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School safety and order are essential conditions for learning but represent a relatively new field of study, stimulated in large part by repeated episodes of school violence that have generated considerable public concern and triggered substantial changes in school discipline and security practices over the past two decades. This article sets the stage for the current special issue of *Educational Researcher (ER),* in which the study of school violence is recast into the broader and conceptually more fertile framework of school safety and order. Each article addresses key practical questions that map a school safety perspective to multiple bodies of education research as well as to broader transdisciplinary interests.

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

School violence predictably rockets to public attention after highly publicized shootings, and each incident generates a renewed conviction that schools are becoming increasingly dangerous places. But concern about school order and safety is not new. A historical perspective makes it clear that modern episodes of violence cannot be dismissed as anomalous events committed by a handful of aberrant students at a few unfortunate schools. School violence is not so much a new problem as a recurrent one that has not been adequately recognized for its persistence and pervasiveness throughout the history of education. Although the weapons have changed, descriptions of student violence can be found in clay tablets of Mesopotamia dating back to 2000 BC. In *Centuries of Childhood,* Aries (1962) cited numerous accounts of assaults, riots, and shootings in European schools from the Middle Ages to the 19th century.

There is virtually no extended period in American history free of concerns about disruptive student behavior (Crews & Counts, 1997). Teachers in Colonial America frequently dealt with violent student mutinies, and public concern with school safety and order in the United States persisted throughout the 19th century (Crews & Counts, 1997; Midlarsky & Klain, 2005; Newman & Newman, 1980). For example, in the 1840s, Horace Mann decried the frequent flogging of students for misbehavior and reported on the dissolution of approximately 400 Massachusetts schools due to student discipline problems (Newman & Newman, 1980).

In each of the past five decades, congressional hearings and government studies have periodically raised concerns about newly perceived upsurges in student violence (Crews & Counts, 1997). For example, a 1975 Senate report (Bayh, 1975) concluded that homicide, rape, robbery, and assault in schools were increasing dramatically. The Safe and Drug-Free Schools Act of 1986, the Gun-Free School Zones Act of 1990, and the modified Gun-Free School Zones Act of 1996 all reflected the conviction that schools were becoming increasingly dangerous places.

Although concerns about student aggression and school safety are not new, one aspect of the topic that has changed is academic interest in studying it. A PsycINFO search of peer-reviewed journals restricted to the term *school violence* identified 3 articles in the 1970s, 10 in the 1980s, 84 in the 1990s, and 443 since 2000. A 2009 Google Scholar search of *school violence* identified more than 15,000 articles. The term *school violence* is not sufficient to capture all of the relevant research on school safety, but it demonstrates the impressive size of the current literature.

This special issue is organized around a series of simple questions chosen to summarize much of this growing body of research. Although the questions are simple, the answers are not. As H. L. Mencken (1920) wrote, "There is always a well-known solution to every human problem—neat, plausible, and wrong" (p. 158). All too often, the response to school violence has centered on simple solutions, such as declaring that schools are gun-free zones or, alternatively, recommending that teachers arm themselves in order to ward off attacks. Perhaps the most simplistic solution has been the widespread adoption of zero-tolerance policies, which have resulted in thousands of students being expelled from school each year. Although originally intended to keep firearms and illegal drugs out of school, zero-tolerance policies have expanded dramatically in many school systems to include automatic suspension or expulsion for disciplinary infractions that would have received only minor punishment in previous decades, such as bringing a water pistol to school, shooting a paper clip with a rubber band, or playfully pointing a finger in a game of cops and robbers on the playground (American Psychological Association Zero Tolerance Task Force, 2008; Cornell, 2006; Skiba & Knesting, 2001). This group of articles demonstrates that school violence is not a single problem amenable to a simple solution but, rather, involves a variety of problems and challenges that range on a continuum from playful misbehavior to disrespectful, hostile, and progressively more violent transgressions.

Episodes of school violence are often the focus of attention, but we propose to reverse the figure-ground relationship and shift

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attention to the broader context of school order and safety. From the perspective of safety, the body of literature examined in this special issue can be recognized as relevant to the wide range of education research—from teacher preparation to administration, from instruction, classroom management, and pedagogy to curriculum, learning, and achievement. Our conceptualization of school order and safety not only encompasses a wide range of behavioral phenomena, ranging from disruptive behavior in the classroom to playground bullying, to teacher assaults and rampage shootings, but also covers systemic issues that traverse ecologies of the student and transactional developmental processes (Sameroff, 2000). Our goal is to enable and encourage many more education researchers to identify links to their own fields of study.

How does an emphasis on school order and safety help address questions of research and practice? School safety lies at a nexus of research involving education; juvenile justice; mental health and social welfare; school, clinical, and community psychology; sociology; and related disciplines. Common concerns that unite these somewhat disparate lines of inquiry include (a) coordinated and efficient functioning of schools with other organizations serving youth; (b) positive investment, engagement, and collaboration among all stakeholders; (c) physical and psychological well-being of students and their families; and (d) consistent progress in achieving desired outcomes in the academic and social-emotional-behavioral realms. Thus, "school order and safety" signals the coalescence of multiple lines of inquiry that delineate a coherent sphere of research; and that sphere can be integral to other major domains of education research. School safety is relevant to studies of the achievement gap, teacher attrition, classroom management, student engagement and motivation, dropout prevention, community poverty, cultural disenfranchisement, and many other topics in education research. In sum, safe and orderly schools are the sine qua non for efficient and effective academic programs.

Effects of School Disorder

There is a body of evidence demonstrating that school disorder impairs learning and achievement, likely in interaction with multiple dimensions of psychosocial functioning. Although our interest is in the impact of school disorder on academic outcomes, we do not presume a simple one-way causal pathway. Undoubtedly there are critical interactive trajectories of delinquent behavior, academic success, and social bonding to school, as well as reciprocal processes that can involve peer victimization and rejection, depression, and motivation. Student misbehavior not only disrupts the classroom and robs teachers of precious instructional time (Aleem & Moles, 1993; Dinkes, Cataldi, & Lin-Kelly, 2007; Gottfredson et al., 2000) but has a broader and longer lasting impact. Teachers can suffer from emotional strain and burnout that damage their feelings of commitment and self-efficacy, leading to negative and depersonalizing attitudes toward students (Browers & Tomic, 2000; Hastings & Bham, 2003). According to a 2003–2004 national survey, in the past year 242,000 teachers reported being threatened with injury with a weapon, and 120,000 reported being physically attacked by a student (Dinkes et al., 2007). Like their teachers, students, too, are distracted from instruction by student misconduct. In many cases the distraction is compounded by anxiety over bullying and fears for personal safety (Hanish & Guerra, 2002). Six percent of secondary students in 2005 reported avoidance of a school activity or location over the past 6 months due to fear of attack or harm (Dinkes et al., 2007).

Investigations into exposure to violence and related trauma have demonstrated linkages to problems in cognitive functioning and early reading achievement (Delaney-Black et al., 2002; Margolin & Gordis, 2000; Perry, 2001). Research specifically concerned with victimization experiences at school have examined a variety of models and mechanisms that lead to lower academic performance. Studies have identified the role of peer conflict and peer rejection, victimization, and threats of violence that produce psychosocial adjustment problems such as depression, anxiety, attentional problems, and social withdrawal, which in turn lead to school avoidance and reduced motivation to engage in learning activities (Buhs, Ladd, & Herald, 2006; Flannery, Wester, & Singer, 2004; Nansel et al., 2001; Nishina, Juvonen, & Witkow, 2005; Schwartz, Gorman, Nakamoto, & Toblin, 2005). Other studies describe the developmental cascades that link early externalizing behaviors to later academic failure (Masten et al., 2005), which is of particular concern in light of evidence that classroom aggression by a few children can foster increased aggression by others (Thomas, Bierman, & Conduct Problems Prevention Research Group, 2006). Still other studies document impaired ability to concentrate and difficulty focusing attention in class (Glew, Fan, Katon, Rivara, & Kernic, 2005; Hanish & Guerra, 2002), reduced engagement in group learning activities (Buhs et al., 2006; Ladd, 2003), school avoidance and absenteeism (Buhs et al., 2006; Chen, 2007). There are also international data on academic outcomes of school disorder. Results from the TIMMS (Trends in International Mathematics and Science Study) of 37 countries showed a significant negative association between student and peer victimization reports and national measures of math achievement (Akiba, LeTendre, Baker, & Goesling, 2002).

Although the potentially traumatic effects of exposure to shootings or physical assault seem obvious, there is also evidence that day-to-day, low-level incivility in schools is a key factor in student adjustment and psychological well-being. Although there is no generally agreed-upon definition for incivility, and it is less explicit than overt threats of physical harm, it can entail general acts of social exclusion, intimidation, bullying, and hateful language. Multiple studies have reported on the deleterious outcomes of teasing, intimidation, and bullying (Arseneault et al., 2006; Ladd, 2003; Nansel et al., 2001). Specific harmful effects include increased aggressive behaviors, more negative future expectations, and perceptions of a less safe school environment (Boxer, Edwards-Leeper, Goldstein, Musher-Eizenman, & Dubow, 2003; Thomas et al., 2006). Skiba and colleagues (2004) found that school climate, students' sense of connectedness, and levels of incivility were principal factors influencing student perception of safety and suggested that these factors may be more critical issues in prevention planning than overt high-level aggression and violence. In a structural equation modeling analysis of the 2001–2005 National Crime Victimization Survey, School Crime Supplement data sets, Mayer (in press) found that measures of day-to-day incivility accounted for about double the

explained variance (31–45% vs. 17–25%) in measures of student anxiety, fear, and avoidant behaviors, in comparison with an alternate model using reports of theft and more overt personal harm without the incivility variable.

The complex interplay of school violence and disruption, academic achievement, and prevention approaches is not well understood. Several noteworthy papers have helped untangle the larger web of connections, but each addresses only part of the greater puzzle (Dodge & Pettit, 2003; Ladd, 2003; Lynch & Cicchetti, 1998; Margolin & Gordis, 2000; Masten et al., 2005; Noguera, 1995). For example, Noguera examined school violence through a cultural lens that viewed schools as agents of control, and discipline as the exercise of power. Ladd took a child-by-environment perspective, examining school adaptation and success (academically and socially). Dodge and Pettit proposed a multidimensional model of conduct disorder that integrates biological and environmental risk factors with transactional developmental models and social-cognitive processes. In contrast, Masten and colleagues examined a developmental cascade connecting academic problems to unfolding internalizing and externalizing problems. Margolin and Gordis synthesized the theoretical and empirical literature on child maltreatment, community violence, and parental violence, specifically pointing to harmful effects of impaired cognitive development and academic functioning. Lynch and Cicchetti discussed a longitudinal analysis of child maltreatment, community violence, and children's mental health in a transactional-ecological framework. All of these empirical studies relate to students' academic and social success in school, and areas of overlap among them are evident, but there is a clear need for a unifying framework. A theoretical framework for school order and safety should accommodate ecological levels, transactional processes over time, culturally driven phenomena, and risk and protective factors, in addition to school-based influences. Above and beyond considerations specific to particular frameworks, there exist transdisciplinary issues in the study of school violence and school safety. Many of these issues are explored in greater depth in the special issue articles.

Transdisciplinary Concerns

School safety and order are not accomplished through instruction alone, and the problems and needs that lead many students to engage in disruptive, and sometimes violent, behaviors often require an interdisciplinary approach that necessarily involves mental health and allied systems professionals. In "What Can Be Done About School Shootings? A Review of the Evidence" (this issue of *Educational Researcher*, pp. 27–37), Randy Borum, Dewey G. Cornell, William Modzeleski, and Shane R. Jimerson discuss specific mental health needs common among many of the students who engaged in rampage school shootings. More broadly, researchers have pointed to the need for mental health services in schools, including, but not limited to, providing screening (Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007), direct services to ameliorate emotional and behavioral difficulties (Rones & Hoagwood, 2000), and engaging and supporting students' families with school-based family resource centers (Adelman & Taylor, 1999). Mental health and allied service delivery systems are partners in addressing school violence and school safety, yet their respective efforts are often not well coordinated (Kutash & Duchnowski, 2007). Recent research highlights the need for improved interagency collaboration in the delivery of mental health and support services to students (Pires, Lazear, & Conlan 2008). A tension exists between integrated and independent efforts, where core mission and goals, resource-driven decision making, systems incompatibilities, turf battles, and lack of infrastructure to support interagency collaboration set the stage for problematic outcomes (Daly et al., 2006).

Research on school violence and school safety also requires a transdisciplinary perspective. There are critical disciplinary differences across theoretical frameworks that address different types of research questions with specialized methodologies and use diverse standards for evidence-based interventions. Highly specific theoretical models that follow a pathology approach and are often disorder-focused may increase the likelihood of more unique outcomes for analysis, limiting development of more broad-based, effective interventions (Kratochwill & Stoiber, 2000). Alternatively, more complex theoretical models (e.g., developmentally oriented cognitive-ecological approaches to cognitive-behavioral interventions) may target critical factors linked to key theoretical frameworks. More comprehensive models require multilevel investigation (e.g., student, classroom, school) that pose logistical and analytical problems that can be addressed by state-of-the-art quantitative designs (Catalano, Arthur, Hawkins, Berglund, & Olson, 1998; Slavin, 2008). There are additional challenges when potential moderators and mediators are neither sufficiently articulated in theory nor incorporated in design (Clingempeel & Henggeler, 2002; Lochman, 2000).

High-risk youth often experience multiple conditions or disorders (comorbidity) that are not adequately addressed in theoretical models and prevention research focused on singular conditions (Weisz, Donenberg, Han, & Weiss, 1995). Increasingly complex theoretical models that address not only within-child comorbidities but also developmental, environmental, and relational processes, may create a push toward more complex conceptualizations and intervention designs, which can create new challenges for research and practice with regard to ensuring fidelity of implementation, managing sample attrition, and measuring outcomes linked to intervention components (Mayer & Van Acker, 2008). Interestingly, although some authorities have called for more complex interventions for high-risk youth (Catalano et al., 1998; Gottfredson, 2001; Lipsey, 1995; Wasserman & Miller, 1998), the outcomes found by Kazdin and Whitley (2006) for subjects with comorbid disorders were comparable to those of subjects with more singular problems using a standardized approach. It remains an open question whether simpler treatments can produce positive effects in multiproblem youth comparable to impressive effects that have been generated with more complex, multimodal, and individually adapted interventions such as multisystemic therapy (Schaeffer & Borduin, 2005).

Some appropriately call for using qualitative methods to address complex questions, such as better understanding the interface of service delivery systems and diverse communities (Harry, 1992) and discerning the cultural and familial factors that contribute to the attitudes and beliefs of high-risk violent youth (Garbarino, 1999). Likewise, Noguera (1995) offered

critical analysis of the role of school power structures and the symbolic exercise of power by school authorities. Qualitative methodologies offer rich contextual understanding of the life experiences, belief systems, and thought processes that can drive student behavior—knowledge critical to effective school safety programming.

Special Issue Preview

How Safe Are Our Schools?

An essential first step in any effort to study a problem is to develop means of gathering information and measuring it. In their article for this special issue of *Educational Researcher,* "How Safe Are Our Schools?" (pp. 16–26), authors Matthew J. Mayer and Michael J. Furlong describe the variety of measurement strategies and instruments used to examine school safety conditions, what they tell us and do not tell us, and how we can make progress in our understanding of the nature and scope of school violence. The authors examine benefits and limitations of using multiple sources of data, and address controversies concerning standardization of definitions (e.g., what is a fit?), and thereby help to synthesize the fragmented school safety resesarch base.

Research programs, policy development, and administrative decision making all depend on accurate and comprehensive data collection systems. Student self-report surveys are widely used to assess school safety but can present many methodological concerns, including deficiencies in survey construction and validation, nonstandard administration procedures, sampling biases, and inappropriate generalizations (Cornell, Sheras, & Cole, 2006; Cross & Newman-Gonchar, 2004; Furlong & Sharkey, 2006; Juvonen, Nishina, & Graham, 2001; Kingery & Coggeshall, 2001). National surveys mainly present aggregate data that paint a broad picture that may have limited relevance to local school and cultural contexts (Sharkey, Furlong, & Yetter, 2006). Because most surveys are conducted on an anonymous basis, external validation of responses is problematic. Moreover, even a small proportion of intentionally or unintentionally deviant responses about sensitive topics such as weapon carrying or drug use can skew results in an alarming manner (Cornell 2006; Cornell & Loper, 1998).

Mayer and Furlong discuss linkage of survey design to theory, and fit (or lack thereof) of instrumentation to research purposes, providing practical examples from the field. Broader questions of social and behavioral research are examined, including common threads across dozens of theoretical frameworks, commonly occurring research with minor testable hypotheses that do not embrace fully coherent theory, and iterative research cycles using slightly more eclectic approaches to approximate a cycle of theory refinement that is more rigorous (and more difficult to implement, given real-world constraints).

The nature of trend data is examined with attention to conceptual and statistical issues. The fundamental meaning and utility of surveys are juxtaposed against the needs of end users across different subdisciplines involved in policy, research, and practice. After reviewing current data on school environments, the authors pose tough questions on standards of risk and harm; ask what constitutes acceptable risk; question what needs to be studied, and how; and propose a national 10-year strategic plan to articulate key research questions and methodologies to advance the field of school safety.

What Can Be Done About School Shootings?

Contrary to public perception, episodes of extreme school violence did not begin with the school shootings of the past decade. The worst mass murder in a U.S. school occurred in 1927 when a school board member in Bath, Michigan, killed 45 people by dynamiting a school that was funded by a property tax he opposed ("School Dynamiter," 1927). Another almost-forgotten event—one of the worst school shootings in U.S. history—took place in 1966 when a University of Texas engineering student went on a shooting rampage that killed 16 people and wounded 31 others (Lavergne, 1997). Such events can fade from public memory, so the next tragic event generates the impression of a new phenomenon. In their article in this issue, Borum and colleagues identify historical trends in school shootings, analyze common patterns and characteristics that can be used to understand them, and review recommended approaches to prevent and respond to them.

Borum et al. ("What Can Be Done About School Shootings?" in this issue) systematically review trends in school-associated violent deaths and point out that only a small fraction of homicides and suicides occur in schools. They show that their rates declined substantially during the 1990s, contrary to the public perception gained from media attention to high-profile cases such as the Columbine shooting. Research on school shootings has relied primarily on qualitative or descriptive analyses of small samples of cases, with the goal of constructing profiles or warning indicators of potentially violent youth. Notably, both the FBI and Secret Service studies of school shootings unequivocally rejected profiling or warning-signs approaches as viable prevention strategies. Instead, both agencies, along with the U.S. Department of Education, endorsed threat assessment as the preferred prevention strategy. The authors distinguish threat assessment from other prevention approaches and describe several field tests of the Virginia threat assessment model. The article concludes with an overview of postshooting crisis response plans and the development of the National Association of School Psychologists' PREPaRE School Crisis Prevention and Intervention model.

What Can Be Done About School Bullying?

Although school shootings are statistically rare and unlikely events, no school is free from the pervasive problem of peer aggression and bullying. Bullying can take many forms and has consequences ranging from mild annoyance to debilitating distress and depression. In the 1980s, a series of suicides by victims of bullying spurred Norway to initiate a nationwide campaign to quell school bullying. Research on this effort by psychologist Dan Olweus (1993) brought international attention to the problem of bullying and worldwide implementation of his methods of schoolwide bullying prevention. In our fourth article, "What Can Be Done About School Bullying? Linking Research to Educational Practice" (pp. 38–47), Susan M. Swearer, Dorothy L. Espelage, Tracy Vaillancourt, and Shelley Hymel explain how bullying is conceptualized, describe its impact in multiple areas, and review evidence on recommended methods of prevention.

Swearer and colleagues review evidence linking involvement in bullying to poor academic achievement and suggesting that bullying prevention efforts can improve academic performance. They point out that students with disabilities and LGBT youth are especially vulnerable populations, and they identify the critical role of peer group influences and school climate on prevention efforts.

The authors identify a number of significant methodological challenges to research on bullying, including the diverse conceptualizations of bullying and variations across language, culture, and ethnic background in how bullying is defined. A major problem is that there is no consensus on the most appropriate method to assess bullying. Related to this problem is the insufficient evidence on whether existing assessment approaches are sufficiently sensitive to changes in rates of bullying to be capable of fairly evaluating intervention effects. The authors suggest that the widespread reliance on student self-report of bullying and victimization may not be adequate. This basic measurement issue clouds interpretation of the mixed and often disappointing results from studies examining schoolwide antibullying efforts. There is considerable controversy regarding the most effective strategies for antibullying programs, with disparate results even for the well-established and widely used Olweus program.

Swearer and colleagues champion a social-ecological approach, which they believe will lead to interventions that target family, peer, and school climate factors that promote bullying. They note that many schoolwide programs fail to include targeted interventions for the small number of students who are most actively engaged in bullying. They also call for more attention to race, disability, and sexual orientation in intervention efforts.

How Can We Improve School Discipline?

Popular impressions of school safety are found in films such as *Blackboard Jungle* (Berman & Brooks, 1955) and *Dangerous Minds* (Simpson, Bruckheimer, & Smith, 1995), which portray heroic teachers struggling to engage rebellious, threatening youth. These films illustrate the continuum of aggression from mildly disrespectful behavior in the classroom to life-threatening physical confrontations. One purpose of this special issue is to offer a broader conceptualization of school violence that recognizes the essential link between school safety conditions and academic success. This linkage is not confined to the special case of delinquent students attending school in a high-crime community, as dramatized in cinema, but applies to all students, classrooms, and schools. Academic success for students begins with a trusting and mutually respectful relationship between student and teacher, extends to classroom order, and culminates in a safe and supportive school climate that is profoundly and inextricably linked to learning outcomes.

The article by David Osher, George G. Bear, Jeffrey R. Sprague, and Walter Doyle, "How Can We Improve School Discipline?" (this issue of *Educational Researcher*, pp. 48–58), addresses the critical topic of classroom and schoolwide discipline. Disciplinary matters occupy an enormous share of school resources for both administrators and teachers and are widely regarded as the greatest source of workplace stress. Disciplinary practices have even more significant consequences for students because millions of students are subject to school removal through suspensions, transfers, and expulsions each year. There is no question that school discipline should not be relegated to the back burner of education research, because few issues have more impact on educators and students.

Osher and colleagues begin their analysis with the critical observation that "school discipline entails more than punishment" (p. 48). They conceive of school discipline as a transactional process with the goal of developing student self-discipline rather than mere compliance with external authority. They point out the complex interaction of adolescent needs for relationships and autonomy with societal and cultural expectations for appropriate behavior, as well as characteristics of each school's social structure and climate, as moderated by the influence of teacher management and support skills.

The authors point out the paucity of evidence in support of widely used zero-tolerance approaches and identify more effective, evidence-based methods of classroom management. This article, which in years to come will likely be seen as a seminal manuscript in a long chain of research, opens the door to a much-needed discussion of teacher-centered and individual-centered approaches to discipline, the virtues of systems change initiatives in school discipline, and the trade-offs between rival approaches. The focal point of the article is the authors' proposal for an integration of two predominant approaches to schoolwide discipline, schoolwide positive behavior supports (SWPBS) and social emotional learning (SEL). Their analysis of the research literature supporting these two approaches could stimulate a new wave of research and accompanying policy debate.

How Do School Safety Efforts Affect Students From Different Racial and Ethnic Groups?

A major problem in American education is the highly disproportionate punishment and exclusion of racially and ethnically diverse students. This *school discipline gap* has ominous implications in multiple domains, from the persistent achievement gap and higher dropout rates observed in disadvantaged minority youth to their lower socioeconomic status and disproportionate involvement in the criminal justice system in adulthood. Researchers have reported disturbing findings of racial and ethnic inequities in school discipline for several decades. Public understanding of these issues, however, is often driven not by research but by media accounts that promote stereotypic perceptions and reactionary demands for zero tolerance and associated control and containment approaches. Research, policy, and practice have not aligned to support progress in this critical area of need.

Anne Gregory, Russell J. Skiba, and Pedro A. Noguera, in "The Achievement Gap and the Discipline Gap: Two Sides of the Same Coin?" (this issue of *Educational Researcher*, pp. 59–68), examine theories and empirical evidence that might guide efforts to engage diverse students and their teachers in more constructive and mutually respectful relationships. After reviewing data on school safety measures and the disproportionate treatment of students, including connections to achievement, Gregory and colleagues examine research on potential explanations for the racial discipline gap, looking at poverty and neighborhood characteristics, low achievement, and competing theories of differential behavior, differential selection, and differential processing. Methodological issues in discipline gap research are examined,

followed by discussion of disciplinary practices, prevention programming, and school reform. The authors conclude that there is a critical need for research that can "test mechanisms and develop theory regarding the conscious and unconscious processes that result in differential treatment of some racial and ethnic groups" (p. 64). They suggest that cultural mismatch between teachers and students can contribute to inequitable disciplinary practices but acknowledge the complexity of studying this problem and reject the idea that any single causal factor can explain it or that any single action will be sufficient to resolve it.

In the absence of systematic research on interventions to reduce the discipline gap, the authors posit that effective programs would emphasize student learning and self-regulation rather than simply rule enforcement and would build stronger relationships between students and teachers and make schooling a more positive experience. Their suggestions echo the recommendations presented by Osher and colleagues (this issue). Nevertheless, they note that an examination of schools using positive behavior supports found improved student behavior but still significant disciplinary disproportionality for Black and Latino students. They assert that teachers and administrators must be made more aware of potential bias in disciplinary practices and strive to use alternatives to school exclusion, at the same time seeking to understand the reasons for students' misbehavior and to find ways to keep them engaged in learning.

How Can We Improve School Safety Research?

The final article in this special issue, by Ron Avi Astor, Nancy Guerra, and Richard Van Acker, asks "How Can We Improve School Safety Research? " (pp. 69–78). School safety research is a relatively new field of study that has not been integrated into the mainstream of education research. Research has trailed behind both need and innovation, with many new programs and approaches to school safety that have not been tested, even years after their implementation. For example, concerns about school shootings have dramatically changed school disciplinary policies and safety practices (Cornell, 2006). More broadly, problems of school disorder and violence have not been adequately recognized for their impact on student performance and academic success.

Astor and colleagues begin by examining theoretical foundations of school safety research, with special emphasis on considering the physical, temporal, and social contexts of schools. They observe that the field lacks an understanding of the empirical relations among the varied behaviors subsumed under the umbrella of school safety, from verbal insults and social exclusion to sexual assault and gang violence. Complicating the assessment of school safety are the substantial discrepancies among students, teachers, and administrators in their reports of victimization rates. The authors also identify the important role of socioeconomic and cultural influences on both assessment and intervention efforts.

Astor et al. recognize the substantial growth in evidence-based programs to prevent school violence and enhance school safety, but they identify needs for more attention to processes and mechanisms of change as well as generalizability across gender, ethnicity, culture, and country. They suggest that new analytic techniques such as propensity score matching and incorporation of moderating and mediating variables in tests of intervention models can help cope with the complexity of field-based research in settings such as schools and communities. They point out that meta-analyses of evidence-based programs, although useful and informative, are "more sensitive to issues of internal validity (i.e., scientific integrity) than issues of external validity and practical utility" (p. 74). Because few studies of school safety meet the highest scientific standards, there are many less rigorous studies that yield conflicting findings. They make the important observation that market forces (cost, portability, ease of implementation) can influence program selection more strongly than scientific evidence does.

The authors close with a strong argument for translational research. They cite the well-known difficulties of scaling up evidence-based practices from controlled studies and the ubiquitous problem of inadequate or inconsistent implementation. Just as the National Institutes of Health has made translational science a priority to improve the implementation of medical advances, so the field of education should place more emphasis on overcoming barriers to improving educational practices. The authors also propose mandatory school safety monitoring that can generate data to guide evidence-based practices and justify program funding and resource allocation. They recommend a participatory process and bottom-up approach that promises to secure greater stakeholder investment and greater collaboration between researchers and practitioners.

Conclusion

The articles in this *ER* issue are organized around seven key questions that frame much of the existing research. Although these questions have not been fully answered, there are many signs of progress and reasons for optimism in the nascent field of school safety and order. A formidable body of research documents our ability to intervene successfully with at-risk youth and prevent disruptive, antisocial, and violent behavior (D. B. Wilson, Gottfredson, & Najaka, 2001; S. J. Wilson, Lipsey, & Derzon, 2003). It is most noteworthy that demonstration programs (i.e., programs conducted under the supervision of researchers to demonstrate an intervention) achieved an estimated effect size of .25, which in a typical school would diminish student fighting from about 15% to 8%, a reduction of nearly 50%. It is worth remembering that seemingly modest intervention effect sizes can translate to important outcomes when addressing challenging behaviors at school that involve a relatively small percentage of the overall student population. Also, routine practice programs produced smaller (but still noteworthy) effects, which underscores the need for staff training and fidelity of implementation if prevention programs are to be optimally effective.

Perhaps the next major step for all allied disciplines concerned with safe schools is to move beyond a singular focus on school violence and reframe the collective focus to one of school safety and order. There is a large body of research—well represented in the articles in this special issue—that exemplifies the need for a multidisciplinary, integrative approach and demonstrates that many fields of education research have a stake in the outcome and a contribution to make in achieving it.

Goal 7 of Goals 2000, the Educate America Act, offered the naively hopeful resolution that "by the year 2000, every school in

America will be free of drugs and violence and the unauthorized presence of firearms and alcohol, and will offer a disciplined environment conducive to learning" (Goals 2000: Educate America Act, 1994). Although more than a decade old and seemingly forgotten, this goal remains a worthy aspiration.

REFERENCES

Adelman, H. S., & Taylor, L. (1999). Mental health in schools and system restructuring. *Clinical Psychology Review*, *19*, 137–163.

Akiba, M., LeTendre, G., Baker, D., & Goesling, B. (2002). Student victimization: National and school system effects on school violence in 37 nations. *American Educational Research Journal*, *39*, 829–853.

Aleem, D., & Moles, O. (1993). *Review of research on ways to attain Goal Six: Creating safe, disciplined, and drug-free schools*. Washington, DC: OERI. (ERIC Document Reproduction Service No. ED357446).

American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effective in schools? An evidentiary review and recommendations. *American Psychologist*, *63*, 852–862.

Aries, P. (1962). *Centuries of childhood: A social history of family life* (R. Baldick, Trans.). New York: Alfred A. Knopf.

Arseneault, L., Walsh, E., Trzesniewski, K., Newcombe, R., Caspi, A., & Moffitt, T. (2006). Bullying victimization uniquely contributes to adjustment problems in young children: A nationally representative cohort study. *Pediatrics*, *118*, 130–138.

Astor, R. A., Guerra, N., & Van Acker, R. (2010). How can we improve school safety research? *Educational Researcher*, *39*, 69–78.

Bayh, B. (1975). *Our nation's schools—A report card: "A" in school violence and vandalism. Preliminary report of the Subcommittee to Investigate Juvenile Delinquency, based on investigations, 1971–1975*. Washington, DC: Senate Committee on the Judiciary. (ERIC Document Reproduction Service No. ED104006)

Berman, P. (Producer), & Brooks, R. (Director). (1955). *Blackboard jungle* [Motion picture]. United States: MGM.

Boxer, P., Edwards-Leeper, L., Goldstein, S. E., Musher-Eizenman, D. R., & Dubow, E. F. (2003). Exposure to "low level" aggression in school: Effects on aggressive behavior, future expectations, and perceived safety. *Violence and Victims*, *18*, 691–704.

Borum, R., Cornell, D. G., Modzeleski, W., & Jimerson, S. R. (2010). What can be done about school shootings? A review of the evidence. *Educational Researcher*, *39*, 27–37.

Browers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, *16*, 239–253.

Buhs, E., Ladd, G., & Herald, S. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement? *Journal of Educational Psychology*, *98*, 1–13.

Catalano, R. F., Arthur, M. W., Hawkins, J. D., Berglund, L., & Olson, J. J. (1998). Comprehensive community- and school-based interventions to prevent antisocial behavior. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders* (pp. 248–283). Thousand Oaks, CA: Sage.

Chen, G. (2007). School disorder and student achievement: A study of New York City elementary schools. *Journal of School Violence*, *6*, 27–43.

Clingempeel, W. G., & Henggeler, S. W. (2002). Randomized clinical trials, developmental theory, and antisocial youth: Guidelines for research. *Development and Psychopathology*, *14*, 695–711.

Cornell, D. (2006). *School violence: Fears versus facts*. Mahwah, NJ: Lawrence Erlbaum.

Cornell, D., & Loper, A. (1998). Assessment of violence and other high-risk behaviors with a school survey. *School Psychology Review*, *25*, 317–330.

Cornell, D., Sheras, P. L., & Cole, J. C. M. (2006). Assessment of bullying. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety: From research to practice* (pp. 191–209). Mahwah, NJ: Lawrence Erlbaum.

Crews, G. A., & Counts, M. R. (1997). *The evolution of school disturbance in America*. Westport, CT: Praeger.

Cross, J. E., & Newman-Gonchar, R. (2004). Data quality in student risk behavior surveys and administrator training. *Journal of School Violence*, *3*, 89–108.

Daly, B. P., Burke, R., Hare, I., Mills, C., Owens, C., Moore, E., et al. (2006). Enhancing No Child Left Behind–school mental health connections. *Journal of School Health*, *76*, 446–451.

Delaney-Black, V., Covington, C., Ondersma, S. J., Nordstrom-Klee, B., Templin, T., Ager, J., et al. (2002). Violence exposure, trauma, and IQ and/or reading deficits among urban children. *Archives of Pediatrics and Adolescent Medicine*, *156*, 280–285.

Dinkes, R., Cataldi, E. F., & Lin-Kelly, W. (2007). *Indicators of school crime and safety: 2007* (NCES 2008–021/NCJ 219553). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice.

Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, *39*, 349–371.

Flannery, D., Wester, K., & Singer, M. (2004). Impact of violence exposure at school on child mental health and violent behavior. *Journal of Community Psychology*, *32*, 559–574.

Furlong, M. J., & Sharkey, J. D. (2006). A review of methods to assess student self-report of weapons on school campuses. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety: From research to practice* (pp. 235–256). Mahwah, NJ: Lawrence Erlbaum.

Garbarino, J. (1999). *Lost boys: Why our sons turn violent and how we can save them*. New York: Free Press.

Glew, G. M., Fan, M. Y., Katon, W., Rivara, F. P., & Kernic, M. A. (2005). Bullying, psychosocial adjustment, and academic performance in elementary school. *Archives of Pediatrics and Adolescent Medicine*, *159*, 1026–1032.

Goals 2000: Educate America Act. (1994). Archived Information. H.R. 1804 Goals 2000: Educate America Act. Retrieved June 21, 2009, from http://www.ed.gov/legislation/GOALS2000/TheAct

Gottfredson, D. C. (2001). *Schools and delinquency*. New York: Cambridge University Press.

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

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.

Hanish, L. D., & Guerra, N. G. (2002). A longitudinal analysis of patterns of adjustment following peer victimization. *Development and Psychopathology*, *14*, 69–89.

Harry, B. (1992). *Cultural diversity, families and the special education system*. New York: Teachers College Press.

Hastings, R. P., & Bham, M. S. (2003). The relationship between student behaviour patterns and teacher burnout. *School Psychology International*, *24*, 115–127.

Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views and peer perceptions of victim status among early adolescents. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105–124). New York: Guilford.

Kazdin, A. E., & Whitley, M. K. (2006). Comorbidity, case complexity, and effects of evidence-based treatment for children referred for disruptive behavior. *Journal of Consulting and Clinical Psychology*, *74*, 455–467.

Kingery, P. M., & Coggeshall, M. B. (2001). Surveillance of school-related violence, injury, and disciplinary actions. *Psychology in the Schools*, *38*, 117–126.

Kratochwill, T. R., & Stoiber, K. C. (2000). Empirically supported interventions and school psychology: Conceptual and practice issues—Part II. *School Psychology Quarterly*, *15*, 233–253.

Kutash, K., & Duchnowski, A. J. (2007). *The role of mental health services in promoting safe and secure schools: Effective strategies for creating safer schools*. Washington, DC: Hamilton Fish Institute on School and Community Violence.

Ladd, G. W. (2003). Probing the adaptive significance of children's behavior and relationships in the school context: A child-by-environment perspective. In R. Kail (Ed.), *Advances in child behavior and development* (*Vol. 31*, pp. 43–104). New York: John Wiley.

Lavergne, G. (1997). *A sniper in the tower*. Denton: University of North Texas Press.

Lipsey, M. W. (1995). What do we learn from 400 research studies on the effectiveness of treatment with juvenile delinquents? In J. McGuire (Ed.), *What works? Reducing reoffending* (pp. 63–78). New York: John Wiley.

Lochman, J. E. (2000). Theory and empiricism in intervention research: A dialectic to be avoided. *Journal of School Psychology*, *38*, 359–368.

Lynch, M., & Cicchetti, D. (1998). An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology*, *10*, 235–257.

Margolin, G., & Gordis, E. (2000). The effects of family and community violence on children. *Annual Review of Psychology*, *51*, 445–479.

Masten, A. S., Roisman, G. I., Long, J. D., Burt, K. B., Obradović J., Riley, J. R., et al. (2005). Developmental cascades: Linking academic achievement, externalizing and internalizing symptoms over 20 years. *Developmental Psychology*, *41*, 733–746.

Mayer, M. J. (in press). Structural Analysis of 1995–2005 School Crime Supplement datasets: Factors influencing students' fear, anxiety, and avoidant behaviors. *Journal of School Violence*.

Mayer, M. J., & Furlong, M. J. (2010). How safe are our schools? *Educational Researcher*, *39*, 16–26.

Mayer, M. J., & Van Acker, R. (2008). Historical roots, theoretical and applied developments, and critical issues in cognitive-behavioral modification. In M. J. Mayer, R Van Acker, J. E. Lochman, & F. M. Gresham (Eds.), *Cognitive-behavioral interventions for emotional and behavioral disorders: School-based practice* (pp. 3–28). New York: Guilford.

Mencken, H. L. (1920). *Prejudices: Second series*. New York: Alfred A. Knopf.

Midlarsky, E., & Klain, H. M. (2005). A history of violence in schools. In F. L. Denmark, H. H. Kraus, R. W. Wesner, E. Midlarsky, & U. P. Gielen (Eds.), *Violence in schools: Cross-national and cross-cultural perspectives* (pp. 37–57). New York: Springer.

Nansel, T. R., Overpeck, M. O., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behavior among US youth: Prevalence and association with psychosocial adjustment. *Journal of the American Medical Association*, *285*, 2094–2100.

Newman, J., & Newman, G. (1980). Crime and punishment in the schooling process: A historical analysis. In K. Baker & R. J. Rubel (Eds.), *Violence and crime in the schools* (pp. 3–15). Lexington, MA: Lexington Books.

Nishina, A., Juvonen, J., & Witkow, M. R. (2005). Sticks and stones may break my bones, but names will make me feel sick: The psychosocial, somatic, and scholastic consequences of peer harassment. *Journal of Clinical Child and Adolescent Psychology*, *34*, 37–48.

Noguera, P. A. (1995). Preventing and producing violence: A critical analysis of responses to school violence. *Harvard Educational Review*, *65*, 189–212.

Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford, UK: Blackwell.

Osher, D., Bear, G. B., Sprague, J. R., & Doyle, W. (2010). How can we improve school discipline? *Educational Researcher*, *39*, 48–58.

Perry, B. D. (2001). The neurodevelopmental impact of violence in children. In D. Schetky & E. P. Benedek (Eds.), *Textbook of child and adolescent forensic psychiatry* (pp. 221–238). Washington, DC: American Psychiatric Press.

Pires, S. A., Lazear, K. J., & Conlan, L. (2008). *Building systems of care: A primer for child welfare*. Washington, DC: National Technical Assistance Center for Children's Mental Health Center for Child and Human Development, Georgetown University.

Rones, M., & Hoagwood, K. (2000). School-based mental health services: A research review. *Clinical Child and Family Psychology Review*, *3*, 223–241.

Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development and Psychopathology*, *12*, 297–312.

Schaeffer, C. M., & Borduin, C. M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology*, *73*, 445–453.

School dynamiter first slew wife. (1927, May 20). *New York Times*. Retrieved April 26, 2009, from http://freepages.history.rootsweb.ancestry.com/~bauerle/nyt520.txt

Schwartz, D., Gorman, A., Nakamoto, J., & Toblin, R. (2005). Victimization in the peer group and children's academic functioning. *Journal of Educational Psychology*, *97*, 425–435.

Sharkey, J. D., Furlong, M. J., & Yetter, G. (2006). An overview of measurement issues in school violence and school safety research. In S. R. Jimerson & M. J. Furlong (Eds.), *Handbook of school violence and school safety: From research to practice* (pp. 121–134). Mahwah, NJ: Lawrence Erlbaum.

Simpson, D., & Bruckheimer, J. (Producers), & Smith, J. N. (Director) (1995). *Dangerous minds* [Motion picture]. United States: Hollywood Pictures.

Skiba, R. J., & Knesting, K. K. (2001). Zero tolerance, zero evidence: An analysis of school disciplinary practice. In R. J. Skiba, & G. G. Noam (Eds.), *New directions for youth development: No. 92. Zero tolerance: Can suspension and expulsion keep schools safe?* (pp. 17–43). San Francisco: Jossey-Bass.

Skiba, R. J., Simmons, A. B., Peterson, R., McKelvey, J., Forde, S., & Gallini, S. (2004). Beyond guns, drugs and gangs: The structure of student perceptions of school safety. *Journal of School Violence*, *3*, 149–171.

Slavin, R. E. (2008). Perspectives on evidence-based research in education—What works? Issues in synthesizing educational program evaluations. *Educational Researcher*, *37*, 5–14.

Swearer, S. M., Espelage, D. L., Vaillancourt, T., & Hymel, S. (2010). What can be done about school bullying? Linking research to educational practice. *Educational Researcher*, *39*, 38–47.

Thomas, D. E., Bierman, K. L., & Conduct Problems Prevention Research Group. (2006). The impact of classroom aggression on the development of aggressive behavior problems in children. *Development and Psychopathology*, *18*, 471–487.

Wasserman, G. A., Miller, L. S. (1998). The prevention of serious and violent juvenile offending. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders* (pp. 197–247). Thousand Oaks, CA: Sage.

Weist, M. D., Rubin, M., Moore, E., Adelsheim, S., & Wrobel, G. (2007). Mental health screening in schools. *Journal of School Health*, *77*, 53–58.

Weisz, J., Donenberg, G., Han, S., & Weiss, B. (1995). Bridging the gap between lab and clinic in child and adolescent psychotherapy. *Journal of Consulting and Clinical Psychology*, *63*, 688–701.

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., & 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.

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