of schooling is the fact that learning occurs within a social environment that involves interactions with teachers and other children (Cappella et al. 2016a). As we describe in the sections below, supportive classroom relationships, effective classroom instruction, and effective behavior management have positive associations with children's social-emotional and academic functioning. Thus, the critical role of school success for children's long-term adjustment provides a strong rationale for including schooling as an essential component of children's mental health services (Cappella et al. 2008, Low et al. 2005).

## KEY PRINCIPLES OF COLLABORATION BETWEEN SCHOOLS AND MENTAL HEALTH SERVICES

Educators and mental health providers share several principles that provide a base on which to build collaborative programs. **Figure 2** displays the key principles and core elements of a collaboration between schools and mental health providers, specifically the shared values, collaborative practices, key persons, and foci of interventions.

### Shared Indicators of Behavioral Health

Although educators and mental health providers have distinct expertise, they also have shared priorities regarding critical indicators for children's behavioral health. From the perspective of



**Figure 2**

Model of collaborative school mental health partnerships. The model displays the key principles and ecological practices, as well as the people and processes within the classroom and home, that impact school success and healthy child development.

educators, behavioral health indicators include positive attributes, such as school participation, positive peer and adult interactions, and civic engagement, as well as the relative absence of substance use, truancy, and delinquency. Behavioral health in schools is also important to mental health staff, with high-risk behaviors in schools, such as chronic school absences and disciplinary infractions, being core symptoms of delinquency and conduct disorder. Students with positive behavioral health have higher social and academic functioning in middle childhood and adolescence (Wentzel & Caldwell 1997); poor behavioral health relates to dropping out of school and low adult earnings, particularly for youth from low-income families and communities (Slominski et al. 2011). Children diagnosed with attention-deficit/hyperactivity disorder are especially at risk for school difficulties and benefit from interventions to improve their school behavior and academic progress (Evans et al. 2000, Owens et al. 2005). Given the shared concern among school and mental health personnel regarding students' behavioral health, and the importance of behavioral health to students' short- and long-term outcomes, these indicators can serve as a unifying focus for joint efforts made to support students.

### Integrating Prevention-to-Intervention Services

The integration of prevention and intervention programs has been a long-standing aspiration for mental health services (O'Connell et al. 2009, Weist et al. 2003), with little progress made to date (Atkins & Frazier 2011, Stiffman et al. 2010). Within education, however, multitiered, integrated systems of service delivery are more prevalent, most prominently school-wide positive behavioral interventions and supports (PBIS), which promotes school-wide consensus on, and ongoing monitoring of, the rules and routines necessary to reduce behavioral difficulties and promote engaged learning (Carr et al. 2002). PBIS has advanced rapidly in recent years, reflecting the importance of embedding into school systems a continuum of prevention-to-intervention programs directed at certain settings (e.g., classrooms, schools, districts) alongside individually oriented services for selected youth (Cook et al. 2015). A national center for PBIS was established in 1997 to promote prevention and early intervention (Sugai & Simonsen 2012), and revised criteria for special education services encouraged school districts to restructure their supports around

**PBIS:**  
positive behavioral interventions and supports

PBIS principles by allowing districts and parents to advocate for services based on students' poor responses to interventions (VanDerHeyden et al. 2007). As of 2014, PBIS had been implemented in more than 21,000 schools (McIntosh et al. 2017), clearly the most successful dissemination effort in children's mental health and education in the United States.

There is evidence that PBIS improves the school climate (Bradshaw et al. 2008) and reduces suspensions and office referrals, as well as produces modest gains in math and reading achievement (Bradshaw et al. 2010). What may be most important, however, is its promotion of an integration of prevention and intervention programs, thus advancing a new direction for school mental health services. The need for collaboration with school support staff and community mental health agencies to promote implementation is important, especially in schools in high-poverty communities that may struggle to implement the model independently (Atkins 2013). In addition, PBIS focuses on improving setting factors, such as ensuring clear rules and consequences and well-organized transitions, which avoids stigmatizing youth (Johnston et al. 2006). This is an especially positive development because stigma in children's mental health is a pernicious and long-standing concern (Heflinger & Hinshaw 2010), and one that educators can have a role in alleviating (Noam & Hermann 2002, Pescosolido et al. 2008).

Recent advances in bridging SEL and PBIS represent notable progress in promoting mental health for all students (Cook et al. 2015, Jones & Bouffard 2012). These efforts are also consistent with innovations in special education that shift services from self-contained classrooms for high-need students to providing services in the least restrictive setting, including general education classrooms (Crockett 1999). As such, educational resources and service delivery for general education and special education students are now integrated into a problem-solving approach for promoting student achievement (Batsche et al. 2005). Providing a range of services, including strong foundational prevention efforts, benefits all learners and can reduce the need for more intensive, expensive services (Greenberg et al. 2003, Jones et al. 2015).

### **Leveraging Indirect Service-Delivery Models**

PBIS is an example of an indirect service-delivery model that targets classrooms and schools as the loci of intervention, which contrasts with how mental health services have been traditionally delivered in schools in the form of individual counseling aimed at addressing children's deficits (Foster et al. 2005, Slade 2003). Indirect service models also present an opportunity for expanding the roles of community mental health and school support staff to prioritize collaboration with teachers to promote classrooms as settings for engagement (Cappella et al. 2012, 2016b).

Enhancing children's school experience through indirect service-delivery models represents a critical focus in schools because these models involve building skills and capacity among key agents of change, including those individuals proximally linked to children and youth. For example, school-based consultation services can be conceptualized as universal interventions designed to improve overall classroom health and climate, which can prevent the emergence of new mental health problems (Epstein et al. 2008). Similar to the benefits of PBIS and SEL programs, consultation with parents and teachers for students at risk for academic, social-emotional, and behavioral problems can also reduce referrals for more intensive, expensive services (Sheridan & Kratochwill 2007). Importantly, these consultation services respond to needs identified by teachers to receive more information and strategies for managing the mental health needs of their students (Reinke et al. 2011).

Indirect service-delivery models require important shifts in the roles of school support staff and community mental health providers within schools, including developing strong relationships with teachers in addition to maintaining the more traditional alliances with children and parents



(Shernoff et al. 2017, Weist et al. 2005). Mental health providers already possess many of the requisite skills, including enhancing engagement in services and promoting relationships and interagency collaboration. Also, their knowledge of children’s mental health and case-management needs nicely complements teachers’ roles in ensuring that students are well prepared and ready to learn. The literature on adult learning and instructional design offers important guidelines for building the skills and capacity of service providers to support teachers in implementing evidence-based practices (Pellegrino & Hilton 2012). Strategies include training school support staff how to model effective practices in classrooms and ensuring that there are extensive opportunities for explicit performance feedback to enhance teachers’ skill acquisition and to maximize the transfer of knowledge and skills from training to the classroom (Salas et al. 2012).

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**KOL:** key opinion leader

**PLC:** professional learning community

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### **Eliciting Administrator and Teacher Support**

The education literature emphasizes the importance of the school principal in setting the tone of the school, creating a climate in which innovation is valued and, thus, encouraging teachers to try new strategies and accept new innovations (Beets et al. 2008, Domitrovich et al. 2015, Pas et al. 2015). Teachers’ peers have also been identified as critical for the implementation and sustainability of innovative practices, including practices that promote students’ mental health (Beets et al. 2008). Consistent with the diffusion of innovation theory (Rogers 1995), teachers are more likely to try new strategies when a key opinion-leader (KOL) teacher within the school endorses the strategy rather than an outsider (Atkins et al. 2008). Furthermore, the social network of colleagues surrounding a teacher influences an individual teacher’s adoption and use of new classroom strategies, consistent with a two-step model of the adoption of innovation (Neal et al. 2011). Teacher affiliation and trust within a school have also been associated with implementation quality and a willingness to try new strategies (Bryk & Schneider 2002).

Given the crucial role of principals and teacher colleagues in implementing school-based mental health services, it is necessary to include them when planning and implementing school-based mental health programs. A solitary focus on front-line staff (e.g., teachers, mental health providers), without an equal focus on the support system for those front-line staff, will not increase the capacity to implement and sustain practices. In school mental health, as with mental health in general (Beidas & Kendall 2010), the current model is often to spend intensive time training teachers and then ensure that they stay connected to trainers and developers via booster sessions (Bradshaw et al. 2010). However, the more extensive, continual support needed to transfer the training is often neglected (Burns et al. 2013). The importance of immediate colleagues within the school to the implementation and sustainment of new practices suggests that disregarding their role in program development and implementation risks undermining the potential for broader adoption and sustained implementation.

Within education, efforts to create a context that includes support from colleagues have included creating a professional learning community (PLC) to support teachers’ professional development (Vescio et al. 2008). A PLC is a collaborative work environment that facilitates the learning, transfer, and maintenance of knowledge and practice, and it can strengthen connections among peers and establish shared norms (Coffey & Horner 2012, Wenger 1998). These collegial interactions have been conceptualized in the context of relational trust, which includes mutual respect and interdependence, and facilitates teachers’ experimentation with new instructional practices (Bryk & Schneider 2002, Shernoff et al. 2011). As we describe in our illustrative example (see the section titled *Links to Learning: An Example and Proof of Concept*), community mental health staff can have an important role in coleading a PLC in schools, thereby providing additional social and instrumental support to teachers.

## KEY ECOLOGICAL PRACTICES

Ecological theory, as applied to children's schooling, promotes an understanding of the dynamic interrelations among personal and environmental influences to provide a broader context for intervention development (Atkins et al. 1998). Through an ecological framework, interventions are prioritized to promote the relationships between children and the people most proximal to their development (their teachers, parents, and peers), thereby strengthening the practices in the primary settings where children spend time (e.g., classrooms, homes) (Atkins et al. 2016). These practices include enhancing relationships within classrooms among teachers and students and among students and their classmates, establishing communication and support between teachers and parents, and promoting home-based learning. In addition, promoting effective classroom instruction and behavior management are key to students' development, as is a focus on teachers' stress, which is highly prevalent and rarely addressed.

### Enhancing Classroom Relationships

Positive classroom relationships among teachers and students and among students and their peers have been shown to have positive associations with children's social-emotional development, academic functioning, and school engagement (Ladd 1999, Roorda et al. 2011, Wehrlage et al. 1989). For students with emotional, behavioral, or academic difficulties, positive teacher-student relationships may be particularly difficult to form and maintain (Hamre & Pianta 2001), but may be even more important to their adjustment, given that warm and supportive relationships can be protective for students facing behavioral difficulties (Stanton-Salazar 2004). Similarly, children with behavioral or emotional difficulties, or both, struggle to form and maintain positive peer relationships, with significant negative implications for their social and academic adjustment (Perren et al. 2006, Wentzel et al. 2004). Difficulties in peer relationships are a common concern for mental health providers, and social skills training programs are prominent in clinic-based services, but have many limitations, including a lack of generalization to schools (Evans et al. 2000).

Because classroom relationships are important both to educators and to mental health providers, consulting with teachers about students' mental health can be highly advantageous (Cappella et al. 2012, 2016b). For example, providing teachers with knowledge and feedback about the importance of their interactions with students and providing consultation and support on managing these interactions, have been shown to increase student engagement (Pianta et al. 2012). Similarly, consultations with teachers could encourage classroom practices that promote positive peer relationships, such as cooperative and peer-assisted learning, which have been shown to increase students' social competence and academic performance, particularly for young, low-income, and ethnic minority students (Ginsburg-Block et al. 2006, Rohrbeck et al. 2003). Classroom interventions that emphasize social inclusion alongside effective behavior management (Mikami et al. 2013) or increase teacher awareness of the peer network (Hamm et al. 2011) also can increase the prevalence of friendship and network ties for students both with and without behavioral problems. Promoting peer leadership activities, with support from school or mental health staff, shows promise in enhancing healthy behaviors and reducing risk-taking (Johnson et al. 2008).

### Building Strong Home-School Partnerships

Family involvement in schooling is another area that would benefit from mental health providers consulting with teachers, especially in urban communities that have considerable barriers to parental involvement (Jeynes 2012, McKay et al. 2003). Although school-based mental health programs may include family outreach, education, and case management, few directly intervene

to promote family involvement in children's schooling (Hoagwood et al. 2007). The dimensions of family involvement associated with school success are home-based learning (e.g., homework help, routines), school-based involvement (e.g., school volunteering), and home-school communication (e.g., parent-teacher conferences, notes sent between home and school) (Grolnick & Slowiaczek 1994, Manz et al. 2004), although high aspirations for achievement may be the most critical (Fan & Chen 2001). Targeted interventions that increase communication and alignment between teachers and parents via "good news notes" or daily report cards have been shown to increase students' social skills, time on task, and academic engagement, particularly for students with behavioral difficulties (Vannest et al. 2010). Conjoint behavioral consultation models (Sheridan & Kratochwill 2007) provide an opportunity for mental health providers to support collaboration across home and school by facilitating teacher-parent meetings that strengthen communication and enable the development of shared goals to support students' competence.

Another prominent opportunity for collaboration is the incorporation of parents in school-involvement initiatives. Long a hallmark of school reform (Haynes & Comer 1996), family outreach activities have been severely limited by recent funding shortfalls. However, community agencies have the ability to involve community members in their service delivery and, therefore, could provide an important resource to schools (Frazier et al. 2007). For example, Olin and colleagues (2010) have developed a parent empowerment program for family advocates participating in community mental health teams. Family care specialists are widely used in health care within a medical home model (Griswold et al. 2010), and community health workers are incentivized in the Patient Protection and Affordable Care Act (Islam et al. 2015). As we describe in our illustrative example (see the section titled *Links to Learning: An Example and Proof of Concept*), these staff can be activated on behalf of parental school involvement, providing schools with a powerful ally.

### **Promoting Effective Classroom Instruction and Behavior Management**

High quality instruction and behavior management are key to students' development, and their importance for children's school success has encouraged considerable program development (Hamre et al. 2013). Interventions to increase students' academic engagement and skills through challenging but personalized instruction show positive effects on both achievement and behavioral health (Gregory et al. 2014), particularly for those facing risk due to socioeconomic disadvantage or early school difficulties (Connell et al. 1994). Importantly, the relevance of academic competence to children's mental health suggests that the previously noted competition between resources allocated to academic and mental health programs is unnecessary in many cases. Community mental health providers can be strong advocates for children's learning through directly supporting children and their parents and by acting as consultants to teachers within a classroom context in which strengths and weaknesses can be tangibly assessed and impacted (Atkins et al. 2006, 2015). This is particularly salient for children attending schools in high-poverty areas in which high-quality instruction may be sporadic (Pianta et al. 2007), especially for children facing academic or behavioral risks (Farmer et al. 2002).

Classroom behavior management that promotes safe and productive peer and adult interactions provides the structure for students to engage appropriately in classroom activities, and it may protect against the negative mental health and academic effects of exposure to violence in the home or neighborhood (Hamre & Pianta 2001, Ozer & Weinstein 2010). School and mental health professionals can collaborate to implement mentoring and monitoring interventions to promote school connectedness and academic engagement among students at risk for dropping out of school early (Anderson et al. 2004). Behavior management strategies, such as the Good Behavior Game (Embry 2002), can be modeled and supported by school support staff and are

powerful levers through which to improve teachers' monitoring and behavior management, reduce students' aggression and disruption, and increase students' academic and health outcomes. These and other kernels of classroom practice (Embry & Biglan 2008, Jones & Bouffard 2012) provide both an opportunity for collaboration among educators and mental health providers and allow schools to prioritize practices that have the highest impact and the broadest reach for children and youth across multitiered service-delivery models (Shernoff et al. 2017).

Programs targeting a classroom's emotional climate can increase classroom warmth, connectedness, and student regard, as well as improve students' grades (Reyes et al. 2012). In one national longitudinal study, kindergarten children with combined demographic and functional risks (attentional, social, behavioral, academic) had achievement test scores in the spring of first grade similar to normative peers when placed in first grade classrooms with high levels of emotional and instructional support (Hamre & Pianta 2005). In a sample of urban, low-income students in kindergarten through fifth grade, students who had conflictual relationships with teachers or few social ties with peers benefited most from a high-quality classroom climate (Kim & Cappella 2016). Given that a positive classroom climate can be protective for children who face risk or adjustment problems, it is a highly relevant target for mental health services.

### **Addressing Teachers' Stress**

Teaching is a stressful profession for which the skills and competencies required to meet varied learning needs and academic standards are inadequately covered in teacher preparation programs and not attained quickly on the job (Ingersoll & Smith 2003, Shernoff et al. 2011). Teaching in high-poverty schools poses additional challenges related to large class sizes, the complicated mental health and learning needs of students, and limited in-class support (Cappella et al. 2008, Shernoff et al. 2014). Individually focused interventions designed to improve teachers' coping and reduce stress have demonstrated short-term benefits (Anderson et al. 1999), but they failed to have a longer-term impact on teachers' job satisfaction and effectiveness. Ostensibly, this lack of sustained impact is likely due to the fact that these interventions do not address the work-setting characteristics that are the most stressful and cause the most impairment to teachers' job performance, including isolation from colleagues and a lack of school-wide norms around instruction and behavior (Bryk & Schneider 2002, Kyriacou 2010, Shernoff et al. 2011). Despite the negative impact that stress has on teachers' mental and physical health and instructional effectiveness, reducing teachers' stress as a pathway for improving children's school experience has largely been ignored by school mental health services (Klusmann et al. 2008, 2016).

One place to start is to align school mental health resources with interventions that address the classroom and organizational predictors of stress and coping (Shernoff et al. 2011). For example, evidence suggests that social support from colleagues provides a stronger buffer against stress than support from family and friends, and it also has the added value of promoting relational trust within schools (Bryk & Schneider 2002). As we describe in our example (see the section titled *Links to Learning: An Example and Proof of Concept*), consultations with mental health providers can promote collaboration and social support among teachers, including by teachers coleading PLCs with mental health providers, which provide opportunities for teachers to nurture social relationships and build expertise via collaboration with colleagues (Atkins et al. 2015).

### **SUSTAINING EFFECTIVE PRACTICES: DISSEMINATION AND IMPLEMENTATION SCIENCE**

If school mental health services are to catalyze a new direction for children's mental health services as we envision, careful attention must be paid to the rapidly developing literature on dissemination

## WORKPLACE-BASED SUPPORT

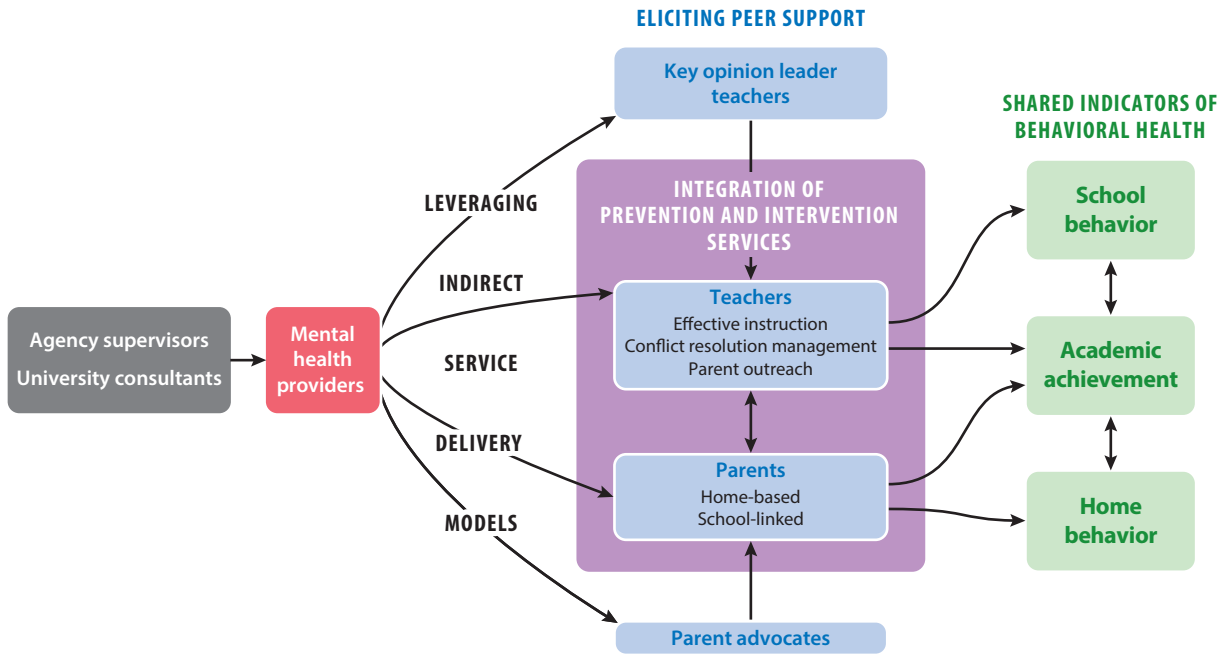
The issue of sustainability in dissemination and implementation is not unique to school-based services. In many sectors, the majority of resources are spent training the front-line workforce in the hope that training will result in more effective services (Beidas & Kendall 2010). However, within business and government settings, it is estimated that up to 40% of employees fail to apply what they learned in training immediately after training, and this number rises to 70% at 1-year post-training (Saks 2002). Within the human resources literature, workplace-based support—that is, support from supervisors and peers—is acknowledged as being critical to effectively transfer new knowledge and skills gained via training into the workplace (Blume et al. 2010). Drawing from the education, psychology, and human resources literature, an effective system to support the workforce includes opportunities to practice new skills, ongoing specific feedback, and monitoring; all occur within a supportive context that includes problem solving and active learning (see, for example, Aarons et al. 2011, Schoenwald et al. 2012). Integrating these supports into the development of models of school mental health services is crucial for achieving sustainability.

and implementation science (Atkins et al. 2016). Supporting the sustainment of evidence-based practices that impact student outcomes is a complex task requiring the alignment of multiple levels of a system (Domitrovich et al. 2008). Focusing on sustainability early in the process of implementing innovative practices is crucial to sustainability; however, it is rarely accomplished (Lyon et al. 2011). In schools, there is a high cost to ignoring sustainability, especially given the revolving door of initiatives that has become commonplace in education (Latham 1988). There is a monetary cost to continually updating system resources but perhaps more relevant for sustainability, there is the substantive human cost associated with frequent change. Constantly investing energy into implementing new practices, whether effective or not, becomes exhausting; individuals become less willing to implement change when they realize that another initiative will soon follow. Furthermore, the initial gain in student outcomes may be lost if a successful initiative is not sustained, as has been a concern for PBIS (McIntosh et al. 2013). Under these circumstances, the lack of enthusiasm for potentially effective programs, in addition to cynicism about the potential for ensuring enduring system change, may result in a stagnant and ineffective school system that is not serving either the workforce or students (see sidebar titled *Workplace-Based Support*).

Despite the accumulating knowledge regarding the dissemination of effective practices, little is known about sustaining effective services in child-serving settings, including schools (Mathews et al. 2013, Stirman et al. 2012). The scant research that exists across education and health identifies several promising factors that may be critical to sustainability, including leadership support, access to ongoing professional development, and data-driven decision-making for monitoring fidelity and outcomes (Coffey & Horner 2012, McIntosh et al. 2013). Aligning the intervention with the mission of schools, providing adequate resources, and sharing decision-making can also enhance sustainability, but these rarely occur (Burns et al. 2013). As we describe in the next section, working within schools, although challenging, can identify new opportunities for collaboration and resource reallocation. Community mental health collaboration can help to activate these resources and become an additional source of support to school personnel.

## LINKS TO LEARNING: AN EXAMPLE AND PROOF OF CONCEPT

We have noted the many opportunities for collaboration between schools and community mental health agencies, but, of course, these opportunities require effort and commitment to realize their full potential. A healthy dose of skepticism is a reasonable response, especially to proposals about



**Figure 3**

The Links to Learning service model. The model proposes a direct focus on the predictors of academic achievement to impact school and home behavior. The most robust predictors are summarized for teachers and parents, and each is promoted by influential peers in the form of key informant teachers and parent advocates, respectively. Mental health providers are trained to provide direct support to teachers and parents through classroom consultation and home-based services, respectively. The mental health teams are co-supervised by an agency supervisor and a university consultant.

reducing what has been a pernicious and almost impervious mental health burden on the least advantaged in our society. Toward that end, we present some features of a recent study that provided empirical support for the feasibility of realigning community mental health services to promote schooling in high-poverty communities (Atkins et al. 2015). Evolving from a series of studies conducted in Chicago communities of concentrated poverty (Atkins et al. 2003, 2016), the resulting school- and home-based mental health service model, Links to Learning (L2L), was implemented by community mental health providers from nearby social service agencies and supported by Medicaid fee-for-service billing. Several features of the model, displayed in **Figure 3**, are highlighted to emphasize the key collaborative principles for consultations with teachers and parents and the application of these principles through select practices relevant to schooling and mental health. Given the largely positive outcomes on access to mental health services and improvements in school and home behavior (Atkins et al. 2016), we present L2L as a proof of concept and one approach to establishing collaboration between schools and community mental health agencies.

The first principle endorsed by L2L (**Figure 3**) is shared indicators of behavioral health, specifically, a focus on improving learning to improve behavior. Given that most school mental health referrals in low-income schools correspond to symptoms of disruptive behavior disorder, L2L focused on improving behavior in the classroom and at home, and on peer relations. We tested the assumption that directly focusing on the predictors of learning in schools would improve children’s behavior, consistent with the extensive empirical literature (Cappella et al. 2008). These

**L2L:** Links to Learning

predictors of learning were situated within the ecological contexts of home and school, where children are influenced by proximal adults (**Figure 3**): parents (home-based and school-linked involvement) and teachers (effective instruction, classroom management, and parent outreach). This focus on behavioral health outcomes and the ecological predictors of learning and behavioral health in the home and school contexts gave mental health providers and teachers a set of shared goals and strategies that supported each of their priorities.

Peer support, another core principle, is also illustrated in **Figure 3**. Peer support is noted through the involvement of KOL teachers and parent advocates. Based on the diffusion of innovation theory (Rogers 1995) and social network theory (Burt 1999), KOL teachers were identified by peer ratings and enlisted in the project to provide input and endorsement for recommended programs (Atkins et al. 2008, Neal et al. 2011). KOL teachers first learned classroom strategies through a web-based course; following this, they led with a collaborating community mental health provider, a series of PLCs endorsed by the school principal for professional development credit and delivered to their fellow classroom teachers before or after school. The PLCs provided a mechanism for disseminating new information throughout the network of classroom teachers and an opportunity for teachers to interact with and support one another.

Parent advocates were members of the social service agency's mental health teams who had been hired to assist other parents or caregivers with logistical planning, overcoming obstacles, addressing stigma, and providing support to the child and family. In L2L, the parent advocates served as the primary links to the parents of children enrolled in mental health services and the primary deliverers of parent-related programming (e.g., home-based activities to support learning). Importantly, the parent advocates were equal members of the mental health teams, including having the ability to bill Medicaid for services they provided. Because this was an expansion of the parent advocates' role within the agency, considerable effort was required to establish collaborative working relationships between the parent advocate and the mental health provider, including establishing clear service-delivery roles for each in homes and classrooms (Frazier et al. 2007). An additional element of support, noted on the left side of **Figure 3**, is the involvement of the mental health agency supervisor who participated in all program decisions and provided cosupervision with university staff to demonstrate leadership buy-in (Coffey & Horner 2012). Although not directly involved in the delivery of services, the agency supervisor provided support and guidance to the mental health staff to ensure that services were consistent with agency rules and procedures.

The integration of prevention and intervention services is the third principle illustrated in **Figure 3**. In the communities of concentrated poverty where participating schools were located, the majority of students were at high risk for mental health difficulties, given the well-documented challenges associated with poverty and its correlates (Cappella et al. 2008). Therefore, services in classrooms integrated universal prevention strategies (which were delivered by teachers class-wide to benefit all students) with targeted intervention strategies (which were delivered by mental health staff on behalf of their client), all of which had empirical evidence for their effectiveness to improve learning and behavior. For example, teachers and mental health providers implemented peer-assisted learning (Rohrbeck et al. 2003) and the Good Behavior Game (Embry 2002) as universal strategies to promote, respectively, effective instruction and classroom management, and daily report cards (Vannest et al. 2010) as a targeted strategy to promote family involvement.

Leveraging indirect service-delivery models was the last principle incorporated into L2L. Specifically, mental health providers followed up on the PLCs that they had led with the KOL teachers by providing in-class mentoring and support to teachers who had L2L students. Similarly, for parent predictors, home-based activities to support academic learning and parent-teacher communication were presented to the teachers as useful for their entire class (i.e., a universal strategy), and the mental health team consulted with teachers to support the specific use of these strategies

with the L2L students (i.e., a targeted strategy). Through school- and home-based meetings, the mental health team shared information with parents about how to stay involved with their child's teacher, and the team used an adaptation of conjoint behavioral consultation to consult with teachers about using a targeted strategy to promote parental support for classroom behavior (Sheridan & Kratochwill 2007). The adaptation involved the parent advocate on the mental health team sitting in for the parent with that parent's permission at meetings with teachers in recognition of both the difficulty many parents from inner-city communities have in participating in school-related activities and the strong support they express for home-based learning activities (McKay et al. 2003). The parent advocate followed up the school sessions with home visits to model and support parents' home-based activities.

Lastly, not shown in the model is the extensive work that was needed to monitor and promote the mental health teams' collaboration with teachers and other school personnel while maintaining their work with parents and children. Negotiating the varying demands of schools and mental health agencies can be challenging, especially in urban schools in communities of concentrated poverty, given the very real pressures and stressors experienced by providers, teachers, parents, and children. Developing relationships with teachers and other school personnel (e.g., principals, reading specialists) takes time, as does the need to stay connected with parents and children. We emphasized in our training the similarity of these skills to those that mental health providers use in clinic-based services, such as consultation skills in case management and their experience in interagency or interdisciplinary consultation or collaboration. We believe that this helped the providers define their new school-based tasks as consistent with their identity as a mental health provider. Furthermore, collaboration with teachers was greatly facilitated by the mental health provider having a strong presence in the school as a resource and support for teachers and other school personnel, and as a conduit for the engagement of parents and their children in the important task of learning.

## **FINAL REFLECTIONS ON THE POTENTIAL OF SCHOOL-BASED MENTAL HEALTH SERVICES**

The promise of school-based mental health services effectively reverses what Seymour Sarason (2003) noted presciently as a misdirection of American psychology when, at the Boulder Conference, which spawned the new field of clinical psychology in 1948, a core role to enhance schooling was rejected in favor of basing services for children in hospitals and clinics. Sarason reflected on the missed opportunities within clinical psychology to understand children's behavior as a function of their circumstances: their families, their communities, their teachers, and their peers. Writing about the tragedy at Columbine High School in 1999, Sarason (2003, p. 104) asked, "Are we missing the forest for the trees? Are we making the mistake of riveting on individuals whose behavior hits us in the face and not on an institutional context in which they spend 12 years?"

As we reviewed above, the institutional context of schools has a strong and enduring influence on children's mental health and well-being. We described the opportunities for a community mental health workforce—isolated in its hospitals and clinics and largely divorced from the realities of children's lives—to engage with educators to promote the many ways in which schools are a natural context for addressing children's mental health. We described the missed opportunities of the past that are now being realized within the field of education, in which primary prevention is embedded in efforts to create safe and engaging schools, and intervention is largely integrated into the natural setting of classrooms. We presented the many opportunities for community mental health services to reverse course; to use the skills and resources of a mental health workforce to support the people that matter the most to children—their parents, teachers, and peers; and to



activate the natural properties of schools and communities toward the development of children's full potential.

Finally, in our example, we offered insights from our work to transform community mental health services through a collaboration with schools. This is but one example, demonstrating many of the key principles and practices noted in this review, but the complexities of this model (e.g., the inclusion of KOL teachers, PLCs, and parent advocates) are not without opportunity costs of time and effort. However, as a proof of concept, we offer it as an exemplar of a corresponding transformation of research and policy that reflects, in part, what Sarason (2003) envisioned for a contextualized understanding of children's mental health through the lens of their school experiences.

### SUMMARY POINTS

1. Confronted with the large and persistent unmet mental health needs of children and youth, schools have become the de facto service providers for children's mental health-care. However, they have neither the resources to sustain these services nor the expertise to manage and deliver them independently. The enduring unmet mental health needs of children and youth necessitate a realignment of school and mental health resources to reduce the burden on schools and promote mental health for all children and youth.
2. Children's emotional well-being is critical to their academic success, and school success is among the most reliable indicators of children's well-being and strongly predictive of adult success. This provides a strong and compelling rationale for promoting collaboration between schools and community mental health agencies.
3. Using an ecological framework provides several key principles for ensuring the alignment of schools and mental health services. These include (a) a shared concern for schooling as an important outcome, (b) the need for a public health approach to address both universal and targeted educational and mental health needs, (c) an emphasis on indirect service models that focus on the people (teachers, parents) and settings (classrooms, homes) proximally linked to children, and (d) the need for support from administrators and teachers.
4. Integrating prevention and intervention services has been a long-standing goal for mental health providers, with little progress made to date. In contrast, innovations in education that promote the integration of universal and targeted interventions in classrooms and schools provide a strong base on which to build collaboration between schools and community mental health agencies to advance a public health approach to mental health.
5. Ecological theory also informs several key practices for proximal people and settings important to children's development. These include (a) enhancing classroom relationships, (b) building strong home-school partnerships, (c) promoting effective classroom instruction and management, and (d) addressing teachers' stress. These practices are important foci of interventions and can benefit from collaborations between schools and mental health agencies.
6. Stress has a profound impact on teachers' effectiveness and children's school experience, but it is rarely addressed in schools or community mental health practices. Therefore, it is an important new direction for collaborations with community mental health providers.

7. Sustaining effective programs and practices is a complex task that requires attention to the people and settings proximally linked to students, and the alignment of multiple levels of a system. Given the crucial roles of both school administration and teacher colleagues in implementing school-based mental health services, it is important to include them when developing school-based mental health models to achieve sustained integration.
8. A proof-of-concept study in high-poverty urban schools illustrated the feasibility and promise of aligning community mental health providers with schools to promote schooling as a key mental health outcome. Although the complexity of the model is not without opportunity costs of time and effort, it provides an example of a contextualized understanding of children's mental health through the lens of their school experiences.

### FUTURE ISSUES

1. Aligning mental health and education systems will require advocating for policies to promote common funding streams at local and state levels to increase the likelihood of collaboration.
2. Research must shift its approach to children's academic, social-emotional, and behavioral development from studying these factors independently of one another (e.g., teacher-student interactions separately from parent-teacher involvement) to conceptualizing these domains as an integrated whole consisting of dynamic, interacting influences.
3. Integrating mental health and education systems will necessitate attending to the organizational context and professional and personal well-being of individuals most proximal to children with mental health needs (e.g., teachers, peers, families) and understanding them as important resources and key players for supporting mental health and educational practices.
4. Redefining the role of mental health-care providers in the education system will require professional development programs and models for school mental health practitioners that are consistent with ecological principles, indirect service-delivery models, and educational goals. Such programs may harness technology, including interactive virtual environments and simulations, which can provide low-risk, high-dose, active training for mental health providers, with extensive opportunities for reflection, problem solving, and feedback.
5. Close attention must be paid to the infrastructure and mechanisms needed to sustain innovative services so that the investment in training and implementation is not wasted.
6. Conducting rigorous research on implementation processes and the principles of school mental health practices will require using a range of designs and analyses, including multilevel modeling, mixed methods, and qualitative inquiry. As more sophisticated methodologies become more widely practiced, and as our awareness grows of the many levers of change that are apparent within a dynamic and complex setting such as a school, we anticipate that our empirical research will approach our conceptual understanding of children and their contexts.

## DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

## ACKNOWLEDGMENTS

We gratefully acknowledge our colleagues who contributed substantially to our understanding of the potential and promise of school mental health policy and practices: Stacy Frazier, Charles Glisson, Bridget Hamre, Nick Ialongo, Kimberly Hoagwood, Davi Lakind, Ane Martinez-Lora, Mary McKay, Dana Rusch, Sonja Schoenwald, and the late David Henry. The Links to Learning study was supported by a grant from the National Institute of Mental Health (R01 MH073749), and other research mentioned in this review was supported by grants from the National Institute of Mental Health (P20 MH078458, R21 MH067361, R01 MH629591) and the Institute of Education Sciences (R305A090085). We also gratefully acknowledge the contributions of our many dedicated colleagues at the Chicago Public Schools and the New York City Board of Education and the many social service agencies in Chicago and New York who serve our most vulnerable children and families and who have taught us so much about schools and the importance of mental health.

## LITERATURE CITED

- Aarons GA, Hurlburt M, Horwitz SM. 2011. Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Adm. Policy Mental Health* 38(1):4–23
- Adelman HS, Taylor L. 1993. School-based mental health: toward a comprehensive approach. *J. Mental Health Adm.* 20(1):32–45
- Anderson AR, Christenson SL, Sinclair MF, Lehr CA. 2004. Check & Connect: the importance of relationships for promoting engagement with school. *J. School Psychol.* 42(2):95–113
- Anderson VL, Levinson EM, Barker W, Kiewra KR. 1999. The effects of meditation on teacher perceived occupational stress, state and trait anxiety, and burnout. *School Psychol. Q.* 14(1):3–25
- Atkins MS. 2013. Ecological principles for interconnecting school mental health and PBIS: focusing on what matters most. In *Advancing Education Effectiveness: Interconnecting School Mental Health and School-Wide Positive Behavior Support*, ed. S Barrett, L Eber, MD Weist, pp. 123–27. Washington, DC: US Dep. Educ. <https://www.pbis.org/common/cms/files/Current%20Topics/Final-Monograph.pdf>
- Atkins MS, Frazier SL. 2011. Expanding the toolkit or changing the paradigm: Are we ready for a public health approach to mental health? *Perspect. Psychol. Sci.* 6(5):483–87
- Atkins MS, Frazier SL, Birman D, Adil JA, Jackson M, et al. 2006. School-based mental health services for children living in high poverty urban communities. *Adm. Policy Mental Health* 33(2):146–59
- Atkins MS, Frazier SL, Leathers SJ, Graczyk PA, Talbott E, et al. 2008. Teacher key opinion leaders and mental health consultation in low-income urban schools. *J. Consult. Clin. Psychol.* 76(5):905–8
- Atkins MS, Graczyk PA, Frazier SL, Abdul-Adil J. 2003. Toward a new model for promoting urban children's mental health: accessible, effective, and sustainable school-based mental health services. *School Psychol. Rev.* 32(4):503–14
- Atkins MS, Hoagwood KE, Kutash K, Seidman E. 2010. Toward the integration of education and mental health in schools. *Adm. Policy Mental Health* 37(1–2):40–47
- Atkins MS, McKay MM, Arvanitis P, London L, Madison S, et al. 1998. An ecological model for school-based mental health services for urban low-income aggressive children. *J. Behav. Health Serv. Res.* 25(1):64–75
- Atkins MS, Rusch D, Mehta TG, Lakind D. 2016. Future directions for dissemination and implementation science: aligning ecological theory and public health to close the research to practice gap. *J. Clin. Child Adolesc. Psychol.* 45(2):215–26

- Atkins MS, Shernoff ES, Frazier SL, Schoenwald SK, Cappella E, et al. 2015. Redesigning community mental health services for urban children: supporting schooling to promote mental health. *J. Consult. Clin. Psychol.* 83(5):839–52
- Batsche G, Elliott J, Graden JL, Grimes J, Kovaleski JF. 2005. *Response to Intervention: Policy Considerations and Implementation*. Alexandria, VA: Natl. Assoc. State Dir. Spec. Educ.
- Beets MW, Flay BR, Vuchinich S, Acock AC, Li K-K, Allred C. 2008. School climate and teachers' beliefs and attitudes associated with implementation of the positive action program: a diffusion of innovations model. *Prev. Sci.* 9(4):264–75
- Beidas RS, Kendall PC. 2010. Training therapists in evidence-based practice: a critical review of studies from a systems-contextual perspective. *Clin. Psychol.* 17(1):1–30
- Bierman KL, Coie JD, Dodge KA, Greenberg MT, Lochman JE, et al. 2010. The effects of a multiyear universal social-emotional learning program: the role of student and school characteristics. *J. Consult. Clin. Psychol.* 78(2):156–68
- Blume BD, Ford JK, Baldwin TT, Huang JL. 2010. Transfer of training: a meta-analytic review. *J. Manag.* 36(4):1065–105
- Bradley RH, Corwyn RF. 2002. Socioeconomic status and child development. *Annu. Rev. Psychol.* 53:371–99
- Bradshaw CP, Koth CW, Thornton LA, Leaf PJ. 2008. Altering school climate through school-wide positive behavioral interventions and supports: findings from a group-randomized effectiveness trial. *Prev. Sci.* 10(2):100–15
- Bradshaw CP, Mitchell MM, Leaf PJ. 2010. Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: results from a randomized controlled effectiveness trial in elementary schools. *J. Posit. Behav. Interv.* 12(3):133–48
- Braveman P, Egerter S, Williams DR. 2011. The social determinants of health: coming of age. *Annu. Rev. Public Health* 32:381–98
- Bringewatt EH, Gershoff ET. 2010. Falling through the cracks: gaps and barriers in the mental health system for America's disadvantaged children. *Children Youth Serv. Rev.* 32(10):1291–99
- Bryk AS, Schneider BL. 2002. *Trust in Schools: A Core Resource for Improvement*. New York: Russell Sage Found.
- Burns BJ, Costello EJ, Angold A, Tweed D, Stangl D, et al. 1995. Children's mental health service use across service sectors. *Health Aff.* 14(3):147–59
- Burns MK, Egan AM, Kunkel AK, McComas J, Peterson MM, et al. 2013. Training for generalization and maintenance in RtI implementation: front-loading for sustainability. *Learn. Disabil.* 28(2):81–88
- Burt RS. 1999. The social capital of opinion leaders. *Ann. Am. Acad. Political Soc. Sci.* 566(1):37–54
- Campbell F, Conti G, Heckman JJ, Moon SH, Pinto R, et al. 2014. Early childhood investments substantially boost adult health. *Science* 343(6178):1478–85
- Cappella E, Aber JL, Kim HK. 2016a. Teaching beyond achievement tests: perspectives from developmental and education science. In *Handbook of Research on Teaching*, ed. DH Gitomer, CA Bell, pp. 249–347. Washington, DC: Am. Educ. Res. Assoc. 5th ed.
- Cappella E, Frazier SL, Atkins MS, Schoenwald SK, Glisson C. 2008. Enhancing schools' capacity to support children in poverty: an ecological model of school-based mental health services. *Adm. Policy Mental Health* 35(5):395–409
- Cappella E, Hamre BK, Kim HY, Henry DB, Frazier SL, et al. 2012. Teacher consultation and coaching within mental health practice: classroom and child effects in urban elementary schools. *J. Consult. Clin. Psychol.* 80(4):597–610
- Cappella E, Jackson DR, Kim HY, Bilal C, Holland S, Atkins MS. 2016b. Implementation of teacher consultation and coaching in urban schools: a mixed method study. *School Mental Health* 8(2):222–37
- Carr EG, Dunlap G, Horner RH, Koegel RL. 2002. Positive behavior support evolution of an applied science. *J. Posit. Behav. Interv.* 4(1):4–16
- Coffey JH, Horner RH. 2012. The sustainability of schoolwide positive behavior interventions and supports. *Except. Children* 78(4):407–22
- Connell JP, Spencer MB, Aber JL. 1994. Educational risk and resilience in African-American youth: context, self, action, and outcomes in school. *Child Dev.* 65(2):493–506

- Cook BG, Buysse V, Klingner J, Landrum TJ, McWilliam RA, et al. 2014. CEC's standards for classifying the evidence base of practices in special education. *Remedial Special Educ.* 36(4):220–34
- Cook CR, Frye M, Slemrod T, Lyon AR, Renshaw TL, Zhang Y. 2015. An integrated approach to universal prevention: independent and combined effects of PBIS and SEL on youths' mental health. *School Psychol. Q.* 30(2):166–83
- Crockett JB. 1999. The least restrictive environment and the 1997 IDEA amendments and federal regulations. *J. Law Educ.* 28(4):543
- Domitrovich CE, Bradshaw CP, Poduska JM, Hoagwood KE, Buckley JA, et al. 2008. Maximizing the implementation quality of evidence-based preventive interventions in schools: a conceptual framework. *Adv. School Mental Health Promot.* 1(3):6–28
- Domitrovich CE, Pas ET, Bradshaw CP, Becker KD, Keperling JP, et al. 2015. Individual and school organizational factors that influence implementation of the PAX Good Behavior Game intervention. *Prev. Sci.* 16(8):1064–74
- Drzal EV, Miller P. 2015. Poverty, urbanicity, and children's development of early academic skills. *Child Dev. Perspect.* 10(1):3–9
- Durlak JA, Weissberg RP, Dymnicki AB, Taylor RD, Schellinger KB. 2011. The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. *Child Dev.* 82(1):405–32
- Embry DD. 2002. The Good Behavior Game: a best practice candidate as a universal behavioral vaccine. *Clin. Child Fam. Psychol. Rev.* 5(4):273–97
- Embry DD, Biglan A. 2008. Evidence-based kernels: fundamental units of behavioral influence. *Clin. Child Fam. Psychol. Rev.* 11(3):75–113
- Epstein M, Atkins MS, Cullinan D, Kutash K, Weaver R. 2008. *Reducing Behavior Problems in the Elementary School Classroom*. Washington, DC: US Dep. Educ.
- Evans SW, Axelrod JL, Sapia JL. 2000. Effective school-based mental health interventions: advancing the social skills training paradigm. *J. School Health* 70(5):191–94
- Fan X, Chen M. 2001. Parental involvement and students' academic achievement: a meta-analysis. *Educ. Psychol. Rev.* 13(1):1–22
- Farahmand FK, Grant KE, Polo AJ, Duffy SN, DuBois DL. 2011. School-based mental health and behavioral programs for low-income, urban youth: a systematic and meta-analytic review. *Clin. Psychol.* 18(4):372–90
- Farmer EMZ, Compton SN, Burns BJ, Robertson E. 2002. Review of the evidence base for treatment of childhood psychopathology: externalizing disorders. *J. Consult. Clin. Psychol.* 70(6):1267–302
- Flaherty LT, Osher D. 2003. History of school-based mental health services in the United States. In *Handbook of School Mental Health: Advancing Practice and Research*, ed. MD Weist, SW Evans, NA Lever, pp. 11–22. Boston, MA: Springer
- Flaherty LT, Weist MD, Warner BS. 1996. School-based mental health services in the United States: history, current models and needs. *Community Mental Health J.* 32(4):341–52
- Forness SR. 2005. The pursuit of evidence-based practice in special education for children with emotional or behavioral disorders. *Behav. Disord.* 30(4):311–30
- Foster S, Rollefson M, Doksum T, Noonan D, Robinson G, Teich J. 2005. *School Mental Health Services in the United States 2002–2003*. Washington, DC: US Dep. Health Hum. Serv.
- Frazier SL, Abdul-Adil J, Atkins MS, Gathright T, Jackson M. 2007. Can't have one without the other: mental health providers and community parents reducing barriers to services for families in urban poverty. *J. Community Psychol.* 35(4):435–46
- Fusarelli LD. 2004. The potential impact of the No Child Left Behind Act on equity and diversity in American education. *Educ. Policy* 18(1):71–94
- Garland AF, Brookman-Frazee L, Hurlburt MS, Accurso EC, Zoffness RJ, et al. 2010. Mental health care for children with disruptive behavior problems: a view inside therapists' offices. *Psychiatr. Serv.* 61(8):788–95
- George M, Taylor L, Schmidt SC. 2013. A review of school mental health programs in SAMHSA's national registry of evidence-based programs and practices. *Psychiatr. Serv.* 64(5):483–86
- Ginsburg-Block MD, Rohrbeck CA, Fantuzzo JW. 2006. A meta-analytic review of social, self-concept, and behavioral outcomes of peer-assisted learning. *J. Educ. Psychol.* 98(4):732–49

- Greenberg MT, Weissberg RP, O'Brien MU, Zins JE, Fredericks L, et al. 2003. Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *Am. Psychol.* 58(6-7):466-74
- Gregory A, Allen JP, Mikami AY, Hafen CA, Pianta RC. 2014. Effects of a professional development program on behavioral engagement of students in middle and high school. *Psychol. Sch.* 51(2):143-63
- Griswold KS, Homish GG, Pastore PA, Leonard KE. 2010. A randomized trial: Are care navigators effective in connecting patients to primary care after psychiatric crisis? *Community Mental Health J.* 46(4):398-402
- Grolnick WS, Slowiaczek ML. 1994. Parents involvement in children's schooling: a multidimensional conceptualization and motivational model. *Child Dev.* 65(1):237-52
- Halfon N, Wise PH, Forrest CB. 2014. The changing nature of children's health development: new challenges require major policy solutions. *Health Aff.* 33(12):2116-24
- Hamm JV, Farmer TW, Dadisman K, Gravelle M, Murray AR. 2011. Teachers' attunement to students' peer group affiliations as a source of improved student experiences of the school social-affective context following the middle school transition. *J. Appl. Dev. Psychol.* 32(5):267-77
- Hamre BK, Pianta RC. 2001. Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Dev.* 72(2):625-38
- Hamre BK, Pianta RC. 2005. Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Dev.* 76(5):949-67
- Hamre BK, Pianta RC, Downer JT, DeCoster J, Mashburn AJ, et al. 2013. Teaching through interactions. *Elementary School J.* 113(4):461-87
- Haynes NM, Comer JP. 1996. Integrating schools, families, and communities through successful school reform: the school development program. *School Psychol. Rev.* 25(4):501-6
- Heflinger CA, Hinshaw SP. 2010. Stigma in child and adolescent mental health services research: understanding professional and institutional stigmatization of youth with mental health problems and their families. *Adm. Policy Mental Health* 37(1):61-70
- Hoagwood KE, Atkins MS, Jalongo NS. 2013. Unpacking the black box of implementation: the next generation for policy, research and practice. *Adm. Policy Mental Health* 40(6):451-55
- Hoagwood KE, Olin SS, Kerker BD, Kratochwill TR, Crowe M, Saka N. 2007. Empirically based school interventions targeted at academic and mental health functioning. *J. Emot. Behav. Disord.* 15(2):66-92
- Ingersoll RM, Smith TM. 2003. The wrong solution to the teacher shortage. *Educ. Leadersh.* 60(8):30-33
- Islam N, Nadkarni SK, Zahn D, Skillman M, Kwon SC, Trinh-Shevrin C. 2015. Integrating community health workers within patient protection and Affordable Care Act implementation. *J. Public Health Manag. Pract.* 21(1):42-50
- Jeynes W. 2012. A meta-analysis of the efficacy of different types of parental involvement programs for urban students. *Urban Educ.* 47(4):706-42
- Johnson VL, Holt LJ, Bry BH, Powell SR. 2008. Effects of an integrated prevention program on urban youth transitioning into high school. *J. Appl. School Psychol.* 24(2):225-46
- Johnston JM, Foxx RM, Jacobson JW, Green G. 2006. Positive behavior support and applied behavior analysis. *Behav. Anal.* 29(1):51-74
- Jones DE, Greenberg MT, Crowley M. 2015. Early social-emotional functioning and public health: the relationship between kindergarten social competence and future wellness. *Am. J. Public Health* 105(11):2283-90
- Jones SM, Bouffard SM. 2012. Social and emotional learning in schools: from programs to strategies. *Soc. Policy Rep.* 26(4):1-22
- Kim HY, Cappella E. 2016. Mapping the social world of classrooms: a multi-level, multi-reporter approach to social processes and behavioral engagement. *Am. J. Community Psychol.* 57(1-2):20-35
- Klusmann U, Kunter M, Trautwein U, Lüdtke O, Baumert J. 2008. Teachers' occupational well-being and quality of instruction: the important role of self-regulatory patterns. *J. Educ. Psychol.* 100(3):702-15
- Klusmann U, Richter D, Lüdtke O. 2016. Teachers' emotional exhaustion is negatively related to students' achievement: evidence from a large-scale assessment study. *J. Educ. Psychol.* 108(8):1193-203
- Knitzer J, Olson L. 1982. *Unclaimed Children: The Failure of Public Responsibility to Children and Adolescents in Need of Mental Health Services*. Washington, DC: Child. Def. Fund

- Koh HK, Sebelius KG. 2010. Promoting prevention through the Affordable Care Act. *N. Engl. J. Med.* 363(14):1296–99
- Kyriacou C. 2010. Teacher stress: directions for future research. *Educ. Rev.* 53(1):27–35
- Ladd GW. 1999. Peer relationships and social competence during early and middle childhood. *Annu. Rev. Psychol.* 50:333–59
- Latham G. 1988. The birth and death cycles of educational innovations. *Principal* 68:41–43
- Leachman M, Albares N, Masterson K, Wallace M. 2016. *Most States Have Cut School Funding, and Some Continue Cutting*. Washington, DC: Center Budget Policy Priorities. <http://www.cbpp.org/sites/default/files/atoms/files/12-10-15sfp.pdf>
- Leaf PJ, Alegria M, Cohen P, Goodman SH, Horwitz SM, et al. 1996. Mental health service use in the community and schools: results from the four-community MECA study. *J. Am. Acad. Child Adolesc. Psychiatry* 35(7):889–97
- Lochman JE, Powell NP, Boxmeyer CL, Qu L, Sallee M, et al. 2015. Counselor-level predictors of sustained use of an indicated preventive intervention for aggressive children. *Prev. Sci.* 16:1075–85
- Low MD, Low BJ, Baumler ER, Huynh PT. 2005. Can education policy be health policy? Implications of research on the social determinants of health. *J. Health Politics Policy Law* 30(6):1131–62
- Lyon AR, Frazier SL, Mehta TG, Atkins MS, Weisbach J. 2011. Easier said than done: intervention sustainability in an urban after-school program. *Adm. Policy Mental Health* 38(6):504–17
- Manz PH, Fantuzzo JW, Power TJ. 2004. Multidimensional assessment of family involvement among urban elementary students. *J. School Psychol.* 42(6):461–75
- Mathews S, McIntosh K, Frank JL, May SL. 2013. Critical features predicting sustained implementation of school-wide Positive Behavioral Interventions and Supports. *J. Posit. Behav. Interv.* 16(3):168–78
- McCormick MP, Cappella E, O'Connor EE, McClowry SG. 2015. Context matters for social-emotional learning: examining variation in program impact by dimensions of school climate. *Am. J. Community Psychol.* 56(1):101–19
- McGuinn P. 2011. Stimulating reform: Race to the Top, competitive grants and the Obama education agenda. *Educ. Policy* 26(1):136–59
- McIntosh K, Massar MM, Algozzine RF, George HP, Horner RH, et al. 2017. Technical adequacy of the SWPBIS tiered fidelity inventory. *J. Posit. Behav. Interv.* 19(1):3–13
- McIntosh K, Mercer SH, Hume AE, Frank JL. 2013. Factors related to sustained implementation of schoolwide positive behavior support. *Except. Children* 79(3):293–311
- McKay MM, Atkins MS, Hawkins T, Brown C, Lynn CJ. 2003. Inner-city African American parental involvement in children's schooling: racial socialization and social support from the parent community. *Am. J. Community Psychol.* 32(1–2):107–14
- McKay MM, Hibbert R, Hoagwood KE, Rodriguez J, Murray L, et al. 2004. Integrating evidence-based engagement interventions into “real world” child mental health settings. *Brief Treat. Crisis Interv.* 4(2):177–86
- Mechanic D. 2012. Seizing opportunities under the Affordable Care Act for transforming the mental and behavioral health system. *Health Aff.* 31(2):376–82
- Mikami AY, Griggs MS, Lerner MD, Emeh CC, Reuland MM, et al. 2013. A randomized trial of a classroom intervention to increase peers' social inclusion of children with attention-deficit/hyperactivity disorder. *J. Consult. Clin. Psychol.* 81(1):100–12
- Neal JW, Neal ZP, Atkins MS, Henry DB, Frazier SL. 2011. Channels of change: contrasting network mechanisms in the use of interventions. *Am. J. Community Psychol.* 47(3–4):277–86
- Noam GG, Hermann CA. 2002. Where education and mental health meet: developmental prevention and early intervention in schools. *Dev. Psychopathol.* 14(4):861–75
- O'Connell ME, Boat TF, Warner KE, eds. 2009. *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. Washington, DC: Natl. Acad. Press
- Olin SS, Hoagwood KE, Rodriguez J, Ramos B, Burton G, et al. 2010. The application of behavior change theory to family-based services: improving parent empowerment in children's mental health. *J. Child Fam. Stud.* 19(4):462–70

- Owens JS, Richerson L, Beilstein EA, Crane A, Murphy CE, Vancouver JB. 2005. School-based mental health programming for children with inattentive and disruptive behavior problems: first-year treatment outcome. *J. Atten. Disord.* 9(1):261–74
- Ozer EJ, Weinstein RS. 2010. Urban adolescents' exposure to community violence: the role of support, school safety, and social constraints in a school-based sample of boys and girls. *J. Clin. Child Adolesc. Psychol.* 33(3):463–76
- Pas ET, Waasdorp TE, Bradshaw CP. 2015. Examining contextual influences on classroom-based implementation of positive behavior support strategies: findings from a randomized controlled effectiveness trial. *Prev. Sci.* 16(8):1096–106
- Payton JW, Wardlaw DM, Graczyk PA, Bloodworth MR, Tompsett CJ, Weissberg RP. 2000. Social and emotional learning: a framework for promoting mental health and reducing risk behavior in children and youth. *J. School Health* 70(5):179–85
- Pellegrino JW, Hilton ML, eds. 2012. *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: Natl. Acad. Press
- Perren S, von Wyl A, Stadelmann S, Burgin D, von Klitzing K. 2006. Associations between behavioral/emotional difficulties in kindergarten children and the quality of their peer relationships. *J. Am. Acad. Child Adolesc. Psychiatry* 45(7):867–76
- Pescosolido BA, Jensen PS, Martin JK, Perry BL, Olafsdottir S, Fettes D. 2008. Public knowledge and assessment of child mental health problems: findings from the National Stigma Study-Children. *J. Am. Acad. Child Adolesc. Psychiatry* 47(3):339–49
- Pianta RC, Belsky J, Houts R, Morrison F. 2007. Opportunities to learn in America's elementary classrooms. *Science* 315(5820):1795–96
- Pianta RC, Hamre BK, Allen JP. 2012. Teacher–student relationships and engagement: conceptualizing, measuring, and improving the capacity of classroom interactions. In *Handbook of Research on Student Engagement*, ed. SL Christenson, AL Reschly, C Wylie, pp. 365–86. Boston, MA: Springer
- Reinke WM, Stormont M, Herman KC, Puri R, Goel N. 2011. Supporting children's mental health in schools: teacher perceptions of needs, roles, and barriers. *School Psychol. Q.* 26(1):1–13
- Reyes MR, Brackett MA, Rivers SE, White M, Salovey P. 2012. Classroom emotional climate, student engagement, and academic achievement. *J. Educ. Psychol.* 104(3):700–12
- Ringeisen H, Henderson K, Hoagwood KE. 2003. Context matters: schools and the “research to practice gap” in children's mental health. *School Psychol. Rev.* 32(2):153–69
- Robinson LR, Leeb RT, Merrick MT, Forbes LW. 2015. Conceptualizing and measuring safe, stable, nurturing relationships and environments in educational settings. *J. Child Fam. Stud.* 25(5):1488–504
- Rogers EM. 1995. *Diffusion of Innovations*. New York: Free Press. 3rd ed.
- Rohrbeck CA, Ginsburg-Block MD, Fantuzzo JW, Miller TR. 2003. Peer-assisted learning interventions with elementary school students: a meta-analytic review. *J. Educ. Psychol.* 95(2):240–57
- Rones M, Hoagwood KE. 2000. School-based mental health services: a research review. *Clin. Child Fam. Psychol. Rev.* 3(4):223–41
- Roorda DL, Koomen HMY, Spilt JL, Oort FJ. 2011. The influence of affective teacher–student relationships on students' school engagement and achievement: a meta-analytic approach. *Rev. Educ. Res.* 81(4):493–529
- Rose RJ, Viken RJ, Dick DM, Bates JE, Pulkkinen L, Kaprio J. 2003. It does take a village: nonfamilial environments and children's behavior. *Psychol. Sci.* 14(3):273–77
- Saks AM. 2002. So what is a good transfer of training estimate? A reply to Fitzpatrick. *Ind. Organ. Psychol.* 39(3):29–30
- Salas E, Tannenbaum SI, Kraiger K, Smith-Jentsch KA. 2012. The science of training and development in organizations: what matters in practice. *Psychol. Sci. Public Interest* 13(2):74–101
- Sarason SB. 2003. American psychology and schools: a critique. *Am. J. Community Psychol.* 32(1–2):99–106
- Schoenwald SK, McHugh RK, Barlow DH. 2012. The science of dissemination and implementation. In *Dissemination and Implementation of Evidence-Based Psychological Interventions*, ed. RK McHugh, DH Barlow, pp. 16–42. New York: Oxford Univ. Press
- Sheridan SM, Kratochwill TR. 2007. *Conjoint Behavioral Consultation: Promoting Family–School Connections and Interventions*. New York: Springer. 2nd ed.



- Shernoff ES, Bearman SK, Kratochwill TR. 2017. Training the next generation of school psychologists to deliver evidence-based mental health practices: current challenges and future directions. *School Psychol. Rev.*
- Shernoff ES, Frazier SL, Jakobsons L. 2014. Coaching early career teachers in urban elementary schools: a mixed-method study. *School Mental Health* 7(1):6–20
- Shernoff ES, Mehta TG, Atkins MS, Torf R, Spencer J. 2011. A qualitative study of the sources and impact of stress among urban teachers. *School Mental Health* 3(2):59–69
- Simon AE, Pastor PN, Reuben CA, Huang LN, Goldstrom ID. 2015. Use of mental health services by children ages six to 11 with emotional or behavioral difficulties. *Psychiatr. Serv.* 66(9):930–37
- Slade EP. 2003. The relationship between school characteristics and the availability of mental health and related health services in middle and high schools in the United States. *J. Behav. Health Serv. Res.* 30(4):382–92
- Slominski L, Sameroff A, Rosenblum K, Kasser T. 2011. Longitudinal predictors of adult socioeconomic attainment: the roles of socioeconomic status, academic competence, and mental health. *Dev. Psychopathol.* 23(1):315–24
- Stanton-Salazar RD. 2004. Social capital among working-class minority students. In *School Connections: U.S. Mexican Youth, Peers, and School Achievement*, ed. MA Gibson, P Gandara, JP Koyama, pp. 18–38. New York: Teach. Coll. Press
- Stephan SH, Weist M, Kataoka S, Adelsheim S, Mills C. 2007. Transformation of children’s mental health services: the role of school mental health. *Psychiatr. Serv.* 58(10):1330–38
- Stiffman AR, Stelk W, Horwitz SM, Evans ME, Outlaw FH, Atkins MS. 2010. A public health approach to children’s mental health services: possible solutions to current service inadequacies. *Adm. Policy Mental Health* 37(1–2):120–24
- Stirman SW, Kimberly J, Cook N, Calloway A, Castro F, Charns M. 2012. The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implement. Sci.* 7(1):1–19
- Sugai G, Simonsen B. 2012. *Positive Behavioral Interventions and Supports: History, Defining Features, and Misconceptions*. Center for PBIS and Center for Positive Behavioral Interventions and Supports, University of Connecticut, Storrs, CT. [http://www.pbis.org/common/cms/files/pbisresources/PBIS\\_revisited\\_June19r\\_2012.pdf](http://www.pbis.org/common/cms/files/pbisresources/PBIS_revisited_June19r_2012.pdf)
- Topitzes J, Godes O, Mersky JP, Ceglarek S, Reynolds AJ. 2009. Educational success and adult health: findings from the Chicago longitudinal study. *Prev. Sci.* 10(2):175–95
- VanDerHeyden AM, Witt JC, Gilbertson D. 2007. A multi-year evaluation of the effects of a Response to Intervention (RTI) model on identification of children for special education. *J. School Psychol.* 45(2):225–56
- Vannest KJ, Davis JL, Davis CR. 2010. Effective intervention for behavior with a daily behavior report card: a meta-analysis. *School Psychol. Rev.* 39(4):654–72
- Vescio V, Ross D, Adams A. 2008. A review of research on the impact of professional learning communities on teaching practice and student learning. *Teach. Teach. Educ. Int. J. Res. Stud.* 24(1):80–91
- Wehlage CG, Rutter RA, Smith GA, Lesko N, Fernandez RR. 1989. *Dropping Out: Can Schools Be Expected to Prevent It?* Philadelphia: Taylor & Francis
- Weist MD, Goldstein J, Evans SW, Lever NA. 2003. Funding a full continuum of mental health promotion and intervention programs in the schools. *J. Adolesc. Health* 32(6):70–78
- Weist MD, Sander MA, Walrath C, Link B, Nabors L, et al. 2005. Developing principles for best practice in expanded school mental health. *J. Youth Adolesc.* 34(1):7–13
- Weisz JR, Krumholz LS, Santucci L, Thomassin K, Ng MY. 2015. Shrinking the gap between research and practice: tailoring and testing youth psychotherapies in clinical care contexts. *Annu. Rev. Clin. Psychol.* 11:139–63
- Wenger E. 1998. *Communities of Practice: Learning, Meaning, and Identity*. New York: Cambridge Univ. Press
- Wentzel KR, Barry CM, Caldwell KA. 2004. Friendships in middle school: influences on motivation and school adjustment. *J. Educ. Psychol.* 96(2):195–203
- Wentzel KR, Caldwell K. 1997. Friendships, peer acceptance, and group membership: relations to academic achievement in middle school. *Child Dev.* 68(6):1198–209



# Contents

Clinical Psychology Training: Accreditation and Beyond <i>Robert W. Levenson</i> .....	1
Personal Sensing: Understanding Mental Health Using Ubiquitous Sensors and Machine Learning <i>David C. Mohr, Mi Zhang, and Stephen M. Schueller</i> .....	23
The Philosophy of Nosology <i>Peter Zachar and Kenneth S. Kendler</i> .....	49
Brain Mechanisms of the Placebo Effect: An Affective Appraisal Account <i>Yoni K. Ashar, Luke J. Chang, and Tor D. Wager</i> .....	73
Memory Reconsolidation Interference as an Emerging Treatment for Emotional Disorders: Strengths, Limitations, Challenges, and Opportunities <i>Tom Beckers and Merel Kindt</i> .....	99
Schooling and Children's Mental Health: Realigning Resources to Reduce Disparities and Advance Public Health <i>Marc S. Atkins, Elise Cappella, Elisa S. Shernoff, Tara G. Mehta, and Erika L. Gustafson</i> .....	123
Psychological Treatments for the World: Lessons from Low- and Middle-Income Countries <i>Daisy R. Singla, Brandon A. Kobrt, Laura K. Murray, Arpita Anand, Bruce F. Chorpita, and Vikram Patel</i> .....	149
Sex Differences in Binge Eating: Gonadal Hormone Effects Across Development <i>Kelly L. Klump, Kristen M. Culbert, and Cheryl L. Sisk</i> .....	183
Panic Disorder Comorbidity with Medical Conditions and Treatment Implications <i>Alicia E. Meuret, Juliet Kroll, and Thomas Ritz</i> .....	209
Emotions in Depression: What Do We Really Know? <i>Jonathan Rottenberg</i> .....	241

Predictive Processing, Source Monitoring, and Psychosis <i>Juliet D. Griffin and Paul C. Fletcher</i> .....	265
Controversies in Narcissism <i>Joshua D. Miller, Donald R. Lynam, Courtland S. Hyatt, and W. Keith Campbell</i> ....	291
Irritability in Children and Adolescents <i>Melissa A. Brotman, Katharina Kircanski, and Ellen Leibenluft</i> .....	317
Trait Impulsivity and the Externalizing Spectrum <i>Theodore P. Beauchaine, Aimee R. Zisner, and Colin L. Sauder</i> .....	343
Subjective Cognitive Decline in Preclinical Alzheimer's Disease <i>Laura A. Rabin, Colette M. Smart, and Rebecca E. Amariglio</i> .....	369
Medical Marijuana and Marijuana Legalization <i>Rosalie Liccardo Pacula and Rosanna Smart</i> .....	397
Lovesick: How Couples' Relationships Influence Health <i>Janice K. Kiecolt-Glaser and Stephanie J. Wilson</i> .....	421
The Link Between Mental Illness and Firearm Violence: Implications for Social Policy and Clinical Practice <i>John S. Rozel and Edward P. Mulvey</i> .....	445
Reward Processing, Neuroeconomics, and Psychopathology <i>David H. Zald and Michael T. Treadway</i> .....	471
Self-Regulation and Psychopathology: Toward an Integrative Translational Research Paradigm <i>Timothy J. Strauman</i> .....	497
Child Maltreatment and Risk for Psychopathology in Childhood and Adulthood <i>Sara R. Jaffee</i> .....	525