

Bully/Victim Cycle: The Relationship between School Climate and Aggression

Courtney K. Miller, Ed.S., Susan M. Swearer, Ph.D., Samuel Y. Song, M.Ed., Paulette Tam Cary, M.A., & Amanda B. Siebecker, B.A.

The University of Nebraska-Lincoln

INTRODUCTION

- Bullying may be the most prevalent type of school violence (Batsche, 1997).
- Recent studies within the United States have found that 8.4% (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, Scheidt, 2001) to 20% (Limber & Small, 2000) of children report being victimized several times per week, while 24.2% (Nansel et al., 2001) to 44.6% (Haynie et al., 2001) report being victimized at least once during the past year.
- Researchers have suggested that bullying tends to peak in middle school and generally decreases with age (Hoover, Oliver, & Hazler, 1992; Pellegrini & Bartini, 2000).
- Pellegrini and Bartini (2000) noted that an increase in bullying occurred when students made the transition into middle school; therefore, bullying may function as a way for students to transition into new peer groups and possibly establish dominance.
- Research examining characteristics of youth involved in bullying indicates that both bullies and victims demonstrate poorer psychosocial functioning than their non-involved peers (Nansel et al., 2001).
- School climate can be defined as the total environmental quality within a school and is multidimensional: physical ecology, social system, culture, and milieu (Anderson, 1982).
- Researchers have limited knowledge about the effects of the school setting on bullying, particularly how school climate affects victims and bullies (Ma, 2001) as well as the social and environmental factors that facilitate or inhibit bullying (Nansel et al., 2001).
- Kasen, Johnson, and Cohen (1990) found a relationship between school climate as reported by students and changes in student psychopathology. Not surprisingly, conflict in the school setting was associated with an increase of acting-out behaviors.
- An understanding of school climate is important for school-based prevention of bullying (Colvin et al., 1998; Pepler, Craig, & O'Connell, 1999).
- The purpose of this study is to examine bully/victim status with regard to school climate and aggressive coping strategies. Specific research questions include: 1) Does school climate predict aggression? 2) Is there a difference in perceived school climate across bully/victim status and across schools? 3) Is there a difference in self-reported aggression and anger across bully/victim status and across schools?

PARTICIPANTS

- Data were collected in the Spring of 2002 from sixth-, seventh-, eighth- and ninth-grade students at three different Midwestern middle schools.
- 469 (204 male and 265 female) students across the three schools participated in the study.
- Participants were grouped according to status (i.e., bully, bully-victim, victim, or no status) based on their responses on the Bully Survey (Swearer, 2001). Bully/victim status distribution for the 469 students who participated was: 7.5% bullies ($n = 35$), 34.5% victims ($n = 162$), 24% bully-victims ($n = 113$), and 34% no status (i.e., don't endorse bullying or victimization; $n = 159$). See Table 1.
- School A**
 - 121 (57 male and 64 female) students from School A participated in the study.
 - 35 participants were in the sixth-grade, 51 participants were in the seventh-grade, and 35 participants were in the eighth-grade.
 - Racial distribution for the 121 students from School A who participated was: 72% Caucasian, 12% African-American, 5% Latino(a), 5% Asian, 3% Native American, 2% Middle Eastern.
 - 51% of the student participants from School A receive free or reduced lunch.
- School B**
 - 154 (64 male and 90 female) students from School B participated in the study.
 - 64 participants were in the seventh-grade, 43 participants were in the eighth-grade, and 47 participants were in the ninth-grade.
 - Racial distribution for the 154 students from School B who participated was: 96% Caucasian, 3% Asian, and 1% African-American.
 - 7% of the student participants from School B receive free or reduced lunch.
- School C**
 - 194 (83 male and 111 female) students from School C participated in the study.
 - 74 participants were in the seventh-grade, 73 participants were in the eighth-grade, and 47 participants were in the ninth-grade.
 - Racial distribution for the 194 students from School C who participated was: 95% Caucasian, 3% African-American, 1% Latino(a), 0.5% Asian, and 0.5% Native American.
 - 14% of the student participants from School C receive free or reduced lunch.

PROCEDURES

- Active parental consent and youth assents were obtained for each participant.
- All students with parental consent to participate in the study were administered a series of instruments during the Spring 2002.

INSTRUMENTS

- The Bully Survey (Swearer, 2001).** The Bully Survey is a three part, 31-question survey that queries students regarding their experiences with bullying, perceptions of bullying, and attitudes toward bullying. Bullying is defined in each section of the survey as: "Bullying is anything from teasing, saying mean things, or leaving someone out of a group to physical attacks (hitting, pushing, kicking) where one person or a group of people picks on another person over a long time. Bullying refers to things that happen in school but can also include things that happen on the school grounds or going to and from school." In Part A of the survey, students answer questions about when they were victims of bullying during the past year. If the participants report they have not been victims of bullying, they are instructed to skip Part A and begin at Part B. Part B of the survey addresses questions about the participants' observations of bullying behavior among their peers during the past year. If they report that they have not observed bullying behavior, the participants are instructed to skip Part B and resume completing the survey at Part C. Part C of the survey requests information from the participants about when they bullied other students. If the participants indicate that they have not bullied other students within the last year, they are instructed to skip Part C and complete the final section of the survey. The final section of the survey contains a scale that measures attitudes toward bullying.

- Bullying Climate Scale (Song & Swearer, 1999).** The Bullying Climate Scale is a thirty-two item scale with four subsactors: social support, academic support, bullying support and conflict. This scale is based on a previous instrument (Kasen, Johnson, & Cohen, 1990) that describes aspects of school climate hypothesized to be relevant to students' emotional and behavioral development. Participants are asked to rate each item in terms of how they think it reflects their school on a four point scale from 1 = "Totally False" to 4 = "Totally True". In the present study, the internal consistency reliability using coefficient alpha was .83 for the total score.

- The Aggression Questionnaire (AQ; Buss & Warren, 2000).** This instrument is an updated version of the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), a standard measure for assessing anger and aggression. The AQ is a self-report measure, consisting of 34 items designed to assess anger and aggression in individuals ranging from 9-88 years old. The AQ has five subscales: Physical Aggression, Verbal Aggression, Anger, Hostility, and Indirect Aggression. A total aggression score (AQ Total) is also provided by summing the raw scores for the five subscales. Each item of the AQ describes a characteristic related to aggression. Participants are asked to read each item and rate how much each item is similar to themselves on a five point scale: 1 = "Not at all like me" to 5 = "Completely like me". AQ Total scores of 110 or greater (T-Score = 60) are considered to indicate high levels of aggression. In the present study, the internal consistency reliability using coefficient alpha was .92 for the total score.

Table 1.
Bully/Victim Status Across Schools

Status	School A	School B	School C	All Schools
Bully	5% (n=6)	5% (n=8)	11% (n=21)	7.5% (n=35)
Bully-Victim	17% (n=20)	29% (n=45)	25% (n=48)	24% (n=113)
Victim	33% (n=40)	32% (n=49)	37% (n=73)	34.5% (n=162)
No Status	45% (n=55)	34% (n=52)	27% (n=52)	33% (n=159)

Table 2.

Differences Across Bully/Victim Status on School Climate Total Scores

Bully/Victim Status	M	SD	Bully	Bully-Victim	Victim
Bully	86.63	10.07	--	NS	NS
Bully-Victim	84.61	9.60	NS	--	NS
Victim	87.25	11.64	NS	NS	--
No Status	92.79	11.15	*	*	*

Note: NS = nonsignificant differences between means, while asterisk (*) = significance using Tukey's HSD procedure

Figure 1.
School Climate Total Score Means Across Bully/Victim Status and Schools

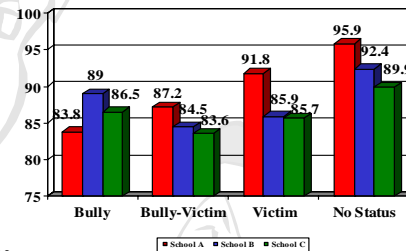


Figure 2.
AQ Total Score Means Across Bully/Victim Status and Schools

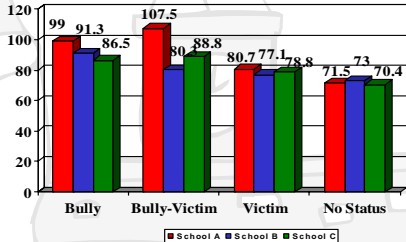
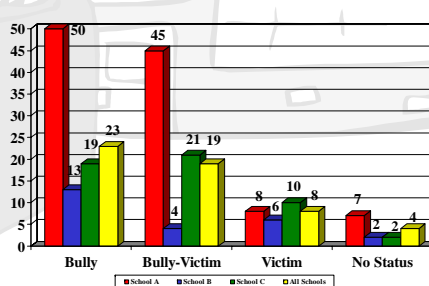


Figure 3.
Percent Across Bully/Victim Status with Clinically Significant AQ Total Scores



RESULTS

- A simple linear regression was conducted to evaluate the relationship between school climate (Bullying Climate Scale) and aggression (AQ).
 - A significant relationship was found between the Bullying Climate Scale and AQ across all schools, $F(1, 468) = 36.64, p < .000$, partial $\eta^2 = .073$.
 - School A: $F(1, 120) = 19.32, p < .000$, partial $\eta^2 = .140$.
 - School B: $F(1, 153) = 8.08, p < .005$, partial $\eta^2 = .044$.
 - School C: $F(1, 193) = 17.15, p < .000$, partial $\eta^2 = .077$.
- A two-way analysis of variance was conducted to examine school climate and bully/victim status across schools.
 - There were no significant interactions between bully/victim status and schools, $F(3, 468) = .747, p = .612$, partial $\eta^2 = .010$.
 - A significant main effect was found for bully/victim status, $F = 11.72, p < .000$, partial $\eta^2 = .071$.
 - No significant main effect was found for school, $F = 2.14, p = .119$, partial $\eta^2 = .009$.
 - Total score means for the Bullying Climate Scale according to bully/victim status across school are presented in Figure 1.
 - Post hoc comparisons using the Tukey's HSD test were conducted to evaluate pairwise differences among the means. The results of these tests, as well as the mean and standard deviations for the four bully-victim status groups are reported in Table 2.
 - There were significant differences in Bullying Climate Scale Total scores between the no status students and the bullies, victims, and bully-victims.
- A two-way analysis of variance was conducted to examine aggression and bully/victim status across schools.
 - A significant interaction between bully/victim status and schools was found, $F = 3.89, p < .001$, partial $\eta^2 = .049$.
 - Pairwise comparisons were conducted to examine the interaction between status and schools. In order to control for Type I error and unequal variances, significant differences were determined at the .0005 level.
 - There were significant differences in AQ Total scores between the bully-victims and the victims and no status students at School A; between the bully-victims and no status students at School B. No significant differences were found at School C.
 - Total score means for the AQ according to bully/victim status across schools are presented in Figure 2.
 - Percentages across bully/victim status with significant anger/aggression scores, as measured by the AQ, are presented in Figure 3.

DISCUSSION

- School climate appears to predict aggression between and within schools.
- Students involved with bullying held more negative perceptions of school climate.
- There was no significant difference between schools with regard to school climate scores across bully/victim status.
- In School A, the bully-victims reported significantly higher levels of aggression compared to the victims and no status students; In School B, no significant differences of aggression were found between status; In School C, bully-victims also reported significantly higher levels of aggression compared to no status students.
- Overall, bullies reported the highest level of clinically significant aggression, followed by bully-victims, victims, and no status students.
- School climate and aggression appear to be important factors related to involvement with bullying and, therefore, are important components for bullying prevention and intervention.
- Future research should further examine the relationship between school climate and aggression across bully/victim status and schools.