

ASSESSING RATES AND CHARACTERISTICS OF BULLYING THROUGH AN INTERNET-BASED SURVEY SYSTEM [623]

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Abstract

Whereas the rates of several forms of school violence have declined over the past decade, the rate of bullying has remained relatively stable. School staff are becoming increasingly aware of the potential psychological and behavioral effects of bullying and of its ramifications for the school environment. Administrators need valid and efficient methods for collecting data on bullying and strategies for using this information to improve school climate.

A Maryland-based university/school district collaboration developed a Web-based data collection system to assess bullying behavior. Tested in December 2005, researchers collected data from 25,119 students (grades 4–12), 2,263 staff, and 831 parents across 116 public schools. Preliminary analyses indicate that approximately 58 percent of elementary, 74 percent of middle, and 79 percent of high school students witnessed bullying within the last month, whereas 32 percent of elementary, 31 percent of middle, and 26 percent of high school students reported experiencing chronic bullying—two or more times within the last month (Nansel et al. 2001).

An online results reporting system was also developed to facilitate the use of survey data by school staff (administrators and counselors) in the school improvement process and in the selection of evidenced-based violence prevention practices. Preliminary results show the rates and characteristics of bullying and suggest ways to use the assessment data to inform schoolwide violence prevention.

Introduction

Due to legislative pressures to create safe and orderly schools, school administrators have focused on early intervention with children who manifest aggressive behavior. However, few systematic methods exist for large-scale assessment of the prevalence, type, and social norms associated with bullying and school violence even though an important step in effective program planning is the determination of need. In addition, administrators and the multidisciplinary school teams charged with school improvement planning and program selection have limited training in the use of survey data to inform the school improvement planning process apart from assessing the perspectives on violence prevention and program evaluation of multiple stakeholders’ (students, staff, and parents). Further work is needed to aid school administrators and staff in collecting and using large-scale survey data to inform the school improvement and safety planning process.

This paper summarizes a collaborative project in Maryland between the Anne Arundel County Public School System (AACPS) and the Johns Hopkins School of Public Health (JHSPH) to enhance the capacity of the

district’s 116 public schools to prevent school violence through effective online assessment of bullying and school climate. We describe how the AACPS Bullying Prevention Workgroup developed an innovative strategy for the districtwide collection of survey data from students, parents, and staff. This included an online results reporting system to facilitate the use of survey data in the school improvement process and the selection of evidenced-based practices. The resulting data informs the research on the link between bullying, school climate, and social norms about violence. The ultimate goals of this project were to facilitate school- and district-level use of data in selecting evidence-based violence prevention practices and to develop the districtwide infrastructure to evaluate violence prevention efforts.

Bullying and School Violence

Bullying is one of the most common forms of aggression and victimization experienced by school-age children (Nansel et al. 2001). According to Olweus (1993, 1994), the term bullying is broadly used to describe a class of intentional and repeated acts that occur through physical (hitting, theft), verbal (harassment, threats, name calling), and relational (spreading rumors, influencing social relationships) forms. There is typically an actual or perceived power difference between the individual committing these acts and the person being bullied. We note the following studies that show the extent and rate of bullying:

- A survey—to date, one of the largest U.S. surveys of bullying—conducted with a nationally representative study of over 15,600 children in grades 6–10, found that 30 percent of the youth had moderate or frequent involvement with bullying (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, and Scheidt 2001).
- A study of middle and high school students indicated that 88 percent had observed bullying, 77 percent had at one time been the victim of school bullying, and 25 percent had bullied other children (Hoover, Oliver, and Hazler 1992).
- A recent report on school violence by the Departments of Education and Justice (DeVoe, Peter, Noonan, Snyder, and Baum 2005) indicated that the self-reported rates of bullying have remained relatively stable, whereas the rates of other forms of victimization and school violence have declined over the past decade.

Given its prevalence, bullying has traditionally been considered “a fact of life” by many adults. However, adults and school personnel are becoming increasingly aware of the potential psychological and behavioral effects of bullying (Glew, Fan, Katon, Rivara, and Kernic 2005; Nansel, Craig, Overpeck, Saluja, and Ruan 2004), as well as of its ramifications on the school environment. The increased awareness may be due in part to the proposed link between bullying and violence noted in several of the school shootings during the 1990s (Leary, Kowalski, Smith, and Phillips 2003; Verlinden, Hersen, and Thomas 2000).

An important first step in enhancing the school climate and reducing the incidence of school violence is the systematic collection of data from students, parents, and teachers regarding the social dynamics and norms associated with bullying and school violence (Stockdale, Hangaduambo, Duys, Larson, and Sarvela 2002). In fact, student- and staff-reported measures of bullying have been found to be valid strategies for assessing bullying, and multi-informant measures are strongly encouraged (Leff, Power, and Goldstein 2004). Further, given the considerable resources required to administer, enter, analyze, and summarize the results of pencil and paper assessments, many schools and districts are pursuing the use of Web-based surveys (Anne Arundel County Public Schools 2005). Schools and districts are using Web-based data management systems with greater frequency, and several closed-circuit data systems, developed by school districts, track academic, attendance, office discipline referrals, and suspension data. In a user-friendly manner, many of these data systems generate graphs that are easily interpreted and can be shared with school teams to inform the school improvement planning process.

That administrators’ response to these systems has been overwhelmingly positive is seen in a recent study of 370 principals. This study suggests that the vast majority (80 percent) would welcome more discipline-related data on their school and assistance in using this information to plan programs (Drake, Price, Telljohann, and Funk 2004). However, despite the growing popularity of Web-based data collection systems that provide user-friendly data reports and the increased need for efficient, innovative, and effective strategies for collecting and summarizing survey data, further research is needed on the feasibility of such a system for collecting data on school violence.

Summary of the AACPS Bullying Prevention Initiative

A large school district located between Baltimore City and Washington, D.C., AACPS has a mixture of suburban, urban, and rural schools. As noted in a recent survey of nearly 14,000 of the roughly 75,000 students who attend Anne Arundel public schools, students indicated a concern about fighting, bullying, and other forms of school violence (AACPS 2005). In response to this concern, representatives of the school community and the Johns Hopkins Bloomberg School of Public Health began to collaborate on an initiative to improve the safety and well being of all the county’s students. The AACPS Bullying Workgroup was created, composed of AACPS administrators and staff, parent representatives, and university faculty, and the following three major aims were formulated:

1. To provide basic training and increase awareness of the causes and consequences of bullying and on prevention strategies for administrators and student support staff (e.g., school psychologists, guidance counselors)
2. To develop an online survey system, an anonymous Web-based bullying and school violence assessment to be administered districtwide to all students (grades 4–10), staff, and parents across the district’s 116 public schools
3. To provide a results reporting system for administrators and school staff with school-level data on bullying to inform the school improvement and safety planning process

Consistent with a theory of change approach, the workgroup developed a logic model to describe the district’s bullying prevention initiative (see Figure 1). The model summarizes, left to right, the necessary inputs, program activities, outputs, and outcomes (ranging from immediate to ultimate) that are related to the prevention effort.

Aim 1: To provide training and increase awareness

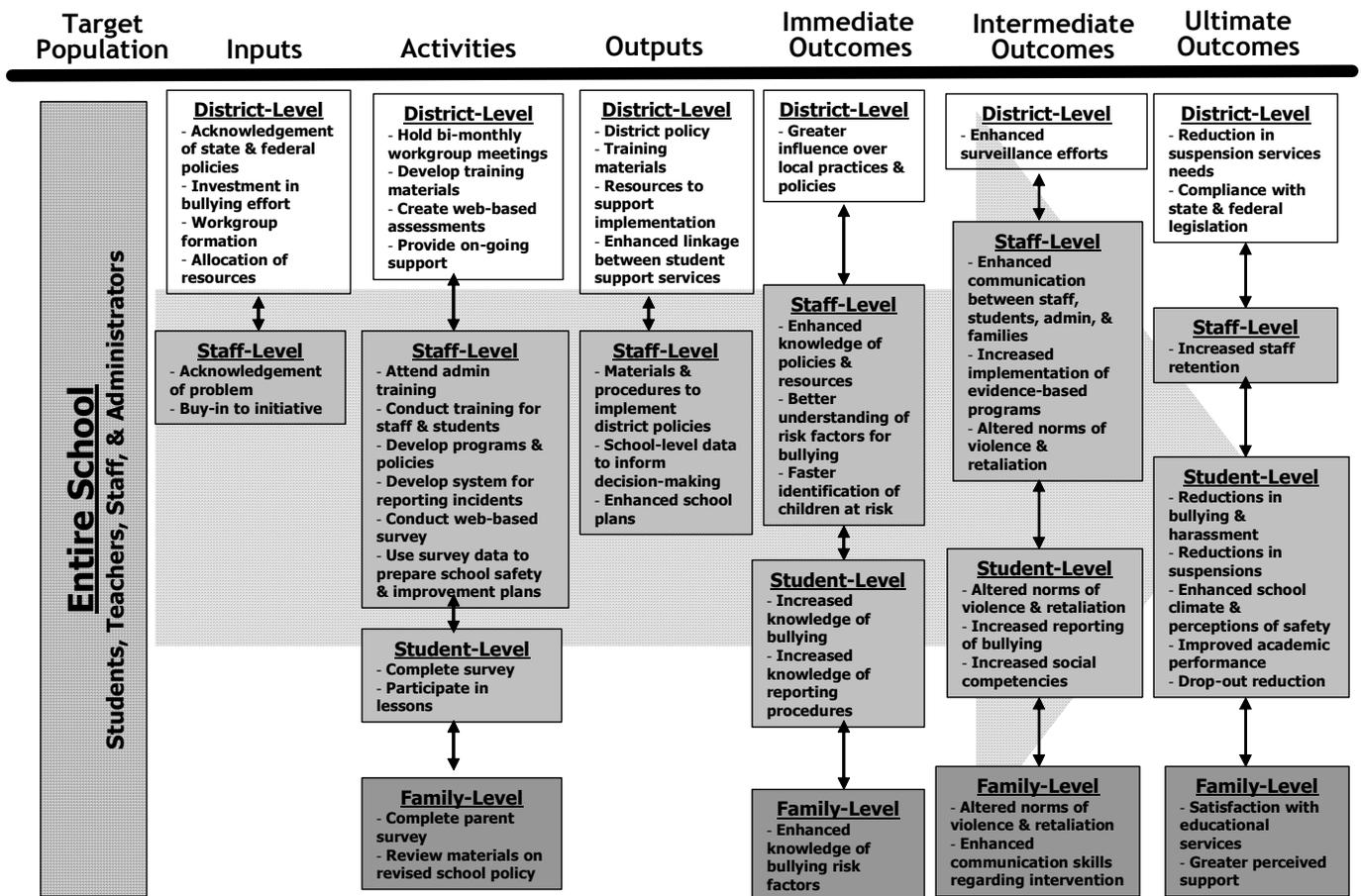
To increase awareness of the mental health and educational problems associated with bullying, the workgroup conducted a training session for the nearly 300 administrators, guidance counselors, and school psychologists required to attend the AACPS Student Services Division’s 2005 summer HELP conference. The workgroup also developed a set of training materials that were distributed during the sessions. The training manual included the following items:

- Summary of the causes and consequences of bullying
- Resource guide on effective bullying prevention programs
- List of strategies for diffusing a bullying situation
- PowerPoint presentation developed by the workgroup, entitled “Addressing Bullying: A Barrier to Learning”
- Lessons on bullying prevention for elementary, middle, and high school students
- CD containing several of these materials (making them available for distribution among school staff)
- PowerPoint presentation to be presented to students at each of the district’s schools during the month of September

- Summary of the forthcoming Web-based survey that outlined the purpose of the survey, provided an overview of the survey content, and described the timeline for administering the survey during the 2005-2006 school year.

Figure 1. Logic model for Anne Arundel County Public School System Bullying Prevention Initiative (left to right)

AACPS Bullying Prevention Initiative



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Because prior experience with similar large-scale prevention efforts suggests that gaining administrator and staff buy-in at the inception of a new initiative is critical to its success, the workgroup developed and administered a “needs assessment” at the 2005 HELP conference. The survey was completed by 223 staff members (41.1 percent elementary, 25.6 percent middle, 26.5 percent high school, 6.8 percent alternative schools), who represented approximately 75 percent of the conference attendees. A series of survey questions sought to determine the schools’ need for additional training and technical support related to the bullying prevention initiative. By their responses, a slight majority of respondents (61.2 percent) indicated that bullying was a moderate or serious problem at their school and 82.2 percent reported currently doing some

type of program/initiative at their school to prevent bullying. The majority of respondents (74.7 percent) reported that the Web-based survey would have a “moderate” to “significant” impact on their schools’ efforts to prevent violence. Furthermore, 50.7 percent reported that they planned to use the survey data to select another violence prevention program, and 73.3 percent requested additional training on using their survey results. Taken together, the needs assessment data indicated a high level of support for the bullying prevention effort, particularly in the online survey system. However, a large portion of the respondents reported needing assistance in using their data. To meet those needs, the workgroup planned a series of training events to be held during the school year and at the 2006 summer HELP conference.

Aim 2: To develop an online survey system

The hallmark of the initiative was the development of the Web-based multi-informant bullying assessment system. The purpose of the system was to provide data (from students, staff, and parents) for administrators to use in identifying locations in the school where the rates of victimization were high, to determine potential groups of students to target for prevention and early intervention, and to identify staff mostly likely to witness or be approached by student victims. The data also provided important information on social norms related to bullying and school violence (e.g., whether bullies are popular and whether bullying is sexually or racially motivated, students’ and staff members’ attitudes toward fighting and retaliation). The institutionalization of a systematic districtwide assessment strategy, which can be modified by the district to include additional items of interest, makes AACPS an ideal environment for collaborative trials regarding the future effectiveness of violence prevention programs.

Dr. Bradshaw led a subcommittee of the AACPS Bullying Workgroup in creating the four anonymous and parallel bullying and school violence assessment instruments for students in grades 4–5 and 6–12, school staff (pre-K–12), and parents of students (pre-K–12). While developing these measures, we drew heavily from the literature on bullying and violence prevention assessment and from previously published assessments of aggression (e.g., Crick and Grotpeter 1995; Dahlberg, Toal, and Behrens 1998), bullying (e.g., Bosworth and Espelage 1995; Orpinas and Frankowski 2001; Salmivalli, Lagerspetz, Bjorkqvist, Osterman, and Kaukiainen 1996), victimization (Orpinas and Kelder 1995), normative beliefs about violence (Huesmann, Guerra, Miller, and Zelli 1992), and similar multi-informant bullying instruments (Stockdale et al. 2002).

The resulting measures assessed the following issues related to bullying and school violence: prevalence (*Have you been bullied during the last month?*); location of bullying (*Where were you bullied?*); form of victimization (*In what way have you been bullied?*); support seeking (*Who would you go to for help if you were being bullied?*); social norms (*Bullies are popular at my school; It is ok to hit someone who hits you first?*); school climate (*I feel like I belong at this school; I feel safe at school.*). To create the Web versions of the surveys, AACPS contracted with a private Web-development company (the Bevans Group: <http://www.bevansgroup.com>)

Aim 3: To provide a results reporting system

With a grant from the Hamilton Fish Institute, the workgroup was able to develop a user-friendly results reporting system. Specifically, it created an online results reporting system to facilitate the use of survey data by administrators and district-level staff in the school improvement process. The survey data collected were immediately available for use by school administrators and staff in the development of their School Improvement Plans (an annual district requirement). These data could also be used on both the school- and district-level to monitor and evaluate the impact of different violence prevention efforts implemented throughout the district.

Although the multi-informant structure of the survey provides great insight into the social norms and contextual factors related to bullying, it complicated the reporting system. It was essential that this system be user-friendly, particularly for administrators who have little time to spend reviewing detailed data summaries.

Therefore, three password protected online reporting modules were created for administrators and qualified school staff.

- The *quick report* provides a standard summary of all data on an aggregated school-level.
- The *advanced report* allows users to select among a series of demographic characteristics (race, grade, sex) and responses to specific questions (e.g., prior victimization status) and to run queries accordingly.
- A third two-page *executive summary* report was created in response to requests from administrators for a more concise summary of the findings. This report highlights a subset of findings from the quick report and directs users to potential areas of concern. Specifically, the report marks responses to certain critical questions (e.g., I feel safe at school) which fell more than a standard deviation above (or below, depending on the direction of the question) the district’s mean score, indicating that those findings should be reviewed more closely.

The quick and advanced report forms include visually attractive graphs (e.g., bar charts and pie charts) of the data, which can either be printed or extracted from the online report and inserted into other programs (MS Word or PowerPoint) to facilitate data sharing. The password protected system also provides multiple levels of access (e.g., single school access for administrators and access to all schools in a “cluster” for district-level Area Coordinators, and full access for district-level Directors).

Further modifications to the results reporting system were made in response to feedback from the “end-users” of the assessment data (i.e., school staff). Applying community-based participatory research (CBPR) principles (Israel, Schulz, Parker, and Becker 1998), we conducted individual interviews and focus groups with approximately 15 administrators and guidance counselors to identify aspects of the reporting system that could be improved to facilitate use. Given the emphasis on team-based decision making, we also conducted feedback sessions with larger groups of staff involved in the multidisciplinary school improvement and planning process (e.g., principals, teachers, and counselors). During all sessions, the participants had access to the online results reporting system and provided immediate feedback on the “usability” of the reporting system. This iterative process of tweaking the results reporting system in response to feedback from end-users occurred over a series of nine months.

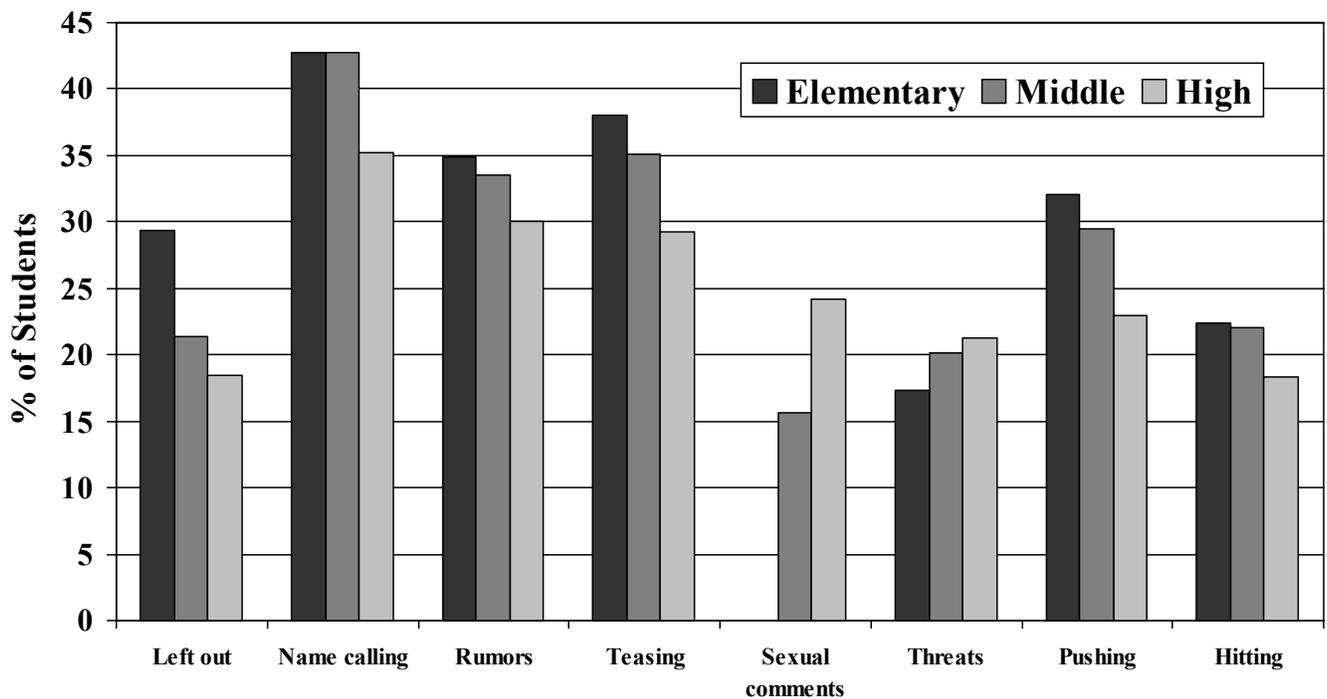
Summary of Preliminary Findings

A districtwide feasibility pilot of the student, parent, and staff versions of the Web-assessments was conducted December 5–23, 2005. In late November, all school principals received a letter from Dr. Rhonda Gill, the AACPS Director of Student Services, informing them that the online survey system was available and providing brief instructions on how to access and administer the surveys. Dr. Gill advised principals to disseminate the passwords and the survey Web address to staff and parents via school newsletter and e-mail lists. Different passwords were used for school staff, parents, and students in grades 4–5 and 6–12 to ensure secure access to the various versions of the survey. Students completed the surveys during their language arts class, computer class, or during a regularly scheduled session with the school’s guidance counselor. The student survey system was shut down every evening and weekend to prevent inappropriate use by students; however, the parent and staff versions remained open for the full three weeks of administration.

These procedures resulted in the collection of data from 25,119 students (grades 4–12), from 2,263 staff members, and from 831 parents in Anne Arundel County, making it one of the largest systematic surveys of bullying ever conducted. Based on class-level enrollment data, we estimated that 62 percent of students in the targeted grades completed the survey. Preliminary analyses of these student data indicate that approximately 58 percent of elementary, 74 percent of middle, and 79 percent of high school students had witnessed bullying during the last month and 26 percent–31 percent (range for elementary, middle, and high school averages) of

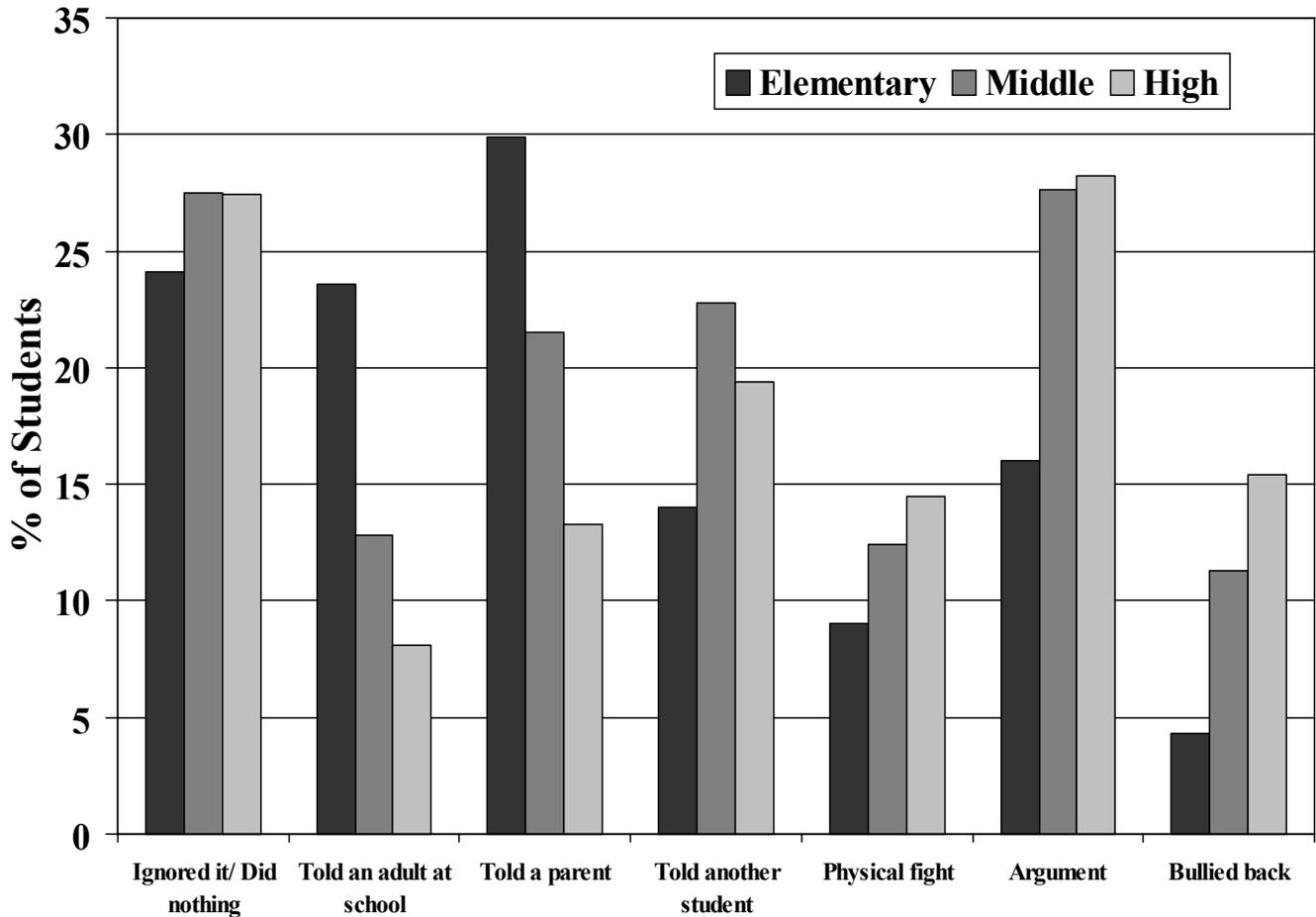
students reported chronic bullying (two or more times within the last month). The students reported experiencing several different forms of bullying. When asked how they were bullied, social or relational forms of bullying were most frequently reported, followed by pushing (see Figure 2).

Figure 2. Percentage of students indicating the forms of bullying they had experienced, as reported by school level



The most commonly reported reason for being bullied was “the way they look or talk.” Middle (34 percent) and high (27 percent) school students reported feeling emotionally hurt or upset after bullying events, more so than scared (12 percent and 11 percent respectively) or physically injured (8 percent for both middle and high school students). When asked what they did when they were bullied, older students most frequently reported talking to their peers or fighting back, whereas younger students most frequently reported talking to their parents or other adults at the school (see Figure 3). Furthermore, students from all school levels were more likely to report bullying to their parents than to an adult at school. Despite the perceived frequency of bullying, the majority of students reported feeling safe at school (77 percent) and feeling like they belong at their school (81 percent). However, a large portion of students (58 percent middle, and 66 percent high) wanted their school “to do more” to prevent bullying.

Figure 3. Percentage of students indicating what they did after they were bullied, as reported by school level



These preliminary findings suggest a couple of implications for school administrators. Since the data show that elementary school students most frequently experience bullying on the playground, that location should have increased staff presence and supervision during recess. Similarly, since younger students were more likely to tell their parents rather than school personnel about having been bullied, parents should receive guidance on effective strategies for communicating with their children and school staff about their child’s involvement in bullying. Furthermore, older students may need training on how to properly respond when they see a peer being bullied.

As noted above, the results from the survey are immediately available to school administrators through the online system, so that they can make local decisions based on their data. The needs assessment data summarized above indicated that school staff were going to need guidance on how to use the results reporting system and some strategies for using the data to make decisions. To facilitate the data-based, decision-making process, a series of training sessions were developed for administrators and school staff.

Training and Dissemination

A variety of training activities were conducted to increase awareness of bullying and to use the survey data. Following the “kick off” of the bullying prevention initiative in the summer of 2005 subsequent and more intensive trainings on how to diffuse bullying situations occurred for the district’s guidance counselors. The findings of the survey were also shared with district staff and students through several different venues, including presentations at the district’s annual student peer mediators conference, workshops for school psychologists, meetings of the AACPS division directors, and meetings of the student services directors from all 24 Maryland school districts.

The workgroup also developed a follow-up training session on data-based decision making that was held during the district’s 2006 summer HELP Conference. These 80-minute training sessions were mandatory for conference attendees. The sessions provided a summary of the districtwide data, a demonstration on how to use the online survey results reporting system, and training on how to use the survey data to inform the development of school improvement and safety plans, as well as the selection of evidenced-based violence prevention programs. Approximately 300 participants attended this follow-up session on data-based decision-making.

The survey data produced by this collaborative project has added to the literature on bullying and school violence, for to date, no published studies have examined districtwide prevalence rates of bullying and other forms of school violence. In addition to presenting data on the districtwide prevalence and characteristics of students involved in bullying, we intend to examine contextual factors associated with students’ perceptions of the school climate and the social norms related to fighting and retaliation. The nested design of the survey allows us to examine the relative contribution of factors at both the school (e.g., size, faculty turnover, and suspension rate) and individual level (race, gender, and victimization history) to attitudes toward retaliation and perceptions of school climate (Birnbaum, Lytle, Hannan, Murray, Perry, and Forster 2003). Furthermore, we plan to explore whether there are subgroups of children with different levels of involvement in bullying, as prior research indicates differential intervention effects based on children’s background characteristics and history of problem behavior (van Lier, Verhulst, and Crijnen 2003). These substantive findings will be summarized in journal manuscripts and at forthcoming presentations at professional conferences (e.g., Bradshaw 2006).

Conclusion

The AACPS Bullying Prevention Initiative represents a well planned, coordinated, and cost effective strategy that increased awareness of issues related to bullying. This initiative led to the development of an online school violence data collection system that resulted in high quality information for administrators and school staff for use in the school improvement planning process. The online data collection system and the procedures for implementing it districtwide were found to be feasible and, thus, they have been institutionalized within the AACPS. The district plans to administer the survey each spring for at least the next three years. It is important to note that this effort was initiated by the school district, not the university partners. The district directors and the superintendent gave the initiative their unconditional support, which was critical to its success. Such an effort could not have occurred without this type of support and infrastructure.

The survey system also enables the district to efficiently collect and summarize districtwide data on bullying and other forms of school violence. These data can be used by the district staff and collaborating researchers to evaluate current and future prevention programs for their impact on the rates of bullying, perceptions of school climate, and attitudes toward fighting. Furthermore, the online system collected data from more than 25,000 students, making it one of the largest systematic surveys of bullying and adding to the literature on

bullying. This assessment system will serve as the platform for further in-depth study of the impact of the district’s prevention efforts on bullying and school violence and facilitate continued university/school partnerships related to school-based violence prevention.

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