The Awareness of Risky Peer Group Behaviors on School Grounds as Predictors of Students’ Victimization on School Grounds: Part I–Elementary Schools

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The authors would like to thank the many students, principals, and teachers who generously gave their time and support to make this study possible. The authors also thank our families for being so supportive during the years it took to conduct this study.

Portions of this study and article were funded through a National Academy of Education/Spencer Fellowship, and a Fulbright Senior Scholar Fellowship to the first author.

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ABSTRACT. This study examined the effects of the awareness of risky peer group behaviors (e.g., drug use, students carrying weapons, or vandalism on school grounds) on students’ experiences of school victimization. This is one of the few studies conducted in the Middle East that examine issues of school violence. This article (Part I) focuses on elementary school students. Part II is forthcoming in a future article and will focus on junior high school students. The sample was drawn from central and northern Israel and consisted of 1346 Arab and 1478 Jewish students (4th-6th grades). Students completed an anonymous self-report questionnaire, which was based on the California School Climate Survey (Furlong et al., 1997). The findings from a hierarchical regression analysis show that elementary school students’ awareness of risky peer group behaviors in school contexts is one of the strongest predictors of their own personal victimization, controlling for gender, ethnicity, and grade level. Theoretical and practical implications are discussed. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com> © 2002 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Victimization, peers, behavior, elementary, international, violence

STUDYING THE “SCHOOL” IN “SCHOOL VIOLENCE”

The social context of schools influence levels of student victimization.1 Most teachers, students, parents, and social scientists would probably agree with this assertion. It also may seem fairly obvious to most education practitioners that elementary school social contexts (e.g., social organization, peer group dynamics, teacher’s roles, perceived mission of education) impact student victimization differently than middle or high school contexts (Astor, Meyer, & Behre, in press; Meyer, Astor, & Behre, in press). However, empirical studies that establish the degree to which school social dynamics contribute to student victimization are rare (for recent reviews and studies see Astor & Meyer, 2001; Bosworth, Espelage, Simon, 1999; Furlong & Morrison, 2000; Hyman & Perone, 1998; Morrison & Skiba, 2001; Mulvey & Cauffman, 2001).

Moreover, despite large funding increases for early prevention programs (Astor, Pitner, Benbenishty, & Meyer, in press; Grossman et al., 1997; Hudley, Britsch, Wakefield, Demorat, & Cho, 1998; Kaufman et
al., 2000; U.S. Departments of Education and Justice, 2000), few studies have examined how social dynamics and victimization within elementary schools interact with students’ gender, grade level, or culture (for exceptions see Alvarez & Bachman, 1997; Astor, Benbenishty, Zeira, & Vinokur, 2000; Astor, Meyer & Pitner, 2001; Klipp, 2001; Pellegrini & Bartini, 2000; Rosenblatt & Furlong, 1997; Schafer & Smith, 1996; Stein, 1995). These gaps are due partially to the historical ways that “violence” has been conceptualized (e.g., Errante, 1997; Finkelhor, 1995; also see Astor & Meyer, 2001; Morrison & Skiba, 2001; Noguera, 1995; Osofsky, 1995). Specifically, most youth victimization studies have constructed concepts of “youth violence” and “aggression” in a somewhat acontextual manner. For instance, in the youth violence literature, the social dynamics surrounding school victimization are often unspecified or not part of theoretical models that predict school violence. A growing number of scholarly articles and research reviews have suggested that examining school context variables would increase our understanding of student victimization (e.g., Astor & Meyer, 2001; Astor, Meyer & Behre, 1999; Baker, 1998; Furlong & Morrison, 2000; Gottfredson, 1997; Hyman & Snook, 2000; Morrison & Skiba, 2001; Mulvey & Cauffman, 2001).

A better understanding of the relationships between peer dynamics at school and student victimization is a promising area for empirical inquiry, as it has both theoretical and practical applications. International studies have implied an association between students’ awareness of risky peer group behaviors on school grounds (e.g., substance use, theft, destruction of property, etc.) and their own reported victimization at school (e.g., Astor, Benbenishty, Zeira & Vinokur, 2001; Astor, Benbenishty, Zeira & Vinokur, 2000; Benbenishty, Astor, Zeira, & Vinokur, 2001; Harel, Kenny, & Rahav, 1997; Mulvey & Cauffman, 2001; Olweus, 1993; Rigby, 1996; Smith, Morita, Junger-Tas, Olweus, Catalano, & Sle, 1999; Smith & Sharp, 1994). School bullying scholars also suggest that positive peer social dynamics in schools can buffer against school bullying (e.g., Naylor & Cowie, 1999; Olweus, Limber, Mihalic, 1999). It is quite possible that unsupportive peer social environments increase the likelihood of bullying and victimization. However, studies have not yet explored to what extent elementary students’ awareness of risky peer group behaviors in the school social milieu contribute to students’ experiences of victimization (see Astor, Benbenishty, Zeira, & Vinokur, 2000, as an exception). If these links between peer behaviors and victimization are strong, policy makers, practitioners, and researchers should devote more attention to school-based programs that reduce
overall risky behaviors on school grounds as a way of reducing overall student victimization.

Consequently, the goals of this inquiry are threefold:

1. To examine if elementary school students’ overall awareness of risky peer group behaviors on school grounds (i.e., drug use, presence of weapons, theft, vandalism, school violence levels) predict their personal levels of victimization on school grounds.

2. To describe the contributions of elementary school students’ gender and grade level as these variables pertain to elementary school students’ awareness of risky peer group behaviors and personal victimization. In contrast to many other studies, this inquiry explores how grade level, gender, and cognitive awareness of risky peer behaviors predict victimization that occurs exclusively on school grounds.

3. To explore the role of students’ ethnic culture as it intersects with risky peer behaviors and personal victimization in elementary school settings. Historically, very little empirical or conceptual work has been done that attempts to explain the cultural contributions on peer group dynamics at school or victimization on school grounds.

GENDER, GRADE LEVEL, CULTURE AND RISKY PEER GROUPS AS PREDICTORS OF VICTIMIZATION

Gender and Grade Level. Within schools, practitioners often hear teachers’ and students’ opinions that certain grade levels have more victimization than others. The youth violence empirical literature would also suggest that age and gender are important variables for overall victimization rates (younger children more often victimized than older children; male students are more often victimized than female students). Nevertheless, some victimization research on young children suggests that females and males are equally at risk for being victimized by their peers. However in research on older children, gender differences emerge indicating that direct victimization (such as openly confrontational attack) is more prevalent among boys, whereas indirect victimization (relational or covertly manipulative kinds of aggression) is more likely to be experienced by girls (Crick & Bigbee, 1998; Olweus, 1993; see Artz, 1998 for a different view).
Overall victimization rates appear to decrease as students develop. For example, Olweus (1993) found that victimization was more prevalent in the second grade and steadily decreased throughout the grade levels until ninth grade. How aware are male and female elementary students at different ages of these risky peer group behaviors at school? Do gender, age, and awareness of risky peer behaviors help predict students’ victimization at school? We expect that along with students’ awareness of risky behaviors, gender and grade level predict the overall personal victimization of elementary school students.

Culture. In this study, we explore the relationships between peer group and victimization dynamics in schools from two diverse cultures (Jewish-Israeli and Arab). There have been many other studies exploring peer groups and culture (acontextually) as they relate to victimization (Ahmad & Smith, 1994; American Association of University Women, 2001; Cairns & Cairns, 1991; Carnegie Council on Adolescent Development, 1993; Coie, Lochman, Terry, & Hyman, 1992; Farrington, 1993; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Olweus, 1993; Owens & MacMullin, 1995; Owens, Slee & Shute, 2000; Pellegrini & Bartini, 2000; Sherer, 1991; Youssef, Attia & Kamel, 1998). On one hand, some developmental studies assume that there are a set of common cross-cultural social elements to peer group development and victimization patterns (Caplan, Weissburg, Grober, Sivo, Grady & Jacoby, 1992; Farrington, 1993; Olweus, 1991; Smith et al., 1999). On the other hand, studies in anthropology and sociology predict that there would be qualitatively different peer dynamics and norms regarding the acceptability of risky peer group behaviors across western and nonwestern cultures (for a discussion of these different views see Turiel, 1987, 1998). To date, most studies on peer group dynamics and victimization have been conducted in Anglo or European cultures. In this study, we explore whether students in Jewish and Arab schools have similar or different patterns of risky peer group behaviors. We explore whether risky peer group patterns for Arab and Jewish children predict school victimization. We side with the developmentalists (Farrington, 1993; Kellam, Rebok, Ialango, Mayer, 1994; Olweus, 1993; Schweinhart, Barnes & Weikart, 1993; Turiel, 1987; 1998) and predict that the risky peer group dynamics will be strong predictors of personal victimization regardless of cultural background.

In general, school violence studies show that there are some ethnic and cultural variations in U.S. students’ experience of violence on school grounds (Hammond & Yung, 1991, 1993; Kachur et al., 1996; Kann et al., 2000; Kaufman et al., 2000). Smith and colleagues (1999)
show that there are differences in school bully/victim rates across different countries. Students in the present study are from two culturally diverse groups within the same country—Israeli Arabs and Israeli Jews. The Israeli Jewish schools and culture have been described in the research literature as similar to industrialized European cultures and tend to be liberal regarding gender roles; by contrast, the Israeli Arab schools and culture have been described as more conservative, hierarchically oriented, and patriarchal (Amir, Haliva, & Sagi, 1976; Haj-Yahia, 1998a,b; Pitner, Astor, Benbenishty, Haj-Yahia, & Zeira, 2001a,b,c; Ziv, Green, & Guttman, 1978). Israeli schools are pluralistic and each ethnic group has schools that correspond to the community’s religious and cultural background. Overall, most Jewish Israeli and Arab Israeli students attend separate schools (due to separate school systems) and are taught in separate languages (Hebrew and Arabic). Thus, it is possible that culture plays a unique role in differentially affecting Arab and Jewish students’ experiences of school victimization and risky behaviors.

There has been a paucity of research that examines Arab and Jewish elementary school students’ experience of school violence. Rather, the focus has been mainly at the junior high and high school levels. For example, previous research has shown that Arab students report being victims of serious violent acts at school (e.g., threats with weapons) more than do Jewish students, whereas Jewish students report being victims of less serious violent acts, such as cursing (Zeira, Astor, & Benbenishty, in press) more than do Arab students. Arab students also report more staff maltreatment than do Jewish students (Benbenishty, Zeira, & Astor, in press). It is unclear whether the same patterns would exist at the elementary school level. Therefore, it is important to explore the role that culture plays in Arab and Jewish students’ experiences of school victimization and risky behaviors.

METHODS

Sample, Instrument, and Procedure

Students from this sample were drawn from four school districts in central and northern Israel that served both Jewish and Arab students. The questionnaires were distributed for each classroom in each school district, and students were asked to fill out the questionnaire (which took approximately twenty minutes to complete) in class. Informed
consent was obtained from 67% of students and their parents. The letters of consent were written in Arabic and Hebrew. In addition to consent from students and parents, consent was granted at the district and governmental levels. The 2824 students in this study included 1346 Arab and 1478 Jewish elementary school students (4th through 6th grade) in central and northern Israel.

The research instruments were two versions of an anonymous self-report questionnaire: a shorter version for the younger students in the elementary schools (grades 4-6; 52 items; see Tables 1 and 2 for examples of specific items) and a more extensive one for the older students in the middle and high schools (grades 7-11; 105 items). Both versions were in Hebrew for the Jewish students and in Arabic for the Arab students. The questionnaires were based on the California School Climate Survey (Furlong, Morrison, Chung, Bates, & Morrison, 1997) and on the work of Astor and his colleagues (Astor, Behre, Wallace, & Fravil, 1998; Astor, Behre, Wallace, & Fravil, 1997). The original items were translated from English to Hebrew and Arabic. To ensure translation accuracy, they were retranslated into English. Some items were adapted to Israeli culture and dialect. The results reported in this manuscript focus only on the elementary school findings.

Victimization. Students were asked whether they were victims at least once in the prior month of each of the 14 victimization items. Each victimization item was scored dichotomously indicating presence or absence of the particular experience within the prior month (alpha = .76). The “victimization index” is the sum of the 14 different types of victimization experiences students reported having occurred in the prior month.

Peer risk. The eight “awareness of peer risky behavior” items were scored on a 1-5 Likert scale (1 = Not at all, 5 = To a large extent) indicating the degree to which students were aware of risky behaviors (such as theft, destruction, bullying, weapon carrying, drug use, etc.) that were occurring typically on their school grounds (alpha = .72). Examples of these questions include, “In my school, students use drugs.” The Peer Risk Index is the mean of the items on the scale.

Analytic Method

In order to explore the effects of the student’s background on the different types of victimization, we performed a multivariate analysis of variance (MANOVA) that included all the victimization measures as dependent variables, and gender, ethnicity, and grade-level as independent variables. We then conducted a separate ANOVA for the com-
Combined Victimization Index. Similarly, we ran a MANOVA with gender, ethnicity, and grade level for the separate “awareness of risk” items and then ran an ANOVA for the combined Risk Index. In the final analysis, we conducted a regression to determine the unique contribution of students’ awareness of peer risk on campus in explaining the variance in students’ victimization experiences, controlling for the other demographic variables. The first step of the regression included gender and grade level (with 4th grade as the reference group). At the second step, we entered ethnicity, and at the third step included interaction terms for Ethnicity*Gender and Ethnicity*Grade levels as these interactions emerged in the earlier ANOVA. Finally, at the last step, we entered the “awareness of peer risk” index.

RESULTS

We first report the means and standard deviations for all the victimization items. Table 1 presents mean frequencies of victimization experiences for the overall sample, as well as by gender, ethnicity, and grade level. The victimization experiences were reported to have happened during the month prior to the survey response. As can be seen in Table 1, high rates of victimization were present overall. The most common type of victimization reported by students (among 74% of the full sample) was the experience of being yelled or cursed at. Being the victim of ridicule and humiliation was reported by 54% of the sample. Forty-four percent of the students reported that they saw another student on campus with a knife. Sixty-one percent of the students reported being victims of theft.

Behaviors that can be considered physical bullying behaviors were also reported quite frequently. Approximately 57% of the students reported that they were grabbed or shoved by someone, 47% report that they were kicked or punched, and 44% reported that they were hit by a rock or other object. Behaviors that involved physical injury or the threat of weapons were reported by a smaller percentage of students. About 21% of the participants reported needing medical attention after a school fight. About 11% of students reported being threatened by a student with a knife and 4% reported having seen another student with a gun on campus.

Victimization by Gender, Ethnicity, and Grade Level

The overall MANOVA that was conducted on all the items, showed that there were significant main effects for gender, $F (14, 2397) = 21.10,$
TABLE 1. Group Means for Victimization Items and Main Effects of Analyses of Variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Male</td>
<td>Female</td>
<td>F (1,2189)</td>
</tr>
<tr>
<td>Grabbed or shoved by someone on purpose</td>
<td>56.6</td>
<td>65.8</td>
<td>47.2</td>
<td>105.7*</td>
</tr>
<tr>
<td>Punched or kicked by someone trying to hurt you</td>
<td>46.7</td>
<td>54.0</td>
<td>39.5</td>
<td>71.8*</td>
</tr>
<tr>
<td>Personally saw another student with a gun on campus</td>
<td>4.3</td>
<td>5.4</td>
<td>2.9</td>
<td>9.8</td>
</tr>
<tr>
<td>Hit by rock or other object by someone trying to hurt you</td>
<td>43.5</td>
<td>54.7</td>
<td>32.3</td>
<td>131.4*</td>
</tr>
<tr>
<td>Went to doctor or nurse because you were hurt</td>
<td>21.1</td>
<td>23.9</td>
<td>18.0</td>
<td>13.5*</td>
</tr>
<tr>
<td>Personal property stolen</td>
<td>60.7</td>
<td>59.9</td>
<td>61.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Saw another student on campus with a knife</td>
<td>43.7</td>
<td>51.8</td>
<td>35.7</td>
<td>72.6*</td>
</tr>
<tr>
<td>Someone threatened to hurt you</td>
<td>46.7</td>
<td>50.1</td>
<td>43.8</td>
<td>15.6*</td>
</tr>
<tr>
<td>Someone yelled bad words or cursed at you</td>
<td>73.9</td>
<td>78.2</td>
<td>70.5</td>
<td>31.9*</td>
</tr>
<tr>
<td>Threatened going to school</td>
<td>20.9</td>
<td>23.2</td>
<td>17.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Threatened on the way home from school</td>
<td>31.1</td>
<td>33.6</td>
<td>28.0</td>
<td>12.7*</td>
</tr>
<tr>
<td>Someone made fun of you, put you down, or humiliated you</td>
<td>53.9</td>
<td>56.1</td>
<td>52.4</td>
<td>6.5</td>
</tr>
<tr>
<td>Threatened by a student with a knife and you saw the knife</td>
<td>10.7</td>
<td>15.4</td>
<td>5.4</td>
<td>56.0*</td>
</tr>
<tr>
<td>Bullied, threatened, or pushed around by gang members</td>
<td>12.8</td>
<td>16.3</td>
<td>9.0</td>
<td>25.9*</td>
</tr>
<tr>
<td>Victimization Index: Mean</td>
<td>5.2</td>
<td>5.8</td>
<td>4.6</td>
<td>F (1,2718)</td>
</tr>
<tr>
<td>SD</td>
<td>3.0</td>
<td>3.0</td>
<td>2.9</td>
<td>132.82*</td>
</tr>
</tbody>
</table>

Note. The values represent mean percentages of reports of being victimized at least once during the last month.

+Victimization Index is defined as the number of types victimization acts reported by the student at least once during the last month.

The main effects for the victimization index are listed above. One interaction emerged, Gender*Ethnicity F(1,2718) = 20.58*.

MANOVA for Victimization items

Gender F(14,2397) = 21.10*
Ethnicity F(14,2397) = 55.24*
Grade F(28,4796) = 3.16*
Gender*Grade F(28,4796) = 1.07
Gender*Ethnicity F(14,2397) = 4.12*
Grade*Ethnicity F(28,4796) = 2.99*
Sex*Grade*Ethnicity F(28,4796) = 1.06
*p < .001
The analysis of the Victimization Index revealed significant ANOVA main effects of gender, $F(1, 2718) = 132.82, p < .001$, and ethnicity $F(1, 2718) = 86.33, p < .001$. There was also a significant interaction effect of ethnicity with gender, $F(1, 2718) = 20.58, p < .001$, indicating a greater gender gap between Arab students’ victimization experiences than between Jewish students’ victimization experiences. This interaction is presented in Figure 1. Below we highlight interesting patterns that emerged for various types of victimization.

**Gender.** Overall, males reported higher rates of victimization experiences than did females. This gender difference was most pronounced with extreme and physical types of victimization including being hit by a rock or other object (55% vs. 32%), being threatened by a student with a knife (15% vs. 5%), and being bullied, threatened, or pushed around by gang members (16% vs. 9%). Where there were differences, all of the differences revealed that male students were reporting more victimization than female students. Victimization experiences where there were no gender main effects include the witnessing of another student with a gun on campus, theft of personal property, being threatened on the way to school, and being made fun of, humiliated, or put down.

**Ethnicity.** Overall, Jewish students reported higher rates of victimization experiences; however, there are different patterns of ethnicity effects according to the various types of victimization. Jewish students reported higher rates of being grabbed or shoved by someone on purpose (63% vs. 50% for Arabs), punched or kicked (55% vs. 37%), threatened (56% vs. 36%), yelled or cursed at (89.5% vs. 56.5%), and humiliated, made fun of, or put down (68% vs. 38%) than Arab students. Arab students reported higher rates of seeing a person with a gun on campus (6.6% vs. 2.2% for Jewish students), needing medical attention due to injury (26% vs. 17%), and being threatened by a student with a knife (13% vs. 8%).

**Grade-Level.** Although the overall victimization index did not reveal a main effect for grade level, there were several items that differed according to the grade level of the students. Sixth graders reported higher rates of seeing another student on campus with a knife than the younger students (50% vs. 43% for fifth graders and 38% for fourth graders). Students in the lower grades reported more of the less severe forms of victimization. Such differences include being threatened (53% for
fourth graders, 47% for fifth, and 41% for sixth) and being bullied, threatened or pushed around by gang members (15% for fourth graders vs. 12% for fifth and sixth graders).

**Risky Peer Group**

We asked the students to describe their schools on a series of peer risk behaviors of which they were aware. Table 2 presents the means and standard deviations of the responses of all the students in the sample, as well as the responses according to gender, ethnicity, and grade level categories.

**Awareness of Peer Risk by Gender, Ethnicity and Grade-Level**

We conducted a MANOVA with gender, ethnicity and grade-level as independent variables and the eight peer risk items as dependent variables. There were significant effects for gender, $F(8, 2441) = 8.64, p < .001$, ethnicity, $F(8, 2441) = 34.36, p < .001$, and grade-level, $F(16, 4884) = 3.87, p < .001$. The interaction between grade and ethnicity was also significant, $F(16, 4884) = 6.07, p < .001$. We also conducted ANOVA on the overall Peer Risk Index and found significant effects for gender $F(1, 2712) = 17.8, p < .001$ and ethnicity $F(1, 2712) = 19.6, p < .001$. The interaction between grade and ethnicity was also significant, $F(2, 2712) = 14.99, p < .001$. The source of the interaction is that while sixth graders among the Jewish students are slightly lower on this index, the pattern is inverse among Arab students. Mean responses and F-values are presented in Table 2. Below we highlight interesting patterns that emerged for various types of peer risky behaviors.

**Gender.** Where there were main effects for gender on the specific peer risk items, males reported more awareness of risky peer behaviors on school grounds involving students drinking alcohol, using drugs, threatening or bullying, and bringing weapons to school. There were no gender differences in the awareness of the degree to which students destroy things, get into fights, steal, and get hurt in accidents on school grounds.

**Ethnicity.** Arab students report being aware of students destroying things on campus and getting hurt on school grounds more than Jewish students. There were no ethnic differences for other specific peer risk variables, including drinking alcohol, getting into fights, stealing things, using drugs, threatening or bullying, and bringing weapons to school.
### TABLE 2. Group Means for Risk Factors Items and Main Effects of MANOVA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Students destroying things</td>
<td>2.70</td>
<td>1.03</td>
<td>2.75</td>
<td>2.64</td>
</tr>
<tr>
<td>Students drinking alcoholic drinks</td>
<td>1.24</td>
<td>0.72</td>
<td>1.29</td>
<td>1.18</td>
</tr>
<tr>
<td>Students getting into fights</td>
<td>3.56</td>
<td>1.16</td>
<td>3.55</td>
<td>3.57</td>
</tr>
<tr>
<td>Students stealing things</td>
<td>2.74</td>
<td>1.20</td>
<td>2.69</td>
<td>2.76</td>
</tr>
<tr>
<td>Students using drugs</td>
<td>1.22</td>
<td>0.75</td>
<td>1.26</td>
<td>1.15</td>
</tr>
<tr>
<td>Students threatening or bullying</td>
<td>2.95</td>
<td>1.26</td>
<td>3.08</td>
<td>2.82</td>
</tr>
<tr>
<td>Student bring weapons to school</td>
<td>1.59</td>
<td>0.98</td>
<td>1.69</td>
<td>1.48</td>
</tr>
<tr>
<td>Students get hurt in accidents on the school grounds</td>
<td>2.48</td>
<td>1.15</td>
<td>2.53</td>
<td>2.41</td>
</tr>
</tbody>
</table>

Peer Risk Index: Mean  
2.30  0.60  2.36  2.25  F (1, 2712)  2.26  2.36  F (1, 2712)  2.32  2.27  2.33  F (2, 2712)

SD       0.61  0.58  17.8*  0.58  0.62  19.6*  0.54  0.60  0.64  4.2

Note. Responses are on a Likert scale ranging from 1 'Not At All' to 5 'To a Large Extent'
+Peer Risk Index is defined as the mean of all items pertaining to peer risk.
The main effects for the Peer risk Index are presented in the table above. The only interaction is Grade*Ethnicity F (2, 2712) = 14.99*

### MANOVA Overall Main effects and interactions

- Gender F (8, 2441) = 8.64*
- Ethnicity F (8, 2441) = 34.36*
- Grade F (16, 4884) = 3.87*
- Gender*Grade F (16, 4884) = 1.64
- Gender*Ethnicity F (8, 2441) = 0.74
- Grade*Ethnicity F (16, 4884) = 6.07*
- Gender*Ethnicity F (8, 2441) = .74
- Gender*Grade*Ethnicity F (16, 4884) = 0.84

* p < .001

<ref>Table image</ref>
Grade-level. Although a main effect did not emerge with respect to grade level differences, there were several separate items where grade level differences were found. Older students were more likely to be aware of alcohol drinking and weapon carrying on campus than were younger students.

Does Awareness of Risky Peer Behavior Predict Victimization?

In order to assess the independent contribution of peer risk awareness on victimization experiences, we performed a hierarchical regression analysis to control for demographic variables. Table 3 presents the results of the regression. In the first step, gender explains about 5% of the variance in victimization experiences. At the next step, ethnicity accounts for an additional 3% of explained variance. The interaction between gender and ethnicity (graphed in Figure 1) accounts for another 1% of variance explained. In the final step, after controlling for student demographic characteristics, awareness of peer risk explains an additional 14% of the variance in students’ reported victimization. The overall model accounts for 22% of the variance in victimization rates among the elementary school students.

DISCUSSION

This study has provided evidence supporting the proposition that risky peer group behaviors in school contexts (with respect to students’ awareness of risky behaviors) are an important element in understanding students’ likelihood of being victimized. Elementary school students’ knowledge of risky peer group behaviors on school grounds is a more powerful predictor of personal victimization on school grounds than the students’ gender, age, or ethnicity. This finding is important because most theories of youth violence speak in general terms about peer social dynamics and victimization but do not ground these concepts specifically in school contexts.

These findings imply that the elementary school staff’s awareness of peer group risky behaviors, and interventions to target these kinds of peer group behaviors on school grounds is likely to reduce overall student victimization on school grounds. This kind of risk reduction/prevention strategy has been used to reduce physical injury/harm in public health campaigns for drunk driving, substance abuse, and criminal behavior in other contexts. Most often, these kinds of public health efforts
### TABLE 3. Summary of hierarchical regression analyses predicting effects of peer risk variables on student victimization (controlling for gender, grade level, and ethnicity) for elementary school students.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE_B$</td>
<td>$\beta$</td>
<td>$B$</td>
</tr>
<tr>
<td>Student is Female$^1$</td>
<td>-1.22</td>
<td>0.11</td>
<td>-0.20*</td>
<td>-1.25</td>
</tr>
<tr>
<td>Student is 5th Grader$^2$</td>
<td>-0.45</td>
<td>0.14</td>
<td>-0.07</td>
<td>-0.40</td>
</tr>
<tr>
<td>Student is 6th Grader$^2$</td>
<td>-0.43</td>
<td>0.14</td>
<td>-0.07</td>
<td>-0.40</td>
</tr>
<tr>
<td>Ethnicity (Student is Arab)$^3$</td>
<td>-1.03</td>
<td>0.11</td>
<td>-0.17*</td>
<td>-0.70</td>
</tr>
<tr>
<td>Ethnicity*Gender</td>
<td>-1.03</td>
<td>0.22</td>
<td>-0.14*</td>
<td>-1.03</td>
</tr>
<tr>
<td>Ethnicity*5th grade</td>
<td>0.02</td>
<td>0.28</td>
<td>0.00</td>
<td>0.28</td>
</tr>
<tr>
<td>Ethnicity*6th grade</td>
<td>0.50</td>
<td>0.28</td>
<td>0.06</td>
<td>0.20</td>
</tr>
<tr>
<td>Peer Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| $R^2$                              |        |        |        | .045*  |
| $\Delta R^2$                       |        |        |        | .074*  |
| $\Delta R^2$                       |        |        |        | .083*  |
| $\Delta R^2$                       |        |        |        | .220*  |

**Note.**

1. Male is reference group.
2. Fourth grade is reference group.
3. Jewish is reference group.

* $p < .001$
have been large-scale mass media educational campaigns. Our study suggests that schools can focus on risky peer behaviors in their own schools and reduce victimization for their students. The data also suggest that elementary school students are very aware of these risky peer group behaviors and would therefore be good information sources on where, when, and which types of risky behaviors are most prevalent (see Astor, Meyer, & Pitner, 2001, for an example of how second, fourth, and sixth graders are aware of peer group behaviors in specific locations and times on school grounds).

Knowing the effects of risky peer behaviors on school grounds may have a psychological impact on school staff regarding their professional role in curtailing these behaviors. Specifically, if school staff believe that risky peer behaviors exist mainly in the neighborhood, community, or other contexts, they may not feel a professional responsibility to respond. Future research should examine the relationship between school staff behaviors, school climate, and school policy on the prevalence of risky peer group behaviors. Previous studies suggest that there are very strong relationships between staff behavior/school policy and peer risk behaviors (Astor et al., 2000, 2001; Benbenishty et al., 2001).

From a theoretical stance, these findings suggest that more conceptual work needs to be conducted on the nature of the peer group activities on school grounds versus other contexts (such as the community or neighborhood). Meyer and Astor (2001) recently conducted a study...
with students and parents on routes to and from school, that found that parents and students see peer group dynamics and victimization in school very differently than in the community. The focus of responsibility for risky peer group behaviors in the community is not as clear as when those same behaviors occur on school grounds. When risk behaviors occur on school grounds, students and parents hold the school staff responsible for monitoring and addressing the behaviors. When they occur in the community, there is less parental clarity on whose responsibility it is to intervene.

By contrast, teachers may see their role surrounding risky peer behaviors in different ways. Because many risky peer behaviors occur in context where few teachers are present (e.g., on the school playground, in the school lunchroom, in the hallways, and immediately before and after school), some teachers may not see it as their professional role to address these behaviors. In a recent study (Meyer et al., in press), teachers claimed they were more likely to respond to and address risky behaviors if they occurred in their classroom when compared to these other contexts. Elementary teachers were more likely to respond to risky behaviors occurring anywhere on school grounds when compared with middle school teachers. However, even elementary teachers were less clear when the behaviors moved slightly off school grounds or outside their classroom. The findings from that study suggest that teachers’ attitudes and behaviors regarding peer group behavior and victimization should be explored further. How teachers respond to victimization and risky behaviors could influence future risky behaviors and victimization directly.

The findings presented in this article suggest that within the upper elementary grades (4-6) in our sample, students in higher grades reported lower victimization than those in the lower grades. This finding is consistent with prior findings in the bully/victim literature (see Olweus, 1993). If the trends are similar to the bullying/victim literature, we would predict that there are even higher victimization rates in kindergarten through 3rd grade. Our study only examined students in grades 4-6; a major reason for examining this specific grade range was due to the fact that we wanted to examine these questions on a large sample. However, we found in pilot studies that survey responses were not reliable (due to reading and comprehension issues) until 4th grade. Other empirical methods should be explored in order to get an estimate on peer dynamics in the lower elementary grades. It is difficult to predict if peer group dynamics would be as influential on victimization in lower grades; however, we expect that they would be fairly strong and uni-
form across the elementary context. Nevertheless, other studies in child
development would suggest that lower grades have a larger victimization
rate than the upper grades (Olweus, 1993). The relationship be-
tween school-based peer group behaviors and victimization in these
young ages has not been established in empirical studies; this is an im-
portant area to study especially since several prevention programs tar-
get these younger grades. We suspect that although there are grade
differences within different school types (elementary, middle, and high),
the type of school will be more influential than a student’s grade.

The findings of this study showed that being male and being Jewish
also predicted victimization. More research should be conducted explor-
ing what social dynamics in schools contributed to the Jewish elementary
students’ rate of victimization being higher than Arab students’. We
suspect that this finding was driven by lower rates of victimization re-
ported by Arab females as compared with Jewish females. Our study
also showed a weak but significant interaction between gender and eth-
nicity. Male and female Jewish students had higher overall victimiza-
tion rates than male and female Arab students did. However, Jewish
males and females had a narrower gap between levels of victimization
than did Arab males and females. This finding is similar to other recent
findings on sexual harassment and other forms of school victimization
(Zeira, Astor & Benbenishty, in press; Zeira, Benbenishty & Astor, in
press).

It is possible that this outcome is partially due to cultural patterns sur-
rounding gender in schools. For example, it may be that females are
more protected against victimization in Arab elementary schools. It
may also be that male’s and female’s social interaction patterns are dif-
ferent in Arab and Jewish schools. One hypothesis that could explain
these results is that in Jewish elementary schools there is more interac-
tion between males and females and therefore Jewish females have
higher levels of victimization. This hypothesis would explain the find-
ings if we assume that males are the source of most perpetration on
school grounds (since most studies show males have higher levels of
perpetration in most cultures). In Arab schools, males may have rela-
tively similar levels of victimization as in the Jewish schools. Yet,
males in Arab schools may not interact as freely with females (due to re-
ligious and cultural practices) and thus their cliques or playgroups could
be more distinct and separate than the more secular Jewish students in
our sample. If so, Arab female victimization rates could be lower if
young Arab females do not interact with males to the extent Jewish fe-
males do. This kind of hypothesis should be explored in future studies.
We suggest that qualitative studies along with mixed method qualitative and quantitative studies explore the impact of culture on social dynamics.

Finally, it is important for future studies to explore how these peer group dynamics impact victimization levels in junior high school and high school settings. Some developmental theories would predict a very strong influence of the peer group on victimization during early and middle adolescence. Other developmental theories suggest that risky peer behaviors may be prevalent in elementary school. Research from studies that explore the organizational fit between elementary and middle schools would also suggest that middle schools provide more opportunities for student victimization, while elementary schools are more “caring” and smaller—thus, providing less opportunities for risky peer behaviors and victimization. Hence, theories do not provide us with a clear singular direction. Part II of this study (forthcoming as another article in this journal) will explore the same dynamics and hypotheses put forth in this study for students in junior high schools.

We believe that findings of this study strongly support future, more detailed examinations of the peer groups’ influence on victimization specifically on elementary school grounds. We hope this will encourage other researchers to more closely examine the social context of schools and school victimization as an area of inquiry.

NOTES

1. Research on childhood victimization has created categories for describing types of victimization that may interact differently by gender and age. Such categories have often included direct/indirect bullying, physical/verbal, social manipulation, property-related experiences (Olweus, 1993; Astor et al., in press). In addition there are also emerging literatures about specific kinds of youth violence behaviors such as bullying, dating violence, sexual harassment, school fights, verbal/emotional abuse, rough and tumble behaviors, etc. Each type of victimization is studied separately because they are conceptualized as qualitatively different from each other. However, from a school “context” perspective it would be important to know students’ overall levels of victimization, since individuals or groups of students are likely to observe and experience multiple types of victimization in a given context.

2. The absence of empirical evidence implicating the social context of the school also has been common in many other violence related literatures including the juvenile delinquency and conduct disorder research literatures (see Astor & Meyer, 2001 for a discussion and review of this empirical and conceptual problem).

3. Given this acontextual approach to studying violence, it should not come as a huge surprise that this journal (first issue 2002) is the first to include the words “School Violence” in its title. One way to remedy this situation is to launch research agendas
that build on prior youth oriented violence literatures but specifically explore the social context of the school and its impact on student victimization.

4. For example, in a classic study conducted by Dodge (1980), highly aggressive students were found to have a “hostile attribution” bias when the intent of the perpetrator was ambiguous. In one scenario, one student has a tray of food dropped on the head of another child in the school cafeteria. Study participants were asked how the student who had the lunch spilled on him should respond. Very aggressive students attributed hostile intent onto the perpetrator in these kinds of ambiguous situations. However, would this same scenario work in the classroom, playground, hallway, school principal’s office, routes to and from school? Would the gender and age of the participants influence the approval of aggressive behavior? These kinds of contextual issues directly related to school violence issues are often not explored in depth, even though it is likely that the peer groups’ behavior in certain contexts will influence violent behaviors.

REFERENCES


SUBMITTED: 12/03/01
ACCEPTED: 01/11/02