



Published in final edited form as:

J Interpers Violence. 2011 September ; 26(13): 2658–2680. doi:10.1177/0886260510388288.

Peer violence perpetration among urban adolescents: Dispelling the myth of the violent immigrant

Joanna Almeida, ScD^{1,3}, Renee M. Johnson, MPH, PhD^{2,3}, Mariah McNamara, MD, MPH⁴, and Jhumka Gupta, ScD^{5,6}

¹Northeastern University, Boston, MA

²Boston University School of Public Health, Boston, MA

³Harvard School of Public Health, Boston, MA

⁴University of Massachusetts Medical School, Worcester

⁵Yale University School of Public Health, New Haven, CT

⁶Yale University, New Haven, CT

Abstract

Researchers have found an inverse relationship between immigrant status and violence perpetration. Most studies have examined Mexican immigrants, and few have assessed immigration factors other than nativity. Additionally, the majority have focused on the most serious forms of violence despite the fact that moderate violence is more common.

Using data from the 2008 Boston Youth Survey, we generated prevalence estimates of peer violence perpetration across immigration related factors, examined whether risk factors for peer violence differed by these variables, and explored the contribution of risk factors to peer violence perpetration. Recent immigrants had a significantly lower prevalence of peer violence compared to each other generations/time in U.S. group. Known risk factors for violence perpetration varied by generation/time in U.S.: compared to other groups, recent immigrants were less likely to have used substances, and were more likely earn A's and B's in school. Recent immigrants had a significantly lower risk of violence perpetration relative to U.S.-born (RR = 0.35, 95% CI: 0.19, 0.62). Adjusting for known risk factors did not attenuate differences in risk.

While immigrant youth had a lower risk of peer violence, the protective effect was diminished among immigrants who had resided in the U.S. for >4 years. This pattern demonstrates that negative assimilation occurs *within* the first generation, not just across generations. Results suggest that perpetration of violence worsens with increased time in the U.S. Research is needed to identify factors that contribute to the acquisition of behaviors such as violence among recently arrived immigrant youth.

Keywords

peer violence perpetration; immigrants; youth

© The Author(s) 2010

Corresponding Author: Joanna Almeida, Institute on Urban Health Research, Northeastern University, 333 International Village, 360 Huntington Avenue, Boston, MA 02115, Jalmeida@post.harvard.edu.

Declaration of Conflicting Interests The author(s) declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Immigrant children and children of immigrant parents are the fastest growing segment of the U.S. population; more than one fifth of children (<18 years) are foreign-born or are U.S.-born with at least one foreign-born parent (Mather, 2009). This influx of immigrants has generated concern over how their presence will affect the future of this country. Immigrants often face prejudice and discrimination, particularly when they differ in terms of language, religion, physical appearance, and socioeconomic circumstances (Rumbaut & Ewing, 2007). The majority of contemporary immigrants in the United States are from Latin America, Asia, and the Caribbean, and are young, poor, and male (Suarez-Orozco & Todorova, 2003). A pervasive stereotype about these migrants is that they are prone to violence (Bui & Thongniramol, 2005; Feldmeyer, 2009; Martinez, 1997, 2000; Reid, Weiss, Adelman, & Jaret, 2005; Rumbaut & Ewing, 2007; Sampson & Bean, 2005). This sentiment was confirmed by the results of the 2000 General Social Survey, a nationally representative survey asked adults in the United States whether “more immigrants would cause higher crime rates,” approximately 73% responded “very likely” or “somewhat likely” (Rumbaut & Ewing, 2007). In the past, sociologists theorized a positive relationship between immigrants and violent crime, which they posited was driven by the economic deprivation and social disorganization that often accompanied the resettlement process (Forrest & Kearns, 2001; Martinez, 2000; Reid et al., 2005).

More recently, sociologists have advanced the idea that immigration is not related to or may actually be inversely associated with violence (Reid et al., 2005; Sampson & Bean, 2005; Sampson, Morenoff, & Raudenbush, 2005). For example, studies have shown that native U.S.-born youth (i.e., second generation and higher) are more likely to engage in violence than their foreign-born counterparts (Alaniz, Cartmill, & Parker, 1998; Harris, 1999; Sampson et al., 2005; Smokowski, David-Ferdon, & Stroupe, 2009). Sampson et al. (2005) found lower rates of violence among foreign-born Mexicans compared with U.S.-born non-Latino Whites and relative to U.S.-born Mexican Americans (Sampson et al., 2005). Another study found that U.S.-born youth were significantly more likely to have been involved in three or more violent acts relative to their foreign-born counterparts (Harris, 1999). Although the existing literature has broadly found an inverse relationship between immigrant status and perpetration of violence, this area of inquiry needs to advance in several areas. The first is that despite the large and growing presence of immigrant youth in the United States, relatively few studies have examined youth violence across immigration related factors other than nativity (i.e., U.S. vs. foreign-born; Amaro, Whitaker, Coffman, & Heeren, 1990; Feldmeyer, 2009; Hunt, Morland, Barocas, Huckans, & Caal, 2002; Peguero, 2008; Smokowski et al., 2009). Specifically, most have not systematically examined rates of violence by generation status, age of arrival to the United States, or length of time in the United States (Alegria, Sribney, Woo, Torres, & Guarnaccia, 2007; Hunt et al., 2002; Peguero, 2008). Another limitation of previous work on this topic includes the focus on Mexicans, often to the exclusion of other immigrant groups. While Mexicans are important given that they are the largest immigrant group in the United States, patterns of violence found among them are inappropriately generalized to all Latino immigrants.

A distinct drawback of the literature on immigrants and violence is that the majority of the work has focused on the most severe forms of violence, such as homicide, weapon-related assault, and gang violence. Little is known about more moderate forms of interpersonal violence (e.g. physical and nonphysical types of aggression toward peers) despite that fact that it is more prevalent (Bui & Thongniramol, 2005; Feldmeyer, 2009; Holleran & Jung, 2005; Kim & Goto, 2000; Lee, Martinez, & Rodriguez, 2000; Martinez, 1997, 2000; Peguero, 2008; Reiboldt, 2001; Rodriguez & Brindis, 1995). Moderate interpersonal violence is an important public health problem with serious physical and emotional consequences (Bui & Thongniramol, 2005; Centers for Disease Control & Prevention, 2009; Gupta et al., 2009; Rodriguez & Brindis, 1995; Silverman, Decker, & Raj, 2007;

Smokowski & Bacallao, 2006; Smokowski et al., 2009). Although nonphysical aggression—which includes behaviors like teasing and harassing others, or trying to get peers to dislike or exclude a particular child—receives less research attention than physical aggression, it is an important component of youth violence. Involvement in early aggressive behavior has been shown to predict later perpetration of severe types of interpersonal violence (Archer & Coyne, 2005; Herrenkohl et al., 2000).

Although research has shown that the prevalence of violence varies by immigrant status, our understanding of the factors that contribute to this variation remains limited (Bui, 2009; Bui & Thongniramol, 2005; Feldmeyer, 2009). The objectives of the current study were threefold. First, we sought to generate prevalence estimates of peer violence perpetration across multiple immigration-related factors (i.e., nativity, generation, time spent in the United States), with a primary focus on generation. Based on the literature review, we expected that foreign-born youth would be less likely to perpetrate peer violence. The second objective was to examine whether the prevalence of known risk factors for peer violence perpetration varied by generation. We analyzed several well-known risk factors for violence perpetration. Previous work has shown that sex, substance use, and depressive symptoms are risk factors for violence perpetration among youth, as such we included these variables in our analysis (DuRant et al., 2000; Resnick, Ireland, & Borowsky, 2004; Tschann, Flores, Pasch, & Van Oss Marin, 2005; United States Public Health Service, 2001). Furthermore, we controlled for poor academic performance, neighborhood problems, family structure, and having experienced assault by a caregiver as research has found that among samples of youth, these variables are strongly correlated with violent behavior (Bronte-Tinkew, Moore, Capps, & Zaff, 2006; DuRant et al., 2000; Resnick et al., 2004; Tschann et al., 2005; U.S. Public Health Service, 2001). The literature on violence perpetration among immigrant youth has suggested that ethnic identity, specifically bicultural stress and acculturative dissonance, or differential rates of acculturation between children and their parents, are linked to violent and aggressive behavior (Le & Stockdale, 2008; Smokowski et al., 2009; Tschann et al., 2005). Our hope was to examine such immigrant-specific risk factors, but because we conducted secondary data analysis, we were unable to examine the effect of these particular variables on peer violence perpetration. The third objective was to explore the association between generation and peer violence perpetration, adjusting for the abovementioned risk factors.

Method

Data for the current study come from the 2008 Boston Youth Survey (BYS), a survey of 9th-through 12th-grade students in the Boston Public Schools district. All 32 traditional public high schools in Boston were invited to take part in the study; 22 participated. There were no statistically significant differences between the schools that participated and those that did not with regard to school characteristics (e.g., dropout rate). To acquire a random sample of students within participating schools, we generated a list of unique humanities classrooms within each school. Classrooms were then stratified by grade and selected for survey administration using a random number strategy. Every student within the selected classrooms was invited to participate. Selection of classrooms continued until the total number of students to be surveyed ranged from 100 to 125 per school. In the two schools with total enrollments close to 100, all classrooms in the school were invited to participate. Passive consent was sought from students' parents prior to survey administration. Specifically, students were given a letter describing the project that was for their parents; parents who did not want their child to participate signed and returned the letter to the school. Survey administrators also obtained informed assent from respondents. Of the 2,725 students enrolled in the classrooms selected for participation, 1,878 completed a survey (AAPOR response rate = 68.9%; American Association for Public Opinion Research, 2010).

Students who did not complete a survey either (a) chose not to participate (3.6%), (b) were not permitted by their parent to take the survey (1%), or (c) were absent from school on the day of survey administration (26.6%). The Human Subjects Committee at the Harvard School of Public Health approved all procedures for this research. Northeastern University's institutional review board approved this study.

Measures

Violent/aggressive behavior—The BYS 2008 instrument covered a range of topics (e.g., demographics, health behaviors, use of school resources, developmental assets, and risk factors) but had a particular emphasis on violence. Our main outcome of interest was past 30-day perpetration of physical violence toward peers (any perpetration vs. no perpetration), which was developed using two questions about how frequently respondents had either “pushed, shoved, or slapped someone” or “hit, punched, kicked, or choked” someone. An introductory statement instructed respondents to think about peers, as opposed to dating partners or siblings, in responding to the items. The items were adapted from Straus' Conflict Tactics Scales 2 (CTS2), which has been shown to have good psychometric properties and has been widely used in racially/ethnically diverse populations (Straus, Hamby, Finkelhor, Moore, & Runyan, 1989). We also examined perpetration of relational aggression (i.e., told lies or spread rumors about a peer or made sure other kids disliked him or her) and harassment (i.e., chased or picked on a peer, grabbed his or her hair, or made him or her do something he or she did not want to do), using items adapted from the Problem Behavior Frequency Scale (Dahlberg, Toal, Swahn, & Behrens, 2005).

Immigration variables—Rather than simply examine peer violence perpetration by U.S. vs. foreign nativity, we capitalized on the multiple immigration-related variables in the BYS08 data. We developed a new variable using three questions: (a) an item on generation/time in the United States in which students were asked how long they have been in the United States (response options were always, >4 years, ≤4 years), (b) an item on maternal nativity, and (c) a similar item on paternal nativity. Students were classified as *first-generation, recent immigrant* if they were foreign born and had been in the United States for ≤4 years; students who were foreign born and had been in the United States for >4 years were classified as *first-generation, nonrecent immigrant*; U.S.-born students who had at least one foreign-born parent were classified as *second generation*, and those with two U.S.-born parents were classified as *third generation*. Similar methods have been used in previous studies of immigrant samples (Alegria, Sribney, et al., 2007; Alegria, Woo, et al., 2007; Cochran, Mays, Alegria, Ortega, & Takeuchi, 2007).

Demographic covariates included grade level (9th-12th), sex, and race/ethnicity. To assess race students were asked to indicate if they were White, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, or some other race. Students were permitted to mark multiple options. We combined Latino ethnicity and race to create a race/ethnicity variable with the following five categories: (a) Latino; (b) Non-Latino Black/African American; (c) Non-Latino White; (d) Non-Latino Asian, and (e) Other, which included bi- or multiracial students, Native Americans, and those who were non-Latino and who did not specify a race. We measured depressive symptoms using the Modified Depression Scale (MDS). The MDS is based on the *DSM* scale for depression and assesses past 30-day frequency of six depressive symptoms (i.e., sadness, irritability, hopelessness, sleep disturbance, difficulty concentrating, and eating problems; Dahlberg et al., 2005; Kelder et al., 2001; Roberts, Roberts, & Chen, 1997). It has been used in other studies of youth violence and has high internal consistency ($\alpha \geq .74$; Almeida, Johnson, Corliss, Molnar, & Azrael, 2009; Bosworth, Espelage, & Simon, 1999; Dahlberg et al., 2005; Goldstein, Walton, Cunningham, Trowbridge, & Maio, 2007; Wang, Iannotti, &

Nansel, 2009). Based on data from pilot work, we dropped the item on appetite disturbance, resulting in a five-item scale. The modified MDS maintained high internal consistency, as measured by a Cronbach's alpha coefficient of .79. For each item, response options ranged from 1 to 5. Responses for all five items were summed to generate a total score with a range from 5 to 25; higher scores indicated more frequent depressive symptoms.

The BYS included four items about past month use of alcohol, tobacco, marijuana, or other illicit drugs (e.g., "In the past 30 days, on how many days did you drink alcohol?"), which were adapted from the 2005 Youth Risk Behavioral Surveillance System (YRBS) survey (Centers for Disease Control & Prevention, 2005). We used these four variables to create a dichotomous variable to reflect past 30-day use of these substances. Academic performance was assessed by an item which asked about grades earned in school in the past 12 months. This item was adapted from the National Longitudinal Study of Adolescent Health (2009). Students who reported having earned mostly Cs, Ds, or Fs were classified as performing poorly. Family structure was assessed by an item which asked "how many parents or stepparents live in the house where you usually stay?" We categorized this variable as dual parent or single parent household. We measured past year caregiver assault with questions from the Parent-Child Conflict Tactics Scales (Straus et al., 1989). Participants responded yes/no to six items that asked about assault from adults who lived in their home, including parents, stepparents, guardians, or parent's intimate partners. Youth were asked whether an adult "pushed, grabbed or shoved you"; "kicked bit or punched you"; "hit you with something that could hurt your body"; "choked or burned you"; "attacked or threatened you with a weapon other than a gun"; or "physically attacked you in some other way." Respondents who indicated that they had experienced any of these forms of assault were coded as yes on this variable.

Analysis

Data analysis was performed using SAS statistical software Version 9.2 (SAS, 2008). First we generated descriptive information for sociodemographic characteristics of the sample, immigration-related variables, and risk factors for perpetration of peer violence. We also examined the bivariate relationship between perpetration of peer violence and generation/time in the United States, sociodemographic characteristics, and known risk factors for violence perpetration. We then examined whether known risk factors for perpetration of peer violence differed across the categories of generation/time spent in the United States variable. In the multivariate modeling, we controlled for clustering of students within schools by fitting a generalized estimating equation (GEE) model, with school specified as the cluster variable. As our outcome of interest was common, we generated relative risks (i.e., prevalence ratios) rather than odds ratios (Schmidt & Kohlmann, 2008; Spiegelman & Hertzmark, 2005). We fit GEE models using PROC GENMOD in SAS with school specified as the subject in the REPEATED statement (SAS, 2008). Analyses were restricted to participants with complete data on violence perpetration, immigration-related variables, and all relevant covariates.

Results

There were 1,348 respondents in the analytic sample. Table 1 describes the immigration and sociodemographic characteristics. Figure 1 shows that the most commonly reported ancestries were Dominican (16.1%) and Puerto Rican (14%). The overall prevalence of violence perpetration in the sample was 39% (95% CI = 36, 41). Table 2 presents the prevalence of types of peer aggression by generation/time in the United States including harassment (e.g., picking on someone, chasing someone), relational aggression (e.g., telling lies about someone, spreading rumors), and physical violence. Although there were no significant differences in the prevalence of harassment and relational aggression by

generation/time in the United States, there were significant differences in the two questions which formed our main outcome (i.e., pushed, shoved, or slapped someone and hit, punched, kicked, or choked someone) as well as in the composite peer violence perpetration variable. Multiple comparisons tests for proportions showed that the only statistically significant pairwise differences in peer violence perpetration (our main outcome) were between first-generation, recent immigrants, and each other group, with the former having a significantly lower prevalence of violence perpetration.

Table 3 shows that first-generation, recent immigrants were significantly less likely than students in the other three groups to have used substances in the past 30 days (24%, $p = .0003$), to have performed poorly in school (28%, $p = .0029$), and to live in a single-parent household (37%, $p = .0037$). There were also statistically significant differences in perceived neighborhood problems by generation/time in the United States with first-generation, recent immigrants reporting more perceived neighborhood problems than second- and third-generation U.S.-born youth. Although there were no statistically significant differences in depressive symptoms or report of caregiver assault by generation/time spent in the United States, we included these variables in the multivariate regression models because of their strong association with perpetration of violence in this data set and in the literature more broadly (Elickson, Saner, & McGuigan, 1997; Herrenkohl et al., 2000). In Table 4, Model 1 presents the crude association between generation/time spent in the United States and perpetration of peer violence. Relative to third-generation youth, first-generation, recent immigrants were significantly less likely to perpetrate peer violence (RR = 0.32, 95% CI = 0.19, 0.52). First-generation, nonrecent immigrants and second-generation youth did not have a significantly different risk of violence perpetration compared with the referent group. In Model 2, we adjusted for sociodemographic variables including sex, grade in school, and race/ethnicity. Net of these controls the pattern of peer violence perpetration by generation/time in the United States was similar to Model 1. In Model 3, we added individual risk factors for peer violence perpetration (i.e., depressive symptoms, past month substance use, and academic performance) to the previous model. Despite the stark differences in substance use and academic performance by generation/time in the United States groups, first-generation, recent immigrants had a significantly lower risk of peer violence perpetration relative to third-generation youth (RR = 0.39, 95% CI = 0.23, 0.67). First-generation, nonrecent immigrants and second-generation youth's risk of violence perpetration was not significantly different from the referent group (RR = 0.96, 95% CI = 0.72, 1.28 and RR = 0.82, 95% CI = 0.57, 1.17, respectively). Thus, differences in individual risk factors such as substance use and academic performance across groups defined by generation/time spent in the United States do not seem to account for the lower risk of violence perpetration among first-generation, recent immigrants. Inclusion of these individual risk factors rendered any differences in risk of peer violence perpetration between racial/ethnic groups statistically insignificant so that non-Latino Asians' risk was no longer different from non-Latino Whites. With the addition of family risk factors and perceived neighborhood problems, Model 4 of Table 4 is fully adjusted. Although family and neighborhood characteristics of immigrants are strongly related to their perpetration of violence, inclusion of family and neighborhood risk factors did not attenuate the significantly lower risk among first-generation, recent immigrants compared with the referent group (RR = 0.35, 95% CI = 0.19, 0.62). By contrast, among first-generation, nonrecent immigrants, the risk of peer violence perpetration was significantly higher than recent immigrants but not significantly different from their U.S.-born counterparts (RR = 0.90, 95% CI = 0.68 1.20).

Discussion

Results of this study both confirm and contradict empirical evidence and popular opinion regarding violence among immigrants, which date back centuries (Hagan & Palloni, 1999;

Martinez, 2000; Reid et al., 2005; Rumbaut & Ewing, 2007; Sampson & Bean, 2005). Specifically, we found that on arrival, immigrants are less likely to engage in peer violence than their U.S.-born peers, but seem to rapidly adopt the U.S. norms and behaviors that support violence and aggression toward peers. Although rates of violence among the foreign-born converged with their U.S.-born counterparts with successive generations and increased years residing in this country, contrary to public opinion, we found that immigrants are *less* likely to engage in peer violence than their U.S.-born counterparts (Rumbaut & Ewing, 2007).

Previous studies have found that engagement in risk behaviors including violence increases with greater exposure and socialization to American culture, which has overwhelmingly been represented by nativity status (Harris, 1999; Peguero, 2008; Smokowski & Bacallao, 2006; Smokowski, et al., 2009; Willgerodt & Thompson, 2006). Based on these studies, we hypothesized that first-generation youth would be less likely to perpetrate peer violence than their U.S.-born counterparts. Our findings confirmed this hypothesis but underscored the complexities of studying perpetration of violence among immigrants by generation or nativity status alone. We found that first-generation immigrant youth had a significantly lower risk of peer violence perpetration than their U.S.-born counterparts; however, the protective effect of foreign nativity was completely diminished among nonrecent immigrants, a finding that is consistent with prior work examining intimate partner violence perpetration among immigrant men (Gupta et al., 2010). In fact, the risk of violence among this group was not significantly different from U.S.-born youth. This pattern demonstrates that negative assimilation with regard to aggressive behavior occurs *with* the first generation, not just from one generation to the next. Recently researchers have begun to look beyond nativity to examine the effect of other immigration-related variables such as age of arrival to the United States and length of U.S. residence on the health of immigrants (Alegria, Shrout, et al., 2007; Alegria, Sribney, et al., 2007; Fortuna, Perez, Canino, Sribney, & Alegria, 2007; Takeuchi, Alegria, Jackson, & Williams, 2007). Results of these studies paint a more complicated picture of the immigrant experience and indicate that factors beyond nativity or generation need to be considered in research on immigrant populations (Peguero, 2008). Findings from the current study highlight the fact that examining differences in violence by nativity or generation alone could lead to erroneous conclusions and point to the importance of also investigating differences in violence perpetration within nativity and generation.

Another interesting finding to emerge from our study is that among foreign-born youth, perpetration of peer violence seems to increase with successive generations and more time spent in the United States. This pattern is consistent with existing literature that has documented that health behaviors and outcomes (e.g., substance use, body mass index, birth outcomes, psychiatric disorders, intimate partner violence perpetration) worsen with increased time spent in the United States (Abraido-Lanza, Chao, & Florez, 2005; Alegria, Sribney, et al., 2007; Bates, Acevedo-Garcia, Alegria, & Krieger, 2008; Escobar, Nervi, & Gara, 2000; Fuentes-Afflick, Hessol, & Perez-Stable, 1999; Gupta et al., 2010; Landale, Oropesa, Llanes, & Gorman, 1999; Rosenberg, Raggio, & Chiasson, 2005). Given that the potential discrepancy in years of exposure to U.S. norms was small (≤ 4 years/ > 4 years), it is especially interesting that we observed a significant difference in risk of violence perpetration between the recent and nonrecent immigrant groups. However, we could not determine the exact number of years foreign-born participants had been residing in the United States. Thus, were unable to hypothesize the point at which immigrant youth's behavior becomes similar to that of U.S.-born adolescents. Longitudinal cohort studies as well as qualitative methods are needed to understand this important question.

Despite the fact that we accounted for a wide array of known risk factors hypothesized to influence peer violence perpetration, we were unable to account for differences in this form

of aggressive behavior across groups defined by generation/time spent in the United States (Herrenkohl et al., 2000). It is possible that first-generation, nonrecent immigrants and second-generation, U.S.-born youth experience intercultural or intergenerational conflict with their parents, which may lead to maladaptive behaviors such as aggression and violence (Le & Stockdale, 2008; Nguyen & Williams, 1989). Unfortunately, we did not have data on intergenerational/intercultural conflict to determine if this factor contributes to the differential risk of perpetration of peer violence by generation/time in the United States. Another factor potentially related to perpetration of peer violence among immigrant youth is perceived discrimination. Although prior research has documented that both first- and second-generation immigrants experience discrimination, second-generation immigrants have reported increased discrimination experiences (Gee, Ryan, Laflamme, & Holt, 2006; Portes & Zhou, 1993; Suarez-Orozco & Carhill, 2008). Given that recent work has documented a strong association between discrimination and peer violence perpetration among minority men, it is possible that greater discrimination with increased time in the United States may erode any initial protective effects of foreign nativity (Reed et al., 2008). A limitation of this study is that we lacked a measure of perceived discrimination on the basis of ancestry or foreign nativity and as such were unable to examine how this may have contributed to differences in perpetration of violence by generation and time spent in the United States.

The findings of this study are best considered within the context of several additional limitations. First, the cross-sectional nature of the study limits our ability to infer causality. However, the predictor of interest (generation/time spent in the United States) occurred temporally prior to our outcome of interest (perpetration of violence in the 30 days preceding the survey). Second, as no consensus has been reached regarding what defines a recent versus nonrecent immigrant, it may be possible that variations in these definitions may yield different findings. Moreover, reporting biases may be present in this study. For instance, recent immigrants as well as undocumented immigrants may be hesitant to report engagement in risk behaviors, such as peer violence perpetration, due to fear of bringing negative attention to their communities or threats of deportation. With greater time in the United States, such concerns may diminish. In addition, our survey did not assess premigration exposures that may contribute to violence perpetration. Prior work with young immigrant men has documented the importance of premigration factors (specifically, exposure to political violence) in increasing risk for violence perpetration; thus, future research is needed to explore potential variations in the effects of premigration experiences on peer violence perpetration by generation/ time in the United States (Gupta et al., 2009). Finally, the generalizability of our findings may be limited to the largest immigrant groups in Boston such as those from Haiti, Jamaica, the Dominican Republic, and Puerto Rico.

These limitations notwithstanding, the present study has several strengths. To date, research on violence among immigrants has overwhelmingly emphasized the Mexican-origin population. To gain a true understanding of the effects of immigration on peer violence perpetration requires an understanding of the circumstances and outcomes of a variety of migratory groups. With its focus on non-Mexican populations, the current study begins to do this by drawing attention to immigrant groups that have been underrepresented in studies of violence. The National YRBSS, a school-based survey conducted biennially by the Centers for Disease Control and Prevention which monitors health risk behaviors including violence among youth, does not ask about nativity or generation status. As such, our study advances prior research assessing the effect of multiple immigration related factors on violence.

The burgeoning size of first- and second-generation immigrant youth in this country, coupled with the fact that early aggressive behavior predicts more serious violence later in life, should make understanding the circumstances that give rise to perpetration of peer

violence in this segment of the population a research priority (Herrenkohl et al., 2000; Mather, 2009). Such information is needed not only to dispel the myth of the violent immigrant but also to fill the gap in information on perpetration of peer violence and the ways in which mainstream interventions may or may not apply to these youth.

Acknowledgments

The Boston Youth Survey 2008 would not have been possible without the participation of the faculty, staff, administrators, and students of Boston Public Schools. The authors appreciate the work of the HYVPC team, including David Hemenway, Deb Azrael, Mary Vrinotis, Beth Molnar, Alicia Savannah, and all those who assisted with the BYS. Support for this publication was provided by The Eunice Kennedy Shriver National Institute of Child Health and Human Development (1L40 HD066672-01) to Dr. Joanna Almeida.

The content is the sole responsibility of the authors and does not necessarily represent the official views of the RWJF, CDC, the NIH, or the city of Boston.

Funding The author(s) disclosed that they received the following support for their research and/or authorship of this article: The Boston Youth Survey 2008 was funded by a grant from the Centers for Disease Control and Prevention (U49-CE00740) to the Harvard Youth Violence Prevention Center (HYVPC) and in collaboration with the Boston Public Health Commission (Barbara Ferrer, Director), Boston's Office of Human Services (Larry Mayes, Chief), Boston Public Schools (Carol Johnson, Superintendent), and the Office of The Honorable Mayor Thomas M. Menino. Support for this publication was provided by grants to Renee M. Johnson from the Robert Wood Johnson Foundation (RWJF) New Connections Program, and from the National Institute on Drug Abuse (NIDA, R03-DA025823). A grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (L40 HD056848-01) provided support to Jhumka Gupta for work on this article.

References

- Abraido-Lanza AF, Chao MT, Florez KR. Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Social Science and Medicine*. 2005; 61:1243–1255. [PubMed: 15970234]
- Alaniz ML, Cartmill RS, Parker RN. Immigrants and violence: The importance of neighborhood context. *Hispanic Journal of Behavioral Sciences*. 1998; 20:155–174.
- Alegria M, Shrout PE, Woo M, Guarnaccia P, Sribney W, Vila D, Canino G. Understanding differences in past year psychiatric disorders for Latinos living in the US. *Social Science & Medicine*. 2007; 65:214–230. [PubMed: 17499899]
- Alegria M, Sribney W, Woo M, Torres M, Guarnaccia P. Looking beyond nativity: The relation of age of immigration, length of residence, and birth cohorts to the risk of onset of psychiatric disorders for Latinos. *Research in Human Development*. 2007; 4(1):19–47. [PubMed: 19412354]
- Alegria M, Woo M, Cao Z, Torres M, Meng XL, Striegel-Moore R. Prevalence and correlates of eating disorders in Latinos in the United States. *International Journal of Eating Disorders*. 2007; 40(Suppl):S15–S21. [PubMed: 17584870]
- Almeida J, Johnson RM, Corliss HL, Molnar BE, Azrael D. Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth & Adolescence*. 2009; 38:1001–1014. [PubMed: 19636742]
- Amaro H, Whitaker R, Coffman G, Heeren T. Acculturation and marijuana and cocaine use: Findings from HHANES 1982-84. *American Journal of Public Health*. 1990; 80(Suppl):54–60. [PubMed: 9187583]
- American Association for Public Opinion Research. Standard definitions: Final dispositions of case codes and outcome rates for surveys. American Association for Public Opinion Research. 62010. Retrieved from http://www.aapor.org/Standard_Definitions/1481.htm
- Archer J, Coyne SM. An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review*. 2005; 9:212–230. [PubMed: 16083361]
- Bates LM, Acevedo-Garcia D, Alegria M, Krieger N. Immigration and generational trends in body mass index and obesity in the United States: Results of the National Latino and Asian American Survey, 2002-2003. *American Journal of Public Health*. 2008; 98(1):70–77. [PubMed: 18048787]

- Bosworth K, Espelage DL, Simon TR. Factors associated with bullying behavior in middle school students. *Journal of Early Adolescence*. 1999; 19:341–362.
- Bronte-Tinkew J, Moore KA, Capps RC, Zaff J. The influence of father involvement on youth risk behaviors among adolescents: A comparison of native-born and immigrant families. *Social Science Research*. 2006; 35:181–209.
- Bui HN. Parent child conflicts, school troubles, and differences in delinquency across immigrant generations. *Crime & Delinquency*. 2009; 55:412–441.
- Bui HN, Thongniramol O. Immigration and self-reported delinquency: The interplay of immigration generations, gender, race and ethnicity. *Journal of Crime & Justice*. 2005; 28(2):71–92.
- Centers for Disease Control & Prevention. National YRBS Data users manual. Atlanta, GA: Author; 2005.
- Centers for Disease Control & Prevention. Understanding youth violence. Atlanta, GA: Centers for Disease Control & Prevention, National Center for Injury Prevention; 2009.
- Cochran SD, Mays VM, Alegria M, Ortega AN, Takeuchi D. Mental health and substance use disorders among Latino and Asian American lesbian, gay, and bisexual adults. *Journal of Consulting & Clinical Psychology*. 2007; 75:785–794. [PubMed: 17907860]
- Dahlberg, LL.; Toal, SB.; Swahn, M.; Behrens, CB. Measuring violence-related attitudes, behaviors, and influences among youth: A compendium of assessment tools. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2005.
- DuRant RH, Altman D, Wolfson M, Barkin S, Kreiter S, Krowchuk D. Exposure to violence and victimization, depression, substance use and the use of violence by young adolescents. *Journal of Pediatrics*. 2000; 137:707–713. [PubMed: 11060539]
- Elickson P, Saner H, McGuigan KA. Profiles of violent youth: Substance use and other concurrent problems. *American Journal of Public Health*. 1997; 87:985–991. [PubMed: 9224181]
- Escobar JI, Nervi CH, Gara MA. Immigration and mental health: Mexican Americans in the United States. *Harvard Review Psychiatry*. 2000; 8(2):64–72.
- Feldmeyer B. Immigration and violence: The offsetting effects of immigrant concentration on Latino violence. *Social Science Research*. 2009; 38:717–738. [PubMed: 19856706]
- Forrest R, Kearns A. Social cohesion, social capital and the neighbourhood. *Urban Studies*. 2001; 38:2125–2143.
- Fortuna LR, Perez DJ, Canino G, Sribney W, Alegria M. Prevalence and correlates of lifetime suicidal ideation and suicide attempts among Latino subgroups in the United States. *Journal of Clinical Psychiatry*. 2007; 68:572–581. [PubMed: 17474813]
- Fuentes-Afflick E, Hessol NA, Perez-Stable EJ. Testing the epidemiologic paradox of low birth weight in Latinos. *Archives of Pediatric Adolescent Medicine*. 1999; 153:147–153.
- Gee GC, Ryan A, Laflamme DJ, Holt J. Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: The added dimension of immigration. *American Journal of Public Health*. 2006; 96:1821–1828. [PubMed: 17008579]
- Goldstein AL, Walton MA, Cunningham RM, Trowbridge MJ, Maio RF. Violence and substance use as risk factors for depressive symptoms among adolescents in an urban emergency department. *Journal of Adolescent Health*. 2007; 40:276–279. [PubMed: 17321431]
- Gupta J, Acevedo-Garcia D, Hemenway D, Decker MR, Raj A, Silverman JG. Premigration exposure to political violence and perpetration of intimate partner violence among immigrant men in Boston. *American Journal of Public Health*. 2009; 99:462–469. [PubMed: 18703450]
- Gupta J, Acevedo-Garcia D, Hemenway D, Decker MR, Raj A, Silverman JG. Intimate partner violence perpetration, immigration status, and disparities in a community health center-based sample of men. *Public Health Reports*. 2010; 125:79–87. [PubMed: 20402199]
- Hagan J, Palloni A. Criminology and the mythology of Hispanic immigration and crime. *Society for the Study of Social Problems*. 1999; 46:617–632.
- Harris, KM. The health status and risk behaviors of adolescents in immigrant families. In: Hernandez, DJ., editor. *Children of immigrants: Health, adjustment, and public assistance*. Washington, DC: National Academy Press; 1999. p. 1-18.

- Herrenkohl TI, Maguin E, Hill KG, Hawkins JD, Abbott RD, Catalano RF. Developmental risk factors for youth violence. *Journal of Adolescent Health*. 2000; 26:176–186. [PubMed: 10706165]
- Holleran LK, Jung S. Acculturative stress, violence and resilience in the lives of Mexican-American youth. *Stress, Trauma and Crisis*. 2005; 8:107–130.
- Hunt, D.; Morland, D.; Barocas, R.; Huckans, M.; Caal, S. *Children in America Now*. Falls Church, VA: Center for Multicultural Human Services; 2002. Understanding, preventing and treating problem behaviors among refugee and immigrant youth; p. 1-45.
- Kelder SH, Murray NG, Orpinas P, Prokhorov A, McReynolds L, Zhang Q. Depression and substance use in minority middle-school students. *American Journal of Public Health*. 2001; 91:761–766. [PubMed: 11344884]
- Kim TE, Goto SG. Peer delinquency and parental social support as predictors of Asian American adolescent delinquency. *Deviant behavior: An interdisciplinary Journal*. 2000; 21:331–347.
- Landale NS, Oropesa RS, Llanes D, Gorman BK. Does Americanization have adverse effects on health: Stress, health habits and infant health outcomes among Puerto Ricans. *Social Forces*. 1999; 78:613–641.
- Le TN, Stockdale G. Acculturative dissonance, ethnic identity, and youth violence. *Cultural Diversity and Ethnic Minority Psychology*. 2008; 14(1):1–9. [PubMed: 18229995]
- Lee MT, Martinez R Jr, Rodriguez FS. Contrasting Latinos in homicide research: The victim and offender relationship in El Paso and Miami. *Social Science Quarterly*. 2000; 81:375–388.
- Martinez R Jr. Homicide among Miami's ethnic groups: Anglos, Blacks, and Latinos in the 1990s. *Homicide Studies*. 1997; 1:17–34.
- Martinez R Jr. Immigration and urban violence: The link between immigrant Latinos and types of homicide. *Social Science Quarterly*. 2000; 81:363–374.
- Mather, M. *Reports on America*. Washington, DC: Population Reference Bureau; 2009. Children in immigrant families chart new path; p. 1-15.
- National Longitudinal Study of Adolescent Health. *National Longitudinal Study of Adolescent Health. Home Questionnaire Code Book, Wave II*. 2009. Retrieved from <http://www.cpc.unc.edu/projects/addhealth/codebooks/wave2>
- Nguyen NA, Williams HL. Transition from East to West: Vietnamese adolescents and their parents. *American Academy of Child and Adolescent Psychiatry*. 1989; 28:505–515.
- Peguero AA. Is immigrant status relevant in school violence research? An analysis with Latino students. *Journal of School Health*. 2008; 78:397–404. [PubMed: 18611215]
- Portes A, Zhou M. The new second generation: Segmented assimilation and its variants. *Annals of the American Academy of Political and Social Science*. 1993; 530:74–96.
- Reed E, Silverman JG, Ickovics JR, Gupta J, Welles SL, Santana MC, Raj A. Experiences of racial discrimination & relation to violence perpetration and gang involvement among a sample of urban African American men. *Journal of Immigrant & Minority Health*. 2008; 12:319–326. [PubMed: 18553221]
- Reiboldt W. Adolescent interactions with gangs, family and neighborhoods: An ethnographic investigation. *Journal of Family Issues*. 2001; 22:211–242.
- Reid LW, Weiss HE, Adelman RM, Jaret C. The immigration–crime relationship: Evidence across U.S. metropolitan areas. *Social Science Research*. 2005; 34:757–780.
- Resnick MD, Ireland M, Borowsky I. Youth violence perpetration: What protects? What predicts? Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health*. 2004; 35(424):e1–e10.
- Roberts RE, Roberts CR, Chen YR. Ethnocultural differences in prevalence of adolescent depression. *American Journal of Community Psychology*. 1997; 25:95–110. [PubMed: 9231998]
- Rodriguez MA, Brindis CD. Violence and Latino youth: Prevention and methodological issues. *Public health reports*. 1995; 110:260–267. [PubMed: 7610213]
- Rosenberg TJ, Raggio TP, Chiasson M. A further examination of the “epidemiological paradox”: Birth outcomes among Latinas. *Journal of the National Medical Association*. 2005; 97:550–556. [PubMed: 15868775]

- Rumbaut, RG.; Ewing, WA. The myth of immigrant criminality and the paradox of assimilation: Incarceration rates among native and foreign-born men (Immigration Policy Center Special Report). Washington, DC: American Immigration Law Foundation; 2007.
- Sampson, RJ.; Bean, L. Cultural mechanisms and killing fields: A revised theory of community-level racial inequality. In: Peterson, R.; Krivo, L.; Hagan, J., editors. The many colors of crime: Inequalities of race, ethnicity and crime in America. New York, NY: New York University Press; 2005. p. 8-36.
- Sampson RJ, Morenoff JD, Raudenbush S. Social anatomy of racial and ethnic disparities in violence. *American Journal of Public Health*. 2005; 95:224–232. [PubMed: 15671454]
- SAS Institute Inc. Statistical Applications Software (Version 9.2). Cary, NC: Author; 2008.
- Schmidt CO, Kohlmann T. When to use the odds ratio or the relative risk? *International Journal of Public Health*. 2008; 53:165–176. [PubMed: 19127890]
- Silverman JG, Decker MR, Raj A. Immigration-based disparities in adolescent girls' vulnerability to dating violence. *Journal of Maternal & Child Health*. 2007; 11(1):37–43.
- Smokowski PR, Bacallao ML. Acculturation and aggression in Latino adolescents: A structural model focusing on cultural risk factors and assets. *Journal of Abnormal Child Psychology*. 2006; 34:659–673. [PubMed: 17019628]
- Smokowski PR, David-Ferdon C, Stroupe N. Acculturation and violence in minority adolescents: A review of the empirical literature. *Journal of Primary Prevention*. 2009; 30:215–263. [PubMed: 19387835]
- Spiegelman D, Hertzmark E. Easy SAS calculations for risk or prevalence ratios and differences. *American Journal of Epidemiology*. 2005; 162:199–200. [PubMed: 15987728]
- Straus MA, Hamby SL, Finkelhor D, Moore DW, Runyan D. Identification of child maltreatment with the parent-child Conflict Tactic Scales: Development and psychometric data for a National sample of American parents. *Child Abuse & Neglect*. 1989; 22:249–270. [PubMed: 9589178]
- Suarez-Orozco C, Carhill A. Afterword: New directions in research with immigrant families and their children. *New Directions for Child and Adolescent Development*. 2008; 121:87–104. [PubMed: 18792953]
- Suarez-Orozco C, Todorova IL. The social worlds of immigrant youth. *New Directions for Youth Development*. 2003; 100:15–24. [PubMed: 14750266]
- Takeuchi DT, Alegria M, Jackson JS, Williams DR. Immigration and mental health: Diverse findings in Asian, Black, and Latino populations. *American Journal of Public Health*. 2007; 97(1):11–12. [PubMed: 17138903]
- Tschann JM, Flores E, Pasch LA, Van Oss Marin VB. Emotional distress, alcohol use, and peer violence among Mexican-American and European-American adolescents. *Journal of Adolescent Health*. 2005; 37:11–18. [PubMed: 15963902]
- United States Public Health Service. Youth violence: A report of the surgeon general. Rockville, MD: U.S Department of Health and Human Services; 2001.
- Wang J, Iannotti RJ, Nansel TR. School bullying among adolescents in the United States: Physical, verbal, relational, and cyber. *Journal of Adolescent Health*. 2009; 45:368–375. [PubMed: 19766941]
- Willgerodt MA, Thompson EA. Ethnic and generational influences on emotional distress and risk behaviors among Chinese and Filipino American adolescents. *Research in Nursing & Health*. 2006; 29:311–324. [PubMed: 16847910]

Biographies

Joanna Almeida, ScD, is doing postdoctoral research at the Institute on Urban Health Research at Northeastern University. She received an MSW and an MPH from Boston University and a ScD in social epidemiology from the Harvard School of Public Health. Her research focuses on the social determinants of immigrant health, specifically examining factors that contribute to deteriorating health among immigrants in the United States.

Renee M. Johnson, MPH, PhD, completed master's and doctoral degrees in the Department of Health Behavior & Health Education at the UNC Gillings School of Global Public Health, and at the Harvard School of Public Health on firearm injury prevention among children and youth. Her current research centers on the prevention and etiology of suicide, firearm injury, youth violence, and adolescent risk behaviors.

Mariah McNamara, MD, MPH, is a board-certified emergency medicine physician at UMass Memorial Medical Center. She is the director of the division of global health and international emergency medicine and has an interest in global health disparities and preparation of health providers to care for patients with diverse backgrounds.

Jhumka Gupta, ScD, is a social epidemiologist whose research focuses on understanding (a) the social determinants of gender-based violence against women, (b) the associated sexual, reproductive, and mental health consequences of gender-based violence, and (c) the intersection of migration, violence, and reproductive health. Much of her research has focused on vulnerable populations in the United States (refugees, immigrants) and with migrant or conflict-affected populations internationally (Bangladesh, Colombia, Haiti, India, Nepal). She is assistant professor at the Yale School of Public Health.

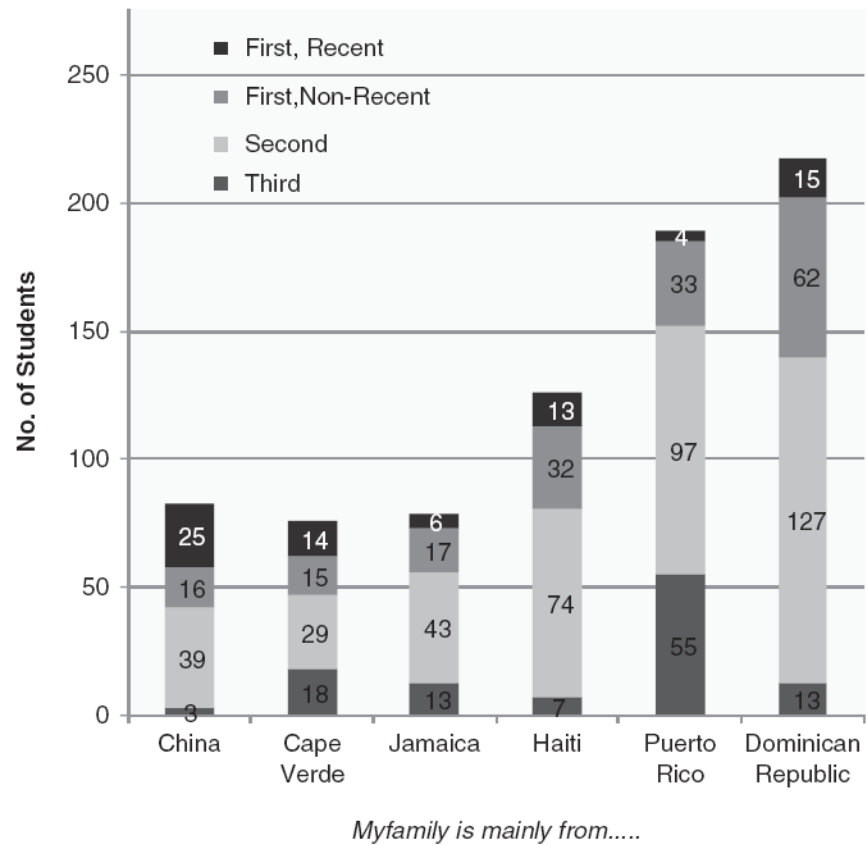


Figure 1. Reported ancestry, by generation

Note: Responses are neither mutually exclusive nor exhaustive, students could report as many ancestries as applied to them.

Table 1Sample Characteristics of Boston Youth Survey 2008 ($n = 1,348$)

	<i>M</i>	<i>SD</i>
Age, years (Range: 13-19 years)	16.3	1.3
	<i>N</i>	<i>%</i>
Sex		
Male	603	45
Female	745	55
Race/ethnicity		
Black	554	41
Hispanic/Latino	454	34
White	136	10
Asian	121	9
Other ^a	83	6
Grade in school		
9th	315	23
10th	377	28
11th	357	27
12th	299	22
Generation ^b		
First, recent arrival	111	9
First, nonrecent arrival	273	20
Second	530	39
Third	434	32

Note: Category totals may not sum to the group total due to nonresponse.

^a Includes students who were bi- or multiracial, Native American or Alaska Native, Native Hawaiian or Other Pacific Islander, or who did not fit into any of the specified race categories.

^b First-generation students classified as "recent arrivals" immigrated to the United States <4 years ago, "nonrecent arrivals" came to the United States 4 or more years ago. Second-generation students were U.S. born and had at least one foreign-born parent; third-generation students were U.S. born and had two foreign-born parents.

Table 2Past 30-Day Prevalence of Peer Aggressive Behavior by Generation ($n = 1,348$)

	Total	First			Third	p value
		Recent	Nonrecent	Second		
Pushed, shoved, or slapped a peer ^a	493 (37.0)	19 (17.0)	107 (39.0)	191 (36.0)	176 (41.0)	<.0001
Hit, punched, kicked, or choked a peer ^b	361 (27.0)	16 (14.0)	79 (29.0)	133 (25.0)	133 (31.0)	.0039
Any physical peer violence perpetration ^c	528 (39.0)	22 (19.0)	114 (42.0)	205 (39.0)	187 (43.0)	<.0001
Perpetration of emotional, verbal, or minor aggression ^d	147 (11.0)	9 (8.0)	30 (11.0)	59 (11.0)	49 (11.0)	.8000
Perpetration of relational aggression ^e	187 (14.0)	10 (9.0)	42 (15.0)	70 (13.0)	65 (15.0)	.3300

^aTests to assess the statistical significance of pairwise differences showed that the prevalence among first-generation youth was significantly different from the other 3 groups ($p < .05$).

^bTests to assess the statistical significance of pairwise differences showed that the prevalence among first-generation youth was significantly different from the prevalence rates for 1.5 and second-generation youth ($p < .05$).

^cIncluded all who reported having pushed, shoved, slapped, hit, punched, kicked, or choked a peer. Tests to assess the statistical significance of pairwise differences showed that the prevalence among first-generation youth was significantly different from the other 3 groups ($p < .05$).

^dIncludes those who confirmed that they picked on a peer, did things like chased him or her, grabbed his or her hair, or made him or her do things he or she did not want to do.

^eIncludes those who confirmed that they told lies, spread rumors, or made sure other kids disliked a particular kid.

Table 3
 Risk Factors for Peer Violence Perpetration, by Generation Among Boston Public High School Students, 2008 ($n = 1,348$)

	Total	Generation ^d			<i>p</i> value
		First, recent	First, nonrecent	Second	
Past 30-day substance use	589 (44.0)	27 (24.0)	121 (44.0)	243 (46.0)	.0003
Poor school performance ^b	595 (44.0)	31 (28.0)	119 (43.0)	241 (45.0)	.0029
Live in single-parent household	592 (44.0)	41 (37.0)	114 (42.0)	216 (41.0)	.0037
Physical discipline/assault by a caregiver	215 (16.0)	16 (14.0)	48 (18.0)	88 (17.0)	.6600
Modified Depression Scale, <i>M</i> (<i>SD</i>) ^c	13.4 (4.2)	12.69 (4.4)	13.3 (4.4)	13.6 (4.0)	.1600
Perceived Neighborhood Problems Scale, <i>M</i> (<i>SD</i>) ^d	11.2 (3.7)	12.45 (4.1)	11.5 (3.9)	11.0 (3.7)	.0006

Note: *p* value is for chi-square goodness-of-fit test for an ANOVA regression model.

^aFirst-generation students classified as "recent arrivals" immigrated to the United States <4 years ago, "nonrecent arrivals" came to the United States 4 or greater years ago. Second-generation students were U.S. born and had at least one foreign-born parent; third-generation students were U.S. born and had two foreign-born parents.

^bEarned mostly Cs, Ds, or Fs during last grading period.

^cScale ranges from 5 to 25 with higher scores indicating more frequent depressive symptoms.

^dScale ranged from 6 to 18, with a higher score indicating a perception of more neighborhood problems.

Table 4

Adjusted Relative Risk of Peer Violence Perpetration by Generation Among Boston Public High School Students, 2008 ($n = 1,348$)

	Model 1	Model 2	Model 3	Model 4
	RR (95% CI)	RR (95% CI)	RR (95% CI)	RR (95% CI)
Generation				
First, recent	0.32 (0.19, 0.52)	0.33 (0.20, 0.53)	0.39 (0.23, 0.67)	0.35 (0.19, 0.62)
First, nonrecent	0.94 (0.68, 1.32)	0.94 (0.74, 1.24)	0.96 (0.72, 1.28)	0.90 (0.68, 1.20)
Second	0.84 (0.59, 1.18)	0.84 (0.60, 1.16)	0.82 (0.57, 1.17)	0.79 (0.55, 1.15)
Third	1.0	1.0	1.0	1.0
Grade in school				
9th		1.0	1.0	1.0
10th		0.78 (0.58, 1.06)	0.69 (0.49, 0.98)	0.71 (0.51, 1.00)
11th		0.79 (0.61, 1.05)	0.72 (0.53, 0.96)	0.74 (0.54, 0.99)
12th		0.58 (0.39, 0.84)	0.50 (0.35, 0.74)	0.56 (0.39, 0.81)
Race/ethnicity				
White, non-Latino		1.0	1.0	1.0
Black, non-Latino		0.93 (0.75, 1.15)	0.99 (0.79, 1.24)	0.90 (0.71, 1.14)
Latino		1.19 (0.87, 1.62)	1.11 (0.82, 1.52)	1.03 (0.77, 1.40)
Asian, non-Latino		0.52 (0.30, 0.91)	0.62 (0.34, 1.13)	0.65 (0.35, 1.22)
Other, non-Latino		0.92 (0.64, 1.32)	0.89 (0.57, 1.39)	0.79 (0.51, 1.25)
Female		0.75 (0.55, 1.01)	0.68 (0.48, 0.95)	0.64 (0.45, 0.91)
Depressive symptoms			1.06 (1.04, 1.08)	1.04 (1.02, 1.07)
Past 30-day substance use			2.13 (1.72, 2.63)	2.03 (1.64, 2.52)
Poor school performance			1.41 (1.17, 1.70)	1.41 (1.18, 1.68)
Live in single-parent household				1.07 (0.87, 1.32)
Physical discipline/assault by a caregiver				2.33 (1.68, 3.24)
Perceived neighborhood problems				1.04 (1.01, 1.08)