Monitoring School Violence:
Linking National-, District-,
and School-Level Data Over Time

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ABSTRACT. National monitoring of school violence is essential for needs assessments, policymaking, and evaluation at the national level. As informative and important as national monitoring is, the data generated at the national level is often not useful at the district or school site levels. There is therefore a need for a feasible method of monitoring school violence on the district and school level; furthermore, we need to find ways to effectively apply national-level information to schools and school districts.

The authors have expanded the national model of monitoring to the district and school site level. We argue that monitoring violence systematically on the school level and linking to national- and district-level data

over time should be the foundation for the design, implementation, and evaluation of interventions in this area. In this article, we propose an expanded concept of monitoring that links comparable data on school violence at the grade, school site, district, and national levels. The paper presents our conceptual framework and methodology and illustrates its implementation in a district in Israel. We present examples of reports generated to monitor school violence for the district as a whole and for each of the school sites. Finally, we conclude that this is a feasible and useful model that social services could adopt to monitor practice in many other areas. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress. com> Website: <http://www.HaworthPress.com> © 2003 by The Haworth Press, Inc. All rights reserved.]*

Research shows that the general public perceives school safety as a major problem facing schools in the United States (e.g., Elam, Rose, & Gallup, 1996; Elliott, Hamburg, & Williams, 1998; Rose, Gallup, & Elam, 1997). A recent international review shows that school violence attracts major attention of policymakers and the public in many countries around the world (Smith, Morita, Junger-Tas, Olweus, Catalano, & Slee, 1999). In the U.S., many communities have created teams, partnerships and committees to address school violence. These partnerships bring together community representatives, public officials, school and community social workers, psychologists, counselors, school principals and teachers.

Together, all these representatives and professionals need to assess the magnitude and characteristics of the problem, identify both risk and protective factors in their schools and communities, set goals and desired outcomes, design appropriate interventions, allocate resources and evaluate how successful these interventions are in moving the schools closer to their goals. The aim of this paper is to suggest a conceptual framework and methodology to help create the systematic empirical basis needed to assess the situation, plan focused interventions and evaluate their outcomes. We will provide a real life example from our work in a district in Israel.

National studies that monitor school violence may provide important information to base community and school efforts to prevent and reduce school violence on solid empirical evidence. The main idea behind monitoring is that

data are gathered systematically at regular and frequent intervals over time to establish the stability or the ebbs and flows of a given phenomenon. Currently, several governmental agencies and academic institutions have taken on the task of monitoring the incidence and prevalence of violent behaviors among youth in general, and in schools in particular. For instance, the Center for Disease Control conducts periodic surveys of Health Risk Behaviors among youth, including exposure to violence in school (CDC, 1996). The U.S. Departments of Education and of Justice publish a yearly report on Indicators of School Crime and Safety (e.g., Kaufman et al., 1998/9, 2000).

National monitoring of school violence is essential for needs assessments, policymaking, and evaluation at the national level. Without this objective monitoring of incidence levels, educators and the public may not have an accurate view regarding the problem of school violence. For example, within the United States, mass shootings on school grounds have created the public impression that school violence in on the increase. However, national monitoring data from several sources (e.g., Kaufman et al., 2000; Kingery, Coggshal, & Alford, 1998; Chandler, Chapman, Rand, & Taylor, 1998) reveal that many forms of school violence (including homicide) have shown dramatic reductions over the past years. Without this monitoring information, policymakers, educators, and parents may come to the erroneous conclusion that school violence has increased dramatically.

As informative and important as national monitoring is, data generated at the national level is often not useful at the school district or school site levels. So much variation in school violence can exist across schools sites in any given country, state, or school district that national data may not reflect the situation at any specific site. Thus, schools that consider adopting intervention programs shown to be effective elsewhere probably do not have data on their own base line situation–the levels and characteristics of school violence at their sites. They cannot therefore make informed decisions as to what programs are most suitable to their needs. Furthermore, these schools cannot reliably evaluate the extent to which the adopted program made positive changes in the efforts to prevent and curb violence at their own sites. Indeed, in a recent sworn testimony before the U.S. Congress, school violence researcher Patrick Tolan testified to the lack of empirical ongoing/monitoring data regarding programs or new innovations being demonstrated across the country.

In order to supplement the information provided by national monitoring studies, it is important to perform thorough assessments of particular regions and school sites to appraise the scope and characteristics of the problem and identify risk and protective factors relevant to a specific site. There is ample evidence to suggest, however, that front-line practitioners find it very difficult to monitor and evaluate their clients systematically. Among the most common

reasons are high workload, lack of required expertise, and scarcity of other resources essential to the kind of systematic and ongoing data gathering and analysis advocated in the professional literature (e.g., Cheetham & Kazi, 1998; Grasso & Epstein, 1992; Mullen & Magnabosco, 1997; Richey, Blythe, & Berlin, 1987; Robinson, Bronson, & Blythe, 1988). There is a need therefore for a feasible method of monitoring school violence on the district and school level.

In response to these needs, the authors of this article have expanded the national monitoring model to the district and school site level. We argue that monitoring violence systematically on the school level and linking to national and district-level data over time should be the foundation for the design, implementation, and evaluation of interventions in this area. In this article, we propose an expanded concept of monitoring that links comparable data on school violence at the grade, school site, district, and national levels. We will present our conceptual framework and methodology and illustrate its implementation in a district in Israel. Finally, in our discussion we conclude that this is a feasible and useful model and social services could adopt it to monitor practice in many other areas.

CONCEPTUAL-METHODOLOGICAL FRAMEWORK

Our work in this area is based on a conceptual and methodological framework of empirical practice (Benbenishty, 1989, 1996, 1997). According to this approach, empirical practice is 'continuously informed and guided by empirical evidence that is systematically gathered and processed' (Benbenishty, 1996, p. 78). The goal is to gather and process information in order to generate insights that are directly relevant for planning, decision-making, and evaluation in a specific context. The aim is to gain 'actionable knowledge' (Popper & Lipshitz, 2000; Argrys & Schon, 1996) and 'local generalizations' (Fishman, 1999) that are relevant to practice in a given location and may not generalize to other contexts. The driving force behind this approach is the desire to use information effectively to drive practice, rather than to use information to evaluate treatment effectiveness.

In this approach, practitioners gather information systematically and repeatedly over time using instruments and methods shared by all practitioners in a particular agency. The information is then aggregated and processed to provide ongoing feedback to each practitioner and to the agency as a whole. Analyses include the description of clients, interventions, and outcomes and the identification of statistical relationships between clients' characteristics, interventions, and outcomes. Temporal analyses are utilized to identify changes

over time in each client and in the agency as a whole (e.g., Benbenishty, 1995, 1997). This approach was used to monitor practice in family service agencies in Israel and in child welfare agencies in Israel and in the United States (Benbenishty & Ben-Zaken-Zeira, 1988; Benbenishty & Oyserman, 1995).

We adapted this framework to the task of monitoring school violence. In this application, each school in a district conducts a thorough assessment of school violence and school climate. All schools in the district use the same instruments and method so that all of the information is aggregated on the district level. This process is repeated over time, on a yearly basis. The information is analyzed, and feedback is provided to all participants. Each school site gets a thorough assessment of violence in the school. This information empowers the school leadership to plan interventions for the school on the basis of a valid and reliable assessment of the site. On the district level, a comprehensive and detailed picture of the region emerges. It describes both the district as a whole and the relative situation of each school site within the district. Hence, the district leadership is empowered to make policy decisions and choices regarding what programs to adopt for the district as a whole and for particular schools on the basis of comprehensive and comparable data.

This methodology and conceptualization also provides an empirical basis for the evaluation of interventions. Because data are collected repeatedly over time, a longitudinal view of target behaviors is created. Thus, comparisons of violence levels over time may show that the frequency of certain behaviors dropped significantly after new interventions were introduced. Furthermore, when interventions are designed to address specific violent behaviors and not others, the design can be seen as a 'multiple base line across behaviors' in which changes in levels of 'targeted' behaviors are compared to changes in other behaviors not addressed by the intervention (Bloom, Fischer, & Orme, 1995).

The value of this approach for practitioners and policy makers comes from the two levels of information processing involved: description and comparison. The *description* of the frequency of certain behaviors may be quite instructive. Consider, for instance, the students' perceptions of their teachers' responses when a student complains about bullying. The description of these responses may reveal that a quarter of the students describe the response as 'ignoring the complaint,' another third portrays the response as 'blaming the victim,' and the rest describe a variety of caring and effective responses. This distribution is informative and has direct implications for training of school staff.

In general, *comparisons* enhance the value of information by putting it in context. In order to design an intervention plan and prioritize resource allocation, it is imperative to ascertain which violent acts are more prevalent than

others, which grade levels are victimized more, how violence levels in a specific school compare with other schools in the district, and how a particular district compares with the state/nation in the severity of its school violence. Furthermore, after resources are allocated, it is important to examine how levels of violence reported today compare with those reported last year. In our model, we make comparisons across several dimensions.

I. Within-School Comparisons

Two types of comparisons are made within each school.
   Ia. *Across areas.* We compare across areas of interest within the same school. For instance, we examine how dangerous various places and times in school are perceived to be, and we identify the school contexts that are perceived as most dangerous and require immediate attention (Astor et al., 1999). We also compare various types of victimization to ascertain whether, for instance, verbal threats are more prevalent than actual physical victimization.
   Ib. *Across groups.* Within the school, we also compare among groups of students. For instance, when we examine the issue of relational aggression in school, we are asking whether there are *gender* differences in victimization, which *grade levels* are most susceptible to this type of victimization, and whether it is more frequent among particular *ethnic groups*.

II. Between-School Comparisons

At least two levels of comparisons are valuable.
   IIa. *Within a district.* We compare the schools within the district to identify schools that show significantly high and low levels of victimization in order to prioritize the allocation of programs addressing this issue.
   IIb. *With national-level data.* Whenever national data are available, we link and compare them with the district- and school-level data. Each school and the district as a whole are seen within the context of the larger national picture.

III. Temporal Comparisons

   The model is based on measuring school violence information repeatedly, using similar instruments and methods over time. The comparisons across points in time help detect changes and identify trends.
   IIIa. *Identifying changes.* Comparisons help identify whether changes occurred over time. For instance, we compare levels of relational aggression in the past two years with this year's findings.

IIIb. *Comparing degrees of change across areas*. We ask whether there are differences in the magnitude of change across areas of school violence. For instance, we examine how the drop in relational aggression compares with changes in serious victimization.

IIIc. *Comparing degrees of change across schools*. We compare levels of change over time among the schools in the district. We identify schools that show significantly high or low levels of change in violence so that we can focus our ongoing efforts on schools that have difficulty making significant progress.

To illustrate the potential benefits of this approach for intervention planning and evaluation, let us consider a hypothetical example. Based on the district-level aggregated report, a district superintendent may conclude that the availability of knives in the district is much higher than the national norm and that there are many indications that these knives are being used in fights. Based on this empirical data, the district educational board may then decide to target the issue of knives and related weapons in schools. District-level personnel may then design a series of interventions to heighten awareness of this issue and to respond firmly and uniformly to all incidents involving bringing knives to school and using knives to threaten or hurt fellow students. Based on the district-level analysis of the data, these policymakers may decide to target a particular group of students, such as males in the upper grades.

District-level policy and interventions need not (and indeed, should not) be 'one size fits all.' Because each school has its own data on knives in the school broken down by grade and gender, interventions may be tailored to fit the special circumstances in each school. For instance, in certain schools the problem of knives may be apparent in earlier grades than in others; therefore, younger students would also be targeted, whereas in other schools the main targets might be males in upper grades. Furthermore, other schools may not have this problem at all. The comparisons across schools within the same district can help policymakers channel resources differentially and focus on schools that need them most.

As monitoring school violence continues within the school district, comparisons may be made between the presence of knives before and after implementation of the new interventions. These 'pre-post' comparisons may be made on both the district and school site levels. A drop in victimization levels could then support the case for the interventions' effectiveness. We might also compare the magnitude of change among schools in the district. Variations in levels of change among schools would help policymakers formulate hypotheses about why interventions did not have uniform effects and what mechanisms explain their differential impact. For instance, a pattern may emerge in which

schools located in high-crime areas report fewer positive changes than others, hinting that their students feel they need weapons to deal with threats outside of school. Using a 'multiple base line' framework, comparing changes in the target behaviors (e.g., bringing and using knives) with changes in other violent behaviors (e.g., threats, hitting) may indicate whether changes can be attributed to the interventions in question.

In the following section, we present a project in which we implemented this model. We review major issues and phases of implementation. Our aim is to illustrate the issues to be considered and to provide a real-life example, rather than report on specific findings.

CASE EXAMPLE: LINKING SCHOOL-, DISTRICT-, AND NATIONAL-LEVEL DATA IN ISRAEL

The backdrop for this project is the national study of school violence based on a nationally representative sample of 4th to 11th grade children conducted in Israel. This study provides national norms for school violence (for details see Benbenishty, Zeira & Astor, 2000). Following this study, the head of the Education Department (similar to a superintendent in U.S. schools) of Herzelia approached our team. The Herzelia district contains about 30 schools and 11,000 students. The superintendent described a citywide campaign to address issues of violence, prejudice, and intolerance. The mayor and city-level policymakers wanted to base their long-term educational efforts on a solid empirical foundation. They wanted to discover the magnitude and characteristics of the problem so that they could target the appropriate issues. Furthermore, they wanted to have a base line for comparisons over time for the purpose of evaluating their campaign. In the following sections, we review the central issues relevant for such an implementation.

Selecting Instruments

Student- and staff self-reports are important sources of data. These reports provide essential information on the extent to which peers and staff victimize students. These self-reports also describe the psychological and behavioral consequences of being victimized in school. For instance, students may report on how safe they feel in school and whether they missed school because they felt threatened. Furthermore, self-reports are important in understanding how students and staff perceive the climate of the school, the student-teacher relationships, and the school policies regarding violence. Information about these

known protective and risk factors helps to address strengths and weaknesses in school settings. For example, a monitoring round may show that most students feel that their school's sexual harassment policy is not enforced and that they cannot depend on teachers to help them when they experience a problem. Appropriate policy changes and training may be implemented in order to improve relevant school climate factors.

Self-report questionnaires should address as many of the issues facing specific sites as possible. However, it is important to maintain similarity across sites and to replicate elements used on the national level so that linkages and comparisons are possible. In our example, when we moved to the district level, we wanted to ensure that our methods and instruments were similar to the national study so that comparisons with national norms could be made. In addition, we modified the instrument so that it would reflect the specific concerns of the district and would be more useful for individual school sites.

Two changes made to the original questionnaire exemplify this need for district-level customization. The first is the addition of a series of questions inquiring to what extent certain locations and times are considered dangerous to students (Arnette & Walsleben, 1998; Astor & Meyer, 1999; Astor, Meyer, & Behre, 1999; Devine, 1996; Kaufman et al., 1998/99; Lockwood, 1997). Because of large variations in school topography and culture, averaging these questions across schools is not likely to provide any meaningful information. In contrast, when the focus is on school-level analysis, this type of question can provide concrete and specific context information to determine the areas and times that require focused intervention in each school.

We also modified the questionnaire in response to this particular district's heightened sensitivity to issues of sexual harassment. In a well-publicized case, high-school students in a nearby district were found guilty of sexually harassing and assaulting a female student. Consequently, we added questions that addressed the issue of 'subtle social coercion' in the context of sexual harassment.

The instrument that we finally used in this case example included several parts and is based on instruments developed by Furlong and his associates (Furlong, 1996), and additions and modifications introduced in the national study of school violence in Israel (Benbenishty et al., 2000) . The most important elements of the version for middle and high schools are detailed below to illustrate the breadth of issues that can be addressed in school monitoring:

- Physical and psychological victimization by students (24 items)
- Sexual harassment (9 items)
- Victimization by staff (8 items)
- Self report on bullying and victimizing others (7 items)

- Bringing weapons to school (4 items)
- Violent school atmosphere and risky peer behavior (e.g., vandalism, fights in school, drinking and using drugs on school grounds, unauthorized strangers entering the school and threatening the students; 17 items)
- Assessments of severity of the problem of school violence, missing school due to fear (3 items)
- School climate (e.g., teacher support for students, sense of safety, explicit and consistent school policy toward violence, student active participation in policymaking, identification with the school; 30 items).
- Dangerous times and places in school (10 items).

We used one version of this questionnaire for secondary schools and a shorter version for primary schools. The questionnaires were quite extensive (137 questions in the longer version and 86 in the shorter). Nevertheless, because almost all questions were close-ended, most students completed the questionnaire within 20-25 minutes.

Data Collection: Concerns About Truthfulness, Cost, and Efficiency

It is important to ensure that students feel safe and protected when their self-reports are being collected. Informed consent is necessary, and high levels of confidentiality should be strictly maintained. Students should feel free to report on what they have really experienced, including victimization and harassment by staff. In some schools, homeroom teachers can distribute questionnaires during class time, and students may not have any trouble completing the questionnaire in a truthful manner. In other schools, it may be necessary to carry out the data collection in other ways, either by teachers unfamiliar with the class or by an external team.

In our case example, we integrated the survey into the district's ongoing educational activities. In cooperation with the educational staff, the survey became part of a series of efforts by the school district administration to increase awareness of violence and political intolerance. The first run was timed to take place on the anniversary of the slaying of Israel's Prime Minister, the late Yitzchak Rabin. A campaign was launched a week earlier to inform parents and students of the survey and its general goals. An independent data collection team visited each school. A member of the team explained the study, emphasized the strict confidentiality that would be maintained, and asked for informed consent. The response rate was 98% of all students in attendance during the survey. The total population consisted of 28 schools, 375 classes, and

9,041 students. Data collection across the district was completed in 10 days. The same method was applied in the following year.

The main advantage of this method of data collection was the control over the process, which increased our confidence in the quality of the data. Furthermore, with the help of the data collection team, we were able to carry out the data collection in a very short period. The clear disadvantage of employing an external data collection team is the cost of such an approach. In the present wave, to be conducted shortly, the district will distribute the questionnaires by school staff (this is due to financial difficulties). We hope that by appropriate training and orientation this method will serve to increase schools' ownership of the monitoring process, without sacrificing validity and confidentiality.

Data Processing: Immediate and Multilevel

Data processing for this type of effort is challenging. Timing is critical; the information may only be relevant if the data can be returned to the users quickly. Unlike studies that explore theoretical issues, this survey is an attempt to generate the most current view of the school for use in planning and evaluation. Certain aspects of the situation may change rapidly, rendering information useless after a relatively short period of time.

The amount and complexity of information also makes data processing difficult. The combination of extensive questionnaires, thousands of respondents, and more than 25 schools creates a complex data set. Most users of these data (school personnel, principals, and superintendents) are not familiar with data analysis. On the one hand, they are eager to gain as much as possible from all the information gathered; on the other hand, they would prefer to get a clear and concise summary encapsulating all of the important points.

In order to respond to these competing priorities and needs, we combined automatic data processing and report generation with more traditional statistical analyses and research reports. For purposes of expediting immediate reporting, we designed the questionnaires so that we could scan and read them automatically. We developed software to decode the raw data received from the scanning program and to produce automatically and immediately a series of charts and text reports. With this automated processing, we were able to scan about 10,000 questionnaires and provide reports to all schools in the district within less than two weeks, employing only one assistant. The immediacy of the data processing and report generation communicates to all involved that the information is being used to support their practice rather than to prepare research reports.

Automated processing can respond to many information needs and it is very valuable. Nevertheless, we also need to carry out more sophisticated analyses

that explore data and examine issues in depth. To respond to this need, we exported the raw data into a statistical program. We analyzed the data using the statistical tools and methods we employ in other research projects and submitted a research report to the mayor and her staff. These reports were delivered within three months from data collection.

In the following sections, we present some of these reports and provide real-life examples of how they were used by staff on all levels.

Reports

School and district site reports. We generated reports for each of the school sites and for the city as a whole. These reports focus on each particular site and are divided into three parts: (a) general distribution (all students), (b) by gender, and (c) by grade level. In each of these sections, we present the distribution of each of the items in the questionnaire, including a measure for central tendency. We combined tables of figures with short text that summarized the information in each table, so that readers not familiar with research can interpret the tables easily.

Figure 1 presents portions of a school-level report addressing students' assessments of dangerous times and locations in one particular school. The school principal, teachers, and students can learn a great deal from this report. Clearly, the more dangerous times and places in this site are the school gate at the end of the school day and the washrooms. The gate is more dangerous to males, and the washrooms are more dangerous to females. Perceptions of washrooms are similar across grade levels. The school gate at the end of the day is felt to be more dangerous by the younger students in this high school. The insights gained from this report can help shape the priorities of the school in terms of the school subcontexts and student groups that should be targeted (Astor & Meyer, 1999).

School staff used the site report in various ways. Several schools focused on the general distribution of the 'dangerous places' in school, identified the locations that were rated as most dangerous, tried to understand the underlying reasons for this situation, and looked for ways to make these places safer. To illustrate, students in one of the primary schools selected the school gate at the end of the day as the most dangerous place. The principal observed the school gate several afternoons and discussed the issue with teachers and students. She concluded that the gate was too narrow and that when students crowded the area, their pushing and shoving became a source of fights. Further, a focus group with students revealed that they felt the gate was more dangerous at the end of the day, when some students are quite tired and upset. The school staff

FIGURE 1. Reports on Dangerous Times and Places in School

Dangerous times and places in school general distribution

	Not at all	A little	Quite dangerous	Dangerous	Mean
	1	2	3	4	
	%	%	%	%	
Corridors	70	20	7	3	1.43
School yard	35	30	25	10	2.10
School gate when school starts	30	24	26	20	1.48
School gate when school ends	70	15	12	3	2.36
Washrooms	32	22	25	21	2.35

Dangerous times and places in school by gender and by grade*

	Gender		Grade		
	Boys	Girls	10th	11th	12th
	%	%	%	%	%
Corridors	5	5	8	5	4
School yard	42	28	42	40	23
School gate when school starts	20	26	20	30	20
School gate when school ends	20	10	30	20	10
Washrooms	11	35	22	24	23

*Entries are percentages of students saying the place is either 'quite dangerous' or 'dangerous.'

Note. We translated, shortened, and modified the original figures provided to staff so that we could present them in this article. Original reports (in Hebrew) are available upon request.

decided to widen the gate to decrease crowding and to increase staff presence at the gate at the end of the school day.

The breakdown by gender and grade in the school site reports enabled school staff to identify vulnerable groups. Staff examined the breakdowns to see whether particular issues were reported more by males or females and whether certain grade levels reported more victimization. To illustrate, the fifth graders in one school reported being victimized by staff significantly more than do students in other grades. The principal was very concerned about this finding. She met with students and homeroom teachers to ascertain the source of these reports. She found that the problem was associated with a conflict that one teacher had with a group of students who complained that she insulted and humiliated them regularly. The principal had been aware of the problem, but the students' responses were much stronger than she expected.

Our team was not involved in the interventions that followed. The principal dealt with this educational issue using her own judgment, resources, and methods.

The report for the city as a whole was also broken down by gender and grade level, for it is important to identify the most vulnerable age and gender groups in terms of victimization and bullying. In order to answer this question, we created an index of all self-reported acts of violence perpetrated by each student. We then analyzed these scores by gender and by grade level. Figure 2 presents the findings as they related to junior-high and high-school students throughout the city.

Figure 2 shows that, among secondary schools, the more violent grade levels are the 8th and the 9th, the upper grades in this city's junior-high schools. Levels of self-reported perpetration are lower for students in high school (10th-12th grades). Boys are more violent than girls, but the age-related pattern is quite similar across genders. Levels of violence in high schools are rather stable over the grade levels for girls, but decrease significantly in the higher grades for boys. This figure provides a good example of feedback that is relevant for formulating policy and setting priorities. Identical age and gender patterns were observed when we examined self-reported victimization of students in secondary schools. One of the implications of this picture is the need to allocate special resources (e.g., educational counselors and programs) to focus on the higher grades in junior-high schools with a special emphasis on male students.

School within the district and district within the nation. We provided charts that compared the district with the national norms. Figure 3 presents the percentages of students in primary schools in Herzelia and Israel that report being victims of staff maltreatment.

Levels of victimization by staff in the city were generally lower than the national norms. A considerably lower number of Herzelia students report that their educational staff humiliate, insult, or ridicule them. Nevertheless, the rate of students reporting that they were cursed at or kicked by staff was slightly higher than the national rate. Given that many efforts to ensure positive teacher-student relationships were already underway in the city, this figure was interpreted as suggesting that the city should continue and enhance the efforts to address the issue of victimization by staff.

We provided each of the city's schools with a set of charts comparing the school with the average findings in all of Herzelia's same-level (i.e., primary, junior-high, high) schools. These charts helped the principals and their management teams put their findings into perspective, showing where schools deviated significantly from the city norm. For instance, a report to a particular high school revealed that its students report high levels of victimization com-

FIGURE 2. Self Report Violent Behavior by Gender and Grade
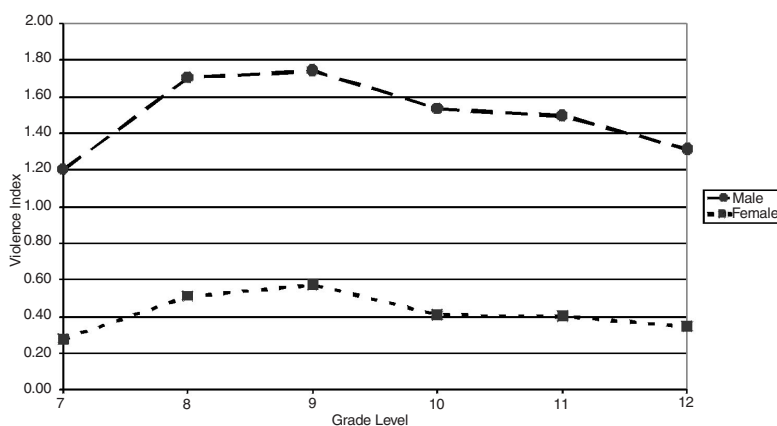
pared with other Herzelia students. This was especially striking in the area of threats with knives. This finding had direct implications for school policy and enforcement of existing anti-weapon regulations.

From city policymakers' perspectives, situating a school within the city context can help identify the city's most vulnerable schools. The issue of bringing guns to school illustrates this process. The overall rate of students in the district's secondary schools reporting bringing guns to school is 1.4%, compared with 2.2% on the national level. In several similarly sized schools, 1-4 students reported bringing a gun to school; however, three schools had more than 10 students reporting bringing guns to school. In one high school, there were 20 such students. Clearly, the overall low rate should not divert attention from schools that are experiencing an acute problem.

In our example, one of the most important users is the mayor. She initiated the citywide campaign to address violence and intolerance. She provided the resources to conduct ongoing monitoring and will be responsible for authorizing future interventions. In order to provide her with an overall view of the city, we presented a map of the city with symbols representing the level of violence in each school (e.g., presence of guns in school, sexual harassment, severe forms of victimization). Such a geographical presentation of school violence on the city level may be quite revealing. It can help identify areas within the city that are associated with certain types of school violence. In the future, we hope to be able to juxtapose this map with maps derived from crime statistics and welfare department reports regarding domestic violence and

FIGURE 3. Victimization by Staff
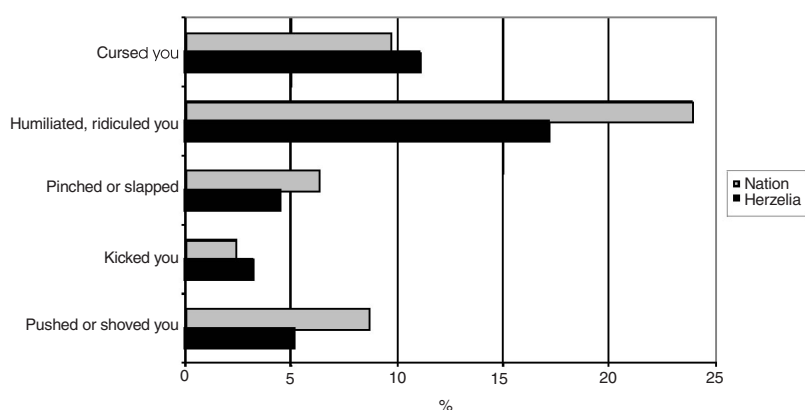
child abuse. This integrated view of the city may be helpful in targeting particular neighborhoods for specific interventions.

Change over time. Following the second round of monitoring, we were able to provide the city as a whole and each school site with reports on changes over time in each area covered by the questionnaire. These reports pertain to each site as a whole, as well as to subgroups within it (e.g., genders, different grades). For each site, the information on change over time is an evaluative feedback on the efforts made in the various areas. A school that directed special efforts to increase the safety of the gate area needs to examine whether students' perceptions of this area have changed. Clearly, positive changes cannot be automatically attributed to the interventions. Nevertheless, this feedback should be considered along with other pieces of evidence when determining whether the intervention is working and whether certain groups benefited from the intervention more than others. A continuous stream of such reports can help steer and 'fine-tune' efforts to curb the various forms of school violence.

Figure 4 presents the findings regarding dangerous places in a particular school at two points in time. It presents a mixed picture with regard to the differences between students' perceptions of various locations in this school in two years. Students at this school feel that their routes to and from school and the gate are markedly less dangerous in the second year; these areas were targeted by the principal based on the first year's findings. He increased surveillance of the school gate, improved its appearance and upkeep, and encouraged staff to visit the area frequently. Furthermore, in earlier reports students indicated that they felt that the way to and from school was unsafe because 'delin-

quent youth' lurked near the gate. Students reported being offered drugs, extorted for money, and threatened by these children, who were not students. Following these complaints, the principal involved the police to help maintain a safer environment. The findings in Figure 4 were interpreted, therefore, as positive signs that this campaign was effective.

The findings regarding washrooms, however, were quite disappointing. The school administration made many improvements and changes in the washrooms to enhance their safety as a result of the first year's findings. However, the second year's findings indicate that these efforts have not made a difference. Staff and students will discuss this issue further in order to identify additional ways to improve safety in the washrooms. Additionally, the slight decrease in safety in classes will be addressed in planning for the coming year.

In many respects, reports on changes over time on the city level parallel the individual school reports. Thus, the superintendent and mayor can identify changes in levels of violence in the city. They can see in which area there were more positive changes, and in which area the situation is stable or deteriorating. This information is important input to the ongoing planning of future interventions and resource allocation. Furthermore, district level policy makers can identify which schools made more progress in reducing violence compared with other schools in the city. Comparisons among schools in the levels of change achieved can help focus attention to schools that may need more support in their efforts to curb violence.

FIGURE 4. Dangerous Places by Year
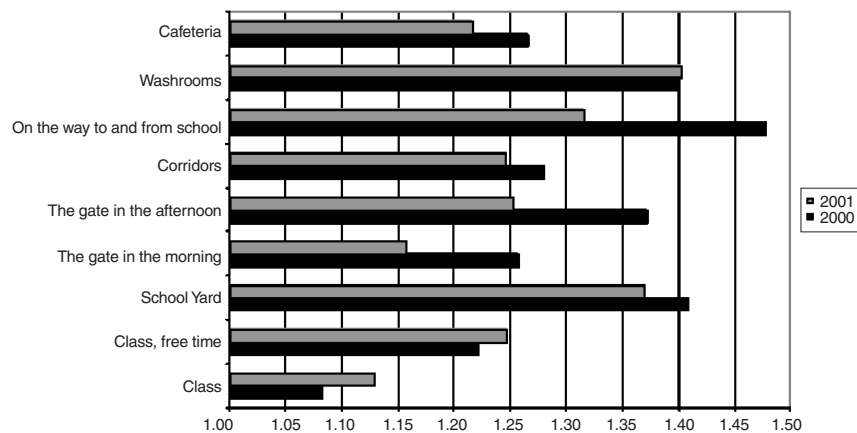
Issues in the Implementation of Monitoring

Monitoring levels of school violence over time and comparing them with district- and national-level norms is not simple. Several factors contribute to the complexity of implementation. One of the most complex issues is the potential organizational and personal implications of monitoring school violence.

In our model, the emphasis is on creating a good empirical basis for assessment and monitoring of school violence, and not on evaluating performance. Nevertheless, providing an accurate and comprehensive picture of school violence exposes everyone involved to organizational and public scrutiny. Therefore, it may have direct (and often negative) personal and organizational implications. Staff may be concerned about receiving negative evaluations from superiors, parents, the school board, and the general public. They may worry about how such publicity will impact them personally and professionally or worry that it will have negative implications for the organizational units that they head. For instance, a principal may fear that her performance would be rated low by the superintendent so that her future career may be at stake. She may also be concerned that parents would not send their children to the school if information on high rates of violence in her school became public. These concerns may become even more serious if an unfavorable picture of school violence persists after extensive resources are invested to address the problem.

The principals in our example voiced many of these concerns, and we tried to address them in several ways. In general, we emphasized how monitoring school violence can help them learn about their schools and design better interventions. We were able to tap into their genuine personal commitment, integrity, and enthusiasm as educators interested in addressing school violence. In our interpretations of the findings, we modeled a style that focused on learning lessons rather than assigning blame. We received the full cooperation of the district superintendent, who was very careful to use the feedback in supportive ways.

In order to ensure the full cooperation and participation of the school principals, we decided to maintain school confidentiality. District-level personnel received district-level reports only. School principals were given sole authority to decide with whom to share their school reports. Some of them kept the reports strictly confidential. Others initiated meetings with parents, teachers, and student representatives and shared the information, engaging in cooperative decision-making. All school principals were required to meet with the superintendent and discuss their conclusions from the survey in their schools. Thus, although the principals were not required to share the findings in their

schools, they were expected to show how they respond to the findings concerning their schools.

Despite the extensive efforts to shield the schools from publicity, a local paper published a rather small, negative and inaccurate excerpt about high levels of violence in two schools. It should be noted that the superintendent could not have leaked this information because she did not have identifying information. Nevertheless, this publicity created a major uproar among principals and teachers who felt that they were betrayed. The episode required extensive efforts to repair the rift between school staff and the superintendent. Despite all these difficulties, when the question was put to the principals whether to continue monitoring or cease, they decided to continue the monitoring project for a third year in a row.

A decision to maintain school-level confidentiality can be very helpful in initiating such a project, but it has significant drawbacks. District-level staff who would like to prioritize resource allocation and design differential interventions cannot do so unless the identity of each school is revealed. In this case, we decided to maintain school-level confidentiality longer than we originally intended, due to the organizational and interpersonal difficulties.

CONCLUSIONS

In this paper, we presented a model for monitoring school violence on the local level and linking national-, district-, and school-level data, and illustrated its application in a pilot site. We concluded that this model is feasible and can contribute to systematic efforts to cope with school violence (Astor & Benbenishty, 2002). Based on our experience, we think that several enhancements should be implemented in order to increase the effectiveness and feasibility of such projects. The perspectives of additional constituents (e.g., educational staff, parents) should be included. Juxtaposing these multiple perspectives will add significantly to the validity of the assessments and the conclusions drawn from the data. Furthermore, we recommend to record systematically violent acts in schools. This event-based information can add another important dimension to the database, supplementing information received from other informants.

In order to make this model feasible for other sites, its efficiency must be improved and the costs involved in its implementation reduced. In our work, we were able to improve efficiency primarily through enhancements in the data-processing and report-generating software. The most expensive element in our application was the use of a professional survey team to collect data in classes. Independent data gathering by each school is far less expensive, but it

is also more vulnerable to biases. In the current year we are testing gathering the data by school staff, instead of an independent outside teams. In some schools it is possible to conduct the survey on computers in the school's computer lab or on the internet. When the technological infrastructure is in place this may be an inexpensive and feasible alternative. More experimentation is necessary in order to assess the relative advantages and disadvantages of the various data collection procedures.

Our focus in this work is on actionable knowledge for each school and for the district as a whole. Nevertheless, we believe that this systematic monitoring can help generate knowledge that may generalize to other settings. Whereas some of the findings (e.g., prevalence rates of specific violent acts) should not be generalized to other settings, others may be. For instance, if we find consistent age-related trends in victimization levels across schools and over time, it is likely that these findings are not site-specific and represent general developmental trajectories. Similar applications in other settings may further increase our ability to discern findings that reflect more general patterns.

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