

Workshop to Examine Current and Potential Uses of

# **NCES Longitudinal Surveys**

by the Education Research Community

# Using NCES Surveys to Understand School Violence and Bullying

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# **National Academy of Education**

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## **ABSTRACT**

School violence and bullying are both public health concerns that have serious short- and long-term negative outcomes for youth, families, students, and community members. In this report, several pressing research issues related to definitional issues, etiological underpinnings, and school violence and bullying prevention efforts are reviewed with a focus on whether the National Center for Educational Statistics (NCES) longitudinal and cross-sectional datasets could be used to address these issues. Two longitudinal high school studies, the Educational Longitudinal Study of 2002 (ELS:2002) and the High School Longitudinal Study of 2009 (HSLS:2009), were reviewed and the ELS:2002 dataset includes an assessment of bully victimization (one item) and school violence (scale) at baseline. Papers have appeared in peer-reviewed outlets examining victimization experiences among children of immigrant parents and victimization experiences in after-school programs. Much more work could be conducted with this dataset, but the single bully victimization item is a major limitation. The HSLS:2009 only includes one item related to school violence students were asked how safe they felt at school. Three longitudinal studies within the Early Childhood Longitudinal Study (ECLS; http://nces.ed.gov/ ecls) program examine home, school, and community influences on children's academic and social development. NCES is encouraged to continue to follow the kindergarten class of 2010–2011 (ECLS-K:2011), currently in the third grade, into late adolescence. NCES cross-sectional datasets are limited in several respects. They are cross-sectional, have limited measurement of indicators of school violence and bullying, and do not allow for contextual analyses because student responses cannot be linked to classroom-, school-, neighborhood-, and community-level data. Thus, a longitudinal, multisite, multi-informant study is needed to address definitional and etiological issues related to school violence and bullying so that prevention efforts can be developed, implemented, and evaluated that incorporate multiple levels of the ecology, including peers, schools, communities, and neighborhoods.

School violence is a subset of youth violence and a broad public health problem (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2010). Youth violence occurs between the ages of 10 and 24 years and is defined as the intentional use of physical force or power, against another person or group, with the behavior likely to cause physical or psychological harm (Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, 2010). Youth violence can include verbal and physical aggression, threatening, and intimidating behaviors that are associated with short- and long-term adverse academic and psychological outcomes for perpetrators and victims (Cook et al., 2010; Espelage et al., 2012b; Low et al., 2013). Bullying is a subtype of aggressive behavior among students that is repetitive and occurs among students of unequal power (Espelage, 2012). School violence such as student-to-student victimization and bullying remains a national concern for schools and communities across the country (e.g., Robers et al., 2013). Violence against teachers has also received recent research attention as another cause for concern in our schools (Espelage et al., 2013a).

In this report, several pressing research issues related to definitional issues, etiological underpinnings, and school violence and bullying prevention efforts are reviewed with a focus on how the National Center for Educational Statistics (NCES) longitudinal and cross-sectional datasets have contributed to this literature and how these datasets could be further mined to address these issues. NCES has produced two longitudinal high school studies, the Educational Longitudinal Study of 2002 (ELS:2002) and the High School Longitudinal Study of 2009 (HSLS:2009), and ELS:2002 includes an assessment of bully victimization (one item) and school violence (scale) at baseline. Studies have been published in peer-reviewed outlets examining victimization experiences among children of immigrant parents and victimization experiences in after-school programs. HSLS:2009 only includes one item related to school violence—students were asked how safe they felt at school. The three longitudinal studies within the Early Childhood Longitudinal Study (ECLS) program include an ecological examination of how the home, school, and community environment shape the development of externalizing behaviors in children. These studies are designed with a strong theoretical base and have allowed for the direct examination of the potential mechanisms by which youth become involved in school violence or aggression (ECLS-K:2011, specifically).

In addition to these longitudinal studies, NCES publishes the *Indicators of School Crime and Safety* every two years (see Robers et al., 2013, for more details), which includes a summary of a series of cross-sectional surveys of students, teachers, and principals. The School Survey on Crime and Safety (SSOCS) is an instrumental part of this report. The *Indicators of School Crime and Safety* is a valuable resource to practitioners, policy makers, researchers, and so forth and is highly cited in peer-reviewed articles and is a document that is instrumental in identifying where research and interventions are needed.

Although the NCES datasets offer useful information about the trends of school violence and bullying, these surveys and studies need to be improved if they are going to add to the literature on many pressing issues in the field. Thus, to this end, this report reviews the measures that are included in the various NCES cross-sectional and longitudinal studies and points out where the measurement is lacking. I make recommendations for how these datasets could be used to address some important issues in the field, including identifying predictors of youth aggression, school violence, and bullying and highlighting populations at particular risk for bullying and victimization.

## NCES DATASETS THAT ASSESS SCHOOL VIOLENCE AND BULLYING

## **High School Studies**

The ELS:2002 is fourth in a series of school-based longitudinal studies (i.e., NLS:72, HS&B:80; NELS:88). ELS:2002 was conducted with tenth graders in 2002 and then assessed them as twelfth graders in 2004, and then two additional assessments were performed in 2006 and 2012. In the tenth-grade assessment, the student survey included individual items that assessed school violence: (1) In class I often feel "put down" by my students; (2) I don't feel safe at this school; (3) There are gangs in school; and (4) Fights often occur between different racial/ethnic groups. A bullied victimization item was embedded in a larger school violence scale: (1) Had something stolen from

me at school; (2) Someone offered to sell me drugs at school; (3) Someone threatened to hurt me at school; (4) I got into a physical fight at school; (5) Someone hit me; (6) Someone used strong-arm or forceful methods to get money or things from me; (7) Someone purposely damaged or destroyed my belongings; and (8) Someone bullied me or picked on me. In addition, students were asked to name a few of their friends and then they answered some questions about their friends' behaviors, which would allow for studies on peer influence of behaviors. Only four of these items were included in the twelfth-grade assessment (something stolen at school, someone offered to sell you drugs at school, someone threatened to hurt you, someone hit you at school). The parent assessment includes information about their child's disability, questions related to language, and their level of school contact, and they also named some of their youth's friends and asked questions about the friends. This dataset has been used in crosssectional analyses and published in peer-reviewed outlets to investigate victimization in after-school programs (Peguero, 2008; Ripski & Gregory, 2009), to examine violence and victimization experiences among children of immigrant parents (Peguero, 2009a, 2009b), and to examine school safety issues as predictors of teacher-rated academic achievement (Nelson & Gastic, 2009). Although this dataset is limited in its measurement of bully victimization with one item at the tenth-grade assessment, there might be some longitudinal analyses that could look at victimization and school safety issues and predicted adult outcomes. However, there is no assessment of sexual harassment or teen dating aggression—two phenomena that are particularly relevant for adolescence.

The HSLS:2009 is ongoing and includes a nationally representative, longitudinal study of over 23,000 ninth graders from 944 schools. This includes surveys of students, their parents, math and science teachers, school administrators, and school counselors. Assessments were conducted in 2009 and 2012 (data available) and the second follow-up in scheduled for 2016. The 2009 and 2012 student assessments include one item related to school safety: students were asked to respond to the statement, "I feel safe at school." No other items related to school violence or bullying were assessed, and parents and counselors were not queried on these issues. Teachers were asked about the extent to which disruptive students are issues in their school.

## **Early Childhood Studies**

The Institute of Educational Sciences NCES has three longitudinal studies within the ECLS program (http://nces.ed.gov/ecls) that examine early childhood experiences and later academic outcomes. Given the importance of examining school violence and bullying prior to high school, I focus on the three longitudinal studies in the NCES ECLS program. First, the birth cohort of the ECLS-B (born in 2001) was followed from birth through kindergarten entry (at 9 months of age, 2 years, preschool, and kindergarten). This study included direct assessments of the children (nurse, behavioral observations), self-administered teacher surveys, parent interviews, and self-administered parent surveys. A wide range of constructs were assessed across the ecology of the child, including prenatal care, developmental milestones (including social-emotional development), exposure to violence, community support, economic support, neighborhood quality, physical abuse of child, and relationship quality of parents. Teachers rated the child's friendships (liked, annoys other children). Second, the kindergarten class of 1998–1999

(ECLS-K) cohort is a sample of children followed from kindergarten through eighth grade. Like the ECLS-B, this is a longitudinal study that allowed researchers to study how a wide range of family, school, community, and individual factors affected school performance. Parents, teachers, and students completed measures in kindergarten and first, third, fifth, and eighth grades. The Social Skills Rating Scale was modified and completed by multi-informants to assess the youth's social skills and problem behaviors (externalizing, internalizing). Third, the kindergarten class of 2010–2011 (ECLS-K:2011) cohort is a sample of children followed from kindergarten through fifth grade (each year). These youth are currently in the third grade, and will be assessed as fourth graders and fifth graders in spring 2015 and 2016, respectively. Like the ECLS-K, in the ECLS-K:2011, parents, teachers, and students complete measures to assess home, school, and community influences on academic and social outcomes. Parents, teachers, and students report on peer victimization experiences (adapted from Espelage & Holt, 2001; e.g., "other students called names, other students made fun of, other students picked on child"), and social skills, externalizing, and internalizing behaviors are also assessed via the Social Skills Rating System (1990; Gresham & Elliott, 1990). Teachers also report on parental involvement for each student. These three studies demonstrate excellent examples of the importance of studying how early childhood experiences at home, in school, and in the community all interact to influence later academic and social engagement. It would be important to keep the victimization scale in the 2015 and 2016 assessments. This author has worked with the measurement panel and has recommended the additional items on bully perpetration.

In addition to these longitudinal studies, NCES publishes the *Indicators of School Crime and Safety* every two years (see Robers et al., 2013, for more details), which includes a summary of a series of cross-sectional surveys of students, teachers, and principals. Sources for this report include the School-Associated Violent Death Study funded by the Department of Education, the Department of Justice, and the Centers for Disease Control and Prevention (CDC); the National Crime Victimization Survey (NCVS; U.S. Department of Justice, 2011) and School Crime Supplement (NCES); the Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 2012); the Schools and Staffing Survey (NCES); and the School Survey on Crime and Safety (NCES).

## School Crime Supplement to the National Crime Victimization Survey

The School Crime Supplement (SCS) was created as a supplement to the NCVS and co-designed by the NCES and Bureau of Justice Statistics. The SCS survey collects information about victimization, crime, and safety at school. The SCS is a national survey of approximately 6,500 students ages 12 through 18 in U.S. public and private elementary, middle, and high schools. The SCS was conducted in 1989, 1995, 1999, 2001, 2003, 2005, 2007, 2009, and 2011. Constructs include alcohol and drug availability; fighting, bullying, and hate-related behaviors; fear and school avoidance behaviors; gun and weapon carrying; and gangs at school. A particular strength of this survey is the inclusion of promotive and protective factors including involvement in student government, clubs, and athletic teams; perceptions of school rules and equity; perceptions of teacher–student relations; and neighborhood scales. The survey also assesses avoidance behaviors associated with school safety issues, including locations (e.g., hallways, cafeteria), activities,

classes, and truancy. Nine items address security measures (e.g., metal detectors, code of conduct) and students are asked if they reported bullying to a teacher or some other adult. This survey also includes an assessment of gang activity or involvement with three questions: (1) Are there any gangs at your school? (2) During this school year, how often have gangs been involved in fights, attacks, or other violence at your school? (3) Have gangs been involved in the sale of drugs at your school during this school year? NCES should consider assessing gang membership and ask if students were recruited but did not join a gang to identify what protective factors might lead to resistance of gang membership (De La Rue & Espelage, 2014). Three items for cyberbullying were added to 2009–2010 survey. This survey is limited in that it is cross-sectional, self-report, and data cannot be linked to school-level or community-level characteristics. In reality, these data are useful for surveillance of school violence and bullying only and offer little in the way of addressing some of the major pressing research issues in the fields of school violence and bullying. Of note, an expert panel convened in the fall of 2013 to provide suggestions for revisions of this supplement, and I suggested the following recommendations: (1) assess the power differential between the perpetrator and victim (when you are bullied is it by a person bigger, older, stronger, more popular); (2) add response options to assess frequencies (never, 1 or 2 times, 3 or 4 times, etc.) for each item; and (3) make offline and online items parallel to allow direct comparisons of prevalence; perpetration should be added across all constructs.

# School Survey on Crime and Safety

The School Survey on Crime and Safety (SSOCS) was the primary source of schoollevel data on crime and safety for NCES. It includes a nationally representative crosssectional survey of about 3,500 public elementary and secondary public schools. SSOCS is administered to over 3,000 public primary, middle, high, and combined school principals in the spring of even-numbered school years. Data collection occurred in the spring of the 1999-2000, 2003-2004, 2005-2006, 2007-2008, 2009-2010 (data not available yet), and 2011-2012 school years (questionnaire and data are not on website). The survey includes items related to school practices and programs, parent and community involvement at school, school security, staff training, limitations on crime prevention, frequency of crime and violence at school, frequency of incidents reported to police or law enforcement, frequency of hate crimes, gang-related crimes, and gang-related hate crimes, disciplinary problems and disciplinary actions, and so on. Furthermore, it includes an assessment of school security practices and policies related to technology use, and written plans and drills for violence incidents. Finally, detailed questions regarding the role and involvement of school resource officers, security guards, or sworn law enforcement officers are included. These data provide descriptive information about what schools are doing to address school safety and security efforts and how the security officers are involved in efforts to implement and enforce these efforts and how they are involved in teacher training efforts. Principals are provided with definitions of gang, hate crime, rape, sexual battery, sexual harassment, theft, and violence. No definition of bullying is provided, but cyberbullying is defined in the body of the survey. One item for bullying ("How often does student bullying occur at your school?") is assessed. Again, this survey is limited by its cross-sectional nature, use of a single informant, and limited psychometric evidence for the constructs, including the one bullying item. It does not appear that these data can be linked to student-level data or data from other longitudinal studies. NCES should consider how these data could be linked to other data sources.

# Schools and Staffing Survey (NCES)

The Schools and Staffing Survey is a system of related questionnaires that provides descriptive data on the context of elementary and secondary education and provides policy makers a variety of statistics on the condition of education in the United States. It covers a wide range of topics from teacher demand, teacher and principal characteristics, general conditions in schools, principals' and teachers' perceptions of school climate, and problems in their schools. The four components are the School Questionnaire, the Teacher Questionnaire, the Principal Questionnaire, and the School District Questionnaire. It includes comprehensive assessments of training, professional development training, and violence directed toward teachers. The most recent data collection was for 2011-2012 and it is now being changed to the National Teacher and Principal Survey. Of note is that the teacher questionnaire was instrumental in drawing national attention to the substantial number of teachers and paraprofessionals who had experienced violence in their classrooms and schools, but it failed to uncover those aspects of schools, communities, or school leadership that predicted the prevalence of teacher violence. Thus, the American Psychological Association appointed a task force that used the prevalence data to design a national study of National Education Association members (Espelage et al., 2013a). NCES should consider a longitudinal, multilevel examination of violence directed toward teachers, staff, and principals that would examine what factors predict violence and what factors are associated with less violence, and it should consider developing interventions to reduce the growing teacher attrition that is linked to disruptive behaviors in the classroom.

## CURRENT RESEARCH ISSUES ON SCHOOL VIOLENCE AND BULLYING

In reality, NCES data have contributed to the continual focus on school crime and violence which have emerged as significant public health crises that include behaviors ranging from bullying, hate-based language, sexual harassment, physical assaults, and other crimes (Robers et al., 2013). This most recent NCES report indicated that about a third of students in grades 9–12 reported they had been in a physical fight at least one time during the previous 12 months anywhere, and 12 percent said they had been in a fight on school property during the previous 12 months (Robers et al., 2013). Rates of victimization were similarly high. Approximately 28 percent of 12- to 18-year-old students reported they had been bullied at school during the school year, and victimization was highest among sixth graders (37 percent), compared to seventh or eighth graders (30 and 31 percent, respectively). Also, approximately 9–11 percent of youth report being called hate-related words having to do with their race, religion, ethnic background, and/or sexual orientation (Robers et al., 2013).

Whereas some research indicates that extreme forms of school violence are decreasing in prevalence (Robers et al., 2010), school violence in general and its aftermath

continue to be significant problems for students, teachers, staff, and schools. Most scholars agree that school violence is a multisystematic problem that manifests from community, school, school personnel, and student characteristics and processes. As a result, school violence has received significant media, research, and policy attention. Thus, there continue to be many pressing issues in the research literature on school violence and bullying, some of which are discussed next.

# Definition of Bullying and Peer Victimization

Almost four decades of research has been conducted on bullying and peer victimization ranging from prevalence studies, etiological investigations, and systematic reviews and evaluations of prevention and intervention programs (see Espelage & Holt, 2012, for review). However, a rigorous debate has only recently emerged about how best to define bullying and how to distinguish it from other forms of aggression and/or peer victimization (American Educational Research Association, 2013; Rodkin, Espelage, & Hanish, 2014). This is an important issue to resolve as most states are required to have a bully definition, a policy, and a prevention plan. One of the first predominant definitions of bullying that continues to be used in the literature and in the legal arena is that "a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more students" (Olweus, 2010, p. 11). Other definitions have been more explicit. For example, Sharp and Smith write, "A student is being bullied or picked on when another student says nasty or unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, sent nasty notes, and when no one ever talks to him" (Sharp & Smith, 1991, p. 1).

More recent definitions of bullying emphasize observable or nonobservable aggressive behaviors, the repetitive nature of these behaviors, and the imbalance of power between the individual or group perpetrator and the victim (Espelage & Holt, 2012; Ybarra et al., 2014). An imbalance of power exists when the perpetrator or group of perpetrators have more physical, social, or intellectual power than the victim. In a recent examination of a nationally representative study, early and late adolescents that perceived that their perpetrator had more power than them reported greater adverse outcomes (e.g., depression, suicidal ideation) than victims who did not perceive a power differential (Ybarra et al., 2014). Finally, repetition should be evaluated carefully given that youth who are victims of bullying often change their behaviors in order to minimize the probability of it happening again (Batanova et al., 2014). For example, they might stop riding the bus, stop attending lunch, or avoid school and other places where the victimization is occurring.

Since 2010, leading violence and victimization scholars have convened in several meetings hosted by the Department of Education and the CDC to develop a national uniform *research* definition. The research definition for bullying victimization is "unwanted, intentional, aggressive behavior among school aged children that involves a real or perceived power imbalance that is often repeated over time or has the probability of occurring again" (Centers for Disease Control and Prevention, 2012). These behaviors include verbal and physical aggression that ranges in severity from making threats, spreading rumors, and exclusion to physical attacks causing injury and can

occur face-to-face and/or through technology (e.g., cell phones, computers). Finally, some bullying behaviors may overlap with aggression that meets the legal definition of harassment, but not all incidents of harassment constitute bullying. Given that bullying co-occurs with other forms of aggression and school violence (Espelage et al., 2012a, 2013b), educators and scholars should not limit themselves to the tradition definition but should assess all forms of aggression and victimization. Finally, victimization should not be limited to peer-on-peer experiences only, but should be examined as occurring among all school community members, including youth, teachers, school staff, and parents (Espelage et al., 2013a).

The SCS to the NCVS 2011 is the only source of data from students about their experiences of bullying. Students are presented with the following question to assess offline (face-to-face) bully victimization: Now I have some questions about what students do at school that make you feel bad or are hurtful to you. We often refer to this as being bullied. During this school year, has any student bullied you? Then students respond "yes" or "no" to seven items: name calling, rumor spreading, threatened, physical, coercion, excluded, and destroyed property. Online bully victimization is assessed with the following item, to which the students respond "yes" or "no": Now I have some questions about what students do that could occur anywhere and that make you feel bad or are hurtful to you. We often refer to this as being bullied. You may include events you told me about already. During this school year, has another student posted hurtful information; threatened by email, instant messaging, text messaging, or through games; or excluded? This assessment is not consistent with the national research definition of bullying. Thus, NCES should assess the power differential between the perpetrator and victim. This recommendation is based on the research findings that victimized youth who perceive having less power than their perpetrator have more adverse outcomes than those who do not perceive a power differential (Ybarra et al., 2012, 2014). Furthermore, I recommend adding frequencies for each item, making offline and online items parallel to allow direct comparisons of prevalence, and adding perpetration across all constructs.

# Bullying, Peer Victimization, Academic Achievement, and Engagement

Several national and international research studies relying on cross-sectional data have documented that experiences of being victimized or bullying other students are associated with decreased academic achievement. Findings from a sample of seventh, ninth, and eleventh graders in an urban public school district also revealed that for each one-point increase in grade point average, the odds of being a victim versus a bystander decreased by 10 percent (Glew et al., 2008). These associations are also found when students are followed over time in longitudinal studies (e.g., Juvonen et al., 2011; Schwartz et al., 2005). Juvonen and colleagues (2011) documented that peer victimization can account for an average 1.5-point letter grade decrease in one academic subject (e.g., math) across three years of middle school. Moreover, the researchers found that greater self-reported victimization was associated with lower grades and lower teacher rated academic engagement.

However, a recent meta-analytic review of 33 studies conducted by Nakamoto and Schwartz (2010) reported that empirical research on this association has produced an

incongruent pattern of findings and modest correlations. In fact, these authors reported a small but significant negative correlation between peer victimization and academic achievement under both a random effects model (r = -.12, p < .001) and the fixed-effects model (r = -.10, p < .001). To complicate the picture, a small number of researchers have also concluded that peer victimization and academic performance are unrelated phenomena (Woods & Wolke, 2004). This research suggests that peer victimization or engaging in bullying results in academic challenges from some students, but not all in the same way. Thus, there are likely third variables that explain this association and these variables are called mediators or moderators. For example, poor academic performance might be a result of victimization at school through mediating influences of internalizing behaviors (DeRosier & Mercer, 2009; Graham et al., 2006; Nishina et al., 2005). Studies have documented that victims often experience depression, social anxiety, and low self-esteem which then could contribute to academic challenges, and bullies and bully victims report similar problems (see Cook et al., 2010, for meta-analysis).

In addition, some victimized children blame themselves for their victimization, which leads to negative self-perceptions (Batanova et al., 2014; Graham & Juvonen, 1998) and difficulty concentrating on their schoolwork. Consequently, they are likely to receive lower grades (Graham et al., 2006; Lopez & DuBois, 2005; Nakamoto & Schwartz, 2010). Other mediators have also been identified. For example, Beran (2009) reported that peer-victimized adolescents are at risk for poor academic achievement if they exhibit disruptive behaviors. Friendship quality and peer social support appear to have a complex moderating role in the association between peer victimization and academic performance (Schwartz et al., 2008). Schwartz et al. (2008) found that friendships with youth identified as highly aggressive moderated the link between peer victimization and academic difficulties. Results from Tu's (2009) research also revealed that the association between peer-reported victimization and academic competence was buffered or minimized among students who had friends with high prosocial behavior, low social anxiety, and low peer victimization. However, the association between peer victimization and academic competence was strongest among students who had friends with low prosocial behavior, high social anxiety, and high rates of peer victimization and high social anxiety and peer victimization. Much more research is needed to understand how victimization impacts academic engagement, school avoidance, grades, and ultimately career placement. The ELS:2002 could be used to examine some of these associations because bully victimization, school safety issues, and school violence were assessed at baseline.

# **Ecology Perspective: Moving Beyond the School**

School violence, bullying, aggression, and peer victimization are best understood from an ecological perspective in which individual characteristics of children interact with environmental factors to promote victimization and perpetration (Basile et al., 2009; Espelage, 2004, 2012; Hong & Espelage, 2012). An ecological framework has been used to explore the risk and protective factors of bullying and peer victimization whereby child and adolescent behavior is shaped by a range of nested contextual systems, including family, peers, and school environments (Bronfenbrenner, 1979; Espelage, 2015; Hong & Espelage, 2012). The ecological perspective provides a con-

ceptual framework for investigating the independent and combined impact of these social contexts and dynamic, transactional influences on behavioral development. The microsystem includes structures with which children and adolescents have direct contact, such as families, peers, and schools. The mesosystem, another component of the ecological framework, comprises the interrelations among microsystems. This ecological framework has been applied to the conceptualization of bullying perpetration and victimization, and it highlights reciprocal influences on bullying behaviors among the individual, family, school, peer group, community, and society.

Although more comprehensive studies of the ecological model are emerging in the youth violence research literature, considerable efforts need to be made to conduct investigations that consider the complex interactions within and across the ecological systems. Most of the research in this area has been conducted in a piecemeal fashion, where many of the studies have focused on only one or two structures within the microsystem. Thus, this is a call for research that pays particular attention to examining the other systems and the interactions among them. Much more research needs to be conducted on the chronosystem. More specifically, changes in family structure, changes in school staff and administration, and changes in neighborhoods could contribute to prevalence and type of bullying or aggression displayed among youth.

An example of an area that warrants more longitudinal research is the connection between exposure to community violence and educational outcomes. Exposure to community violence can have serious detrimental effects on adolescents, leading exposed individuals down a path to maladaptive and antisocial behaviors (Bacchini et al., 2011; Copeland-Linder et al., 2011; Lambert et al., 2010; Trentacosta et al., 2009). To date, several mechanisms of influence have been proposed and validated, including elevated levels of depression, compromised self-regulatory capacities (e.g., impulsivity) (Lambert et al., 2010), post-traumatic stress response (Kliewer, 2006; Overstreet & Mazza, 2003), social-cognitive distortions (Bradshaw et al., 2009; Guerra et al., 2003), and disrupted parenting resources (Trentacosta et al., 2009). These candidate mediators suggest that community violence exposure and its consequences are best understood in an ecological framework that takes into account community, familial, peer, and individual characteristics (Overstreet & Mazza, 2003). Given the mounting evidence that community violence exposure escalates the potential for maladjustment (Trentacosta et al., 2009), researchers have justifiably turned their attention to potential moderators of this association, with an emphasis on both familial factors (e.g., family dynamics, parenting practices, family structure) and individual resources (see Gorman-Smith & Tolan, 1998, for review) that may either exacerbate or mitigate this association.

Despite the veritable relation between community violence and externalizing behaviors (i.e., conduct problems, school violence, delinquency; Bacchini et al., 2011; Gorman-Smith et al., 2004; Khoury-Kassabri et al., 2004) there are relatively few recent studies that have investigated how different types of school violence or bullying are influenced by experiences in environments outside of school, such as neighborhoods. Nevertheless, the handful of studies that have examined this have consistently found a moderate association between neighborhood violence and bullying behavior, for example (Khoury-Kassabri et al., 2004; Schwartz & Gorman, 2003; Schwartz & Proctor, 2000). Thus, there is strong reason to postulate links with both violence perpetration and victimization, given the disruption in adaptive peer relations and behavioral control

that may be associated with features of community violence exposure. Furthermore, the individual and familial risk and protective factors that co-occur or are affected by community violence exposure are also risk and protective factors for both bullying perpetration and victimization (see Salzinger et al., 2002, for review). In a recent longitudinal study of a large cohort of adolescents (n = 1232) in grades 5–7, impulsivity exacerbates the effects of community violence exposure by elevating involvement in deviant behavior (Low & Espelage, 2013). Parental monitoring buffered the effects of community violence exposure on perpetration and victimization (for males and females) via reduced involvement in deviant behavior. Findings suggest that impulsivity and parental monitoring are implicated in modifying the effects of community violence exposure on both victimization and perpetration through deviancy, though deviancy is not as potent of a predictor for victimization. These findings should be replicated with a large nationally representative sample and would suggest that prevention efforts would seem to be optimally targeted at multiple ecological levels, including parental involvement and peer networks.

## Push to Break Down Youth Violence Research Silos

NCES data and other research published in the *Indicators of School Crime and Safety* report suggest that youth in U.S. middle and high schools regularly experience a wide range of aggression and school violence, including name calling, physical fights, hatebased victimization, and sexual harassment (Robers et al., 2013), and youth experience of these forms of violence as a victim or perpetrator are associated across longitudinal studies (Espelage et al., 2012a, 2013b). For decades, scholars have tended to study each type of aggression or violence in isolation of one another and only recently recognized the need to examine multiple forms of violence simultaneously given the high incidence of polyvictimization and overlap during a person's lifespan (Hamby & Grych, 2012). For example, bullying victimization and verbal and physical aggression during early adolescence have been shown to be strong predictors of involvement in homophobic name calling and sexual harassment among middle school students (Birkett & Espelage, 2014; Espelage et al., 2012a,b; Poteat & Espelage, 2007). Furthermore, many of these forms of aggression and victimization share common risk and protective factors (e.g., lack of empathy, attitudes supportive of aggression; Espelage et al., 2012c) and often are maintained and reinforced in similar peer contexts (Dishion & Owen, 2002; Espelage et al., 2003; Low et al., 2013). As such, research needs to assess all forms of aggression and school violence to identify shared and unique influences to maximize the efficacy of interventions (Hamby & Grych, 2012).

# **Developmental Timing of Aggression and Violence Matters**

Bullying Declines in High School

Bully perpetration shows relatively little change during middle school and declines in high school at the two high school waves (Espelage et al., 2014; Nansel et al., 2001). Thus, generic bully prevention programming in high schools is not salient for this age group and does not support the decreasing trend of bullying over time. Of note, a recent

meta-analysis indicates that bullying appears to be effectively prevented in seventh grade and below, but in eighth grade there is a sharp drop to an average efficacy of zero (Yeager et al., in press). Furthermore, there was a seeming reversal in efficacy through the high school years, such that programs, if anything, cause harm.

# Sexual Harassment Emerges in High School

In a recent longitudinal study spanning six years from middle to high school, sexual harassment perpetration was a common experience for youth in high school (Espelage et al., 2014). Boys reported a greater mean scale score than girls on self-reported sexual harassment perpetration: 37 percent of boys versus 28 percent of girls reported perpetrating at least one form of sexual harassment or violence. In an examination of victimization experiences, 68 percent of girls at wave 6 reported having at least one victimization experience compared to 55 percent of boys. At wave 7, we see a similar pattern with 63 percent of girls and 51 percent of boys reporting at least one victimization experience. These figures are problematic given that youth were asked to report on unwanted experiences. Students were most likely to report sexual commentary, sexual rumors, and unwanted touching.

Furthermore, links between sexual harassment and bullying suggest that youth who engage in one type of aggression (i.e., bullying) may be more likely to engage in the other (i.e., sexual harassment; Espelage et al., 2012a), and that bullying perpetration may lead to sexual harassment perpetration (Miller et al., 2013). In a longitudinal study of the middle school youth in this current sample, Espelage and colleagues (2012a) found that bullying perpetration and homophobic teasing perpetration among a sample of fifth through seventh graders were related to perpetration of sexual harassment six months later (Espelage et al., 2012a). Taken together, it is important to assess gender-based language and sexual harassment in NCES surveys.

## **Dating Violence Perpetration and Victimization**

Also, Espelage and colleagues (2014) found that verbal emotional abuse among dating teens was the most common experience for high school students, with two-thirds of girls and boys reporting at least one experience of verbal emotional abuse in a dating relationship. More than 50 percent of boys and girls reported perpetrating verbal emotional abuse in a dating relationship. In contrast, physical teen dating violence victimization was reported by one-third of boys and girls, but perpetration of physical teen dating violence was reported more by girls than boys. The greater prevalence of verbal emotional abuse among adolescents is consistent with recent research on multiple forms of teen dating violence (Kernsmith & Tolman, 2011; Temple et al., 2013). In a national representative sample, girls reported injurious violence in 36 percent of physically violent victimization acts, whereas boys reported injury following a physical violent victimization at a rate of 12.9 percent (Hamby & Turner, 2013). Teen dating violence is a priority research area for several federal agencies. Given its association with negative educational outcomes, NCES should consider assessing it.

## BULLYING AND PEER VICTIMIZATION: NEED TO FOCUS ON SUBGROUPS

Worldwide incidence rates for bullying among school-age youth range from 10 to 30 percent, and there is a notable increase during the middle school years (see Cook et al., 2010). Research findings consistently demonstrate that specific populations are at increased risk of being victimized and/or bullied by their peers, including students with disabilities (Rose & Espelage, 2012); lesbian, gay, bisexual (LGB), or gender nonconforming youth (Espelage et al., 2008), and African American youth (Low & Espelage, 2013). Two of these groups are reviewed here. This is in no way an exhaustive review of those youth that are particularly at risk for victimization or those who are overrepresented as bully perpetrators. Thus, there needs to be much more investment in research that examines the unique bullying dynamics surrounding vulnerable populations, and that research should consider the experiences of Native American youth and immigrant populations.

# **Bullying Among Students with Disabilities**

Early research on bullying and peer victimization emerged from the field of special education (Hoover et al., 1993), but a dearth of research addressed bullying experiences among this population until a few years ago. This research indicates that students with disabilities are twice as likely to be identified as perpetrators and victims than students without disabilities (Rose, 2010; Rose & Espelage, 2012). Students with disabilities that are characterized or have diagnostic criteria associated with low social skills and low communication skills have a higher likelihood for involvement in bullying incidents. Indeed, a meta-analysis of 152 studies found that 8 of 10 children with a learning disability (LD) were peer rated as rejected; 8 of 10 were rated as deficient in social competence and social problem solving; students with LDs were less often selected as friends by their peers (Baumeister et al., 2008). Disability data were collected in the NCES longitudinal studies from parents and have been used in a limited way in the literature. NCES should create a mechanism for greater mining of these data, perhaps through a call for proposals to use these data or creating postdoctoral positions that require working with the NCES data on disability issues.

## Bullying and the Lesbian, Gay, and Bisexual Community

A large percentage of bullying among students involves the use of homophobic teasing and slurs, called homophobic teasing or victimization (Espelage et al., 2012a; Poteat & Espelage, 2005; Poteat & Rivers, 2010). Bullying and homophobic victimization occur more frequently among LGB youth in American schools than among students who identify as heterosexual (Espelage et al., 2008; Kosciw et al., 2009; Robinson & Espelage, 2011, 2012). Some LGB youth report greater depression, anxiety, suicidal behaviors, and truancy than their straight-identified peers (Espelage et al., 2008; Robinson & Espelage, 2011). However, peer victimization does not appear to explain all of the mental health disparities between LGB and heterosexual youth (Robinson & Espelage, 2012). Increasingly, states are passing comprehensive policies about bullying and discrimination that explicitly state protection based on enumerated personal characteristics, including sexual orientation and gender identity and expression, race,

and so on. It is imperative that NCES conducts a longitudinal study of the experiences of victimization associated with sexual orientation or gender identity.

## SUMMARY AND RECOMMENDATIONS

Two longitudinal high school studies (ELS:2002 and HSLS:2009) were reviewed and the ELS:2002 dataset includes an assessment of bully victimization (one item) and school violence (scale) at baseline. Papers have appeared in peer-reviewed outlets examining victimization experiences among children of immigrant parents and victimization experiences in after-school programs. Much more work could be conducted with this dataset, but the single-item bully victimization assessment is a major limitation. The HSLS:2009 only included one item related to school violence: students were asked how safe they felt at school. The three longitudinal studies within the ECLS program include an ecological examination of how the home, school, and community environment shape the development of externalizing behaviors in children. These studies are designed with a strong theoretical base and allow for the direct examination of the potential mechanisms by which youth become involved in school violence or aggression (ECLS-K:2011 specifically). It would be important that NCES follow the ECLS-K:2011 youth and families into early and late adolescence. This would allow the addition of different types of violence (perpetration and victimization), including bullying with more precise measurement, teen dating violence, and sexual violence. Furthermore, other at-risk behaviors that have direct and indirect influences on academic success (e.g., gang involvement, drugs and alcohol use, exposure to violence) as well as protective factors (e.g., extracurricular activities, positive youth activities, community support, and neighborhood collective efficacy) should be added to these later measurements.

That said, many questions remain as NCES attempts to address the public health concerns of school violence and bullying. It would be important within the surveys used for surveillance and trend analysis to distinguish bullying (power dynamic) from student aggression. Perhaps, within these cross-sectional studies, multi-informant data could be collected that could be matched to determine how perceptions of teachers, schools, parents, and community members influence youth outcomes. Also, school security measures should be tied to student outcomes more specifically to determine if the increase in security measures has an impact of reducing school violence and promoting school safety.

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