The *School* in School Violence:

Definitions and Facts

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The purpose of this article is to clarify the historical and definitional roots of school violence. Knowledge about this issue has matured to the point where there is a need to refine the definition of school violence, thereby positioning educators to take the next step in providing effective, broad-based solutions to this problem. The first section provides an overview of the definitional and boundary issues of the term "school violence" as used in research and applied prevention programs. The second section presents an overview of what is known about the occurrence of violent and related high-risk behaviors on school campuses. Information about the prevalence of school violence is reviewed to inform and guide violence prevention programs, emphasizing the need to implement programs that are well linked to known correlates of school violence. We believe that in addition to identifying the characteristics of both perpetrators and victims of violence at school, researchers need to examine the contexts in which violence occurs.

VIOLENCE IS TAKING AN INCREASING toll on American society generally and on children and adolescents specifically, who are the victims of more crimes than any other age group in the United States (Kaufman et al., 1998; Rennison, 1999). When violence occurs in the community, and especially on a school campus, whether by the hands of another student or by an outsider, actions must be taken to ensure the safety of all students and the staff who serve them. It is important to promote the rights, welfare, education, and health of children and youth by supporting National Education Goal 7 (National Educational Goals Panel, 2000): "Every school in the United States will be free of drugs, violence, and unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning." As the next millennium begins, the importance of National Education Goal 7 becomes increasingly apparent.

As researchers, educators, and politicians continue efforts to reduce violence, it has generally gone unnoticed that the use and meaning of the term *school violence* have evolved over the past 10 years. School violence is now conceptualized as a multifaceted construct that involves both criminal acts and aggression in schools, which inhibit development and learning, as well as harm the school's climate. School climate is important, as the role of schools as a culture and as an organization has not always received attention because of different disciplinary approaches to studying the problem. Researchers have brought divergent orientations to their work, and these interests have not always been well coordinated with the primary educational mission of schools. An understanding of the multidisciplinary basis of school violence research is necessary in order to critically evaluate the potential use of programs that purport to reduce "school" violence.

It was not until 1992 that the label "school violence" itself was used widely as a term to describe violent and aggressive acts on school campuses. Citations in the University of California computer database of news reports in 5 major national newspapers show that prior to 1992 only 179 citations were listed under the keyword term "school violence." Since 1992, there have been 601 school violence articles in the same newspapers. Similarly, prior to 1992 only 38 news articles with the words "school violence" in their title were printed; this compares to 118 between 1992 and October1998.

Since the 1970s, researchers from various disciplines have also addressed what is now called school violence but from different professional perspectives and from different points of interest. As shown in Figure 1, citations in the *PsychINFO* computer database with title or keyword

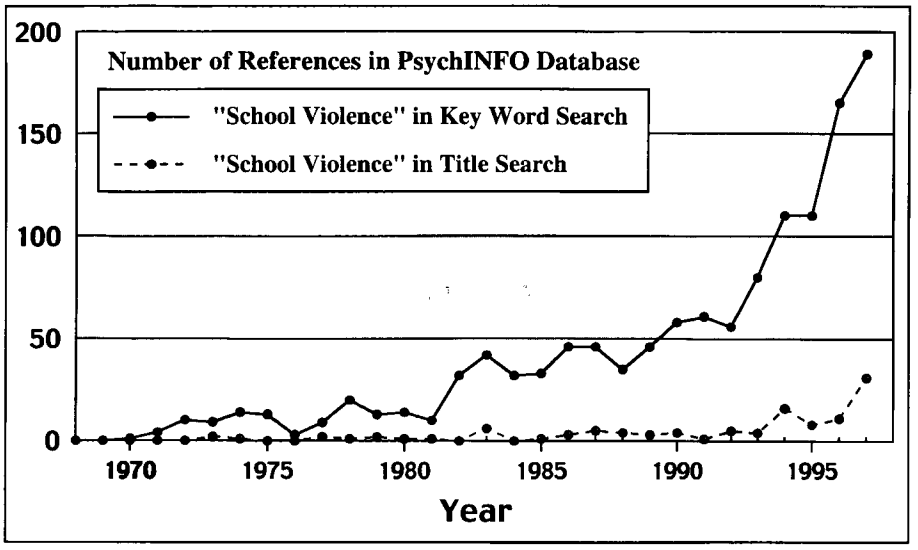

FIGURE 1. Number of citations appearing in *PsychINFO* with the keyword "school violence" and/or including the term "school violence" in the title, 1981 to 1998.

references to school violence were infrequent in the 1960s, grew slowly through the 1980s, and have increased exponentially during the 1990s. Although the *PsychINFO* database does not capture all manuscripts addressing school violence, it does reflect the heightened professional interest in this topic, particularly during the past 10 years.

HISTORY OF THE SCHOOL VIOLENCE CONCEPT

Early interest in school violence focused on youth who committed violence. Violence that occurred on school campuses was primarily a law enforcement issue, and researchers became interested in understanding factors that contributed to the development of antisocial behavior in children (Gottfredson & Gottfredson, 1985; Patterson, DeBaryshe, & Ramsey, 1989). Research also emerged among public health researchers and advocates interested in reducing injury to youth, particularly as it concerned the increase of violence-related injuries and homicides among adolescents during the late 1980s and early 1990s (California Department of Education, 1989; Callahan, Rivara, & Farrow, 1993; Hausman, Spivak, & Prothrow-Stith, 1995; Kann, et al., 1995; Kellerman, Rivara, Rushforth, Banton et al., 1993; Rivara, 1995; Sosin, Koepsell, Rivara, & Mercy, 1995; Spivak, Hausman, & Prothrow-Stith, 1989). The youth/school violence connection was made because schools were the most convenient places to access large numbers of youth for epidemiological surveys of exposure to, involvement in, and perpetration of violence (Dryfoos, 1993).

Professionals developed an increased concern about violence involving youth (not just violence occurring at school) due to an interest in extreme forms of juvenile crime and legitimate concern about substantial increases in youth homicide during the 1980s. Physicians were seeing thousands of youth coming into emergency wards with gunshot wounds, and naturally there was concern about this trend (Prothrow-Stith, 1987), which produced early studies of school weapon possession that were carried out by physicians and others interested in public health injury-prevention models and published in medical, health-focused journals (Kellerman et al., 1993; Kingery, Mirzaee, Pruitt, Hurley, & Heuberger, 1991). In this research tradition, psychologists and psychiatrists interested in the development and treatment of aggressive, antisocial behavior began to focus on increases of violence involving youth (Cornell & Loper, 1998; Eron, Gentry, & Schlegel, 1994; Slaby & Guerra, 1988; Walker, Stieber, & O'Neill, 1990).

Researchers from health and psychology perspectives who were interested in preventing and reducing youth violence saw schools as logical settings in which to implement programs for reducing violence. In fact, this association was initially formed through the dissemination of an inaccurate interpretation of early youth violence survey results. The early Youth Risk Behavior Surveillance Survey (YRBS; Kann et al., 1995) inquired about adolescents' possession of weapons during the past 30 days. This initial YRBS survey was administered in schools to students, but it did not ask about youths' weapon possession *at* schools. The results were widely reported and showed that more than 20% of high school students reported carrying weapons in the past month. This was a true statement, but it came to be interpreted as meaning that the students were carrying these weapons at school; this was an inaccurate inference. Nonetheless, this "finding" was reported to Congress as fact. At this same time, with the advent of the school crime supplement to the National Crime Victimization Survey (NCVS) in 1989, the link between youth violence/crime and school violence was firmly established.

Initially, educators were not directly included in these inquiries and the discussions and debates they spawned. This is not to say that educational researchers were not cognizant of or were not responding to this topic. Educational administrators expressed their responsibility and concern about school violence over the years but often thought of it in terms of "disciplinary" policies and actions (Baer, 1998), bullying or mobbing behavior (Batsche & Knoff, 1994; Garity, Jens, Porter, Sager, & Short-Camilli, 1997; Limber & Nation, 1998), truancy problems (Johns & Keenan, 1997), crisis response (Poland, 1997), or within the special education context (e.g., students

having emotional or behavior disorders; Colvin, Kameenui, & Sugai, 1993; Kerr & Nelson, in press; Morrison, Furlong, & Smith, 1994; Rutherford & Nelson, 1995). Other educators (California Department of Education, 1989; Morrison, Furlong, & Morrison, 1994) focused on school violence by reframing the problem in terms that made sense to educators: avoidance of harm, increased school safety, and viewing violence as a risk factor that negatively affected the learning process (Furlong & Morrison, 1994; Miller, Brehm, & Whitehouse, 1998; Morrison, Furlong, & Morrison, 1994). Some investigators began to view exposure to violence as a development risk factor (Morrison, Furlong, & Morrison, 1994; Resnick et al., 1997; Walker et al., 1990).

Educators' initial lukewarm interest in school violence must be considered within the larger context of a multidisciplinary interest in school violence, the public interest in school violence, and the tendency to sensationalize the issue. From educators' perspectives, increases in youth violence were not always obvious on their school campuses. For example, even recently a national principal's survey found that 90% of all schools had no known felony crimes during the previous year (United States Office of Education, 1998). As another example, in California during the late 1980s, schools were required to report each incident of "school crime" to the State Department of Education. Although it was claimed that the intent of this initiative, promoted by the State Attorney General's Office, was to help schools reduce crime, it was widely interpreted by the press and the community as a potential indictment of schools. Educators, in their opinion, were being asked to be law enforcement agents, and it was unknown how these "crime" data would be used. When the news media used the first statewide school crime report to characterize some schools as high-crime settings, the process broke down and was discontinued. It took 5 years to reestablish this process, now under the framework of the annual California Safe School Assessment (California Department of Education, 1989).

Current Use of the Term "School Violence"

Given these various perspectives of school violence and public policy foci, schools have not been at the forefront of raising public concern about violence and safety issues in schools. Despite the comparatively recent broad use of the term and its lack of clear definition, it is unlikely that "school violence" will be abandoned in favor of another term. Nonetheless, this historical context is important to keep in mind. It is from this perspective that school violence can be understood as a catchall term that has little precision from an empirical–scientific point of view. It is a term that has come to reflect broad community concern about youth violence and how that violence affects the schooling process. School violence has some utility as a policy term because it reflects societal values that schools should be a special place of refuge and nurturance for youth. Acts of violence that threaten the security of schools attack a core value of our social system. Thus, the task of researchers, as we see it, is to study (a) the many complex precursors of violent–aggressive behavior occurring at school, (b) how to prevent it, and (c) how to reduce its impact when it does occur.

Although school violence is a multidimensional construct, there currently exists no definitive statement about its specific dimensions. It has been argued that school violence is composed of the perpetration of violence, violence victimization, antisocial behavior, criminal behavior, fear/worry beliefs, and discipline/school climate, among other aspects. Further complicating the understanding of this term is the political rhetoric that schools are essentially dangerous places and that schools are failing to properly educate today's youth. The lack of clarity in regard to the parameters of school violence has implications for the scientific study of school violence. When researchers say that they are conducting a study of school violence, what do they actually mean? In practice it may mean, for example, that they examine developmental correlates of delinquent behavior (Resnick et al., 1997), crime on school campuses (Chandler, Chapman, Rand, & Taylor, 1998), victimization experiences (Furlong, Chung, Bates, & Morrison, 1995; Gottfredson & Gottfredson, 1985), school disciplinary practices (Baer, 1998), weapon possession at school (Kingery, Pruitt, & Heuberger, 1996), use of controlled substances at school (Furlong et al., 1997), the influence of delinquent gangs on school (Conly, 1993), conflict resolution approaches (Dusenbury, Falco, Lake, Brannigan, & Bosworth, 1997), or zero tolerance (Morrison & D'Incau, 1997; Skiba & Peterson, 1999), among others. It is this lack of clarity or agreement on definition that fuels the need for further explication of the school violence concept.

School Violence

Given the various definitional and boundary issues of the term, it is necessary to explore specifically what the difference is between "school violence" and "violence in the schools." Getting educators to own their part in preventing school violence may depend on our ability to define and describe the part that "schools" as an organizational and institutional entity play in violence occurring on school campuses.

First, it is important to distinguish between "school" as a physical location for violence that has roots in the community and "school" as a system that causes or exacerbates problems the individuals within it experience. The former happens when students or intruders bring onto school campuses violence stemming from situations outside of the school experience. For example, such a situation occurred in Los Angeles County when a 20-year-old ex-boyfriend of a 16-year-old female student came onto a campus on an early October 1997 morning and used a gun to kill his girlfriend, who just days before had finally been able to move out of an abusive living arrangement with him. In contrast, in response to rejection by a female classmate, two Arkansas boys methodically fired upon their classmates on the school playground. This latter situation arose at least

in part from relationships that were developed and broken within the school context, social contexts that educators have the potential to recognize and influence.

In some ways, society has expected a protective bubble to exist between the problems of our communities and the spillover into the school setting. Schools have remained relatively safe environments for teachers and students (Furlong & Morrison, 1994; Garbarino, 1992); however, in some areas, the community norms and behaviors regarding violence have thoroughly invaded the school (Devine, 1995). This is particularly true in urban environments where there is a commitment to subculture norms and values that endorse the use of violence in solving conflicts (Devine, 1995; Wolfgang & Ferracuti, 1967). Hellan and Beaton (1986) note that the influence of the community is greater for crime in high schools, probably due to the intruder problem. Middle school crimes are more influenced by the school environment, especially the ratio of students to teachers. Thus, even in recognizing that schools cannot completely block out the negative community influences in which they are located, the school as an organization can mount, through effective practices, a certain wall of protection.

Owning *School* Violence

As noted previously in this article, educators have been slow to investigate their specific and particular realms of influence on the school violence issue (Haynes, 1996). Although the professions of public health and juvenile justice have been very visible in documenting violent incidents in schools (e.g., Kingery, Coggeshall, & Alford, 1998), educators and public school officials have adopted an understandably defensive stance, relying on the quick fix of physical protection (metal detectors), but try to maintain a focus on their mission of education (Stephens, 1998). The reluctance of educators to enter the conversation has several understandable roots. First, the term *violence* evokes images of crimes and justice-involved punishments; thus, violent incidents at school can be easily passed on to the juvenile justice system. Educators may rightfully feel that their attention is best kept focused within the educational realm, where the issues of educating today's youth are challenge enough. However, as Braaten (1997) cautioned, "Despite the currently popular rhetoric about 'getting tough' with troubling students and bringing the role of schools 'back to basics,' schools are part of an increasingly complex and diverse society, and must respond to the varied needs students inevitably bring with them" (p. 48).

The ambivalence about owning issues of school violence is seen in role boundary lines drawn by some school personnel. Devine (1995) described schools in which the culture of violence has invaded the school's classrooms and halls and where the teachers' response to behavioral issues has become "hands-off." That is, teachers have defined their role as belonging strictly within the learning/classroom realm. Behavior and social interaction problems are relegated to the security staff, few of whom are prepared to handle these problems within a developmental framework. Similarly, Astor, Pitner, and Duncan (1996) discussed the undefined spaces in school grounds, such as hallways and other unsupervised locations, that are more prone to occurrences of violent behavior because no professional educator (teacher, administrator, support personnel) claims responsibility for that locale as part of his or her assigned duties. Trump (1997) addressed the problem of keeping security issues and security personnel in an unprofessional status, noting that efforts end up being fragmented and ineffective. He argues that school security needs to become part of the central mission of the school, where professional standards and evaluation criteria can be applied to assessing the effectiveness of security professionals. Vestermark (1998) described the inherent tension between police-based and school-based security professionals. Although the former tend to highlight the law enforcement aspects of their role, the latter are more likely to emphasize their role in the educational process (i.e., supporting the mission of the schools through their facilitation of school proceedings and positive relationships with students).

Thus, the tension about who owns the problem of school violence increasingly plays out in the professional behaviors and role definitions held by educators and "outside" protection personnel. If one embraces a *school violence* rather than a *violence that happens in schools* definition, attention may be refocused on the role that school as a physical, educational, and social environment plays in violence among its participants. Owning school violence as an educational problem also allows the problem of violence to become a topic worthy of classroom and school attention. Epp and Watkinson (1997) eloquently reinforced this focus in suggesting the following:

> School violence is an important component of the daily lives of children in schools. . . . It affects where they walk, how they dress, where they go and who their friends are. As long as teachers treat violence at arms' length, as something that is someone else's problem, they will continue to neglect the opportunity to intervene in a crucial aspect of the children's lives. By ignoring school violence, the name-calling, the shoving, the fighting, the harassment, they are condoning it. Children see teachers walking by, pretending not to notice, and they learn that the way we treat others, the way we interact on the street or in the playground, is nobody's business but our own. Teachers must talk about violence, they must recognize it, examine it, dissect it, and let children see and understand its secrets and its sources. Without this examination it remains an ugly secret that society cannot understand or control. (p. 193)

By adopting educational ownership of school violence, it becomes legitimate to consider the issue within the everyday management of schooling tasks. Threat of physical harm can be interpreted additionally as threat of developmental harm; that is, the threat and reality of physical harm has consequences that suppress the maximal educational growth and development of students. Such a threat lands the issue squarely on the educator's plate of concern. Once this concern has been identified as relevant to

the educational mission of the school, then the challenge is in how to weave this concern into the fabric of educational practice. This challenge must be better understood within the context of the impetus for school change.

Defining School and Its Relationship to *School* Violence

The central vision for school change in the 1970s and 1980s was schooling effectiveness, leading to the "school reform," "school change," and "school restructuring" efforts of the late 1980s and 1990s. The schooling effectiveness literature described the school as an organization that impacts student outcomes; that is, effective schools have (a) clearly defined goals in relation to the school mission and philosophy, (b) close monitoring and feedback in regard to progress toward these goals, (c) high expectations for student achievement and clear boundaries for acceptable behavior, (d) high morale among staff and students, and (e) successful and meaningful involvement of parents and the community (Braaten, 1997; Good & Weinstein, 1986; Rutter, Maughan, & Mortimore, 1979). These parameters provide a useful framework for examining school factors as they relate to violence.

It has been assumed and promoted that effective schools are also schools that are safe and are less vulnerable to violence (Morrison, Furlong, & Morrison, 1994). It has been asserted, for example, that students who engage in their schoolwork, are bonded to school, and have multiple opportunities to participate and succeed in academic tasks are less likely to commit acts of violence toward each other, toward school staff, or upon the school itself (vandalism). It also has been noted that schools having low levels of violence tend to have a firm, consistent principalship style, tend to be smaller in size, and have lower levels of crowding (American Psychological Association, 1993; Goldstein & Conoley, 1997; Zwier & Vaughan, 1984).

However, research that specifically ties school factors to levels of violence is sparse and relies on cursory associations without specifically proving the causal relationships. In order to tighten this association, it may be necessary to go to the next level of specification and delineate the specific situations and circumstances that might lead a student to engage in a violent act. For example, a student may react in a violent or aggressive manner in response to bullying, social rejection, public humiliation, perceived lack of fairness in disciplinary actions, and stress. These situations are all tied to contexts, actions, and policies that schools as organizations can effect.

Epp and Watkinson (1997) provided an interesting framework that connects the concepts of "school" and "violence" and facilitates understanding the impact of specific schooling contexts on students from culturally different populations; they refer to it as "systemic violence." Systemic violence has been defined as any institutional practice or procedure that adversely impacts on individuals or groups by burdening them psychologically, mentally, culturally, spiritually, economically, or physically. Applied to education, it means practices and procedures that prevent students from learning, thus "harming them" (p. 1). Examples of systemic violence include but are not limited to exclusionary practices, overly competitive learning environments, toleration of abuse, school disciplinary policies rooted in exclusion and punishment, discriminatory guidance policies, and the like.

This concept of school violence, which is contextually embedded, is a rare focus among the majority of school violence solutions that have focused on the characteristics and developmental patterns of individuals who perpetrate school violence. We have done little to define the contexts in school settings that trigger violence. For violence that occurs in the schools, these contexts are clearly identifiable, yet they have not received much attention. This decontextualized approach to understanding school violence is curious, as violence is usually an interpersonal event arising and resulting from interactions between individuals.

Because of the heterogeneous blending of interests about school violence, it is time for researchers to be more precise about the use of this term or recognize that its primary function should be to motivate researchers to communicate across parallel research traditions and to keep the issues of youth delinquency and antisocial behavior at the forefront of public policy debate. Researchers from outside the education field need to recognize that the interests and needs of schools and educators must be addressed specifically in this process. Schools may have been reluctant passengers on the school violence bus because initial school violence studies were often not empirically based, did not communicate findings to the education community (studies were published in medical and other journals that educators would not consume), did not include educators in the evaluation of school violence reports (Elliott & Tolan, 1999), and sometimes described schools as having such gross problems that there was an "epidemic" of school violence. These dire descriptions were inconsistent with the educator's day-to-day experiences at school, and these statements were interpreted as attacks on the school system itself (Dear et al., 1995). There is no longer any need to engage in alarmist discussion about the school violence problem. What is needed is a thoughtful approach to synthesizing the multidisciplinary knowledge bases that have been created over the past two decades and that promote the agenda of preventing youth crime, delinquency, and violent behavior while at the same time supporting educators' efforts to create a positive learning environment for all students through specific consideration of relevant school contexts.

Factors Associated with Violence and Related High-Risk Behaviors

The report *Indicators of School Crime and Safety* (Kaufman et al., 1998) provided a snapshot of violence and crime on American school campuses. This was the first of what became an annual school safety and crime scorecard and reported the prevalence of the following types of indicators: (a) nonfatal student victimization (student reports), (b) violence

and crime at schools (public school principal reports), (c) violent deaths at school, (d) nonfatal teacher victimization at school (teacher reports), and (e) school environment conditions. Of particular note is the fact that this report systematically emphasized the incidence of these acts both at school and in other locations (while pointing out that even the term "at school" is not uniformly defined in research). Perspective is provided to show that terrible things do happen at schools, but it is emphasized that these events occur more often in other settings. In fact, schools are the safest public setting for children and adolescents (Hyman & Perone, 1998). Enough information is now known about violent and related high-risk behaviors on school campuses that meaningful patterns can be described. The purpose of this section is to provide an overview of the individual factors known to be associated with school violence. It is our assertion that knowledge of these factors is needed to understand the origins of school violence and construct meaningful responses to it.

How Is School Violence Measured?

Recently, researchers have begun to critically examine the procedures used to assess violent incidents on school campuses and how reliability and validity checks of student's self-reports affect school violence incidence rates (Cornell & Loper, 1998; Rosenblatt & Furlong, 1997). When these checks are made, it has been found that the incidence of school violence is significantly higher among those students whose responses fail reliability checks. Cornell and Loper, for example, found that the incidence of fighting at school was 19.2% among students passing reliability checks but significantly higher, at 58.6%, among students failing reliability checks. Rosenblatt and Furlong similarly found that self-reported school violence victimization was nearly 100% higher among students whose responses failed prespecified reliability checks than among those students whose responses passed the same reliability checks. Given that almost all basic information about the prevalence of school violence has been gleaned from studies that do not report using any response reliability or validity checks, it is likely that known rates of various types of school violence are overestimates of their true rates.

Most of the databases that provide information about the incidence of school violence have come from public health and criminology disciplines that use an epidemiological model, not the psychometric model that is more familiar to psychologists and educators. Thus, much of what is known and inferred from school violence incidence databases is based on responses to single items with untested properties. The matter of evaluating methodological issues in school violence research is a topic that merits more attention than can be given here, but as a brief example, consider the YRBS item, "In the past 30 days how many times have you brought a weapon to school (gun, knife, or club)?" From a measurement perspective, there is much ambiguity in this question. Do youths responding to this item share a common understanding of what the term "weapon" means? If a student brought a knife to school but did not intend to use it to hurt someone, how would he or she answer this question? Is the intent of the item to place the quality of "weapon" in the object itself or in the behavioral intentionality of the student? Furthermore, combining multiple weapons into one item is not good psychometric practice. And, how is the "past 30 days" time period evaluated compared to the "past 6 months," or "past year" time frames, which have been used in other studies? These measurement issues have not been examined empirically.

It is also important to make the distinction between items that measure violent aggression and those that represent violence victimization. For example, one item from the NCVS (Chandler et al., 1998) asked respondents if they had damaged anyone's school property; this unambiguously measures violence from a perpetrator's perspective. In contrast, one item from the YRBS asks if the student had "been in a physical fight." This item could reflect predatory aggression or victimization. The context in which a fight occurs is important to know. A fight having its origins in a boyfriend/girlfriend dispute has different implications for schools than fights erupting from racial or ethnic conflict. These contextual variations, unfortunately, are rarely included in school violence prevalence studies. Although research is needed to thoroughly understand the patterns of aggressive behavior and violence victimization, some strong relationships with school violence are known. We now turn our attention to these findings.

Violent and Aggressive Behavior at School

1. *Males are Most Involved in School Violence.* Males are much more likely than females to be physically aggressive at school and to be the victim of attacks. In a national study of deaths that occurred on school campuses from 1993 to 1995, 9 out of 10 of the deaths involved a male as both perpetrator and victim. National studies such as the *National Educational Longitudinal Study,* YRBS, and NCVS, as well as local surveys (e.g., Cornell & Loper, 1998; Furlong, Morrison, Bates, & Chung, 1998; Kingery, Biafora, & Zimmerman, 1996), have all found that males are more involved than females as both perpetrators and victims of school violence, a pattern that is also found in community settings (Rennison, 1999). A side note is that school safety surveys tend to focus on assaultive behavior or high-risk behaviors that could result in physical injury. It is important to recognize that these surveys measure important school violence variables, but they do not measure all types of harmful behavior that occur to students on school property. For example, females do not engage in dangerous physical behaviors as often as males, but they may act in socially aggressive ways more often than males (Crick, 1996). Physical and verbal sexual harassment is another class of behaviors that happen more frequently to females than males (Furlong et al., 1998; Stein, 1998).

2. *Violence Varies by Student Age.* Patterns of school violence and high-risk behaviors are known to vary by the age

of the students (Chandler et al., 1998; Furlong et al., 1997). Research examining bullying behavior shows that this form of violence is most frequent among upper-elementary-age students (Batsche & Knoff, 1994). Research with secondary school students has found that some forms of aggressive behavior are higher among junior high school students (e.g., fighting) and that others peak during the high school years (e.g., weapon possession, drug use at school).

3. *Student Experiences Vary by Their Racial/Ethnic Identification.* Most research to date has *not* found extremely large differences in student experiences across racial/ethnic groups. Nationally, one pattern that has been replicated, however, is that African American students report slightly higher rates and Hispanic students slightly lower rates of violence victimization (Chandler et al., 1998). A survey of more than 7,000 California pupils also found this pattern (Furlong et al., 1998). Because some forms of school violence can involve ethnic conflict, it may be helpful to examine student violence experiences by attending to their ethnic and cultural heritage (Kingery, Biafora, et al., 1996).

4. *Student Experiences Differ Slightly by Location of the School.* The school crime supplement of the 1995 NCVS (Kaufman et al., 1998) found essentially no difference in overall victimization prevalence (violent and property combined) in schools located in central city (14.7%), suburban (14.6%), and nonmetropolitan (14.3%) locales, despite the finding that crime victimization is typically found to be higher in urban than suburban and rural locales (Rennison, 1999). Although the rates of school violence may not differ strongly by location, differences may occur in specific locations. In addition, central city areas have larger student populations, so in a given time period, these students may be exposed to a greater number of violent incidents on their school campuses.

5. *Individual Student Attitudes are Associated with School Patterns.* Although perhaps not too surprising, the attitudes held by individual students are associated with their involvement as perpetrators of violence or as its victims. Cornell and Loper (1998) found a significant association between engaging in physical fights and weapon carrying at school and beliefs favoring physical aggression and deriving personal satisfaction from hitting. In another study, Bates, Chung, and Chase (1997) found that students who hold distrusting attitudes and are disconnected from their teachers are more likely to be victims of school violence. Further documenting the importance of examining the characteristics of students involved in school violence, Furlong et al. (1997) found that students reporting frequent substance use at school were more likely to commit aggressive acts *and* to be a victim of others' aggression. This pattern is also strongly supported by results of the annual survey conducted by the Parents' Resource Institute for Drug Education (PRIDE, 1999).

Deaths on School Campuses

Surprising as it may seem, until the release of the 1998 federal school crime and safety index (Kaufman et al., 1998), there was no national reporting mechanism for the shootings, homicides, or suicides that occurred on school campuses. Gathering information from newspaper reports is the way in which deaths on school campuses have been monitored. This effort is carried out by the National School Safety Center, and a comprehensive report for the years 1994 to 1996 was reported in the *Journal of the American Medical Association* (Kachur, 1996). In these 2 years, there were 105 deaths on school campuses nationwide—these included 85 homicides and 20 suicides. Most of these deaths involved the use of firearms. Despite the justified national attention given to the shootings that occurred during the 1997–1998 school year at several rural schools across America, that year was not the most deadly school year in recent years, a distinction that belongs to 1992 (Kaufman et al., 1998).

Weapon Possession

Other researchers have asked students to report how often they carry various weapons on school campuses, and a few have directly asked about gun possession. Some investigators have also asked students if they have actually witnessed a student with a gun on campus, reasoning that students would be more likely to report that they saw a gun at school than they would be to admit that they personally brought a gun to school. Resnick et al. (1997), in the National Longitudinal Study of Adolescent Health (NLSAH), reported that 12.4% of adolescents report carrying a weapon anywhere in the past 30 days. This compares with 18.4% for the comparable YRBS weapon-carrying item (carrying weapons anywhere, not just on school property; Kann et al., 1998).

Other investigators have focused specifically on gun possession by students at school. Cornell and Loper (1998) found that 8.2% of students in their urban sample said they had carried a gun during the preceding month: 4.0% at school *and* outside school; 3.2% outside of school only; and 1.6% at school only. Other studies using past-30-day time periods have reported school weapon possession rates of between 7% and 15% (Cornell & Loper, 1998; Johnston, O'Malley, & Bachman, 1996; Kaufman et al., 1998). Student reports of school gun possession vary by the community being surveyed and the manner in which the question is asked. Direct comparison between communities is not advised because of the use of dissimilar methodologies, sampling procedures, and response expectation contexts. However, collectively these findings suggest that guns are brought to school by a relatively small group of students who are also likely to carry guns and other weapons in community settings.

The following factors are associated with gun and other weapon possession at school (see Furlong, Flam, and Smith [1996] for a review of gun possession on school campuses).

1. *Self-Reported Gun Possession Rates are Higher in Anonymous Self-Report Surveys.* Paper-and-pencil self-report surveys have produced the highest rates of school gun possession. Data from the *Monitoring the Future* study (MTF; Johnston et al., 1996) showed that between

1994 and 1996 about 3% of twelfth-grade students reported bringing a gun to school at least once during the 4 weeks prior to responding to the survey. See Kingery et al. (1998) and Furlong et al. (1996) for summaries of research about gun possession at school.

2. *Schools are a Barrier to Weapon and Gun Possession.* Educators and parents are legitimately concerned about students bringing guns to school, but it is also important to recognize that every major study about youth weapon possession has found that youth carry weapons more frequently outside of school than at school. The YRBS (Kann et al., 1995, 1996, 1998), for example, has asked about weapon possession on and off school campus on three occasions. For both males and females, weapon possession at school is 3 to 4 times less frequent than outside of school.

3. *Males are Predominantly Involved in Gun Possession.* In the NCVS, data were collected through personal, face-to-face interviews with students ages 12 to 19. In this formal interview context, only 0.1% of all 23,933 students admitted to carrying a gun at school for protection in the preceding 6 months. All of the students who admitted school gun possession were male, and a large majority of them were in the eighth, ninth, or tenth grade. *None* of the 11,602 females interviewed admitted to school gun possession. The NCVS results are likely to underestimate actual gun possession or availability on America's school campuses. Other regional samples using anonymous self-report methods all replicate the strong finding that males are the predominant possessors of weapons at school. However, in regional samples, some females report bringing weapons to school (Kingery, Pruitt, et al., 1996).

4. *Self-Reported Gang Affiliation is Associated with Gun Possession.* There is some evidence that youths who self-designate themselves as gang members are more likely than non–gang members to bring guns to school. For example, 18.6% of gang members claimed to have brought a gun to school compared to 4.9% of non–gang members (Cornell & Loper, 1998). The NCVS, in 1995, found that students who reported being aware of gangs on their school campuses were significantly more likely to also report being aware of and/or actually seeing guns and other weapons at their school (Kaufman et al., 1998).

5. *Youth Who Own Guns are Disproportionately Involved in Aggressive Behavior at School.* Youth who report owning a gun, as a group, are disproportionately involved in juvenile crimes and in assaultive, aggressive behaviors at school (Callahan et al., 1993). Weapon possession/ownership by any adolescent is a matter of concern, particularly when the youth exhibits other distress signals such as those discussed, for example, in the U.S. Office of Education's *Early Warning/Timely Response* document (Dwyer, Osher, & Warger, 1998). Other researchers have shown that exposure to guns in the home is a high risk factor for being in a physical fight (Kingery, Pruitt, et al., 1996) and for homicide (Kellerman et al., 1993).

6. *Students Who Admit to Frequent Alcohol or Drug Use at School Have Higher Gun Possession Rates.* In a study involving more than 4,000 secondary students in one California county, students who reported using alcohol or other substances at school 7 or more times during the previous year accounted for about 50% of all students who acknowledged frequent school weapon possession (Furlong et al., 1997).

7. *Students Bring Weapons, Including Guns, to School for Protection and Other Reasons.* There is not a lot known about why students specifically bring guns to schools. One regional survey in rural Texas asked students who reported bringing a gun to school during the past 12 months about the reasons why they felt compelled to do this. About half of these gun-carrying students said that it made them feel safer. But, another response should make educators take pause and consider the importance of conflict resolution prevention programs and anger management programs. More than half of these students (55%) reported that they brought the gun to school because they were angry with someone and "I was thinking about shooting him/her" (Kingery, Pruitt, et al., 1996). These findings seem to dispel any notion that the prototypic gun-toting student is acting primarily in a defensive–fearful manner. It is more likely the case, given available data, that these youths are acting in a defensive–aggressive manner. Even more alarming is that only 3% of these gun-carrying students believed that an apology was an effective way to avoid fighting, which compares to 60% for non–gun toting students (Kingery, Pruitt, et al., 1996). This pattern points toward a particularly volatile mix: (a) the combination of concerns about being attacked, (b) the use of weapons as a protective device, (c) angry potentiation to use the gun, and (d) disbelief that apologizing or other nonaggression conflict avoidance strategies are effective.

Gun ownership is known to be much higher among youth who have a history of delinquency, gang membership, and other disorders of conduct (Callahan et al., 1993). Whenever school personnel are concerned about extremely aggressive behavior in a youth, it is advisable to gather additional information about any past involvement in gangs, history of violent offenses, history of selling drugs, and ownership of or easy access to firearms (Furlong et al., 1997). Youth with this kind of delinquency profile are more likely than nondelinquent youth to use guns for self-protection and to bring a gun to school.

8. *Youth Involved with Violence at School May Have Multiple Risk Factors.* Although requiring additional investigation, current research can be interpreted to show that youth who bring guns to school campuses are a high-risk group who usually present with multiple, significant risk factors in their lives. Any youth who is caught with a gun at school should be carefully interviewed to ascertain the range of stresses affecting his or her life and how these stresses impact performance in school and the community. Kingery, Pruitt, et al. (1996), in their survey of Texas students, reported that those students who brought a gun to school were much more likely to experience high-risk behaviors, including walking alone through unsafe neighborhoods, using cocaine, getting into fights in the community, and being forced to have sex. These students reported that

they often found themselves in settings and situations in which crime and violence were more likely to occur. Being in these settings more frequently than other students, they also were in physical fights more often, perceived more danger in their environments, which in fact may be true, and therefore were more likely to use guns as a means to enhance their sense of self-protection.

Concerns for Safety at School

One marker for the impact of violence on a school campus is to ask students about their level of worry or concern about their personal safety and if they engage in behaviors to limit their exposure to these perceived dangers. Across three national YRBS surveys (Kann et al., 1995, 1996, 1998), about 4% to 5% of secondary school students report that they stayed home at least 1 day in the past month because of safety concerns at school or on the way to or from school. In 1989 and 1995 the NCVS asked students (ages 12 to 19) if they feared being "attacked or harmed" at school. Over this time period (the previous 6 months), more students (6% vs. 9%) expressed feeling this fear (Kaufman et al., 1998). In three other national surveys, students were asked if someone using a weapon at school in the past 12 months had threatened them: MTF (Johnston et al., 1996), the YRBS (Kann et al., 1995, 1996, 1998), and the NCVS (Kaufman et al., 1998). The rates vary widely across these three studies, from a low of 1.3% (NCVS) to a high of 15.2% (MTF). The reasons for such wide discrepancies are unknown.

The Context of School Violence

Most school violence research to date has focused on univariate relationships that characterize both perpetrators and victims. Researchers are beginning to extend knowledge about the factors associated with school violence that take into account its multidimensional influences, such as developmental patterns, community influences, and behavioral contexts. For example, Lockwood (1997) provides an in-depth evaluation of the social contexts in which youth say violent acts occur ("an act carried out with the intention, or perceived intention, of physically injuring another person" (p. 3). The most frequent violent events involved being "pushed, grabbed, shoved" (55%) and/or "kicked or bit or hit with fist" (67%). Twenty-one percent reported that they had been "beaten up" and 17% had been "slapped." A total of 10% and 8% of these youth reported that they were "threatened with a gun" or "threatened with a knife," respectively. An astonishing 89% of these incidents involved someone they knew personally, but 58% of these were considered to be acquaintances, not friends. In about one half of these incidents, an adult became aware of the event and provided support. In 3 out of 5 events, the youth had a third party present (usually friends and relatives), and the third party often became involved in the event to support the youth. These were time-limited events and were often terminated within 15 minutes.

These events were precipitated by many factors, and there was no one predominant "opening move." Unprovoked touching (13%), interfering with something owned or being used (13%), a request to do something (10%), backbiting (9%), and verbal teasing/rough play getting out of hand (9%) were the primary precipitants in about one half of these events. Of the events that occurred at school, the most predominant physical contexts were the classroom (39%), the hall or stairs (21%), the school bus (11%), physical education setting (11%), and the cafeteria (6%).

Of particular relevance to violence prevention programs is the finding that in 84% of the events, the youth provided a rationale for their actions that justified their use of violence. These justifications included "retaliation for harmful behavior" (28.8%), the other youth's behavior was offensive (17.7%), "self-defense to stop victimization" (13.6%), and to "help a friend" (12.6%). Unjustified explanations offered included being blinded by anger into action (6.6%) and being "pushed" into violence by another youth (5.6%). In only 1 of these incidents did the youth acknowledge antisocial behavior intentionally: (i.e., wanted money). Lockwood (1997) concluded that most of the violent incidents described by these youth involved situations in which they perceived themselves or others to be victimized and that their actions were justified as retaliation. Not only did they not believe that their actions were inappropriate, but also their value systems required them to retaliate. One can imagine the limited impact that a violence prevention or conflict management program would have on similar youth when these programs emphasize peaceful negotiation while the youth's values promote justified retaliation. This study provides a strong rationale for implementing programs that attend to the social and broader ecological contexts in which violence occurs. Lockwood stresses the need to construct prevention programs that more realistically match the way in which violent acts occur in the lives of youth. Using such a conceptualization, possible intervention points for educators may include the following: (a) Adults are present in about 50% of the aggressive events reported by youth, so adults need to create strategies to respond with an instructional purpose to these incidents; (b) most of these events occurred at school or home, so opportunities for contextualized learning are significant, and adults need to attend to those events, seeing them as an opportunity to teach negotiation skills; and (c) many conflicts begin with mild, but offensive, touching, so programs ought to include components that role-play ways to respond to this touching in a manner that does not escalate into physical fights.

Summary

There are identifiable patterns of an individual's involvement in incidents of school violence. The patterns and trends described should be useful in helping school personnel to be particularly vigilant in their observations and to provide "preventive" support of certain individuals, groups, and situations. Enough is now known about the correlates of violent and aggressive behavior on school campuses to implement meaningful intervention programs. Efforts such as the

Blueprint Program created by the University of Colorado Center for the Study of Prevention and Violence (Elliott, 1998) provided detailed descriptions of prevention and intervention programs that have been implemented in schools and have demonstrated effectiveness. These programs can be best implemented when each school considers the identifiable patterns and correlates of school violence. For example, it is quite clear that males are predominantly involved as both perpetrators and victims of violence, which strongly suggests that school-based programs should openly acknowledge the need to specifically examine the behavior of males. Also, school administrators can use current research findings to be specifically vigilant about potential hot spots in their schools that would be the targets of efficient prevention programs. Nonetheless, we caution that there are multiple pathways toward school violence, and these complex relationships have not been fully explored. Educators need to be mindful that their intervention efforts should target not only those youth whose life experiences closely match the correlates of school violence, but also take into consideration the contexts that contribute to or hinder aggressive behavior. This is demonstrated by the findings of a recent National Longitudinal Adolescent Health Survey report (Resnick et al., 1997), in which youth who were connected and bonded to meaningful adults in their lives, at home, and at school, were less likely to commit crimes, use substances, and engage in high-risk behaviors.

Finally, in addition to continuing the collection of detailed and targeted data on this issue, a parallel effort is needed to further define the nature of school violence in order to further understand the specific role that schools as an institution play in the deterrence or exacerbation of student problems that lead to violence. It is through this further explication that the most effective and relevant programs can be guided and implemented.

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