Youth Violence across Multiple Dimensions: A Study of Violence, Absenteeism, and Suspensions among Middle School Children

Marizen Ramirez, PhD[1], Yuan Wu, PhD[1], Sheryl Kataoka, MD[2], Marleen Wong, PhD[3], Jingzhen Yang, PhD[1], Corinne Peek-Asa, PhD[1], and Bradley Stein, PhD[4]

Objective To determine how multidimensional measures of violence correlate with school absenteeism and suspensions among middle school youth.

Study design A cross-sectional survey was conducted in 2004 with 28 882 sixth graders from an urban school district. Data were collected on role (witness, victim, perpetrator) and mode (verbal, physical, weapons) of past-year violence exposures, and absences and suspensions over 1 academic year. Associations between violence and absenteeism and suspension were estimated using generalized linear models.

Results ORs for suspension increased from witnessing to victimization to perpetration and then victimization-perpetration. Among those exposed to weapons, victims (OR_{boys} = 1.45; OR_{girls} = 1.38) had similar or slightly higher ORs for absenteeism than perpetrators (OR_{boys} = 1.39; OR_{girls} = 1.17). Boy victims and witnesses of physical violence had similar absenteeism patterns as those unexposed to physical violence. Of all exposed girls, victim-perpetrators had the highest ORs for absenteeism (OR = 1.76).

Conclusion Exposure to violence correlated with absenteeism and suspension. The strength of these relationships depended on mode and role in exposure. Our cross-sectional data limits our ability to establish causality. Findings have implications for prevention. *(J Pediatr 2012;161:542-6)*.

In 2007, over 1.5 million adolescents in the United States were victims of nonfatal crimes. Eight percent of high school students were threatened or injured with a weapon, and 12% reported being in a fight within the last year. Up to 88% of students from urban settings in the United States have witnessed robberies, beatings, stabbings, shootings, or murders in their communities.[1-6] In the past year, 25%-50% of youth in the United States are victims of bullying at school.[7-10]

Exposure to violence at home, school, and in the community is associated with lower grade point averages and poorer academic performance.[11-15] The impact of violence on academic performance may not manifest immediately, which can delay treatment of traumatized youth and increase challenges in helping the student catch up academically. Little research has examined how violence victimization and perpetration are associated with more immediate and apparent outcomes, such as absenteeism and suspensions. In the few available studies, increased violence is consistently associated with poor school attendance.[11,12]

Previous research is also hampered by methodologic challenges in measuring violence exposures. Different forms of violence have commonly been studied as separate phenomenon, although youth are often involved in multiple types of violence, potentially as both perpetrators and victims.[16] Studies on bullying have begun differentiating role as victims, bystanders, and perpetrators as well as forms of bullying (eg, physical, verbal, sexual, cyber).[7,10] These different forms of bullying exposure can lead to differential adverse mental health outcomes.[8,17-19] Because of the divergent pathways to psychopathology, identifying early indicators of differential violence exposure is critical for prevention. Absenteeism and suspension can serve as early indicators of differential exposure to violence and lead to prompt recognition and care.

Unfortunately, the impact of multidimensional forms of violence on school-related outcomes has not been well studied. An exception is 1 study that described how various forms of bullying (victims, bullies, bully-victims) were associated with academic functioning in elementary children.[20] The study did not measure if bullying acts were verbal, physical, or weapons-related. To address these gaps, we explored how different dimensions of violence were associated with attendance and suspension in a large urban school district. We first measured violence by role (witnessing, victimization, perpetration, and victimization-perpetration) and mode (weapon, physical, and verbal). Our hypotheses were (1) mode and role in violence exposure were differentially associated with attendance and suspension; and (2) the strongest of these associations were among children who experience the most severe forms (eg, victimization-perpetration and weapons-related violence).

SES Socioeconomic status

From the [1]University of Iowa Injury Prevention Research Center, Department of Occupational and Environmental Health, College of Public Health, University of Iowa, Iowa City, IA; [2]Semel Institute, Department of Psychiatry, University of California at Los Angeles; [3]School of Social Work, University of Southern California, Los Angeles, CA; and [4]RAND Corporation, Pittsburgh, PA

Funded by the Office of Public Health Research, Centers for Disease Control and Prevention (grant K01-CD000196), and the University of Iowa Injury Prevention Research Center, which is supported by the National Center for Injury Prevention and Control, and Centers for Disease Control and Prevention (grant R49 CD001167). The authors declare no conflicts of interest.

 10.1016/j.jpeds.2012.03.014

Methods

A large, urban multicultural school district with a K-12 enrollment of 700 000 was selected. M.W. was responsible for oversight and administration of a sixth grade health survey to assess need for trauma intervention services in the district's 81 middle schools. Using passive consent procedures, information about the survey and instructions for refusing participation were sent home to parents of sixth graders. Children with severe special health care needs (eg, developmental disabilities, blind, deaf) were not included. Approximately 32 000 eligible sixth graders were present during the day of survey administration after removing students on off-track school calendars, students in special education schools, students with severe cognitive or sensory impairments, middle school drop-outs, and absent students. The Scantron Survey was administered by teachers during a required health science class. Surveys were completed by 28 882 sixth grade students, representing approximately 90% of students present during the survey's administration. Demographic characteristics of the sample were similar to that of all sixth-graders, district-wide, with 50.4% female and 72.8% Latino.

The Life Events Scale was used to measure frequency of victimization and witnessing of slapping, hitting, punching; beatings; knife attacks; shootings; and perpetration of violence in the past year, using a 4-point Likert scale where 0 = never, 1 = sometimes, 2 = lots of times, and 3 = almost every day.[21] Excluded were witnessing violence on the TV, radio, news, or the movies; and violence occurring at home at the request of school personnel. Violence exposure was classified across modes of violence and role in exposure. Because of small cell sizes, violence-exposed children were classified as those who experienced violence "lots of times" or "almost everyday" to represent the most frequent and, thus, severe forms of violence.

Modes of Violence

Verbal violence was defined as being exposed lots of times or almost every day to threats of harm (being told one was going to be hurt by another) in the past year. Physical violence exposure was defined as being slapped, punched hit, or beaten up lots of times or almost every day in the past year. Weapons-related violence was defined as being attacked or stabbed with knives or having a gun pointed at or being shot at least sometimes in the past year.

Role in Exposure

Witnesses reported seeing someone else being victimized by verbal, physical, or weapons-related violence lots of times or almost every day in the past 12 months. We defined witnesses as those who only witnessed violence and were neither victims nor perpetrators.

Victims were recipients of verbal, physical, or weapons-related violence lots of times or almost every day in the past year. Victims may be witnesses but not perpetrators.

Perpetrators reported that they themselves committed verbal, physical, or weapons-related violence toward another person lots of times or almost every day in the past year. Perpetrators may also be witnesses but not victims.

Victim-perpetrators reported being both a victim and a perpetrator of verbal, physical, and/or weapons-related violence lots of times or almost every day in the past year. Victim-perpetrators may also be witnesses.

School Data

Individual survey data were linked to student electronic school records, which contained the total number of unexcused absences and suspension days for each student from the same school year (2003-2004) in which the violence survey was conducted. Unexcused absences were used to measure attendance most likely influenced by violence, and were defined as (1) missed school days without an excuse by the parent or guardian; or (2) being tardy for more than 30 minutes without the permission of a teacher or administrator. Suspension is the removal of a student from ongoing instruction. Students were classified as absent if they had at least 1 day of unexcused absenteeism, or suspended if suspended at least 1 day during the school year.

Sex and race/ethnicity were also collected. Children were coded as disabled if enrolled in special education. Race/ethnicity was dichotomized into Latino vs non-Latino.

For each school, we collected information on grade structure (middle school grades 6-8, multi-span from either kindergarten through eighth grade or through 12th grade) and socioeconomic status (SES), measured by the percentage of children enrolled at the school who met income qualifications for free and reduced meals. Schools with 75% or more children on the free/reduced meal plan were classified as low SES schools. School-level SES was used as a proxy for individual-level SES, which was not available.

Analyses

Maximum available data were used for each separate outcome analysis (n = 27 110 for absenteeism, 4% excluded; n = 24 764 for suspensions, 12% excluded). Available data on individual and school level factors had similar distributions in the total (n = 28 882) and reduced samples. Because additional data such as school administrative procedures to predict missing data patterns were unavailable, imputation procedures were not employed.[22]

Generalized linear models were fit using generalized estimating equations, school as a clustering variable, and an exchangeable correlation structure in SAS 9.10 (SAS Institute, Inc, Cary, North Carolina). To appropriately model our binary response variables (absent vs not absent, suspended vs not suspended), we used a binomial link function. Using a priori knowledge and the 10% change-in-estimate criterion,[22] we examined available individual (ie, sex, race/ethnicity, disability status) and school-level variables (SES and grade structure) as candidate confounders. To examine the independent effects of 1 mode of violence (eg, verbal), we mutually controlled for other modes of violence (eg, physical, weapons). Tests of heterogeneity revealed possible effect modification by sex and led to separate models for boys and

girls controlled for race/ethnicity, disability status, SES, and grade. This study was approved by the Institutional Review Boards at the University of Iowa.

Results

About 78% boys and 67% of girls in sixth grade reported witnessing, being victimized, or perpetrating either verbal, physical, and/or weapons-related violence lots of times or every day in the past year (Table I). Physical violence was the most common mode, followed by verbal violence. Children experienced violence most frequently by witnessing.

Crude Absenteeism and Suspension Patterns

During 2003-2004, over 37% of students had at least 1 unexcused absence and almost 9% had been suspended (Table II; available at www.jpeds.com). Absenteeism and suspensions were more common among boys than girls, Latinos than non-Latinos, those with disabilities than those without disabilities, and in lower SES than higher SES schools. Absenteeism and suspensions were also consistently higher among children who reported any violence exposure (absenteeism: 39.7%, suspension: 10.3%) than children with no histories of violence (absenteeism: 31.6%, suspension: 4.2%). Absenteeism (45.8%) and suspensions (15.9%) were highest among perpetrators of violence.

Table I. Violence experiences reported for sixth grade students in last year by sex*

Type of violence	n (%) exposed lots of times to everyday		
	Boys (N = 14 281)	Girls (N = 14 601)	Total (N = 28 882)
Weapon			
Any	6355 (44.5)	5142 (35.2)	11 497 (39.8)
Perpetrator			
Knife	367 (2.6)	123 (0.8)	490 (1.7)
Victim			
Total†	2077 (14.5)	837 (5.7)	2914 (10.1)
Gun	1478 (10.4)	547 (3.8)	2025 (7.0)
Knife	1071 (7.5)	415 (2.8)	1486 (5.2)
Witness			
Total†	5962 (41.8)	4976 (34.1)	10 938 (37.9)
Gun	4932 (34.5)	4024 (27.6)	8956 (31.0)
Knife	3430 (24.0)	2724 (18.9)	6154 (21.3)
Physical			
Any	9960 (69.7)	8206 (56.2)	18 166 (62.9)
Perpetrator			
Total†	4039 (28.3)	2404 (16.5)	6443 (22.3)
Beat	1020 (7.1)	453 (3.1)	1473 (5.1)
Slap/hit/punch	3887 (27.2)	2330 (16.0)	6217 (21.5)
Victim			
Total†	3996 (28.0)	1852 (12.7)	5848 (20.3)
Beat	947 (6.6)	362 (2.5)	1309 (4.5)
Slap/hit/punch	3799 (13.2)	1733 (11.9)	5532 (19.2)
Witness			
Total†	8938 (62.6)	7590 (52.0)	16 538 (57.2)
Beat	6018 (42.1)	5129 (35.1)	11 147 (38.6)
Slap/hit/punch	7987 (55.9)	6618 (45.3)	14 605 (50.6)
Verbal			
Any	6977 (48.9)	5432 (37.2)	12 409 (43.0)
Perpetrator	1076 (7.5)	589 (4.0)	1665 (5.8)
Victim	2276 (15.9)	1084 (7.4)	3360 (11.6)
Witness	6188 (43.3)	5027 (34.4)	11 215 (38.8)
Any	11 204 (78.45)	9756 (66.8)	20 960 (72.6)

*All P values for χ^2 tests $\leq .001$.
†Totals do not equal sum of subgroups because subgroups are not mutually exclusive.

Associations between Violence and Unexcused Absenteeism

After combining all modes of violence exposure (Table III; available at www.jpeds.com), all roles in exposure were found to be associated with increased absenteeism. ORs tended to be lower for witnesses and victims (ORs_{boys} = 1.03, 1.18; ORs_{girls} = 1.16, 1.40) than perpetrators and victim-perpetrators (ORs_{boys} = 1.51, 1.53; ORs_{girls} = 1.46, 1.65). This same general pattern was found among boys exposed to verbal violence and girls exposed to physical violence.

Slightly different patterns for absenteeism were seen among boys exposed to physical violence, girls exposed to verbal violence, and those exposed to weapons-related violence. For girls exposed to verbal violence, witnesses had the lowest ORs (OR = 1.12), followed by perpetrators (OR = 1.23), victims (OR = 1.35), and victim-perpetrators (OR = 1.76).

Among boys exposed to physical violence, witnesses and victims were no more likely to be absent than those unexposed to physical violence. Boy victim-perpetrators and perpetrators, however, had higher and similar ORs for absenteeism (1.25-1.31).

A slightly different pattern was also found among children who experienced weapons-related violence. The ORs for absenteeism increased, respectively, from witnessing to perpetration to victimization and then victimization-perpetration (ORs_{boys} = 1.25, 1.39, 1.45, 1.70; ORs_{girls} = 1.12, 1.17, 1.38, 1.68).

In general, the strongest associations with absenteeism were found among children exposed to weapons-related violence compared with all modes. For boys, the highest OR for absenteeism was among victim-perpetrators of weapons-related incidents (OR = 1.70). Notably, however, for girls, victim-perpetrators of verbal violence had the highest OR (OR = 1.76) for absenteeism.

Associations between Violence and Suspensions

Like estimates for absenteeism, ORs for suspension also increased, respectively, from witnessing, victimization, perpetration, and victim-perpetration across all modes of violence (ORs_{boys} = 1.28, 1.55, 1.96, 2.53; ORs_{girls} = 1.17, 1.72, 1.85, 2.43) (Table IV; available at www.jpeds.com). However, these estimates were higher than those for absenteeism. Unlike absenteeism results, this overall pattern was rather consistent across all modes of violence.

Only 1 slight departure from this pattern was found: boy witnesses to physical violence were no more likely to be suspended than boys unexposed to physical violence. However, witnesses to verbal and weapons-related violence had ORs between 1.1-1.3.

The strongest associations with suspension were found among perpetrators and victim-perpetrators of verbal violence

for girls and among perpetrators and victim-perpetrators of weapons-related violence for boys.

Discussion

Our study demonstrates that exposure to violence, measured by role in exposure and severity of mode, strongly correlates with school attendance and suspensions. Our results suggest a general pattern for suspension: ORs for suspension increased from witnessing to victimization to perpetration, and those who were both victims and perpetrators of violence had the highest overall ORs for suspension. This relationship was consistent for boys and girls, and also across various modes through which violence is inflicted (verbal, physical, weapons). Similarly, Glew et al reported that child bully-victims were more likely to be suspended than bystanders, victims, or bullies only.[20] Relationships between violence and absenteeism followed a less clear pattern, also consistent with prior research.[20] Exposure to weapons-related violence was more strongly associated with increased absenteeism among victims than perpetrators. Among boys, victims or witnesses of physical violence had similar absentee patterns as those unexposed to physical violence.

Our findings add to a growing body of research suggesting that school-related outcomes vary for children with different violent histories. Witnessing violence was related to increased absenteeism and suspension, albeit weaker than other modes. A larger proportion of witnesses to weapons-related violence were absent or suspended than children unexposed to weapons. Notably, witnessing verbal threats was correlated with suspensions and absenteeism, particularly among girls. These findings are consistent with previous literature that reported decreased grades and increased absenteeism among witnesses of violence at home.[11,14,23]

Weapons-related violence was one of the most severe modes because of its potential for significant injury or death. Whether a witness, victim and/or perpetrator, weapons-related violence was associated with up to double the odds of absenteeism and suspension. Children exposed to other modes of violence did not present such increased risk profiles. The life-threatening nature of weapons likely leads to intensified fear upon any exposure. This is consistent with previous studies reporting that weapons-related violence leads to anxiety, depression, and posttraumatic stress disorder among youth.[24,25]

Exposure to verbal threats is a growing concern, particularly given today's high prevalence of verbal harassment and non-physical bullying reported among youth.[1,7-10,26] Our study supports that verbal threats are an important mode through which violence may be inflicted. Girls who experienced verbal threats had the highest correlations with absenteeism and suspension.

Absenteeism and suspensions may serve as practical indicators of violence exposure and, thus, cue school personnel, clinicians, and parents to children who are targets of violence and in need of intervention. Unexcused absence from school may be an acute effect of violence manifested immediately after exposure and, thus, serve as an identifiable point to screen for violence exposure.[12] Suspension, on the other hand, is often instituted as a response to serious violations of school policies. Our results indicate that suspended children tended to be those exposed to the most severe forms of violence (eg, weapons) and exposed through the most involved roles (eg, victim-perpetrators). Suspension, furthermore, removes a child from the school setting, decreases links to school personnel, and without intervention, could lead to permanent severance from the school (ie, expulsion). Hence, suspended children may be in most critical need for advanced support.

Attendance and suspensions may also serve as early risk markers for longer-term adverse psychological outcomes like PTSD and depression. Research has found that untreated youth exposed to violence can suffer from a myriad of adverse outcomes including poor school outcomes and mental health disorders such as post-traumatic stress, depression, and suicidal ideation.[17-19,27-29] Thus, understanding the relationships between violence and school outcomes can support efforts early intervention efforts. However, future longitudinal studies are needed to fully test these hypotheses.

Self-reports may be prone to bias because of social desirability but capture incidents often unreported to officials.[30] Exclusion of violence witnessed in the media or at home may have biased estimates; however, our study focuses on violence experienced at school or in the community. Our cut-point of exposure based on experiencing violence either lots of time or everyday is also a limitation. Future studies should consider locations of violent experiences and nuanced measures of frequency as additional dimensions for exploration. For our dependent variable, we classified students as absent and suspended children, rather than counted their days absent or suspended. However, we cannot, with certainty, ascertain which days of absenteeism or suspension follow violent exposures. Ultimately, the cross-sectional nature of this study creates temporal ambiguity and, thus, limits our ability to establish causation. Overlapping time periods were used to assess violence and school outcomes. When individuals are engaged in a cycle of violence even in childhood, time-period prevalence may best capture exposures and outcomes without additional assumptions. Nonetheless, longitudinal studies are needed to fully assess trajectories of violence-exposed youth.

Strengths of this study include its large sample size, which allows our multidimensional measures of violence and mutual control of various modes of violence. Using school records to capture unexcused absenteeism and suspension is another strength.

Ultimately, understanding the nuances of violence exposures will aid in tailoring post-trauma interventions that address the unique experiences of today's youth. ■

Submitted for publication Jun 17, 2011; last revision received Feb 10, 2012; accepted Mar 7, 2012.

Reprint requests: Marizen Ramirez, PhD, University of Iowa Injury Prevention Research Center, Department of Occupational and Environmental health, College of Public Health, University of Iowa, 105 River St. S318 Iowa City, IA 52242-5000. E-mail: marizen-ramirez@uiowa.edu

References

1. Finkelhor D, Turner H, Ormrod R, Hamby SL. Trends in childhood violence and abuse exposure: evidence from 2 national surveys. Arch Pediatr Adolesc Med 2010;164:238-42.
2. Brener ND, Simon TR, Krug EG, Lowry R. Recent trends in violence-related behaviors among high school students in the United States. JAMA 1999;282:440-6.
3. Dalhberg LL, Potter LB. Youth violence: developmental pathways and prevention challenges. Am J Prev Med 2001;20:3-14.
4. Dinkes R, Cataldi EF, Kena G, Baum K. Indicators of school crime and safety; 2006. U.S. Departments of Education and Justice. Washington, DC: US Government Printing Office; 2006.
5. Campbell C, Schwarz DF. Prevalence and impact of exposure to interpersonal violence among suburban and urban middle school students. Pediatrics 1996;98:396-402.
6. Jaycox LH, Stein BD, Kataoka S, Wong M, Fink A, Escudero P, et al. Violence exposure, PTSD, and depressive symptoms among recent immigrant school children. J Am Acad Child Adolesc Psychiatry 2002;41:1104-10.
7. Wang J, Iannotti RJ, Nansel TR. School bullying among adolescents in the United States: physical, verbal, relational and cyber. J Adolesc Health 2009;45:368-75.
8. Schneider KS, O'Donnell L, Stueve A, Coulter RW. Cyberbullying, school bullying, and psychological distress: a regional census of high school students. Am J Public Health 2012;102:171-7.
9. Pergolizzi F, Pergolizzi J 3rd, Gan Z, Macario S, Pergolizzi JV Jr, Ewin TJ, et al. Bullying in middle school: results from a 2008 survey. Int J Adolesc Med Health 2011;23:11-8.
10. Centers for Disease Control and Prevention. Bullying among middle school and high school students–Massachusetts, 2009. MMWR Morb Mortal Wkly Rep 2011;60:465-71.
11. Hurt H, Malmud E, Bodsky NL, Giannetta J. Exposure to violence: psychological and academic correlates in child witnesses. Arch Pediatr Adolesc Med 2001;155:1351-6.
12. Bowen NK, Bowen GL. Effects of crime and violence in neighborhoods and schools on the school behavior and performance of adolescents. J Adolesc Res 1999;14:319-42.
13. Wodarski JS, Kurtz PD, Gaudin JM, Howing PT. Maltreatment and the school-age child: major academic, socioemotional, and adaptive outcomes. Social Work 1990;35:506-13.
14. Peek-Asa C, Maxwell L, Stromquist A, Whitten P, Limbos M, Merchant J. Does parental physical violence reduce children's standardized test score performance? Ann Epidemiol 2007;17:847-53.
15. Borowsky IW, Ireland M, Resnick MD. Violence risk and protective factors among youth held back in school. Ambul Pediatr 2002;2:475-84.
16. Malik S, Sorenson SB, Aneshensel CS. Community and dating violence among adolescents: perpetration and victimization. J Adolesc Health 1997;21:291-302.
17. Alikasifoglu M, Erginoz E, Ercan O, Uysal O, Albayrak-Kaymak D. Bullying behaviours and psychosocial health: results from a cross-sectional survey among high school students in Istanbul, Turkey. Eur J Pediatr 2007;166:1253-60.
18. Juvonen J, Graham S, Schuster MA. Bullying among young adolescents: the strong, the weak, and the troubled. Pediatrics 2003;112:1231-7.
19. Arseneault L, Walsh E, Trzesniewski K, Newcombe R, Caspi A, Moffitt TE. Bullying victimization uniquely contributes to adjustment problems in young children: a nationally representative cohort study. Pediatrics 2006;118:130-8.
20. Glew GM, Fan MY, Katon W, Rivara FP, Kernic MA. Bullying, psychosocial adjustment, and academic performance in elementary school. Arch Pediatr Adolesc Med 2005;159:1026-31.
21. Singer MI, Miller DB, Guo S, Flannery DJ, Frierson T, Slovak K. Contributors to violent behavior among elementary and middle school children. Pediatrics 1999;104:878-84.
22. Rothman KJ, Greenland S, Lash TL. Modern epidemiology. Pennsylvania: Lippincott Williams & Wilkins; 2008.
23. Wolfe DA, Crooks C, Lee V, McIntyre-Smith A, Jaffe PG. The effects of children's exposure to domestic violence: a meta-analysis and critique. Clin Child Fam Psychol Rev 2003;6:171-87.
24. Nader K, Pynoos R, Fairbanks L, Frederick C. Children's PTSD reactions one year after a sniper attack at their school. Am J Psychiatry 1990;147:1526-30.
25. Breslau N, Wilcox HC, Storr CL, Lucia VC, Anthony JC. Trauma exposure and posttraumatic stress disorder: a study of youths in urban America. J Urban Health 2004;81:530-44.
26. Smith-Khuri E, Iachan R, Scheidt PC, Overpeck MD, Gabhainn SN, Pickett W, et al. A cross-national study of violence-related behaviors in adolescents. Arch Pediatr Adolesc Med 2004;158:539-44.
27. Mazza JJ, Reynolds WM. Exposure to violence in young inner-city adolescents: relationships with suicidal ideation, depression, and PTSD symptomatology. J Abnorm Child Psychol 1999;27:203-13.
28. Howard DE, Feigelman S, Li X, Cross S, Rachuba L. The relationship among violence victimization, witnessing violence, and youth distress. J Adolesc Health 2002;31:455-62.
29. Fowler PJ, Tompsett CJ, Braciszewski JM, Jacques-Tiura AJ, Baltes BB. Community violence: a meta-analysis on the effect of exposure and mental health outcomes of children and adolescents. Dev Psychopathol 2009;21:227-59.
30. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile and Delinquency Prevention [homepage on the internet]. Hamby SL, Finkelhor D. Choosing and using child victimization questionnaires. Juvenile Justice Bulletin, March 2001. Available at: https://www.ncjrs.gov/html/ojjdp/jjbul2001_3_4/contents.html. Accessed April 7, 2012.

Table II. Demographics by unexcused absence and suspension for sixth grade student*

	Unexcused absence		Suspension in sixth grade	
	Total	Yes	Total	Yes
	N	n (%)	N	n (%)
Individual factors				
Sex				
Boys	13 388	5437 (40.6)	12 402	1559 (12.6)
Girls	13 722	4726 (34.4)	12 362	581 (4.7)
Disabled				
Yes	1719	811 (47.2)	1720	230 (13.5)
No	25 391	9352 (36.8)	23 044	1910 (8.3)
Latino				
Yes	19 331	7055 (36.5)	16 965	1284 (7.6)
No	7799	3108 (40.0)	7799	856 (11.0)
School factors				
Type of school				
Middle	23 272	8810 (37.9)	21 385	1925 (9.0)
Multispan	3838	1353 (35.3)	3379	215 (6.4)
SES				
High	10 497	4152 (39.6)	9610	931 (9.7)
Low	16 613	6011 (36.2)	15 154	1209 (8.0)
Violence exposures				
Any violence				
Yes	19 658	7812 (39.7)	18 024	1860 (10.3)
No	7452	2351 (31.6)	6740	280 (4.2)
Weapon violence				
Yes	10 790	4607 (42.7)	10 033	1250 (12.5)
No	16 320	5556 (34.0)	14 731	890 (6.0)
Physical violence				
Yes	17 008	6853 (40.3)	15 632	1682 (10.8)
No	10 102	3310 (32.8)	9132	458 (5.0)
Verbal violence				
Yes	11 640	4854 (41.7)	10 691	1268 (11.9)
No	15 470	5309 (34.3)	14 073	872 (6.2)
Perpetrator				
Yes	6370	2915 (45.8)	5966	946 (15.9)
No	20 740	7248 (35.0)	18 798	1194 (6.4)
Victim				
Yes	7834	3370 (43.0)	7288	1032 (14.2)
No	19 276	6793 (35.2)	17 476	1108 (6.3)
Witness				
Yes	18 687	7455 (39.9)	17 127	1783 (10.4)
No	8423	2708 (32.2)	7637	357 (4.7)
Total	27 110	10 163 (37.5)	24 764	2140 (8.6)

High SES is ≤75% children on free/reduced meals, low is >75% on free/reduced meals.
*All P values for χ^2 tests ≤.002.

Table III. Associations between violence exposures and absenteeism for sixth grade students (N = 27 110)

	Boys			Girls		
		Yes	Adjusted*		Yes	Adjusted*
Violence	Total	n (%)	OR [95% CI]	Total	n (%)	OR [95% CI]
Total						
Victim-perpetrator	2568	1231 (47.9)	1.53 [1.38, 1.70]	1138	494 (43.4)	1.65 [1.44, 1.88]
Perpetrator	1427	690 (48.4)	1.51 [1.34, 1.71]	1237	500 (40.4)	1.46 [1.28, 1.66]
Victim	2606	1053 (40.4)	1.18 [1.07, 1.29]	1522	592 (38.9)	1.40 [1.23, 1.58]
Witness	3898	1446 (37.1)	1.03 [0.93, 1.15]	5262	1806 (34.3)	1.16 [1.06, 1.28]
None	2889	1017 (35.2)	Ref	4563	1334 (29.2)	Ref
Weapon						
Victim-perpetrator	218	121 (55.5)	1.70 [1.24, 2.33]	68	35 (51.5)	1.68 [1.04, 2.69]
Perpetrator	117	58 (49.6)	1.39 [1.01, 1.92]	44	17 (38.6)	1.17 [0.72, 1.91]
Victim	1707	827 (48.5)	1.45 [1.32, 1.59]	715	310 (43.4)	1.38 [1.18, 1.62]
Witness	3898	1726 (44.3)	1.25 [1.17, 1.33]	4023	1513 (37.6)	1.12 [1.03, 1.22]
None	7448	2705 (36.3)	Ref	8872	2851 (32.1)	Ref
Physical						
Victim-perpetrator	1820	859 (47.2)	1.25 [1.12, 1.39]	756	296 (39.2)	1.14 [0.98, 1.32]
Perpetrator	1927	951 (49.4)	1.31 [1.18, 1.46]	1473	644 (43.7)	1.37 [1.23, 1.53]
Victim	1918	761 (39.7)	0.98 [0.87, 1.10]	978	381 (39.0)	1.20 [1.04, 1.38]
Witness	3665	1397 (38.1)	0.94 [0.85, 1.05]	4471	1564 (35.0)	1.03 [0.94, 1.13]
None	4058	1469 (36.2)	Ref	6044	1841 (30.5)	Ref
Verbal						
Victim-perpetrator	402	196 (48.8)	1.31 [1.10, 1.55]	160	83 (51.9)	1.76 [1.27, 2.44]
Perpetrator	593	304 (51.3)	1.42 [1.21, 1.67]	382	156 (40.8)	1.23 [1.02, 1.50]
Victim	1726	766 (44.4)	1.14 [1.04, 1.26]	846	358 (42.3)	1.35 [1.17, 1.55]
Witness	3803	1586 (41.7)	1.04 [0.96, 1.14]	3728	1405 (37.7)	1.12 [1.02, 1.23]
None	6864	2585 (37.7)	Ref	8606	2724 (31.7)	Ref
Total	13 388	5437 (40.6)		13 722	4726 (34.4)	

*Generalized estimating equation with a link function, clustered on school of enrollment, adjusted for disability, SES, Latino, ethnicity and school type, and mutually adjusted for weapons, physical, and verbal violence.

Table IV. Associations between violence exposures and suspension for sixth grade students (N = 24 764)

	Boys			Girls		
		Yes	Adjusted*		Yes	Adjusted*
Violence	Total	n (%)	OR [95% CI]	Total	n (%)	OR [95% CI]
Total						
Victim-perpetrator	2413	514 (21.3)	2.53 [2.19, 2.92]	1069	118 (11.0)	2.43 [2.03, 2.92]
Perpetrator	1338	222 (16.6)	1.96 [1.69, 2.26]	1146	92 (8.0)	1.85 [1.55, 2.21]
Victim	2427	306 (12.6)	1.55 [1.40, 1.72]	1379	94 (6.8)	1.72 [1.48, 2.00]
Witness	3576	336 (9.4)	1.28 [1.14, 1.43]	4676	178 (3.8)	1.17 [1.07, 1.29]
None	2648	181 (6.8)	Ref	4092	99 (2.4)	Ref
Weapon						
Victim-perpetrator	210	60 (28.6)	2.35 [1.85, 2.99]	72	10 (13.9)	1.84 [0.86, 3.91]
Perpetrator	115	30 (26.1)	2.39 [1.64, 3.48]	41	3 (7.3)	†
Victim	1626	311 (19.1)	1.63 [1.44, 1.85]	657	67 (10.2)	1.84 [1.54, 2.22]
Witness	3659	532 (14.5)	1.34 [1.21, 1.49]	3653	237 (6.5)	1.28 [1.15, 1.44]
None	6792	626 (9.2)	Ref	7939	264 (3.3)	Ref
Physical						
Victim-perpetrator	1699	355 (20.9)	1.70 [1.48, 1.94]	703	71 (10.1)	1.70 [1.42, 2.04]
Perpetrator	1820	337 (18.5)	1.53 [1.35, 1.73]	1380	128 (9.3)	1.65 [1.37, 1.99]
Victim	1783	230 (12.9)	1.14 [1.00, 1.29]	893	71 (8.0)	1.57 [1.33, 1.87]
Witness	3368	326 (9.7)	0.98 [0.89, 1.08]	3986	164 (4.1)	1.06 [0.96, 1.16]
None	3732	311 (8.3)	Ref	5400	147 (2.7)	Ref
Verbal						
Victim-perpetrator	383	97 (25.3)	1.90 [1.53, 2.36]	155	23 (14.8)	2.12 [1.49, 3.02]
Perpetrator	568	130 (22.9)	1.70 [1.38, 2.09]	355	47 (13.2)	1.97 [1.51, 2.57]
Victim	1595	257 (16.1)	1.28 [1.11, 1.48]	774	58 (7.5)	1.28 [1.09, 1.52]
Witness	3528	462 (13.1)	1.09 [1.00, 1.18]	3333	194 (5.8)	1.10 [1.01, 1.20]
None	6328	613 (9.7)	Ref	7745	259 (3.3)	Ref
Total	12 402	1559 (12.6)		12 362	581 (4.7)	

*Generalized estimating equation with a link function, clustered on school of enrollment, adjusted for disability, SES, Latino, ethnicity and school type, and mutually adjusted for weapons, physical, and verbal violence.
†Not estimated due to small sample size.