How Can We Improve School Discipline?

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School discipline addresses schoolwide, classroom, and individual student needs through broad prevention, targeted intervention, and development of self-discipline. Schools often respond to disruptive students with exclusionary and punitive approaches that have limited value. This article surveys three approaches to improving school discipline practices and student behavior: ecological approaches to classroom management; schoolwide positive behavioral supports; and social and emotional learning. The article examines their epistemological and empirical roots and supporting research, suggesting ways to combine approaches.

Keywords: at-risk students; school psychology; student behavior/attitude; violence

Schools face a number of challenges related to disruptive and antisocial students. The behavior of these students interferes with learning, diverts administrative time, and contributes to teacher burnout (Byrne, 1999; Kendziora & Osher, 2009). This article deals with the range of discipline issues that include horseplay, rule violation, disruptiveness, class cutting, cursing, bullying, sexual harassment, refusal, defiance, fighting, and vandalism. Failure to deal effectively with this low-level aggressive behavior contributes to poor individual, school, and community outcomes (Conoley & Goldstein, 2004).

Schools typically respond to disruptive students with external discipline, which consists of sanctions and punishment such as office referrals, corporal punishment, suspensions, and expulsions. For example, at least 48% of public schools took a serious disciplinary action against a student during 2005–2006. Among these actions, 74% were suspensions lasting 5 days or more, 5% were expulsions, and 20% were transfers to specialized schools (Dinkes, Kemp, & Baum, 2009). Such responses present a short-term fix to what often is a chronic and long-term problem. Little evidence supports punitive and exclusionary approaches, which may be iatrogenic for individuals and schools (Mayer, 1995; Skiba, Peterson, & Williams, 1997). For example, segregation with antisocial peers can increase antisocial behavior (Dishion, Dodge, & Lansford, 2006), and punitive approaches to discipline have been linked to antisocial behavior (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Mayer & Butterworth, 1995) and increased vandalism (Mayer & Butterworth, 1995; Dishion & Dodge, 2005), particularly when they are perceived as unfair. Similarly, suspension and expulsion disproportionately affect students with emotional and behavioral disorders and students of color, contributing to school disengagement, lost opportunities to learn, and dropout (American Academy of Pediatrics, 1998; Morrison et al., 2001; Osher, Morrison, & Bailey, 2003; Gregory, Skiba, & Noguera, this issue of *Educational Researcher,* pp. 59–68).

School discipline entails more than punishment. It is complex and includes developing student *self-discipline* (Bear, 2005). Discipline and its opposite, indiscipline, are transactional phenomena nested in classroom, school, and community ecologies. The interactions that produce disciplined behavior (or indiscipline) are mediated and/or moderated by the developmental needs of students; teacher, student, and school culture; student socioeconomic status; school and classroom composition and structure; pedagogical demands; student and teacher role expectations and capacity to meet the institutionally established expectations for their roles; and school climate. These transactions can involve issues of student–school fit; bonding to school; academic demands; school support for at-risk youth; differential beliefs and responses of adults to challenging behaviors; and race, gender, and cultural factors (Eccles, Lord, & Buchanan, 1996; Hemphill, Toumbourou, Herrenkohl, McMorris, & Catalano, 2006; Kellam, Mayer, Rebok, & Hawkins, 1998; McNeely & Falci 2004; Osher, Cartledge, Oswald, Artiles, & Coutinho, 2004; Skiba, Michael, Nardo, & Peterson, 2000).

This article surveys three approaches that promise to improve school discipline practices and student behavior: ecological approaches to classroom management; schoolwide positive behavioral supports (SWPBS); and positive youth development (PYD). In addition to giving an overview of these approaches, we examine epistemological and empirical roots and supporting research; suggest ways that the three can be combined; and identify the importance of using family-driven, culturally competent approaches and of effectively addressing mental health needs and the adversities of poverty. An underlying premise of this article is that schoolwide interventions, regardless of their roots, create cognitive and behavioral ecologies that promote both situational order and student learning and development.

Ecological Approaches to Classroom Management

Improving school discipline through an ecological approach to classroom management focuses on improving the efficacy and holding power of the classroom activities in which students participate (see Doyle, 2006). Unlike SWPBS and PYD, it is an

Educational Researcher, Vol. 39, No. 1, pp. 48–58
DOI: 10.3102/0013189X09357618
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indirect approach to improving school discipline in that it is aimed at the quality of the settings that students occupy rather than at the students themselves. This section delineates the key features of this ecological approach to classroom management and applies the approach to school discipline.

From an ecological perspective, classrooms are viewed as a behavioral stream that can be analytically divided into roughly 10- to 20-minute activity segments, each representing a particular arrangement of participants, resources and props, participation roles, location, focal content, and the like (Gump, 1969). Each segment has a characteristic vector or program that defines the pattern of involvement for that segment. Subject lessons have vectors or programs that define appropriate action or work involvement for a given event. These programs of action provide slots and sequences for participants' behavior; create direction, momentum, and energy for lessons; and pull participants along.

From the perspective of classroom management, these segments both define what constitutes classroom order at a given moment and hold those orders in place as they become routinized. Segments provide situated instructions or signal systems (Kounin & Gump, 1974) for how to participate in classroom events. Although norms, rules, and interpersonal relationships play a part in the overall picture of classroom management, ecologists emphasize that it is the strength and the stability of the programs of action embedded in particular activities that create and maintain classroom order (Doyle, 2006).

The teacher's core management task, then, is to gain and maintain students' cooperation in the programs of action that organize and shape classroom life. Teachers accomplish this by defining activity segments, introducing them into the environment, inviting and socializing students to participate, and monitoring and adjusting enactment over time. This task is collaborative: The teacher and students jointly construct classroom order. The difficulty of this task is related to the complexity of the activities a teacher is trying to enact, the number of students in a class, time constraints, the demands of the work assigned to students, the ability and willingness of students to engage in these activities, the social and emotional capacities of students, the quality of the relationship between and among teachers and students, and seasonal variations and distractions.

Classroom management is an enterprise of creating conditions for student involvement in curricular events, and attention is focused on the classroom group and on the direction, energy, and flow of activity systems that organize and guide collective action in classroom environments. The emphasis is on cooperation, engagement, and motivation, and on students learning to be part of a dynamic system, rather than on compliance, control, and coercion. The holding power of programs of action is, of course, always vulnerable to some degree, and misbehavior (i.e., alternative vectors) is an ever-present possibility. In a classroom with strong lesson vectors (Doyle, 2006) and an alert teacher, alternative vectors are usually seen early and stopped quickly by a short desist ("Shh"), a gesture, or physical proximity (Evertson & Emmer, 1982; Evertson, Emmer, Sanford, & Clements, 1983). In fact, most of what passes as classroom discipline practice consists of these brief, often unobtrusive reminders to get back on track. If lesson vectors are weak because of teacher skill or an unwillingness or inability of students to cooperate, such efficiencies are unlikely to work well. In these circumstances, discipline in a more formal sense—explicit techniques directed to remediating individual students' conduct—emerges as the central issue.

An ecological approach deals with school discipline by increasing the strength and the quality of classroom activities. Implicit in this approach is the premise that participating in well-managed classroom activities encourages self-discipline by educating students about what is possible through cooperation and coordinated action with others. In addition, it provides the essential conditions for caring, support, clear expectations, and guidance that foster healthy student development and motivation. The management of the setting has concurrent limitations in the face of strong student resistance to participation in classroom activities. In such circumstances, other schoolwide approaches, such as SWPBS and PYD, can help establish the necessary conditions for classroom work.

Foundational Research

The ecological approach to classroom management derives from two major sources. The first is Gump's (1990) finding, based on his work with the Midwest Psychological Field Station in the 1950s, that a child's behavior conformed to the shape of the setting that the child occupied. In other words, children in the same place behaved more alike than did a single child in different places. In Gump's words, "Places were clearly coercive of behavior. They represented phenomena more stable, more extraindividual, and more ecological than the specific psychological situations of individual behavior streams" (p. 438). The second was Kounin's (1970) efforts to ascertain what teachers did that led to high levels of student work involvement in classrooms. In an analysis of some 285 videotaped lessons, Kounin concluded that teachers with high levels of work involvement used proactive strategies of "withitness," "overlapping," group focus, and momentum to manage classroom group structures rather than desists or reprimands to correct individual student behaviors.

Research on the Ecological Approach

In contrast to SWPBS and PYD, the ecological approach has typically been framed as content for preservice teacher education rather than as a schoolwide intervention. The research traditions on the ecological approach area are typically descriptive and qualitative rather than quantitative and experimental. As a result, no body of scientific studies supports the efficacy of the approach. However, it is known, in general, that well-managed classrooms support academic achievement and that variables derived from the ecological framework have been associated with management success (Evertson & Emmer, 1982; Evertson et al., 1983). It is also logical that participation in well-orchestrated classroom activities promotes personal and social development. Studies have not been done, however, to examine whether an ecological approach to classroom management promotes schoolwide discipline or promotes self-discipline. Nonetheless, the approach offers considerable promise for advancing the field as a supplement to existing approaches by promoting classroom engagement. If classroom activities lack holding power, it is unlikely that schoolwide discipline will make up for this deficiency. At the same time, for the ecological approach to be effective, students

must come to class ready to attend and to be engaged. This is rarely possible in chaotic, unsafe, or alienating schools, or when students struggle with barriers to learning (Adelman & Taylor, 1997; Osher et al., 2008). The remaining sections consider these challenges.

Schoolwide Positive Behavioral Supports and Social Emotional Learning

Two universal approaches to schoolwide discipline have predominated during the past decade:

- Schoolwide positive behavioral supports (SWPBS), which are schoolwide systems to communicate and teach rules (and reward students for following them) and function-based behavioral interventions (Center on Positive Behavioral Interventions and Supports, 2004; Horner, Sugai, Todd, & Lewis-Palmer, 2005)
- Social emotional learning (SEL), which incorporates approaches that emphasize self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Collaborative for Academic, Social, and Emotional Learning, 2003; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, in press) and builds on the connectedness of students and staff (Osher et al., 2008; Watson, 2003).

These two approaches differ in their primary aims—developing systems to manage student behavior versus developing student assets that foster self-discipline—and often in the methods used to achieve each aim. These differences are consistent with the distinction commonly made between *teacher-centered* and *student-centered* approaches to learning and classroom management (e.g., Freiberg, 1999). With respect to discipline, in teacher-centered approaches, the primary focus is on external school rules and the adult use of behavioral techniques, especially positive reinforcement and punishment, to manage student behavior. In student-centered approaches, the primary focus is on developing students' capacities to regulate their own behavior and in building caring, engaging, and trusting relationships. Whereas SWPBS programs tend to be teacher centered, SEL programs are student centered. Still, the two approaches have much in common: Like the ecological approach, which focuses on instructional engagement, both have ecological components. In addition, both emphasize the prevention of problem behaviors and the promotion of behavioral and social competencies; emphasize "positive" techniques over punitive techniques; and recognize the critical role of academic instruction and the participation of teachers, administrators, students, families, and communities.

The SWPBS Approach to Discipline

SWPBS is a comprehensive and preventive approach to discipline (Sprague & Golly, 2004). The primary aim of SWPBS is to decrease problem behavior in schools and classrooms and to develop integrated systems of support for students and adults at the schoolwide, classroom, and individual student (including family) levels. SWPBS is based on the hypothesis that when faculty and staff members actively teach, using modeling and role playing, and reward positive behaviors related to compliance with adult requests, academic effort, and safe behavior, the proportion of students with mild and serious behavior problems will be reduced and the school's overall climate will improve (Sugai, Horner, & Gresham, 2002).

SWPBS is not a wholly original approach. Multiple branded programs, some of which involve social and emotional learning strategies, describe similar approaches to reducing problem behavior and increasing positive behavior. SWPBS can be subsumed under the term *positive behavioral supports* (PBS), which has its roots in behavioral theory (Skinner, 1974) and its applications in applied behavior analysis (Baer, Wolf, & Risley, 1968). PBS was initially developed to intervene with, and support, students and adults with significant intellectual disabilities and severe behavior problems (Carr et al., 2002). SWPBS procedures are organized around three main themes: prevention, multitiered support, and data-based decision making. Prevention involves defining and teaching a common set of positive behavioral expectations, acknowledging and rewarding expected behavior, and establishing and using consistent consequences for problem behavior (including teaching or reteaching alternative behaviors). The goal is to establish a positive school and classroom climate in which expectations for students are predictable, directly taught, consistently acknowledged, and actively monitored.

Research-based support programs for students at risk of antisocial behavior follow a three-tier approach, operating at the *universal* (schoolwide), *selective* (for students who are at risk), and *indicated* (for students who are the most chronically and intensely at risk) levels. The greater the student's need, the more intense and detailed that support should be. Selective and indicated supports should be based on the principles and procedures of applied behavior analysis to define behavioral challenges, complete functional behavioral assessments, and design effective and efficient procedures for correcting patterns of problem behavior in conjunction with student- and family-centered planning approaches (Turnbull, 1999).

SWPBS schools also provide regularly scheduled instruction in desired social behaviors to enable students to acquire the necessary skills for the desired behavior change, and they offer effective motivational systems to encourage students to behave appropriately. SWPBS classrooms in SWPBS schools have the same set of common school expectations posted, and teachers develop classroom-level rules and reinforcement systems consistent with the schoolwide plan. In addition, classroom-handled versus administrator-handled behavioral problems are clearly defined, and data on patterns of problem behavior are regularly summarized and presented at faculty meetings to support decision making and practice consistency.

Foundational research. Research suggests that schools can establish clear expectations for learning and positive behavior while providing firm but fair discipline. SWPBS builds on a solid research base to design alternatives to ineffective administrative, teaching, and management practices in a school (Mayer, 1995). These include (a) setting a small number of positively stated rules and expectations (Colvin, Kame'enui, & Sugai, 1993), (b) teaching appropriate social behavior (Sugai & Fabre, 1987), (c) monitoring compliance with rules and expectations, (d) consistently enforcing rule violations with mild negative consequences (Acker & O'Leary, 1987), and (e) providing a rich schedule of positive

reinforcement for appropriate social behavior (Walker & Buckley, 1974). The behavior support strategies needed to establish a schoolwide social culture should be supplemented with classroom interventions and individualized supports for students with chronic and intense problem behavior.

Research on SWPBS. Evidence suggests that SWPBS can prevent many of the problems that arise in school settings. Studies employing the above-described components have documented reductions in antisocial behavior (Metzler, Biglan, Rusby, & Sprague, 2001; Sprague et al., 2002), vandalism (Mayer, 1995), and aggression (Grossman et al., 1997). Some studies have shown up to 50% reductions in discipline referrals over a 3-year period (Horner et al., 2009). In an experimental trial randomized at the school level, Bradshaw, Mitchell, and Leaf (2009) found that students in SWPBS schools were 35% less likely to be sent to the principal's office than those in comparison schools. In addition, school staff reported improved staff affiliation and organizational health (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008). Staff in another study had improved perceptions of school safety (Horner et al., 2009).

The SEL Approach to Developing Self-Discipline

SEL focuses on developing individual qualities, strengths, and assets related to social, emotional, cognitive, and moral development and positive mental health (Berkowitz, Sherblom, Bier, & Battistich, 2006; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004). The proximal goals of SEL programs are self-awareness, self-management, social awareness, relationship skills, and responsible decision making, which, in terms of discipline, provide a foundation for more positive social behaviors and fewer conduct problems and improved academic performance (Durlak et al., in press; Zins, Weissberg, Wang, & Walberg, 2004). SEL helps develop the social and emotional capacities that enable students to realize the discipline-related goals of character education, which include responsible decision making grounded in moral reasoning and the capacity to exhibit such qualities as respect, resilience, bonding with others, resolving conflicts appropriately, caring, and self-understanding (Berkowitz & Schwartz, 2006).

In comparison with SWPBS, SEL's roots are quite diverse. SEL evolved from research on prevention and resilience (Greenberg, Domitrovich, & Bumbarger, 2001; Weissberg, Caplan, & Harwood, 1991; Zins & Elias, 2006). Durlak et al. (in press) suggest that SEL's conceptualizers drew from Waters and Sroufe's (1983) description of competent individuals having abilities "to generate and coordinate flexible, adaptive responses to demands and to generate and capitalize on opportunities in the environment" (p. 80). SEL has also built upon research in youth development (Catalano et al., 2004; Hawkins, Smith, & Catalano, 2004) and positive psychology (Seligman & Csikszentmihalyi, 2000). Although there have been systematic reviews of empirical findings that relate to SEL (e.g., Denham & Weissberg, 2004; Durlak et al., in press), no definitive document delineates the relationships between and among the many research areas that contribute to SEL.

SEL integrates building capacities and conditions for learning. Capacities focus on integrating cognition, affect, and behavior—and build on social-cognitive theory, including information processing and problem solving (Bandura, 1986; Crick & Dodge, 1996; Spivack, Platt, & Shure, 1976), self-control (Meichenbaum, 1977), resilience (Werner, 1982), connectedness (Schaps, Battistich, & Solomon, 1997), character education (Berkowitz et al., 2006), and neurocognitive development (Greenberg, Kusche, & Riggs, 2004). Conditions emphasize creating opportunities for skill application and learning and recognition for successful skill application (Catalano et al., 2004; Hawkins et al., 2004). The aspects of SEL that relate to self-discipline also draw on work in developmental psychology and community psychology. From developmental psychology, SEL draws on research on moral and prosocial development (Eisenberg, Fabes, & Spinrad, 2006; Kohlberg, 1984), emotions (Goleman, 1995; Saarni, 1999), attachment (Ainsworth, 1989), peer relations and friendship (Rubin, Bukowski, & Parker, 2006), self-concept (Harter, 2006), motivation (R. M. Ryan & Deci, 2000), and the ecology of human development (Bronfenbrenner, 1979). SEL programs differ in the degree to which they draw from these areas. As we show later, theory and research in these areas have guided many SEL programs, often in an iterative research-development-practice-research process in which practitioners and researchers refine programs, research, and theory.

When implemented in schools, nearly all SEL programs share several common features, such as curriculum lessons, either taught in a packaged program or integrated throughout the existing curriculum, designed to teach social skills and foster social, emotional, and moral development. Often, SEL programming includes a home–school component to foster generalization of skills taught. Planned opportunities also are provided for students to apply, practice, and further develop social, emotional, and moral competencies. These may include service learning, class meetings, and cooperative learning activities. Another common feature is an authoritative approach to classroom management and schoolwide discipline characterized by much greater emphasis on supportive teacher–student relations and student responsibility than on the use of rewards and punishment in preventing and correcting behavior problems (Bear, 2005; Brophy, 1996).

Foundational research. Research demonstrates that both problematic and prosocial behaviors are mediated by social-cognitive processes and emotional processes. For example, Dodge, Coie, and Lynam (2006) identified social information-processing skills that differentiate aggressive and nonaggressive children, including impulse control, interpretation of hostile intentions in others, number and quality of solutions generated when faced with interpersonal problems, personal and social goals, and self-efficacy. Research in emotions shows that aggressive children have difficulty regulating their emotions and are less likely than other children, especially those who are more prosocial, to experience empathy and guilt—the two emotions most closely related to antisocial and prosocial behavior (Eisenberg et al., 2006; Hoffman, 2000). Likewise, moral reasoning research demonstrates that, unlike prosocial children, antisocial children tend to focus more on themselves, focusing on the rewards and consequences for their behavior, with limited empathy-based guilt (Manning & Bear, 2002; Stams et al., 2006).

Research also supports the importance of school bonding and supportive relations between teachers and students (e.g., Hamre

& Pianta, 2006; Hawkins, Farrington, & Catalano, 1998; Osterman, 2000), as well as developing positive peer relationships (Buhs & Ladd, 2001; Rubin et al., 2006). Under such conditions, students are more likely to internalize school values (Wentzel, 2004), exhibit on-task behavior (Battistich, Solomon, Watson, & Schaps, 1997), exhibit less oppositional and antisocial behavior (Meehan, Hughes, & Cavell, 2003), and have fewer conflicts with teachers and peers (Hamre, Pianta, Downer, & Mashburn, 2008). Social supports and relationships are particularly important for children at greatest risk for school disengagement and problem behaviors (Hamre et al., 2008). Finally, SEL recognizes the importance of supportive home–school relationships in the prevention and correction of misbehavior (e.g., Haynes, Emmons, & Ben-Avie, 1997).

Research on SEL. Comprehensive literature reviews document the effectiveness of universal SEL programs. They include reviews of school-based programs for promoting mental health and preventing school violence, aggression, and conduct problems (e.g., Hahn et al., 2007; Lösel & Beelmann, 2003; D. B. Wilson, Gottfredson, & Najaka, 2001; Wilson & Lipsey, 2007; S. J. Wilson, Lipsey, & Derzon, 2003) and more focused reviews of programs identified as SEL (Durlak et al., 2007), character education (Berkowitz & Bier, 2004), and PYD (Catalano et al., 2004). Rigorous experimental studies of several programs demonstrate improvements in student school behavior. They include studies of PATHS (Providing Alternative Thinking Strategies), Second Step, Steps to Respect, and Caring School Communities (formerly the Child Development Project). Significant findings include reductions in aggression and disruptive behavior (Greenberg et al., 2004), decreases in antisocial behavior and increases in socially competent behavior (Battistich, 2003; Frey, Nolen, Van Schoiack-Edstrom, & Hirschstein, 2005), and less bullying and argumentative behavior (Frey, Hirschstein, et al., 2005).

Comparing SEL and SWPBS

No studies have directly compared the relative efficacy of SWPBS and SEL programs. However, several meta-analyses have compared social-cognitive and behavioral programs for preventing behavior problems among children and youth. Findings have been mixed. In a meta-analysis limited to studies that employed a randomized control group design, Lösel and Beelmann (2003) reported that behavioral, cognitive, and cognitive-behavioral programs yielded similar effect sizes (.37, .39, and .39, respectively) at the end of intervention. However, in studies that included a follow-up phase, a larger effect size was found for cognitive (.36) and cognitive-behavioral (.37) programs than for behavioral programs (.17). In contrast, S. J. Wilson et al. (2003) reported larger overall effect sizes for behavioral classroom management programs than for social-cognitive programs but only when their analyses included experimental, quasi-experimental, and nonexperimental pre-post intervention designs with no control group. When their analyses were limited to research-focused studies or demonstration projects (excluding the few "routine practice" programs in their meta-analysis) that employed a randomized control group design, the effect size difference between intervention and control groups in social-cognitive programs was .36, whereas the difference was .18 for behavioral programs. Those effect sizes were further reduced to .24 and .08, respectively, when statistically corrected for behavioral programs having a greater number of participants with serious behavior problems. Perhaps the best comparison of social-cognitive and behavioral programs comes from a meta-analysis by S. J. Wilson and Lipsey (2007) that included a more focused comparison of universal school-based programs for preventing aggressive and disruptive behavior. When quasi-experimental and randomized control experimental studies were included, the average effect size was .21 with no significant differences between programs that emphasized cognitive/emotional techniques, behavioral techniques, or social skills training.

Methodological issues. Randomized control designs have tended to yield much smaller effect sizes than quasi-experimental and nonexperimental designs (S. J. Wilson & Lipsey, 2007). Although this problem applies to both approaches to schoolwide discipline, until recently it has been a problem for evaluating SWPBS, which has relied primarily on case studies without control groups (e.g., Horner & Sugai, 2007). Another common shortcoming of universal prevention studies is that they rarely demonstrate that program effects last or generalize across settings. This gap may be particularly important in SEL studies, because they are expected to create portable capacities for self-management. However, longitudinal studies of PATHS (Greenberg & Kusche, 2006), Caring School Communities (Watson & Battistich, 2006), and the Seattle Social Development Program (Hawkins et al., 2007) demonstrate sustained behavioral impacts.

Most SWPBS and SEL studies lack multilevel research designs and analyses that examine or control for effects at the individual, classroom, and schoolwide levels. Studies that examined multilevel effects on disruptive behavior (e.g., Thomas, Bierman, Thompson, & Powers, 2008) and school climate (e.g., Koth, Bradshaw, & Leaf, 2008) report that schoolwide-level variance is substantially less than individual- and classroom-level variance. This raises an important question with respect to schoolwide discipline: Are schools likely to have a greater impact on reducing disruptive behavior and improving school climate by focusing not on universal schoolwide interventions but on interventions at the classroom and individual levels? For example, longitudinal research on the classroom-based Good Behavior Game found robust effects on aggressive males (Ialongo, Poduska, Werthamer, & Kellam, 2001). Future research is needed to examine whether schools experience greater overall effectiveness in reducing schoolwide disruptive behavior (and in more efficiently using scarce resources) by targeting the most disruptive classrooms and individuals rather than the entire student body.

Effect sizes are affected by a study's outcome variables. Two measures used in evaluating SEL and SWPBS programs may inflate evidence of program effectiveness: teacher ratings of student behavior and office disciplinary referrals. Although teachers are natural raters (Kellam & Van Horn, 1997), teachers in intervention schools may believe that negative reports could result in loss of resources. For example, treatment group teachers in an experimental study of positive behavioral interventions and supports reported enhancements in their "principal's ability to lobby for resources for the school and positively influence the allocation

of district resources" (Bradshaw et al., 2008, p. 466). Teacher perceptions of key issues such as bullying may also differ from those of students (e.g., Bradshaw, Sawyer, & O'Brennan, 2007). These and other differences may contribute to S. J. Wilson and Lipsey's (2007) finding that teacher reports typically yield larger effect sizes than student reports. Similarly, although disciplinary referrals are an important outcome and a valid measure (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004), their use alone to infer changes in student behavior is problematic because changes in referrals may reflect changes in referral practices and not decreases in problem behavior (Bear, in press; Morrison, Redding, Fisher, & Peterson, 2006). For example, a school can drastically decrease office referrals for tardiness by simply instructing teachers to no longer refer students to the office for that behavior; however, no actual decrease in tardiness may actually occur.

Combining SWPBS and SEL

Effective schools establish shared values regarding mission and purpose; promote prosocial behavior and connection to school traditions; and provide a caring, nurturing climate involving collegial relationships among adults and students (Bryk & Driscoll, 1988; Gottfredson et al., 2000).

Research suggests the following:

- There are least four social and emotional conditions for learning—emotional and physical safety, connectedness, authentic challenges, and a responsible peer climate (Durlak et al., in press; Fredricks, Blumenfeld, & Paris, 2004; Goodenow, 1993; Osher & Kendziora, in press; Osterman, 2000; Wentzel, 1998).
- These conditions can be facilitated by four types of student support: positive behavioral support, supportive relationships, engaging and supportive teaching, and SEL (Osher, Dwyer, & Jimerson, 2005; A. M. Ryan & Patrick, 2001; Thuen & Bru, 2009).
- These conditions and supports are interrelated, and interventions that address them should align (Kendziora & Osher, 2009; Osher et al., 2008).

SWPBS and SEL have different objectives. SWPBS targets office referrals and data-based decisions related to behavior problems; SEL targets self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Durlak et al., in press). Although SEL programs may help students develop social and emotional competencies related to self-discipline, they provide few interventions to help educators manage disruptive behavior. Conversely, SWPBS programs that focus exclusively on concrete reinforcers to manage student behavior are less likely to help students develop social and emotional competencies related to self-discipline (Bear, 2005, 2009, in press).

SWPBS and most SEL programs have modest intervention effects (Bradshaw et al., 2009; D. B. Wilson et al., 2001), which may be due to the multitude of factors that contribute to problem behavior. Alone, SWPBS and SEL may not be sufficient to address the variation of school contexts (Benbenishty & Astor, 2005; Kellam & Rebok, 1992). Behavioral interventions do not always generalize to settings that lack behavioral support systems (Biglan, Wang, & Walberg, 2003; Kauffman, 1999) and may be insufficient in districts with a high rate of mobility between schools. Alternatively, some schools are so chaotic that they are not initially ready for SEL (Kendziora & Osher, 2009).

The need to meet these challenges, to coordinate what are often a hodgepodge of unaligned prevention interventions (Gottfredson et al., 2000), and to provide multiple types of support drives efforts to align and/or combine SWPBS and SEL. Combining SWPBS intervention components with the development of social-emotional competencies and supportive teacher–student relations should produce meaningful behavioral changes at the whole-school level, compared with singular, poorly integrated intervention approaches (Metzler et al., 2001; Sprague et al., 2002). Although not designed to determine the impacts of individual components, studies of prevention/intervention approaches that combine programs or components suggest that the combination of some SWPBS and SEL programs should enhance the power of each (Metzler et al., 2001). One example is Best Behavior (Sprague et al., 2002), which combines SWPBS and Second Step. Another is PeaceBuilders, which uses daily rituals, prompts, cues, and positive reinforcement to teach elementary school students to praise people, avoid put-downs, seek wise people as advisors and friends, notice and correct hurts they cause, and right wrongs. These rules are learned through daily rituals that instill these concepts (Flannery et al., 2003).

If programs are implemented in the same school, it is important that they be aligned to address the explicit and implicit assumptions of the interventions to ensure that they are compatible (Osher et al., 2004; Osher & Kane, 1993). For example, a combined SWPBS and SEL intervention may require more training and/or result in low overall treatment adherence because of increased complexity, time, and resource requirements (Bradshaw et al., 2009). Similarly, some SEL interventions are constructivist and may not align with schools that employ direct instruction approaches (Osher et al., 2004). Finally, if the combined programs are not aligned, staff may experience program activities as contradictory rather than complementary (Fixen, Naoom, Blasé, Friedman, & Wallace, 2005).

Conclusion

This article identified the transactional nature of discipline, the multiple factors that affect discipline, and the importance of the schoolwide context. It examined three approaches to creating a disciplined school environment and suggested how they could be integrated or aligned. However, other challenges remain, and three are particularly important: collaboration with families, cultural and linguistic competence and responsiveness, and ways to respond to the needs of students with substantive mental health needs. Families play a key role in improving behavior and engagement, but families often are estranged from schools, particularly parents of children with behavioral problems (Comer & Haynes, 1991; Eccles & Harold, 1993; Friesen & Osher, 1996). Racial and cultural disparities in services and discipline (Osher, Woodruff, & Sims, 2002; Townsend, 2000) indicate the need for cultural and linguistic competence and responsiveness (Gay, 2000; Osher et al., 2004). The mental health needs of some students may require intensive supports, and the aggregate mental

health needs of students in some schools may be so great that, as a group, these students incapacitate their schools by negatively socializing other students and/or by demoralizing staff or driving adult behavior in unproductive directions. These schools may need effective mental health services and internal systems to facilitate appropriate conditions for discipline and learning (Kendziora & Osher, 2009; Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006; Warren, Schoppelrey, Moberg, & McDonald, 2005).

These challenges are often related. Addressing them will likely improve the impact of each approach. Overall, these challenges may become greater because of the worldwide economic downturn, which may exacerbate risk factors that are the sequelae of stress and poverty and eviscerate safety nets that buffer these risk factors' impact. The problems may be compounded if accountability systems fail to overcome the barriers that teachers and students face in creating productive, disciplined learning environments. Fortunately, districts (e.g., Cleveland) are expanding the measures they collect and the metrics they report to include the conditions for learning and are using ecological approaches to classroom management and evidence-based SWPBS and SEL to improve those conditions (Osher & Kendziora, in press). These data can be aligned with school demographics to identify evidenced strategies and practices that can be used to improve safety, support, academic challenge, and social-emotional learning (e.g., http://cpstoolkit.com); to monitor the effectiveness of interventions; and in so doing, to improve discipline.

REFERENCES

Acker, M., & O'Leary, S. (1987). Effects of reprimands and praise on appropriate behavior in the classroom. *Journal of Abnormal Child Psychology*, *15*, 549–557.

Adelman, H. S., & Taylor, A. Z. (1997). Addressing barriers to learning: Beyond school-linked services and full-service schools. *American Journal of Orthopsychiatry*, *67*, 408–421.

Ainsworth, M. D. S. (1989). Attachments beyond infancy. *American Psychologist*, *44*, 709–716.

American Academy of Pediatrics. (1998). Guidance for effective discipline. *Pediatrics*, *101*, 723–728.

Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis*, *1*, 91–97.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Upper Saddle River, NJ: Prentice Hall.

Battistich, V. (2003). Effects of a school-based program to enhance prosocial development on children's peer relations and social adjustment. *Journal of Research in Character Education*, *1*(1), 1–16.

Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). Caring school communities. *Educational Psychologist*, *32*, 137–151.

Bear, G. G. (with A. Cavalier & M. Manning). (2005). *Developing self-discipline and preventing and correcting misbehavior*. Boston: Allyn & Bacon.

Bear, G. G. (2009). The positive in positive models of discipline. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in schools* (pp. 305–321). New York: Routledge.

Bear, G. G. (in press). *From school discipline to self-discipline*. New York: Guilford.

Benbenishty, R., & Astor, R. (2005). *School violence in context: Culture, neighborhood, family, school and gender*. New York: Oxford University Press.

Berkowitz, M. W., & Bier, M. C. (2004). Research-based character education. *Annals of the American Academy of Political and Social Science*, *591*, 72–85.

Berkowitz, M. W., & Schwartz, M. (2006). Character education. In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 15–27). Bethesda, MD: National Association of School Psychologists.

Berkowitz, M. W., Sherblom, S., Bier, M., & Battistich, V. (2006). Educating for positive youth development. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 683–702). Mahwah, NJ: Lawrence Erlbaum.

Biglan, T., Wang, M., & Walberg, H. (2003). *Preventing youth problems*. New York: Kluwer Academic/Plenum.

Bradshaw, C. P., Koth, C. W., Bevans, K. B., Ialongo, N., & Leaf, P. J. (2008). The impact of school-wide positive behavioral interventions and supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, *23*, 462–473.

Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2009). Examining the effects of school-wide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools [Online]. *Journal of Positive Behavior Interventions*. Available at http://pbi.sagepub.com/cgi/content/abstract/1098300709334798v1

Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff. *School Psychology Review*, *36*, 361–382.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Brophy, J. E. (1996). *Teaching problem students*. New York: Guilford.

Bryk, A., & Driscoll, M. (1988). *The high school as community: Contextual influences and consequences for students and teachers*. Madison: University of Wisconsin, National Center on Effective Secondary Schools.

Buhs, E. S., & Ladd, G. W. (2001). Peer rejection as an antecedent of young children's school adjustment: An examination of mediating process. *Developmental Psychology*, *37*, 550–560.

Byrne, B. M. (1999). The nomological network of teacher burnout: A literature review and empirically validated model. In R. Vandenberghe & A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 15–37). Cambridge, UK: Cambridge College Press.

Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., & Sailor, W., et al. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, *4*, 4–16, 20.

Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Annals of the American Academy of Political and Social Science*, *591*, 98–124.

Center on Positive Behavioral Interventions and Supports. (2004). *School-wide positive behavior support: Implementers' blueprint and self-assessment*. Washington, DC: U.S. Department of Education.

Collaborative for Academic, Social, and Emotional Learning. (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning programs*. Chicago: Author.

Colvin, G., Kame'enui, E. J., & Sugai, G. (1993). School-wide and classroom management: Reconceptualizing the integration and management of students with behavior problems in general education. *Education and Treatment of Children*, *16*, 361–381.

Comer, J., & Haynes, M. (1991). Parent involvement in schools: An ecological approach. *Elementary School Journal*, *91*, 271–278.

Conoley, J. C., & Goldstein, A. P. (2004). *School violence intervention: A practical handbook* (2nd ed.). New York: Guilford.

Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms on reactive and proactive aggression. *Child Development*, *67*, 993–1002.

Denham, S. A., & Weissberg, R. P. (2004). Social-emotional learning in early childhood: What we know and where to go from here. In E. Chesebrough, P. King, T. P. Gullotta, & M. Bloom (Eds.), *A blueprint for the promotion of prosocial behavior in early childhood* (pp. 13–50). New York: Kluwer Academic/Plenum.

Dinkes, R., Kemp, J., & Baum, K. (2009). *Indicators of school crime and safety: 2008* (NCES 2009–022/NCJ 226343). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, and U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

Dishion, T. J., & Dodge, K. A. (2005). Peer contagion in interventions for children and adolescents: Moving towards an understanding of the ecology and dynamics of change. *Journal of Abnormal Psychology*, *33*, 395–400.

Dishion, T. J., Dodge, K. A., & Lansford, J. E. (2006). Findings and recommendations: A blueprint to minimize deviant peer influence in youth interventions and programs. In K. A. Dodge, T. J. Dishion, & J. E. Lansford (Eds.), *Deviant peer influences in programs for youth: Problems and solutions* (pp. 366–394). New York: Guilford.

Dodge, K. A., Coie, J. D., & Lynam, D. (2006). Aggression and antisocial behavior in youth. In W. Damon & R. M. Learner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 719–788). New York: John Wiley.

Doyle, W. (2006). Ecological approaches to classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 97–125). New York: Lawrence Erlbaum.

Durlak, J. A., Taylor, R. D., Kawashima, K., Pachan, M. K., DuPre, E. P., & Celio, C. I., et al. (2007). Effects of positive youth development programs on school, family, and community systems. *American Journal of Community Psychology*, *39*, 269–286.

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (in press). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*.

Eccles, J. S., & Harold, R. D. (1993). Parent school involvement during the early adolescent years. *Teachers College Record*, *94*, 568–587.

Eccles, J. S., Lord, S., & Buchanan, C. M. (1996). School transitions in early adolescence: What are we doing to our young people? In J. A. Graber, & J. Brooks-Gunn (Eds.), *Transitions through adolescence* (pp. 251–284). Mahwah, NJ: Lawrence Erlbaum.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial behavior. In W. Damon & R. M. Learner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 646–718). New York: John Wiley.

Evertson, C. M., & Emmer, E. T. (1982). Effective management at the beginning of the year in junior high classes. *Journal of Educational Psychology*, *74*, 485–498.

Evertson, C. M., Emmer, E. T., Sanford, J. P., & Clements, B. S. (1983). Improving classroom management: An experiment in elementary classrooms. *Elementary School Journal*, *84*, 173–188.

Fixen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (FMHI Pub. No. 231). Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network.

Flannery, D. J., Vazsonyi, A. T., Liau, A., Guo, S., Powell, K. E., & Atha, H.. (2003). Initial behavior outcomes for PeaceBuilders universal violence prevention program. *Developmental Psychology*, *39*, 292–308.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*, 59–109.

Freiberg, H. J. (1999). *Beyond behaviorism: Changing the classroom management paradigm*. Needham Heights, MA: Allyn & Bacon.

Frey, K., Hirschstein, M. K., Snell, J. L., Van Schoiack-Edstrom, L. V., MacKenzie, E. P., & Broderick, C. J. (2005). Reducing playground bullying and supporting beliefs: An experimental trial of the Steps to Respect program. *Developmental Psychology*, *41*, 479–491.

Frey, K., Nolen, S. B., Van Schoiack-Edstrom, L. V., & Hirschstein, M. K. (2005). Effects of a school-based social–emotional competence program: Linking children's goals, attributions, and behavior. *Applied Developmental Psychology*, *26*, 171–200.

Friesen, B., & Osher, T. (1996). Involving families in change: Challenges and opportunities. *Special Services in the Schools*, *11*(1/2), 187–207.

Gay, G. (2000). *Culturally responsive teaching*. New York: Teachers College Press.

Goleman, D. (1995). *Emotional intelligence*. New York: Bantam.

Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, *30*, 79–90.

Gottfredson, G. D., Gottfredson, D. C., Czeh, E. R., Cantor, D., Crosse, S. B., & Hantman, I. (2000, July). *National study of delinquency prevention in schools*. Ellicott City, MD: Gottfredson Associates.

Gottfredson, G., Gottfredson, D., Payne, A., & Gottfredson, N. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention in schools. *Journal of Research in Crime and Delinquency*, *42*, 412–444.

Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school-aged children: Current state of the field. *Prevention & Treatment*, *4*, Article 1.

Greenberg, M. T., & Kusche, C. A. (2006). Building social and emotional competence: The PATHS curriculum. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety* (pp. 395–412). Mahwah, NJ: Lawrence Erlbaum.

Greenberg, M. T., Kusche, C. A., & Riggs, N. (2004). The PATHS curriculum: Theory and research on neurocognitive development and school success. In J. E. Zins, R. P. Weissberg, M. C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (pp. 170–188). New York: Teachers College Press.

Gregory, A., Skiba, R. J., & Noguera, P. A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher*, *39*, 59–68.

Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P.-Y., Asher, K. N., & Beland, K., et al. (1997). Effectiveness of a violence prevention curriculum among children in elementary school: A randomized controlled trial. *Journal of the American Medical Association*, *277*, 1605–1611.

Gump, P. V. (1969). Intra-setting analysis: The third grade classroom as a special but instructive case. In E. Willems & H. Raush (Eds.), *Naturalistic viewpoints in psychological research* (pp. 200–222). New York: Holt, Rinehart, & Winston.

Gump, P. V. (1990). A short history of the Midwest Psychological Field Station. *Environment and Behavior*, *22*, 436–457.

Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., & Fullilove, M., et al. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *American Journal of Preventive Medicine*, *33*(Suppl. 2S), 114–129.

Hamre, B. K., & Pianta, R. C. (2006). Student–teacher relationships. In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 59–71). Bethesda, MD: National Association of School Psychologists.

Hamre, B. K., Pianta, R. C., Downer, J. T., & Mashburn, A. J. (2008). Teachers' perceptions of conflict with young students: Looking beyond problem behaviors. *Social Development*, *17*(1), 115–136.

Harter, S. (2006). The self. In W. Damon & R. M. Learner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 505–570). New York: John Wiley.

Hawkins, J. D., Farrington, D. P., & Catalano, R. F. (1998). Reducing violence through the schools. In D. S. Elliott, B. A. Hamburg, & K. R. Williams (Eds.), *Violence in American schools* (pp. 188–216). Cambridge, UK: Cambridge University Press.

Hawkins, J. D., Smith, B. H., & Catalano, R. F. (2004). Social development and social and emotional learning. In J. E. Zins, R. P. Weissberg, M. C. Wang, & H. J. Walberg, (Eds.), *Building academic success on social and emotional learning. What does the research say?* (pp. 135–150). New York: Teachers College Press.

Hawkins, J. D., Smith, B. H., Hill, K. G., Kosterman, R., Catalano, R. F., & Abbott, R. D. (2007). Promoting social development and preventing health and behavior problems during the elementary grades: Results from the Seattle Social Development Project. *Victims and Offenders*, *2*, 161–181.

Haynes, N. M., Emmons, C., & Ben-Avie, M. (1997). School climate as a factor in student adjustment and achievement. *Journal of Educational and Psychological Consultation*, *8*, 321–329.

Hemphill, S. A., Toumbourou, J. W., Herrenkohl, T. I., McMorris, B. J., & Catalano, R. F. (2006). The effect of school suspensions and arrests on subsequent adolescent antisocial behavior in Australia and the United States. *Journal of Adolescent Health*, *39*, 736–744.

Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge, UK: Cambridge University Press.

Horner, R., & Sugai, G. (2007). *Is school-wide positive behavior support an evidence-based practice?* Retrieved January 10, 2009, from http://www.pbismaryland.org/documents/Evidence%20base%20for%20SWPBS%2009-22-07%20GS.pdf

Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., & Todd, A. W., et al. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavioral Interventions*, *11*, 133–144.

Horner, R. H., Sugai, G., Todd, A. W., & Lewis-Palmer, T. (2005). School-wide positive behavior support: An alternative approach to discipline in schools. In L. Bambara & L. Kern (Eds.), *Positive behavior support* (pp. 359–390). New York: Guilford.

Ialongo, N., Poduska, J., Werthamer, L., & Kellam, S. G. (2001). The distal impact of two first-grade preventive interventions on conduct problems and disorder in early adolescence. *Journal of Emotional and Behavioral Disorders*, *9*, 146–160.

Irvin, L. K., Tobin, T. J., Sprague, J. R., Sugai, G., & Vincent, C. G. (2004). Validity of office discipline referral measures as indices of school-wide behavioral status and preventive effects of school-wide behavioral interventions. *Journal of Positive Behavior Interventions*, *6*, 131–147.

Kauffman, J. M. (1999). How we prevent the prevention of emotional and behavioral disorders. *Exceptional Children*, *65*, 448–469.

Kellam, S. G., Mayer, L. S., Rebok, G. W., & Hawkins, W. E. (1998). The effects of improving achievement on aggressive behavior and of improving aggressive behavior on achievement through two prevention interventions: An investigation of causal paths. In B. Dohrenwend (Ed.), *Adversity, stress, and psychopathology* (pp. 486–505). Oxford, UK: Oxford University Press.

Kellam, S. G., & Rebok, G. W. (1992). Building developmental and etiological theory through epidemiologically based preventive intervention trials. In J. McCord & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 162–195). New York: Guilford.

Kellam, S. G., & Van Horn, Y. V. (1997). Life course development, community epidemiology, and preventive trials: A scientific structure for prevention research. *American Journal of Community Psychology*, *25*, 177–188.

Kendziora, K., & Osher, D. (2009). *Starting to turn schools around: The academic outcomes of the Safe Schools, Successful Students initiative*. Washington, DC: American Institutes for Research.

Kohlberg, L. (1984). *Essays on moral development: Vol. 2. The psychology of moral development*. New York: Harper & Row.

Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology*, *100*, 96–104.

Kounin, J. S. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehart, & Winston.

Kounin, J. S., & Gump, P. V. (1974). Signal systems of lesson settings and the task related behavior of preschool children. *Journal of Educational Psychology*, *66*, 554–562.

Lösel, F., & Beelmann, A. (2003). Effects of child skills training in preventing antisocial behavior: A systematic review of randomized evaluations. *Annals of the American Academy of Political and Social Science*, *587*, 84–109.

Manning, M. A., & Bear, G. G. (2002). Are children's concerns about punishment related to their aggression? *Journal of School Psychology*, *40*, 523–539.

Mayer, G. R. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis*, *28*, 467–478.

Mayer, G. R., & Butterworth, T. (1995). A preventive approach to school violence and vandalism: An experimental study. *Personnel and Guidance Journal*, *57*(9), 436–441.

McNeely, C. A., & Falci, C. (2004). School connectedness and the transition into and out of health risk behavior among adolescents: A comparison of social belonging and teacher support. *Journal of School Health*, *74*, 284–292.

Meehan, B. T., Hughes, J. N., & Cavell, T. A. (2003). Teacher–student relationships as compensatory resources for aggressive children. *Child Development*, *74*, 1145–1157.

Meichenbaum, D. (1977). *Cognitive-behavior modification*. New York: Plenum.

Metzler, C. W., Biglan, A., Rusby, J. C., & Sprague, J. R. (2001). Evaluation of a comprehensive behavior management program to improve school-wide positive behavior support. *Education and Treatment of Children*, *24*, 448–479.

Morrison, G. M., Anthony, S., Storino, M. H., Cheng, J., Furlong, M. J., & Morrison, R. L. (2001). School expulsion as a process and an event: Before and after effects on children at-risk for school discipline. In R. Skiba & G. Noam (Eds.), *New directions for youth development* (pp. 45–71). San Francisco: Jossey-Bass.

Morrison, G. M., Redding, M., Fisher, E., & Peterson, R. (2006). Assessing school discipline. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety* (pp. 211–220). Mahwah, NJ: Lawrence Erlbaum.

Osher, D., Cartledge, G., Oswald, D., Artiles, A. J., & Coutinho, M. (2004). Issues of cultural and linguistic competency and disproportionate representation. In R. Rutherford, M. Quinn, & S. Mather (Eds.), *Handbook of research in behavioral disorders* (pp. 54–77). New York: Guilford.

Osher, D., Dwyer, K., & Jimerson, S. (2005). Foundations of school violence and safety. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety* (pp. 51–71). Mahwah, NJ: Lawrence Erlbaum.

Osher, D., & Kane, M. (1993). *Describing and studying innovations in the education of children with attention deficit disorder*. Washington, DC: U.S. Department of Education.

Osher, D., & Kendziora, K. (in press). Building conditions for learning and healthy adolescent development: Strategic approaches. In B. Doll, W. Pfohl, & J. Yoon (Eds.), *Handbook of youth prevention science*. New York: Routledge.

Osher, D., Morrison, G., & Bailey, W. (2003). Exploring the relationship between student mobility and dropout among students with emotional and behavioral disorders. *Journal of Negro Education*, *72*, 79–96.

Osher, D., Sprague, J., Weissberg, R. P., Axelrod, J., Keenan, S., & Kendziora, K., et al. (2008). A comprehensive approach to promoting social, emotional, and academic growth in contemporary schools. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (pp. 1263–1278). Bethesda, MD: National Association of School Psychologists.

Osher, D., Woodruff, D., & Sims, A. (2002). Schools make a difference: The relationship between education services for African American children and youth and their overrepresentation in the juvenile justice system. In D. Losen (Ed.), *Minority issues in special education* (pp. 93–116). Cambridge, MA: Harvard Education Publishing Group.

Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, *70*, 323–367.

Rubin, K. H., Bukowski, W. M., & Parker, J. G. (2006). Peer interactions, relationships, and groups. In W. Damon & R. M. Learner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 571–645). New York: John Wiley.

Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, *38*, 437–460.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well being. *American Psychologist*, *55*, 68–78.

Saarni, C. (1999). *The development of emotional competence*. New York: Guilford.

Schaps, E., Battistich, V., & Solomon, D. (1997). School as a caring community: A key to character education. In A. Molnar (Ed.), *The construction of children's character* (Ninety-sixth yearbook of the National Society for the Study of Education, Part 2). Chicago: University of Chicago Press.

Sebring, P. B., Allensworth, E., Bryk, A. S., Easton, J. Q., & Luppescu, S. (2006). *The essential supports for school improvement*. Chicago: Consortium on Chicago School Research.

Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.). (2000). Positive psychology [Special issue]. *American Psychologist*, *55*(1).

Skiba, R. J., Michael, R., Nardo, A., & Peterson, R. (2000). *The color of discipline: Gender and racial disparities in school punishment*. Bloomington: Indiana Education Policy Center.

Skiba, R. J., Peterson, R. L., & Williams, T. (1997). Office referrals and suspension: Disciplinary intervention in middle schools. *Education and Treatment of Children*, *20*, 1–21.

Skinner, B. F. (1974). *About behaviorism*. New York: Alfred A. Knopf.

Spivack, G., Platt, J. J., & Shure, M. B. (1976). *The problem-solving approach to adjustment*. San Francisco: Jossey-Bass.

Sprague, J., & Golly, A. (2004). *Best behavior: Building positive behavior support in schools*. Longmont, CO: Sopris West.

Sprague, J. R., Walker, H., Golly, A., White, K., Myers, D. R., & Shannon, T. (2002). Translating research into effective practice: The effects of a universal staff and student intervention on key indicators of school safety and discipline. *Education and Treatment of Children*, *24*, 495–511.

Stams, G. J., Brugman, D., Dekovic, M., van Rosmalen, L., van der Laan, P., & Gibbs, J. C. (2006). The moral judgment of juvenile delinquents: A meta-analysis. *Journal of Abnormal Child Psychology*, *34*, 697–713.

Sugai, G., & Fabre, T. R. (1987). The behavior teaching plan: A model for developing and implementing behavior change programs. *Education and Treatment of Children*, *10*, 279–290.

Sugai, G., Horner, R. H., & Gresham, F. (2002). Behaviorally effective environments. In M. R. Shinn, H. M. Walker, & G. Stoner (Eds.), *Interventions for academic and behavior problems II: Preventive and remedial approaches* (pp. 315–350). Bethesda, MD: National Association of School Psychologists.

Thomas, D. E., Bierman, K. L., Thompson, C., & Powers, C. J. (2008). Double jeopardy: Child and school characteristics that predict aggressive-disruptive behavior in first grade. *School Psychology*, *37*, 516–532.

Thuen, E., & Bru, E. (2009). Are changes in students' perceptions of the learning environment related to changes in emotional and behavioural problems? *School Psychology International*, *30*, 115–136.

Townsend, B. L. (2000). The disproportionate discipline of African-American learners: Reducing school suspensions and expulsions. *Exceptional Children*, *66*, 381–391.

Turnbull, R. H. I. (1999). Two case studies of functional assessment and functional support: Idea compliance and capacity-building issues. In A. C. Repp & R. H. Horner (Eds.), *Functional analysis of problem behavior* (pp. 321–337). Pacific Grove, CA: Wadsworth.

Walker, H. M., & Buckley, N. K. (1974). *Token reinforcement techniques: Classroom applications for the hard to teach child*. Eugene, OR: E-B Press.

Warren, K., Schoppelrey, S., Moberg, D. P., & McDonald, M. (2005). A model of contagion through competition in the aggressive behaviors of elementary school students. *Journal of Abnormal Child Psychology*, *33*, 283–292.

Waters, E., & Sroufe, L. A. (1983). Social competence as a developmental construct. *Developmental Review*, *3*, 79–97.

Watson, M. (with Ecken, L.). (2003). *Learning to trust: Transforming difficult elementary classrooms through developmental discipline*. Hoboken, NJ: Jossey-Bass.

Watson, M., & Battistich, V. (2006). Building and sustaining caring communities. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management* (pp. 253–280). Mahwah, NJ: Lawrence Erlbaum.

Weissberg, R. P., Caplan, M., & Harwood, R. L. (1991). Promoting competent young people in competence-enhancing environments: A systems-based perspective on primary prevention. *Journal of Consulting and Clinical Psychology*, *59*, 830–841.

Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology*, *90*, 202–209.

Wentzel, K. R. (2004). Understanding classroom competence: The role of social-motivational and self-processes. In R. V. Kail (Ed.), *Advances in child development and behavior* (*Vol. 32*, pp. 213–241). San Diego: Elsevier.

Werner, E. E. (1982). *Vulnerable but invincible: A longitudinal study of resilient children and youth*. New York: McGraw-Hill.

Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2001). School based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology*, *17*, 247–272.

Wilson, S. J., & Lipsey, M. W. (2007). School-based interventions for aggressive and disruptive behavior: Update of a meta-analysis. *American Journal of Preventive Medicine*, *33*(Suppl. 2S), 130–143.

Wilson, S. J., Lipsey, M. W., & Derzon, J. H. (2003). The effects of school-based intervention programs on aggressive behavior: A meta-analysis. *Journal of Consulting and Clinical Psychology*, *71*, 136–149.

Zins, J. E., & Elias, M. J. (2006). Social and emotional learning. In G. Bears & K. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 1–14). Bethesda, MD: National Association of School Psychologists.

Zins, J. E., Weissberg, R. P., Wang, M. C., & Walberg, H. J. (Eds.). (2004). *Building academic success on social and emotional learning: What does the research say?* New York: Teachers College Press.

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Manuscript received June 23, 2009
Revision received October 21, 2009
Accepted November 2, 2009