

REDUCING SCHOOL AGGRESSION: ASSESSMENT TO ACTION TO RESULTS [8881]

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Introduction

The Mid-Valley Partnership Safe Schools/Healthy Students (MVP) is a multi-agency effort committed to reducing aggression in Oregon schools. The MVP project is supported by the U.S. Departments of Education, Health and Health Services, and Justice, which provides students, schools, and communities with federal funding to implement a coordinated, and sustainable service system that promotes safe and caring communities. The MVP school-based services provides highly organized universal, targeted, and indicated services for rural and urban schools located in the northwest region of Oregon. The MVP SS/HS project extended the capability for agency partners to increase utilization and quality implementation of a comprehensive framework of services designed to reduce school aggression. This paper will describe the (a) MVP Sentinel School intervention, (b) key issues to consider in implementation, and (c) important differences between low and high aggression schools.

Table 1 presents the agencies that comprised the Mid-Valley Partnership.

Mid-Valley Partnership SS/HS Steering Committee (2003-04)	
Salem/Keizer SD	Richard Goward, Salem/Keizer SD, Project Director Shelley Hanson, Project Coordinator, Salem/Keizer SD Terra Stein, Project Administrative Assistant, Salem/Keizer SD John Van Dreal, STAT, Salem/Keizer SD Rhonda Stueve, Risk Management, Salem/Keizer SD Kelly Evans, Coordinator, Salem/Keizer SD Ray Byrd, Risk Management Carla Moyer, Prevention, Salem/Keizer SD Marilyn Rengert, School Counselors, Salem/Keizer SD
Willamette ESD	Michael Cunningham, WESD Rod Swinehart, School Safety Coordinator, WESD
Mental Health	Geoff Heatherington, Polk Co. Mental Health Lona O'Dell, Commission on Children and Families Mike McFetridge, Marion Co. Mental Health Steve Kuhn, Marion Co. Mental Health
Law Enforcement	Debbie Baker, Salem Police Department Jeff Kuhns, Keizer Police Department
Early Childhood	Elaine Martin, Project Bond, Marion County Court
Local Evaluator	Vicki Nishioka, IVDB, University of Oregon Jeffrey Sprague, IVDB, University of Oregon

MVP Violence prevention model. A primary goal of the Mid-Valley Partnership is to build a multi-level, systemic approach to violence prevention in rural and urban schools. The MVP Model of school-based services spans universal interventions intended to prevent school violence as well as individual services for students at-risk and high risk for victimization and/or perpetration of aggressive behavior. Table 2 provides a brief description of the MVP model components. Table 2 provides a brief description of the MVP model components.

Table 2. Mid-Valley Partnership SS/HS School-Based Services

Element 1: Safe School Environment A <u>Risk Management Consultant</u> to provide consultation regarding school safety and planning, <i>Crime Prevention Through Environmental Design Assessments</i> , and personal safety training.
Element 2: Alcohol/Drug/Violence Prevention & Early Intervention Goal A <u>Prevention Curriculum Specialist</u> provides staff training and support in implementation of evidence-based universal violence prevention curricula e.g., <i>The Second Steps Violence Prevention</i> and <i>Steps to Respect</i> curriculum for elementary school participants. The <i>Michigan Model Managing Conflicts</i> for high school students. Additionally, the curriculum specialist trains parent and community groups upon request.
Element 3: Mental Health <u>Family Support Advocates</u> (FSAs) provides immediate support and mentoring to the student and his/her family. Additionally, the FSA conducts a student-centered needs assessment and, in turn, linkage to appropriate school and community services that may promote family stability occurs in a timely manner. <u>School-based Mental Health</u> services for students and families e.g., mental health assessment, Level 2 suicide risk assessments (SRA), individual therapy, group therapy, family therapy, consultation, and service coordination services. <u>Student Threat Assessment Team</u> services for students who engages in behaviors that pose a potential threat to a specific student(s) or school staff. The Student Threat Assessment Team includes procedures for multi-agency assessment, planning, and monitoring of identified students.
Element 4: Educational Reform <u>Safe and Civil School</u> - Mickey Garrison (trainer) provides trainings to help selected schools develop strategies that promote effective school discipline, positive school culture, and increased school safety.

Barriers to Quality MVP Model Implementation

Our public schools face multiple challenges that impede quality implementation of new strategies that require a coordinated school-wide effort. Often schools recognize the needs to address school aggression problems with high visibility e.g., bullying, gangs, students using weapons, but fail to implement a committed effort to implement prevention procedures with a high degree of fidelity. Additionally, the importance of coordinating universal and individual student supports presents a difficult challenge to many schools.

Inconsistent Implementation of the Program Model

A reality that confronts many projects is the disparity between available resources and the needs of the school or community. The MVP SS/HS project provided the opportunity to expand support for violence prevention curriculum training, Student Threat Assessment Team, and school-based mental health services to rural

schools in Marion and Polk County. Additionally, this initiative introduced Family Support Advocate services for students and families at-risk for poor school outcomes to urban as well as rural schools. In planning implementation of MVP services, the program planners placed high value upon giving each school equal opportunity to benefit from program services and respecting each building principal's prerogative to choose the type and extent his school would use MVP services. As such, the MVP staff advertised services to all schools and established procedures that required schools to request each desired MVP element to protect the voluntary nature of their participation. This process allowed MVP planners to be consistent with existing values used for service allocation in Marion and Polk County Schools. However, an unintended consequence of this process was the unequal and, at times, uncoordinated distribution of services across schools. In fact, at the end of the second year, no schools had implemented the scope of MVP services as a coordinated service system.

Prevention Efforts May Receive Low Priority for Implementation

Often, teachers perceive violence prevention curriculum as competing with academic instruction time creating resistance to implementation at many levels. Many schools believed they were dealing with student aggression in an effective manner and the addition of violence prevention curriculum was not an immediate priority. For example, the MVP project made training and violence prevention curriculum available at no cost for all participating schools. Despite this resource, many schools had not volunteered for training after the two years of the project. Moreover, many schools that did receive training had not started to implement the violence prevention curriculum in their buildings.

Important Components for Implementation

An unexpected outcome of the school-wide surveys was the increased awareness of school administrators, teachers, and classified staff regarding the high level of social and overt aggression happening in their schools. Successful implementation of the violence prevention curriculum and individual student services was higher in schools that had the following leadership and staff features:

- the principal's commitment to improvement of school climate and safety as one of the top priorities of his or her school,
- staff acceptance of student aggression as a serious problem for their school,
- staff acceptance of their responsibility in addressing the problem, and
- coordination with MVP partners to develop and implement an action plan.

Study Participants

In response to the low implementation of the comprehensive MVP school-based services model, the MVP planners recruited 22 elementary schools, 11 middle, and five high schools (14 Sentinel Schools and 23 comparison schools) volunteered to participate in the evaluation studying the effects of MVP services upon student attitudes, self-reported victimization, and self-reported aggression for students in grades 2-5. Thirteen of these schools are urban schools and 25 are rural schools. Table 3 shows the demographic characteristics of student participants in the study.

Table 3. Demographic Characteristics of Students

Grade Level	Boys	Girls	Missing/Unknown	Total
Elementary	1,207	1,136	182	2,525

Middle School	512	472	46	1,030
High School	850	741	38	1,629
Missing/Unk	22	16	46	84
Total	2,591	2,365	312	5,628

Study Measures

The MVP evaluation and school partners selected two student surveys to provide information regarding the attitudinal and behavior changes reported by students in participating schools. Both measures exceed the psychometric requirements for evaluation and screening decisions. A description of the selected measures follows:

Normative Beliefs About Aggression (NoBags). The Normative Beliefs About Aggression (Huesmann, Guerra, Miller, and Zelli, 1992) is a 20-item scale that measures a child and adolescent's perception of the acceptability to act aggressively during typical social or general conditions, conditions of provocation or retaliation, and total approval of aggressive behavior. A maximum score of 4 indicates a belief that generally endorses use of aggression against others. Conversely, a minimum score of 1 indicates that the student believes aggression against others is generally unacceptable. The NoBags has demonstrated strong correlation with aggressive behavior for students in grades 3-5.

Peer Experiences Questionnaire (PEQ). The Peer Experiences Questionnaire (Vernberg, Jacobs, and Hershberger, 1999; Vernberg, 2003) is a student self-report survey that measures four broad areas: (a) overt and relational victimization the student has experienced, (b) overt and relational aggression the student has inflicted towards others, (c) student and perceived adult responses to victimization, aggression, and bullying, and (d) student attitudes towards aggression.

Data Collection

The MVP Prevention Curriculum Specialist, school counselors, and/or the classroom teacher administered the surveys across two sessions. Students completed the NoBags during the first administration and completed the PEQ after they had attended school at least two months. The staff who administered the surveys explained the purpose of each measure and assisted students with reading as needed.

School Response to the Student Survey Results

The schools that participated in the Fall survey received individual evaluation consultations and reports regarding their school findings. With few exceptions, the common response from building elementary and secondary administrators was dismay that student-reported incidents of aggression and victimization was higher than expected. Twenty of the 25 participating rural schools requested the Violence Prevention Curriculum Coordinator to do an all staff training to review survey results and build a plan of action to address the areas of concern. The staff trainings required 60 to 90 minutes for the staff to hear, respond, and process the survey results. The common themes and stages for school staff meetings were consistent across all schools regardless of grade level and geographic region. These themes were:

Denial. Most participating schools had strategies to improve school climate and were disappointed in the high level of relational and overt victimization reported by students. It was common to have staff question the accuracy of the results or honesty of the students. However, once the staff began to reflect upon student behavior reported by the survey, they realized that many of the student-reported behaviors happened quite frequently without a strategic adult intervention.

Minimization of the importance of the problem. Once the staff agreed that their school had problems with relational and overt aggression, they then discussed how important the problem was to student learning. Some staff, especially those teaching middle and high school students, viewed the behavior as developmentally normal and outside of their responsibility to manage. This part of the discussion included dialogue about the negative effects of student aggression upon learning and school climate. An important factor for staff to review was the high percentage of students who “felt bad” when they witnessed students being picked on or bullied. Many school reports indicated students within their school had widely varied beliefs about their role in coping with relational aggression. The staff discussion generally resulted in recognition that the staff did not always respond to student reports or situations of relational aggression consistently, did not offer curriculum to help them manage this behavior, and that this behavior did contribute to negative school climate and classroom management issues.

Disappointment. Most staff experienced dismay at their school’s survey results that required time for discussion and reflection. For the most part, these discussions helped produce concrete examples of mean teasing, exclusion, threats, or overt aggression that led to staff consensus regarding standards for acceptable behavior.

Agreement regarding level of staff responsibility to address relational and overt aggression. At this point in the discussion, most school staff agreed that their school had school climate and aggression issues that required intervention. However, time was generally required to review differing opinions regarding their responsibility as teachers, classified staff, and building administrators in addressing the problem. Many staff stated the problem was “bigger than the school” and that the student beliefs regarding retaliation and aggression were reinforced by parents at home. This conflict in standards for acceptable behavior was seen as a barrier by most schools. At this point in the conversation, the MVP staff often shared research about the negative short and long term impact relational and overt aggression has upon aggressors, victims, and bystanders. This information proved helpful to many schools in reaching a common understanding regarding needed school-wide interventions.

Develop a plan of action. Once the review of survey results were completed, staff worked together to build a plan of action to address the specific strengths and concerns for their school. Staff were encouraged to include these key features in their plan:

- Use assessment to plan interventions
- Educate school staff, parents, and students
- Staff develop school-wide bullying policy
- Provide evidence-based interventions for victims/bullies
- Increase monitoring and supervision in areas bullying may occur

The principals, school staff, and MVP staff viewed these staff trainings as beneficial. In many instances, the survey results assisted the building administration and staff to unite behind a common perception of their school climate problems and to build a strategy that involved efforts from school staff at every level.

Student Survey Results

The MVP SS/HS project has committed the majority of resources to implementation of school-based services in urban and rural elementary schools during the three years of the project. To date, the elementary schools showed the highest rate of implementation for both universal prevention and individual student services. Consequently, elementary Sentinel Schools used most of Year 3 to refine and plan for full implementation of the MVP model during the final year of the SS/HS project. In contrast, the middle and high Sentinel Schools have not fully implemented the MVP project and used this school year to plan implementation for the final

year of the project. The MVP project will implement the school-based services in 9 of the ten urban middle schools and 3 rural schools during the final year of the project. The remainder of this paper will report the differences found between the Sentinel and comparison schools across elementary and middle school grade levels.

Elementary Student Survey Results. An analysis of the differences between Sentinel and comparison schools indicated several differences and similarities between these two school groups. The remaining sections of this report describe the student survey results for elementary and secondary schools.

Normative Beliefs About Aggression – Elementary Schools

Table 4 summarizes the statistical results for the Normative Beliefs About Aggression. Overall, the students attending Sentinel Schools reported normative beliefs about aggression that endorsed use of aggression rates at lower rates than comparison schools across both general and retaliation situations for students in grades 3 - 5. Figure 4 shows a graph depicting the differences in means for Sentinel and Comparison schools. The mean differences represented by black bars note the difference was statistically significant ($p < 0.05$).

Table 4. Mean Scores, Standard Deviation, and *t*-test Results for Normative Beliefs About Aggression for Sentinel and Comparison Schools (n = 2,630)

NoBags Scale	Sentinel		Comparison		df	<i>t</i>	p.
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
General Beliefs	1.22	0.40	1.28	0.48	1930	3.42	0.000
Retaliation	1.38	0.47	1.42	0.49	2149	2.00	0.05
Total Scale	1.30	0.39	1.35	0.39	2005	2.94	0.003

Note: $p < 0.05$

Figure 1 (in the Appendix) shows a graphical representation of the mean differences between Sentinel and Comparison schools.

Peer Experiences Questionnaire (PEQ) – Elementary Version. Table 5 shows the mean scores, standard deviations, and *t*-test results for MVP Sentinel and Comparison Schools for PEQ subscales. In general, students attending both groups i.e., low and high aggression schools reported higher rates of relational victimization as opposed to overt aggression. Students also reported levels of adult sanctions, empathy, and beliefs about “joining in” situations involving aggression that were similar to those found in the original PEQ normative study (Vernberg, Jacobs, and Hershberger, 1999).

Table 5 shows the means, standard deviations, and *t*-test results for the PEQ.

Table 5. PEQ – Elementary Version Mean Scores, Standard Deviation, and *t*-Test Results for Sentinel and Comparison Schools

PEQ Scale	Sentinel ^a		Comparison ^b		<i>t</i>	p.
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Victimization						
Relational	1.75	0.88	1.85	0.91	3.04	0.002***
Overt	1.45	0.71	1.54	0.77	2.87	0.004***

Aggression						
Relational	1.17	0.41	1.22	0.46	2.76	0.006***
Overt	1.20	0.47	1.22	0.47	0.99	0.32
Adult Sanctions	3.06	0.83	3.01	0.81	1.66	0.10*
Empathy	2.95	0.88	2.84	0.89	3.12	0.002***
Joining In	1.38	0.91	1.44	0.92	1.43	0.15
Aggression is okay	1.40	0.55	1.51	0.56	0.79	0.43
Aggression pays off	1.54	0.64	1.54	0.65	0.01	0.99
Stay out of fights	2.85	0.97	2.77	0.92	0.55	0.58

Note: PEQ = Peer Experiences Questionnaire, **p< 0.05, *p< 0.10; ^a n = 1,631; ^b n = 1,042.

Figure 2 (in the Appendix) shows the differences in mean between the elementary Sentinel and comparison schools. The mean differences represented by black bars note the difference was statistically significant ($p < .05$). The results of the PEQ t-test indicate the students attending Sentinel Schools reported statistically significant lower rates of relational victimization, overt victimization, and relational aggression. However, we found no differences in student-reported overt aggression, student beliefs about “joining in” situations involving aggression, use of aggression is okay, aggression pays off and students should stay out of fights. Sentinel school students did report a higher level of empathy for students victimized by relational and overt aggression than comparison school students. Finally, students reports regarding adult sanctions is a factor of interest that requires further investigation in determining Sentinel and Comparison school differences ($p < .10$). Figure 2 shows a graphical presentation of the mean differences between elementary Sentinel and Comparison schools.

Peer Experiences Questionnaire (PEQ) – Middle School. The participants for the PEQ – Middle School results are two rural Sentinel schools matched to two comparison schools resulting in 509 student participants. In general, students attending both sentinel and comparison schools report higher rates of relational victimization as opposed to overt aggression. Students also reported levels of adult sanctions, empathy, and beliefs about “joining in” situations involving aggression that were similar to those found in the original PEQ normative study (Vernberg, Jacobs, and Hershberger, 1999). Table 6 shows the mean scores, standard deviations, and t-test results for MVP Sentinel and Comparison Schools for PEQ subscales.

Table 6. PEQ – Middle School Mean Scores, Standard Deviation, and t-Test Results for Sentinel and Comparison Schools

PEQ Scale	Sentinel ^a		Comparison ^b		t	p.
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Victimization						
Relational	1.47	0.68	1.32	0.46	2.99	0.003***
Overt	2.04	0.89	1.83	0.80	2.78	0.006***
Aggression						
Relational	1.31	0.40	1.24	0.38	1.92	0.05**
Overt	1.39	0.50	1.36	0.53	1.93	0.41
Adult Sanctions	2.87	0.83	2.87	0.80	1.31	0.19
Empathy	2.91	0.99	2.94	0.87	0.42	0.67
Joining In	1.34	0.61	1.30	0.57	0.69	0.49
Inability to help	1.16	0.49	1.09	0.40	1.85	0.07*

Aggression is okay	1.59	0.67	1.09	0.40	1.85	0.07*
Aggression pays off	1.72	0.67	1.48	0.56	2.12	0.03**
Stay out of fights	2.78	0.99	2.96	0.90	2.13	0.03**

Note: PEQ = Peer Experiences Questionnaire, **p< 0.05, *p< 0.10. ^an = 276, ^bn = 233.

Figure 3 (in the Appendix) shows the differences in mean scores between Sentinel and Comparison schools in the Fall 2004. The mean differences represented by black bars note the difference was statistically significant (p<.05). The results of the PEQ t-test indicate the middle school students attending Sentinel Schools reported statistically significant higher rates of relational victimization, overt victimization, and relational aggression. However, no differences were found for student-reported overt aggression, student beliefs about joining in situations involving aggression, empathy, adult sanctions, and aggression pays off. Sentinel school students did report higher endorsement for use of aggression as legitimate or okay and lower approval for staying out of fight situations. Finally, statistical results indicated that the “inability to help” is a factor of interest that requires further investigation.

Peer Experiences Questionnaire (PEQ) – High School. Table 7 shows the mean scores, standard deviations, and t-test results for MVP Sentinel and Comparison Schools for PEQ subscales. The participants for the PEQ – High School results are two rural Sentinel School matched to two rural comparison schools resulting in 570 student participants. In general, students attending both sentinel and comparison schools report higher rates of relational victimization as opposed to overt aggression. Table 7 shows the mean differences between the Sentinel and Comparison high schools.

Table 7. PEQ – High School Mean Scores, Standard Deviation, and t-Test Results for Sentinel and Comparison Schools

PEQ Scale	Sentinel ^a		Comparison ^b		t.	p.
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Victimization						
Relational	1.88	0.83	1.65	0.74	3.46	0.001**
Overt	1.40	0.72	1.25	0.45	3.07	0.002**
Aggression						
Relational	1.38	0.40	1.24	0.38	1.92	0.05*
Overt	1.41	0.50	1.36	0.53	1.93	0.89
Adult Sanctions	2.63	0.83	2.87	0.80	1.31	0.48
Empathy	2.47	0.99	2.94	0.87	0.42	0.84
Joining In	1.33	0.61	1.30	0.57	0.69	0.65
Inability to help	1.59	0.56	1.65	0.59	1.29	0.19
Aggression is okay	1.68	0.67	1.63	0.63	1.09	0.28
Aggression pays off	1.67	0.64	1.63	0.57	0.92	0.36
Stay out of fights	2.67	0.95	2.62	0.95	0.66	0.51

Note: PEQ = Peer Experiences Questionnaire, ^a n = 288, ^b n = 282, **p< 0.05, *p< 0.10.

Figure 4 (in the Appendix) shows the differences in mean between Sentinel and comparison schools in the Fall 2004. The mean differences represented by black bars note the difference was statistically significant (p<.05). The results of the PEQ t-test indicate the high school students attending Sentinel Schools reported

statistically significant higher rates of relational victimization, overt victimization, and relational aggression. However, no differences were found for student-reported overt aggression, student beliefs about joining in situations involving aggression, empathy, adult sanctions, use of aggression is okay, inability to help, aggression pays off, and staying out.

Summary

The Fall 2004 results indicate differences between Sentinel Schools and comparison schools in the levels of student-reported relational victimization, overt victimization, and relational aggression. Rural and urban Sentinel Schools at the elementary school level reported lower levels of victimization and relational aggression than comparison schools. In contrast, rural Sentinel Schools at the middle and high school level reported higher levels of victimization and relational aggression than comparison schools. It is important to remember that Sentinel Schools were recruited in early Fall 2004 and many had not fully implemented the MVP comprehensive framework of services at the time of the survey. Second, the process of gathering and reviewing the student survey information with school teams revealed the importance of this process in building a common understanding about school climate strengths and problem areas across all school staff and MVP partners. This process, like many, required time and consultation for schools to accept the information, reach consensus regarding their responsibility in addressing the problem, and development of an action plan that addressed the needs of their school. For many schools, the Violence Prevention Coordinator facilitated this process. To date, 10 of the 14 Sentinel Schools have requested assistance in this process.

Several factors appear to influence differences in reported rates of aggression between elementary and secondary schools. First, the MVP and existing programs have had more success in facilitating implementation of violence prevention curriculum in elementary schools as compared to middle and high schools. Second, secondary schools are larger systems and have increased academic performance demands that present additional barriers for implementation of non-academic curriculum. Finally, secondary school staff may take longer to reach consensus about the importance of relational aggression as a school climate problem vs. developmentally appropriate behavior for adolescent students. These differences in staff perceptions may create disagreement about school staffs' role in addressing relational aggression situations.

The survey results indicated developmental differences between elementary and middle schools in student perceptions, beliefs, and attitudes about aggression. Table 4.6 summarizes the similarities and differences between Sentinel and Comparison Schools at the elementary and middle school level. This information suggests that elementary Sentinel Schools should consider implementation of strategies that increase student empathy and adult sanctions for relational and overt aggression. In contrast, middle school programs should consider teaching students ways they may help if a student is bullied or picked on. Second, the middle school programs may wish to teach students the difference between assertive and aggressive behavior, provide information about individual rights, and implement school recognition and discipline strategies that gives a clear message that use of relational and overt aggression is not okay and students should stay out of fights. Table 8 summarizes the similarities and differences between Sentinel and Comparison schools.

Table 8. Similarities and Differences Between Sentinel and Comparison Schools

Elementary Schools		Middle Schools	
Similarities	Differences	Similarities	Differences
Overt Aggression	Overt Victim	Overt Aggression	Overt Victim
Join In	Relational Victim	Adult Sanctions	Relational Victim
Aggression Okay	Relational Agg	Empathy	Relational Agg
Aggression Pays	Adult Sanctions	Inability to help	Aggression is Okay

Stay Out Empathy

Join In Stay Out
Aggression Pays

References

- Committee for Children. (1997). *Second step: Violence prevention curriculum*. Seattle, WA: Author.
- Committee for Children. (2002). *Steps to Respect: A bullying prevention program*. Seattle, WA: Author.
- Educational Materials Center.(n.d.). *The Michigan model for comprehensive health education: Managing conflicts and preventing violence*. Mt. Pleasant, MI: Central Michigan University.
- Educational Development Center, Inc. (n.d.). *Aggressors, victims, and bystanders: Thinking and acting to prevent violence*. Sewickley, PA: Author.
- Huesmann, L. R. and Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of Personality and Social Psychology*, 72, 408-419.
- Huesmann, L. R., Guerra, N. G., Miller, L. and Zelli, A. (1992). The role of social norms in the development of aggression. In Zunkley, H. and Fraczek, A.(eds.) *Socialization and aggression*. New York, NY: Springer.
- Vernberg, E. M., Jacobs, A. K., and Hershberger, S. L. (1999). Peer victimization and attitudes about violence during early adolescence. *Journal of Clinical Child Psychology*, 28, 386-395.

Appendix

Figure 1. Mean Differences in NoBag Scores Between Low and High Aggression Schools (n = 2,630 students)

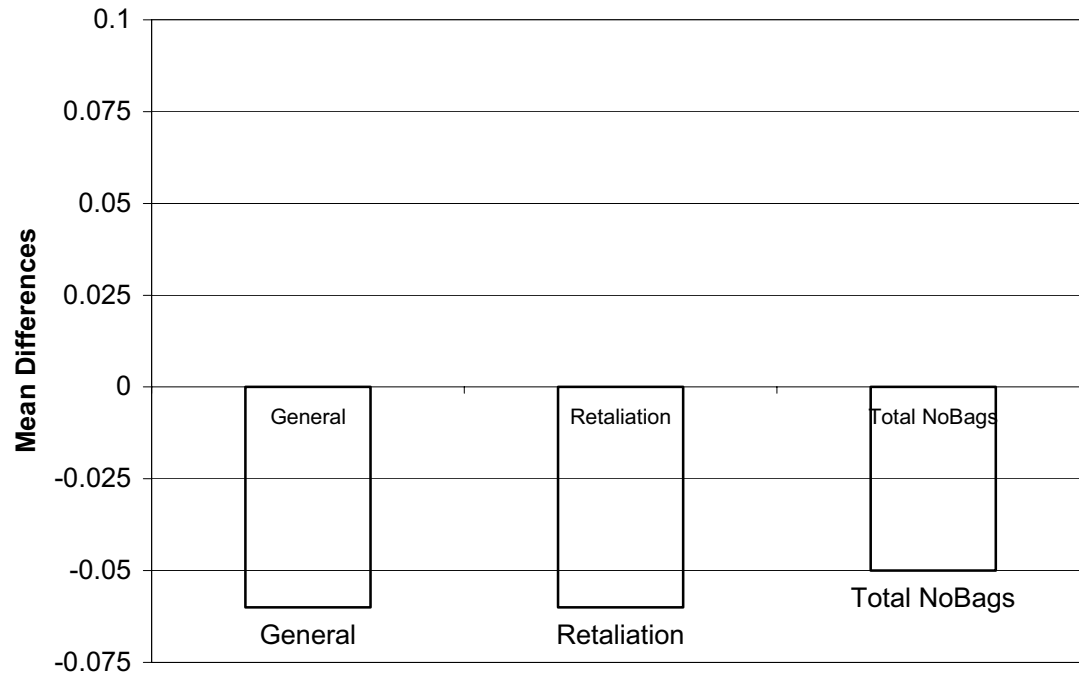


Figure 2. Mean Differences for PEQ (Elementary) Between Sentinel and Comparison Schools (n = 2,673 students)

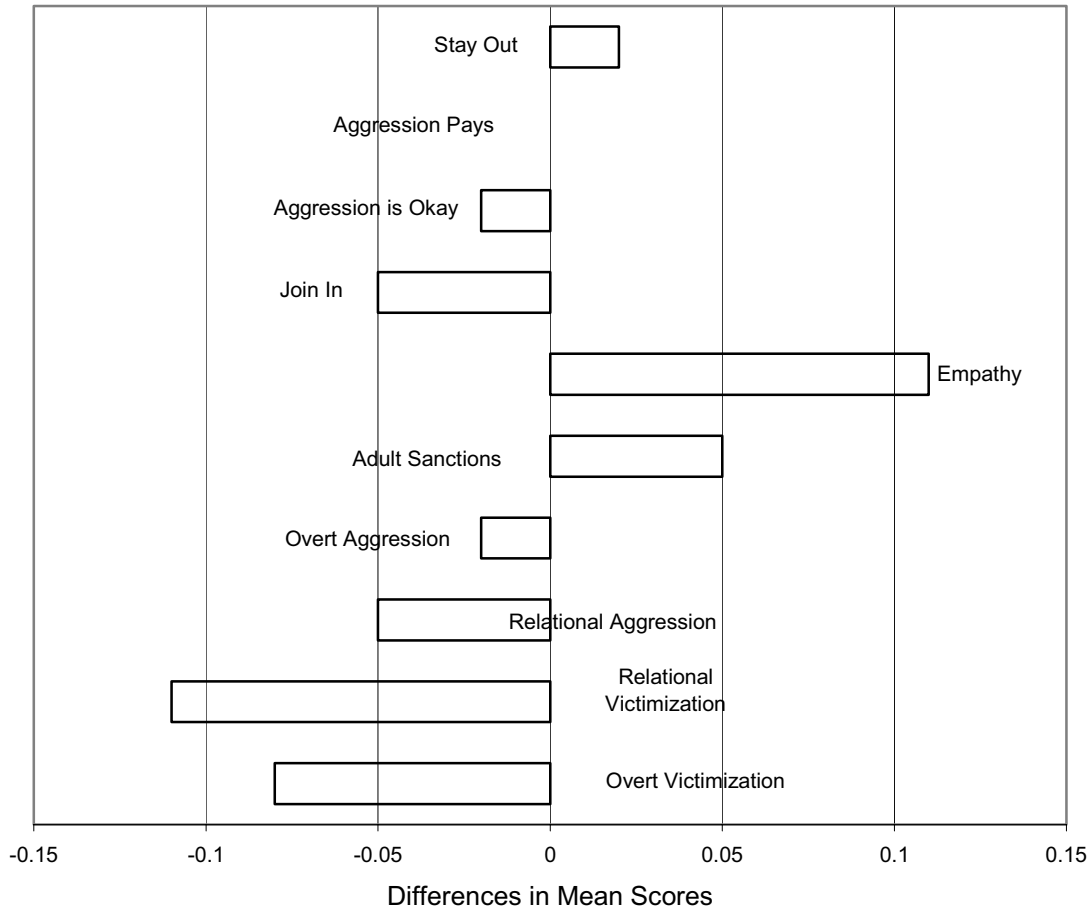


Figure 3. Mean Differences in PEQ Scores Between Sentinel and Comparison Schools (n=509 students)

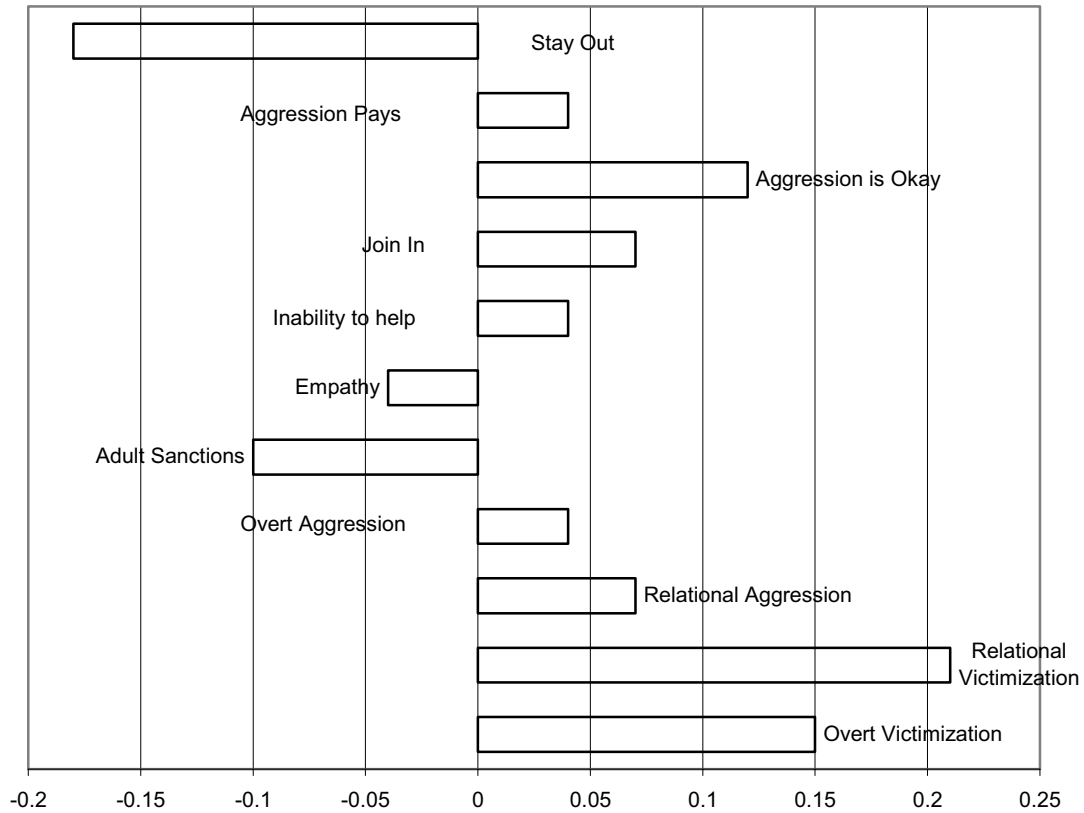


Figure 4. Mean Differences in High School PEQ Scores Between Sentinel and Comparison Schools (n = 570 students)

