全米公立小中高校におけるいじめと予防介入プログラムの調査

Bullying and Prevention/Intervention Strategies Among U.S. Nationally Representative Sample of Public Schools

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ABSTRACT

本研究はアメリカの2270の公立小中高校において，学校規模のいじめ予防介入プログラムの有効性を実証することを目的とする。また教師トレーニングといじめの関係も調査する。リサーチクエスチョンは1）いじめの予防介入プログラムのある学校とない学校ではいじめ頻度に違いがあるか？　2）もしあるとするならば，どのようなプログラムが有効か？ 3) 教師トレーニングのある学校とない学校ではいじめ頻度に違いがあるか？　方法：アメリカ教育省により公表されているThe School Survey on Crime and Safety (SSOCS)というデータベースを使用。結果：いじめの予防介入プログラムのある学校とない学校ではいじめ頻度に統計的有意な違いが見られた。しかし，ソーシャルスキルトレーニングなどよくあるプログラム間での有効性は証明されなかった。更に，教師トレーニングの有無はいじめ頻度に有意な違いは見られなかった。

The purpose of this study was to examine the effectiveness of formal prevention/intervention programs intended to prevent or reduce school bullying among 2,270 nationally representative elementary, middle, and high schools. This study also aimed to examine the relationship between teacher training and school bullying. The research questions were: (1) Are there any differences between schools with and without formal prevention/intervention in terms of the frequency of school bullying?, (2) If so, what types of programs are

effective?, and (3) Are there any differences between schools with and without teacher training in terms of the frequency of school bullying? Public data from the School Survey on Crime and Safety (SSOCS) were analyzed for the purposes of this study. A statistically significant difference was found between schools with and without formal prevention program in terms of the frequency of school bullying. However, there were no statistically significant differences among schools which implement popular prevention/intervention programs, such as social skill training and behavioral modification. In addition, no statistically significant difference was found between schools with and without teacher training in the frequency of school bullying.

Introduction

Over the past three decades, school safety research has gradually expanded. As evidence of this, the number of *PsychINFO* database citations using "school violence" was only10 in the 1980s, 84 in the 1990s, and 443 since 2000 (Cornell & Mayer, 2010). However, research on school safety is still new to the field of education and has not been integrated into the mainstream of educational research (Cornell & Mayer, 2010). Therefore, "few studies of school safety meet the highest scientific standards [,and] there are many less rigorous studies that yield conflicting findings." (Cornell & Mayer, 2010, p. 12). School bullying is the most common type of school violence and the terms *bullying* and *school violence* have often been used interchangeably (Avi Astor, Guerro, & Van Acker, 2010). Despite the fact that incidents of deadly violence such as school shootings have received much attention, situations of serious but not life threatening violence are more common (Mayer & Furlong, 2010).

Why does school bullying matter? Historically, bullying has been viewed as a normal part of children's development rather than a social problem (Campbell, 2005). However, Cornell and Mayer (2010) note that no school can ignore the pervasive problem of peer aggression and bullying. In the United States, a study conducted by Nansel et al. (2001) showed that 19.4% of the students reported bullying others, 16.9% reported being bullied moderately or frequently, and 6.3% experienced both (N = 15,686). More recent study of a nationally representative sample of middle schools has also found that approximately half of middle schools reported school bullying incidents weekly (Dinkes, Kemp, & Baum, 2009, cited in Mayer & Furlong, 2010).

Bullying is a serious educational concern because aggressive behaviors of intimidation in school account for a larger part of anxiety, fear, and avoidance behaviors among students (Mayer & Furlong, 2010), and poor academic achievement is also associated with bullying (Nansel et al., 2001). Therefore, researchers have paid increasing attention to this issue. In fact, a *PsychINFO* database search identified only five "bully" or "bullying" studies in 1990, but this increased to 94 in 2000. In 2004, there were nearly 250 publications on this topic (Kowalski et al., 2008). As the field of bullying studies grows, more researchers are motivated to develop and implement intervention and prevention programs (Swearer, Espelage, Vaillancourt, & Hymel, 2010). However, a meta-analysis of school-based bullying prevention programs showed that many programs failed to produce a practically significant impact in terms of reducing the frequency of bullying (Swearer et al., 2010). For example, Merrell, Gueldner, Ross, & Isava (2008) reviewed 16 peer-reviewed journal articles on bullying intervention and found that "the majority of outcomes evidence no meaningful change" (p. 26). Another meta-analysis which focused on 14 whole-school anti-bullying programs also found nonsignificant outcomes on self-

reported bullying/victimization measures (Smith, Schneider, Smith, & Ananiadou, 2004). While these findings may be disappointing to many educators and researchers, the number of reviewed studies is small, and research designs along with intervention models varied greatly. Therefore, it is necessary to determine if these research findings are consistent with a national representative sample. Many studies have focused only on either elementary or middle school students, but few studies have included both elementary and secondary level students. By using a nationally representative sample which includes both, more precise estimation on overall school bullying is possible.

Role of teachers and the effectiveness of teachers training

Some studies suggest that teachers do not appear to intervene effectively with bullying problems. For instance, "about 65 percent of bullied students in primary school said the class teachers had not talked with them about the bullying. The corresponding figure for secondary/junior high school students was as high as 85 percent" (Olweus, 1993, p. 20). In fact, most victims did not report the incidents to teachers (Morita et al., 1999; Smith, 1999) due to their doubt that teachers would be able to solve the problem (Morita et al., 1999). Therefore, teachers often underestimate the frequency of bullying incidents (Bradshaw, Sawyer, & O-Brennan, 2007).

School climate is an important consideration in understanding school bullying (Swearer et al., 2010), and teachers can contribute to a positive school climate. In fact, schools where teachers fail to maintain order have more frequent incidents verbal and physical aggression among students (Swearer et al., 2010). Many popular intervention and prevention programs include school-wide positive behavioral support, social skill training, conflict resolution, and peer mediation (Avi Astor et al., 2010). However, some schools are too chaotic to implement these strategies (Osher, Bear, Sparague, & Doyle, 2010). In these cases, teacher training can be the first step.

There are several studies examining the relationship between school characteristics (such as school size) and bullying, but little is known about the association of teacher supervision and classroom management with school bullying (Avi Astor et al., 2010). Moreover, few studies focusing on the effectiveness of teacher training are available, and no study had directly investigated the effectiveness of teacher training on bullying using a large sample size.

The purpose of the present study

Most bullying researchers seem to be more interested in the effectiveness of anti-bullying programs. Although several studies have mentioned the success of prevention/interventions, meta-analyses did not demonstrate powerful outcomes. Thus, the present study aimed to examine if there are any differences between schools with and without formal prevention/intervention programs in terms of the frequency of school bullying. It also aimed to identify which types of programs are more effective.

Second, few studies mention the roles of teachers even though teachers who implement the programs are likely to be one of the important factors for successful intervention. Thus, if teachers' skills or knowledge are insufficient, interventions are unlikely to work (Osher et al., 2010). Thus, the present study also aimed to examine if there are any differences between schools with and without teacher training in terms of the frequency of school bullying. In order to answer these research questions, a nationally representative sample of schools in the United States was utilized. "Most evaluations of school safety and youth violence prevention programs have analyzed the efficacy of demonstration projects with a convenience sample" (Avi Astor et al., 2010, p. 73). By using a nationally representative sample a greater external validity may be achieved.

Method

This study analyzed the public data: the 2000 school survey on crime and safety (SSOCS: 2000) (U.S. Department of Education). The SSOCS: 2000 was conducted by the National Center for Education Statistics (NCES) and its purpose was to collect detailed information on crime and safety from the schools' perspective. The main topics addressed by these data included characteristics of school policies, school violence prevention programs and practices, violent deaths in schools and elsewhere, frequency of other incidents at school, disciplinary problems and actions, and school characteristics.

Participants

The participants in this study were principals or school disciplinarians in 3,366 U.S. public elementary, middle, junior high school, secondary, and combined schools (U.S. Department of Education). A total of 2,270 principals (70%) responded to the survey, 1,044 did not respond, and 52 surveys did not contain useful data for analysis. These schools were selected through a stratified sample design. Stratification of the sample was done according to the level of instruction, type of locale, enrollment size, region, and minority status. This sampling design ensured that the aforementioned factors or sub-domains were adequately represented in the sample for the purpose of data analysis. The data were collected from March through September, 2000.

Instrument of data collection

A survey questionnaire was used to collect the SSOCS: 2000 data. The questionnaire was developed by NCES in conjunction with a Technical Review panel consisting of experts on school crime and school programs relating to crime and safety (U.S. Department of Education). The survey was field tested twice in order to confirm that the items could be well understood, data would be available, and also to determine the burden that would be assumed by those agreeing to complete the survey. Field testing aimed at collecting information regarding completion time, problem questions, undefined terms, and other factors such as formatting, content, and appearance. The participants involved in field testing the survey were later interviewed by telephone to acquire more information. Among the major changes made in the questionnaire after the field tests was a reduction in the length of the questionnaire in order to reduce the burden of completing the questionnaire and to lower the costs of administration. Other changes related to wording and instructions.

Measures

First, the question: "To the best of your knowledge, how often does student bullying occur at your school?" measured the frequency of school bullying. Response choice was: "Happens daily", "Happens at least once a week", "Happens at least once a month", "Happens on occasion", and "Never happened". Second, the question: "Did your school have any formal programs intended to prevent or reduce violence?" measured if there are any formal prevention/intervention training at school. Response choice was: "Yes" and "No". If the response was "Yes", the schools were also asked what types of programs were included for the program. The original questionnaire identified eight different types of such programs. However, in this study, the most common intervention strategies - social skills training, behavioral modification intervention, and individual mentoring/tutoring - were included and analyzed. Finally, the question: "Did your school or district train any teachers or aides to recognize early warning signs of potentially violent students?"measured if the school has teacher training on school safety and violence. Response choice was: "Yes" and "No".

Results

Preliminary descriptive statistics

Overall, the frequency of school bullying was as follows: Happens daily = 11.9%, Happens at least once a week = 20.6%, Happens at least once a month = 21.3%, Happens on occasion = 44.1 %, Never happened = 2.1 %. The results indicate a high frequency of bullying at schools. As for formal prevention/intervention programs, 1676 schools (73.8%) reported that they have some formal programs while 594 schools (26.1%) reported they did not. Teacher training was reported by 888 schools (39.1%) while 1382 schools (60.8%) indicated teacher training was not available at their schools. The result suggests that teacher training on school safety and violence was not widely implemented.

The effectiveness of formal prevention/ intervention programs

A 2 x 5 chi-square (χ^2) analysis revealed a statistically significant association between schools with and without formal programs in terms of the frequency of school bullying, (χ^2 (4) = 33.73, $p < 0.01$, $\Phi = 0.12$). Phi (Φ) is an indication of effect size with values of 0.1, 0.3, and 0.5 interpretable as small, medium, and large associations between groups (Green & Salkind, 2004). In examining the standardized residuals for each cell in the chi-square (χ^2) analysis, (standardized residuals in each cell greater than 1.96 in absolute values were considered as being statistically significant at the 0.05 level or less), results indicated that schools without formal programs were more likely to report that bullying happened on occasion (n = 306, Std residual = 2.7) than schools with programs (n = 695, Std residual = -1.6), and schools without formal programs were less likely to report that bullying happened daily (n = 47, Std residual = -2.8) than schools with formal programs (n = 223, Std residual = 1.7). Various programs did not differ in their degree of effectiveness as no statistically significant differences in terms of the frequency of bullying were found between them (social skill straining vs. behavioral modification intervention vs. individual mentoring/tutoring).

The effectiveness of teacher training

A 2 x 5 chi-square analysis revealed no statistically significant association between schools with and without teacher training in terms of the frequency of school bullying, (χ^2 (4) = 6.83, *n. s*, Φ =0.05). In examining the average number of hours for teacher training, the majority of schools (88.7%) reported that it was less than 10 hours. This indicates that teachers had only a one or two-day workshop.

Table 1. Chi-square table: Formal program and the frequency of bullying

			How often student bullying occurs					
			Happens Daily	Happens at least once a week	Happens at least once a month	Happens on occasion	Never happens	Total
Formal program	Yes	Count	223	361	371	695	296	1676
		Std. residual	1.7	0.8	0.7	-1.6	-1.5	
	No	Count	47	107	113	306	21	594
		Std. residual	-2.8	-1.4	-1.2	2.7	2.5	
Total		Count	270	468	484	1001	47	2270

Table 2. Chi-square table: teacher training and the frequency of bullying

			How often student bullying occurs					
			Happens daily	Happens at least once a week	Happens at least once a month	Happens on occasion	Never happens	Total
Teacher training	Yes	Count	117	200	179	375	17	888
		Std. residual	1.1	1.3	-0.8	-0.8	-0.3	
	No	Count	153	268	305	626	30	1382
		Std. residual	-0.9	-1.0	0.6	0.7	0.3	
Total		Count	270	468	484	1001	47	2270

Discussion

The purpose of the study was to examine the effectiveness of prevention/intervention programs and teacher training on school bullying. To summarize briefly, a statistically significant association in terms of the frequency of school bullying was found between schools with and without formal programs. School without formal program were less likely to report bullying than school with formal These results may suggest that some schools did not have formal prevention/ intervention programs because they do not have a serious bullying problem. However, the effect size was small, suggesting that in a practical sense such differences were likely to be minimal. These results are consistent with the results of meta-analytic studies which showed that many programs failed to have a practically significant impact in terms of a reduction in the frequency of bullying (Merrell et al., 2008; Swearer et al., 2010).

Furthermore, popular and frequently implemented intervention strategies such as social skill straining, behavioral modification intervention, and individual mentoring/tutoring did not show statistically significant differences in terms of the frequency of bullying. These programs are intended to reduce school violence in general and do not target bullying exclusively. As prevention/interventions which focus solely on school bullying did not produce desirable outcomes (according to meta-analysis), it is reasonable to assume that these general prevention/intervention programs are of limited value.

Regarding the effectiveness of teacher training, no association was found between schools with and without teacher training in terms of the frequency of school bullying. A possible explanation for this finding is that most of the schools offer only limited amount of teacher training. In fact, 88.7% reported that it was less than 10 hours; thus, it would be only few days of training per year. It is not enough for teacher to be confident to deal with the issues. To understand the nature of bullying and to learn how to intervene effectively teachers need more intensive and hands-on training. Bauman & Del Rio (2005) found that the majority of pre-service teachers "did not believe that they had the knowledge or skills to deal with misbehavior in the classroom and that their university education program had not addressed effective classroom management techniques" (p. 431). Similarly, in a study by Nicolaides et al. (2002), pre-service teachers believed that more information regarding school bullying in a teacher training course was essential. Many school districts purchased anti-bullying interventions with the belief that these programs would help prevent school violence (Avi Astor et al., 2010). However, these programs are not likely to be effective unless teacher's self-efficacy is

increased. Therefore, future studies should examine how to improve teachers' intervention skills through training. It is also important to examine more closely what factors influence the effectiveness of teachers as they seek to prevent and/or intervene in school bullying situations. In addition, the present study needs to be replicated in Japanese contexts. Japanese government developed the teachers' manual and guideline to deal with bullying, but the usefulness and effectiveness are not tested. For the past 30 years, school bullying has been one of the most serious social and educational concern in Japan; however, effective prevention and intervention strategies are not well established. Thus, it will be significant to test various programs and teacher training to examine which produce more successful outcomes to reduce bullying.

Limitations and implications

Finally, limitation and implication of the present study are discussed. Swearer et al. (2010) argue that intervention and prevention that seek to raise awareness of bullying can lead initially to an increase in the frequency of bullying incidents, thereby making evaluation of changes in rates of bullying difficult to determine. It is possible that more teachers are aware of bullying among students after teacher training. However, since baseline data were unavailable from the dataset, it was not possible to identify how teacher training changed the reporting rate.

In spite of the limitation, the present study contributes new perspectives to bullying research. Although there are few studies focusing on the effectiveness of various intervention strategies or the role of teacher as elements in school bullying situations, the present study did find that frequently implemented intervention programs and teacher training are not very effective ways of reducing school bullying. Second, the School Survey on Crime and Safety (SSOCS) provided by the U.S. Department of Education was utilized for the present study. Although "secondary data analysis remains a relatively underutilized method of data analysis by the social scientist" (Smith, 2006, p. 37), the use of secondary data provides advantage to researchers. For example, a large-scale dataset, which often contains nationally representative samples, is available and a greater external validity may be achieved. Thus, future researchers should be encouraged to use public databases for their research activities as well.

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