

# Evaluation of an Anti-Bullying Program: Student Reports of Knowledge and Confidence to Manage Bullying

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This research evaluates the effectiveness of an anti-bullying program, Project Ploughshares Puppets for Peace (Woodfine, Lubimiv, & Langlois, 1995). Students in grades 3 and 4 ( $N = 129$ , 69 boys, 60 girls) from two public elementary schools completed a questionnaire on bullying at both pretest/post-test. Although Chi-square results showed no significant increase in knowledge or skills to deal with bullying, responses to open-ended questions indicated that half the students reported feeling more confident in managing bullying. These results suggest that evaluations should include student perspectives on the impact of a program that extends beyond specific program goals.

Key words: bullying, peer aggression, program evaluation

Cette étude évalue l'efficacité du programme de lutte contre l'intimidation *Puppets for Peace* de *Project Ploughshares* (Woodfine, Lubimiv et Langlois, 1995). Des élèves de 3<sup>e</sup> et 4<sup>e</sup> années ( $N = 129$ , 69 garçons, 60 filles) de deux écoles primaires publiques ont répondu à un questionnaire sur l'intimidation avant et après la mise en œuvre du programme. Bien que les résultats du test chi carré n'indiquent aucune amélioration notable des connaissances et des compétences susceptibles de contrer l'intimidation, les réponses aux questions ouvertes mettent en évidence que la moitié des élèves disent se sentir plus sûrs d'eux-mêmes face à l'intimidation. Ces résultats semblent indiquer que les évaluations de programmes de prévention devraient inclure les points de vue des élèves sur leur impact, sachant que ces derniers dépassent souvent les objectifs initiaux.

Mots clés : intimidation, agression par des pairs, évaluation des programmes.

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School bullying has gained a great deal of attention from researchers and school administrators (Camodeca, Goossens, Schuengel, & Terwogt, 2003); many schools are allocating resources to manage bullying. The

purpose of the present study was to evaluate the effectiveness of an anti-bullying program, Project Ploughshares Puppets for Peace (P4 program).

Using quantitative analyses of survey responses and an analysis of students' open-ended responses to the program, we investigated whether the program achieved its intended goals of increasing student awareness of types of bullying and strategies to manage it; how useful students found the program; and whether students reported more bullying as a result of this program. We examined children's perspectives about bullying at three points in time and have both characterized and interpreted changes and lack of changes in students' views of bullying and their connections to the puppet program.

Bullying is commonly defined as repetitive aggression directed at a peer who is unable to defend him or herself (Slee, 1995; Smith et al., 1999; Slee, 1995). Unlike reciprocal aggression where children exert force against each other, bullying is directed from one peer against another peer who is unable to stop the aggression. This type of aggression is typically categorized according to whether the victim directly or indirectly experiences an attack from the aggressor (Olweus, 2001). Direct forms include physical and verbal bullying; indirect forms include behaviors such as actively isolating an individual from the peer group (exclusionary) and spreading rumors. Incidents of bullying often include the aggressor, a targeted peer, and bystanders, who play a critical role in positively reinforcing bullying behaviors (O'Connell, Pepler, & Craig; 1999). Because most students in a school are involved, whether by bullying others, being targeted, or witnessing bullying, it is important that intervention strategies include an entire school population.

Researchers have identified a variety of biological and environmental factors implicated in bullying. For example, children are likely to be victimized if they are anxious and isolated from their peers, their parents experience depression and conflict, or their parents use an authoritarian parenting style at home (Beran & Violato, 2004; Loeber & Dishion, 1983). Also, high rates of community crime are associated with severe bullying at school (Espelage, Bosworth, & Simon, 2000).

Although it is important to study the various contextual factors of home, school, and the broader community that are related to bullying, it is important not to overlook the extensive research demonstrating that

children directly as well as indirectly involved in bullying experience numerous functioning difficulties. Several reviews of the research on bullying summarize a variety of individual characteristics of children who are bullied. Depression, passivity, and shyness have been identified (Beran, in press; Espelage & Swearer; 2003). According to a meta-analysis conducted by Hawker and Boulton (2000), children who are bullied are likely to feel lonely and depressed, and have low self-esteem. Children who bully others also exhibit negative characteristics. For example, these children experience high levels of anger and depression and are at risk for engaging in criminal behavior as adults (Espelage, Bosworth, & Simon; 2001; Olweus, 1991; Slee, 1995). They may also have little empathy for others (Endresen & Olweus, 2001). In addition, students who witness bullying report helplessness and vulnerability (Craig & Pepler, 1992). Indeed, they may require support similar to children who are victimized to feel empowered to speak out against bullying.

Researchers have developed a personality framework to understand how bullying occurs. Accordingly, students target peers who have difficulty coping with aggressive overtures. These targeted children may feel highly anxious and afraid, and cry easily. Mahady Wilton, Craig, and Pepler (2000) found that targeted children may lack coping and problem-solving strategies that may increase the likelihood of another attack and lead to long-term negative developmental outcomes. Implications of these findings suggest that bully prevention strategies should include skills training for victimized children. In addition, children witnessing the bullying may be afraid they could also be targeted and thus require skills and support on how to provide assistance to victimized children. Although not sufficient alone, a skills training approach is often included as one component of school-wide anti-bullying programs (e.g., Lions Quest, Second Step, and Dare to Care: Bully Proofing Your School). Although school-wide programs are now being evaluated (e.g., Beran & Tutty, in press), it is important to also examine specific components of these programs such as skills training on students' responses to bullying.

### PROJECT PLOUGHSHARES PUPPETS FOR PEACE PROGRAM

The P4 program, which uses puppets and a script developed by Woodfine, Lubimiv, and Langlois (1995) at the Friends and Neighbours Club of Pembroke, Ontario, employs an extended version of the script (e.g., 30 minutes) to educate elementary school students about bullying and conflict resolution. Using three-foot, hand-and-rod puppets, two puppeteers enact a scenario involving direct and indirect bullying as well as a successful resolution. These behaviors occur among two female puppets and a male puppet friend. Following the story, students are invited to identify the bullying behaviors shown and discuss four main strategies to manage them. The strategies, explained as '4 Footsteps' as developed by the first author, include ignoring, saying stop, walking away, and getting help. The show, which takes approximately 45 minutes, has been shown to over 100 schools and community groups. The intention of this program is to demonstrate different types of bullying behaviors to increase students' understanding of behaviors that exemplify bullying. It also shows various strategies that children who are bullied and who witness bullying can use to discourage it.

### EVALUATION METHOD

We evaluated the P4 program to help inform the program stakeholders about its effectiveness and to guide its development. Because the P4 program had already been planned and implemented in many schools, we conducted our evaluation only at the completion stage of the program (summative evaluation). Consistent with the P4 program's two main goals, we designed the evaluation to examine the impact of the P4 program on students' understanding of bullying behaviors and anti-bullying strategies. We expected that students in the program would learn to identify more types of bullying behaviors and more strategies to manage bullying after viewing the puppet show in comparison with their awareness of bullying and strategies before viewing the show. We also compared these outcomes with reports from students who, at both times the questionnaires were administered, had not seen the puppet show. Also, to better understand the impact of the program, we asked students how useful they considered the program to be.

A problem noted by evaluators of such programs is the heightened sensitization students seem to experience as a result of participating in anti-bullying programs (as discussed in Olweus, 1992; Pepler, Craig, Ziegler & Charach, 1994). That is, student reports of the frequency of being bullied may increase as a result of gaining a better understanding of the nature of bullying. This higher rate of reporting may appear to reduce the ability of evaluation studies, which employ self-report measures, to determine the effectiveness of programs in reducing the frequency of bullying. In response to this issue in evaluating the P4 program, we examined the sensitization effect on student reports of being bullied. We expected that students would report a higher frequency of bullying after, in comparison to before, participating in the program because they had become more aware of bullying.

## METHOD

### *Sample and Procedures*

We included students in grades 3 and 4 from two public schools in a large Midwestern Canadian city that had scheduled the puppet performance. Of the 140 students asked to participate, 129 returned signed consent forms for a response rate of 92 per cent, giving us a sample of 129 students (69 boys, 60 girls).

Although all students viewed the puppet performance, they filled out the questionnaire at different times. That is, half of the students ( $n = 66$ ) completed the measure before and then again after participating in the P4 program (intervention group). For purposes of comparison, the other half of the students ( $n = 63$ ) also completed the questionnaire twice (before and at the end of a class period) but before viewing the performance. The unit of random assignment was the classroom whereby students from the same classroom were assigned to either the intervention or comparison group. A research assistant administered the questionnaire to each class, and students without a signed consent form worked quietly at their desks. Students required approximately 20 minutes to complete the questionnaire.

To further determine whether the P4 program had an impact on students, we re-administered the questionnaires three months after the students completed the first set of questionnaires (and after they had all

seen the show). The response rate was 100 per cent and thus 129 students completed the questionnaire.

### *Measures*

We designed the bullying questionnaire to measure students' knowledge about and experiences with bullying and to determine their ability to accurately identify various behaviors as bullying behaviors. Using a student with a gender-neutral name, we developed the first set of items to describe seven behaviors that included examples of direct (e.g., "Lee hits other kids who are afraid") and indirect bullying behaviors (e.g., "Lee tells untrue stories"). Also, in this set of seven items, we used three non-bullying behaviors as comparison items (e.g., "Lee is running and falls down"). We asked students to indicate whether each behavior was a form of bullying by answering "yes" or "no." Because some of the items were not examples of bullying, the consistency of all the items is low. For this reason, we report responses to each item, rather than their sum.

In the second set of items, we asked students to select the types of strategies they would use if they were bullied, using strategies taught in the P4 program (e.g., "I would tell the kid to stop") as well as other strategies (e.g., "I would use humor"). In addition to these positive strategies, we included negative strategies (e.g., "I would hit, kick or push the kid"). Students responded to each item by circling "yes" or "no." Again, because of the variation in the types of strategies listed, we report responses for each strategy.

We took the third set of items from the bullying subscale of the Colorado School Climate Survey (Garrity, Jens, Porter, Sager, & Short-Camilli, 2000), a six-item subscale that measures students' experiences of being bullied in the last month (e.g., "I was hit, pushed, or kicked by other students"). Students indicated the frequency that these behaviors occurred on a five-point response scale from "never" to "five or more times per week." The Alpha coefficient for the internal reliability of this subscale in the present study at pretest was .78.

At the three-month follow-up, we re-administered the bullying questionnaire and included an additional question: "Has the puppet show changed the way that you think about or deal with bullying? Please tell how." We designed this question to understand the program's

effectiveness according to the students' perspective, and in their own words.

## RESULTS

The first set of analyses examines the impact of the P4 program on students' understanding of bullying behaviors and strategies. The second set examines sensitization of students' reports of bullying experiences.

### *Program impact*

We used a pretest/posttest design to determine changes in students' understanding of behaviors that constitute bullying and strategies to manage bullying. These changes were examined in both the intervention and comparison groups. To determine whether the intervention and comparison groups provided similar responses on the individual items at pretest, we conducted Chi-square analyses. Because we completed multiple comparisons, we used the Bonferonni correction procedure to reduce the likelihood that significant differences would emerge because of chance. Using a critical  $p$  value of .005 for the bully behaviors and .004 for the strategies, we found no significant differences and concluded that students in the two groups held a similar understanding of bullying behaviors and strategies (see Table 1). Also, we found no significant gender differences in the types of behaviors and strategies reported by each group.

Results in Table 1 also show that before participating in the P4 program, most students (82% or more) in the intervention group identified aggressive behaviors as forms of bullying. Very few (2-4%) reported that the non-bullying items, waiting and falling, are forms of bullying. In addition to identifying direct forms of bullying such as physical and verbal bullying, the majority of students identified non-direct bullying behaviors such as gossiping and isolating a peer. However, many students (83%) also stated that bullying occurs when "Lee hits another student who hits back," a form of aggression that is reciprocal and is thus inconsistent with the bullying definition proposed by Olweus (2001); Olweus asserts that bullying occurs when a victim is

Table 1  
*Frequencies of Student Agreement to Bully Behaviors and Strategies*

	Administration time					
	1	2	1	2	1	3
	Intervention group (n = 66)		Comparison group (n = 63)		Intervention vs. comparison groups  X <sup>2</sup>	Intervention and Comparison groups  (N = 129)
<b>Behaviors</b>						
Lee falls	1 (2%)	2 (3%)	1 (2%)	1 (2%)	0.00	3 (2%)
Lee swears	65 (98%)	64 (97%)	57 (90%)	55 (89%)	4.03	116 (93%)
Lee hurts others	65 (98%)	64 (97%)	56 (89%)	55 (89%)	5.10*	119 (95%)
Lee waits	3 (4%)	4 (6%)	3 (5%)	3 (5%)	0.01	6 (5%)
Lee hits	65 (98%)	63 (96%)	55 (87%)	57 (90%)	6.21*	119 (95%)
Lee talks about hurting others	54 (82%)	56 (85%)	43 (68%)	45 (71%)	3.18	104 (84%)
Lee tells untrue stories	59 (89%)	61 (92%)	51 (81%)	55 (87%)	1.83	113 (91%)
Lee says mean things	65 (98%)	64 (97%)	57 (90%)	58 (92%)	4.03	117 (94%)
Lee hits someone who hits back	55 (83%)	57 (86%)	52 (82%)	52 (82%)	0.01	104 (83%)
Lee gives dirty looks	54 (82%)	55 (83%)	45 (71%)	40 (64%)	1.95	87 (70%)
<b>Strategies</b>						
Get help from adult	62 (94%)	61 (92%)	60 (97%)	59 (95%)	0.58	119 (95%)
Get help from kid	46 (70%)	48 (73%)	43 (68%)	41 (66%)	0.03	93 (74%)
Hit the bully	0 (0%)	1 (2%)	7 (11%)	6 (10%)	7.75**	3 (2%)
Say stop	65 (98%)	61 (92%)	59 (95%)	60 (97%)	1.17	120 (96%)
Ignore the bully	51 (77%)	59 (89%)	49 (79%)	49 (79%)	0.06	110 (88%)
Avoid the bully	57 (86%)	52 (79%)	58 (92%)	60 (97%)	1.08	105 (84%)
Get help from parents	52 (79%)	54 (82%)	50 (79%)	49 (79%)	0.01	105 (84%)
Walk away	56 (86%)	59 (89%)	54 (86%)	55 (89%)	0.01	115 (93%)
Say mean	1 (2%)	2 (3%)	3 (5%)	4 (6%)	1.13	4 (3%)



things						
Use humor	34 (52%)	43 (65%)	23 (36%)	24 (39%)	2.94	67 (54%)
Positive talk	56 (85%)	53 (80%)	49 (78%)	46 (77%)	1.06	91 (73%)
Nothing	5 (8%)	7 (11%)	2 (3%)	6 (10%)	1.17	7 (6%)

Note. <sup>a</sup>X<sup>2</sup> is differences between intervention and comparison groups at first administration of the questionnaires.

\**p* < .05. \*\**p* < .01.

unable to defend him or herself. Thus, although students identified various forms of bullying, they were unable to differentiate bullying from reciprocal aggression.

In addition to identifying several forms of bullying, more than half of the students (52%) identified numerous positive strategies to protect themselves from bullying. The most commonly reported strategies included asking for help from an adult and saying stop. Few students reported responding with aggression because they were perhaps beginning to adopt an understanding of the value and desirability of responding without the use of aggression. Few students reported doing nothing about the problem of bullying, but rather indicated a variety of strategies they would use.

We then examined how students' understanding of bullying and strategies to deal with it changed after seeing the puppet show. We compared students' responses before and after the show by using the McNemar test for two-related samples with non-parametric data. In this analysis, we also compared responses of students who had not seen the performance at either time of testing. We found no significant differences (see Table 1). These results indicate that the number of behaviors that students identified and the number of strategies they endorsed did not differ significantly between first and second completion of the questionnaire for students who participated in the P4 program. Students were not better able to differentiate bullying from reciprocal aggression, and they did not report using more positive anti-bullying strategies after the puppet show.

The number of students who endorsed each bullying behavior and anti-bullying strategy at the three-month follow-up is also shown in

Table 1. We examined differences between boys and girls using Chi-square analyses. Using the Bonferonni procedure, only one significant difference emerged. More boys ( $n = 43$ ) than girls ( $n = 24$ ) reported that they would use humor to cope with bullying,  $X^2(1, N = 124) = 8.08, p = .004$ . As shown in this table, a similar percentage of students identified bullying behaviors and strategies before (3rd column in table) and after the three-month follow-up (7th column in table).

Responses to the open-ended, written question, "Has the puppet show changed the way that you think about or deal with bullying? Please tell how." were coded into five categories. Half the students (50%,  $n = 65$ ) stated that their thoughts or behaviors changed as a result of seeing the puppet show. Their comments included, "Yes, because it told me how to be safer," and "Yes because it showed me how to use the strategies, and to try and help others." Less than a third of the students (30%,  $n = 39$ ) felt the show had no impact on them. Their comments included, "No, because I've never been bullied," and "No, the puppets' problems are too easy to solve." Of the 39 students who stated they were not affected, nine (23%) stated that they were already knowledgeable about bullying and strategies before seeing the show. This result confirms the quantitative results that show that a high percentage of students were able to identify behaviors and strategies before seeing the show. In addition, 19 students (15%) provided noncommittal responses such as "I do not think so. A little, and maybe a little no." Illogical responses (3%,  $n = 4$ ) were unclear statements, and a no response (2%,  $n = 2$ ) was coded when students stated they did not remember.

Responses also varied according to how many ideas were shared. Many students who stated that the show had an impact on them also provided reasons and ways in which they felt they had been changed; whereas, of the students who did not report an impact, most stated no without any elaboration. Positive responses included changes in feeling ( $n = 9$ ), thinking ( $n = 39$ ), and behaving ( $n = 5$ ). Feeling changes included statements about no longer feeling afraid, having more confidence when dealing with bullying, and feeling empathy for victims of bullying. Changes in how they thought about bullying included being more serious about bullying and seeing it as a problem. Behavioral changes included statements about helping others, not bullying others, and using

several strategies. In summary, these responses suggest that the P4 program increased students' concern and confidence in managing bullying.

We then compared students who had never been bullied to students who had been bullied to determine differences in program effects. We classified students as not being bullied if they indicated "never" on every type of bullying (on the six-item bullying scale), and as bullied if they indicated "once per week" or more often on any one or more types of bullying. Of the 28 students not bullied, 16 (57%) stated that the program had a positive effect on them and 8 (29%) stated it did not. Of the 54 students bullied in some way, 24 (44%) stated the program had a positive effect and 22 (41%) stated it did not. Thus, students who had not experienced bullying found the performance to be more helpful than students who had experienced bullying. Students' responses indicated that no differences occurred in how the program had an effect on students according to the type of bullying that they had experienced.

#### *Self-Reporting Sensitization*

Students' responses to the six bullying questions are presented in Table 2. To determine whether students reported more bullying after participating in the P4 program, we compared their responses at administration one and two (before and soon after the show) on the sum of the six-item bullying scale, using a paired-samples t-test. We found no increase in the frequency of being bullied when asked before the show ( $M = 10.41$ ,  $SD = 4.27$ ) and again after the show ( $M = 9.68$ ,  $SD = 3.68$ ),  $t(df = 64) = 3.78$ ,  $p < .0001$  (two-tailed). Rather, a significant difference occurred in the opposite direction where students' reports of being bullied decreased after seeing the puppet show. As expected, we found no significant difference in reports of being bullied between administration 1 and 2 in the comparison group.

#### DISCUSSION

Because the findings of the program evaluation were not what we expected, we considered the data in other ways and thought about new ways to evaluate bullying programs. The results of the present study

Table 2  
*Frequencies of Bullying Behaviors Experienced (N = 129)*

Behaviors	Never	Less than once/ week	Once/ week	2-4 times/ week	5 times/ week or more
Kids hit me	79 (62%)	30 (23%)	10 (8%)	8 (6%)	1 (1%)
Kids called me names	65 (51%)	37 (29%)	14 (11%)	8 (6%)	4 (3%)
Kids told lies about me	79 (61%)	28 (22%)	13 (10%)	5 (4%)	2 (2%)
Kids did not let me join	57 (44%)	44 (34%)	12 (9%)	9 (7%)	5 (4%)
Kids took my things	92 (71%)	25 (20%)	4 (3%)	3 (2%)	5 (4%)
Kids threatened me	99 (78%)	20 (16%)	2 (2%)	4 (3%)	1 (1%)

*Note.* Some items have up to three missing responses.

indicate that the program did not meet its intended goals of increasing awareness and strategies; however students considered the program useful in increasing their confidence in managing bullying. In addition, rather than becoming sensitized when reporting bullying, students' experiences of bullying seemed to be normalized after participating in the P4 program. Our results demonstrate that both quantitative results and open-ended questions are useful in determining how anti-bullying programs have an impact on students.

The rate of bullying reported in our study is comparable to rates reported in similar studies. Taking the average frequency of all the bullying behaviors, 14 per cent of students reported being bullied once per week or more often. Other Canadian studies have reported similar rates, providing evidence of validity for students' responses in the current study (Bentley & Li, 1995; Beran & Tutty, 2002).

When asked what behaviors constitute bullying and the various strategies to manage it, students demonstrated a high level of understanding even before they saw the puppet show. It is possible that teachers, administrators, and parents are discussing bullying with

children, perhaps as a result of heightened media attention on the issue. It is also possible that students provided socially desirable responses when reporting the types of strategies they would use. These results could be confirmed with observational data. Nevertheless, students seemed aware of bullying, perhaps because of an increase in demands on school administrators and teachers to manage bullying with the introduction of anti-bullying initiatives or such policy changes as the amendment to the Alberta School Act (1999) to establish safe and caring school environments. It is critical, therefore, that developers of anti-bullying programs be aware of students' understanding and perceptions of bullying before implementing programs, and that this information guide the development of these programs. The high initial awareness of students in our study reduced the possibility of increasing students' level of understanding of behaviors and strategies. This ceiling effect limits our determination of how the P4 program had an impact on students. Students' ability to differentiate bullying from reciprocal aggression did not improve after they had participated in the program. Thus, although they could identify bullying behaviors, they considered reciprocal aggression (mutual aggression) as a form of bullying (aggression targeted at a victim). Program developers must clarify the type of behavior and its context that is the focus for intervention.

Although the P4 program did not have a significant impact on students' awareness of bullying and strategies, students indicated they experienced an increase in their confidence to deal with bullying and their feelings of empathy for children who are bullied. Our findings indicate that the program reduced their feelings of fear when dealing with children who bully. Considering that many children who are bullied or witness bullying feel afraid and intimidated (Craig & Pepler, 1992; Olweus, 1992), it is unlikely that they will stand up to children who bully. Simply providing information about bullying behaviors may not be sufficient to increase students' ability to deal with it. However, knowledge combined with confidence and concern may provide the courage students need to try to stop bullying. According to the students' reports, they valued this increase in concern and confidence that they gained from the program. Moreover, students who had never been bullied indicated that the program was more effective than students who

had been bullied. Thus, information and skill-building programs may be more beneficial for by-standers than for victimized children, who may need more direct support. For these students to gain courage and confidence to manage bullying, they likely need ongoing monitoring and active support from teachers and students when the bullying actually occurs, rather than from simply talking about bullying, as is usually done in programs.

Despite the difficulty of detecting the impact of a program in schools already implementing anti-bullying strategies, initial and follow-up support about bullying may increase the effectiveness of programs like the one evaluated in our study. Indeed, it is unlikely that a 45-minute puppet show can significantly change students' long term behaviors, but it is plausible that combined with various school-wide initiatives, the puppet show may have encouraged students to use strategies to stop bullying.

We had expected that students would become more sensitive to reporting bullying if they gained a better understanding of types of bullying behaviors. However, student awareness did not increase, the P4 program did not seem to increase students' reporting of being bullied. Instead, the program may have helped students acknowledge that bullying occurs, reassure their reactions to bullying, and reduce their anxiety. This possibility is supported by students' responses at follow-up about how they felt the program made them feel safer when using strategies to counter bullying. This impact is important considering that many victimized children report high levels of anxiety (Olweus, 1989). Thus, when reporting their experiences, students may have under-reported rather than over-reported if they felt reassured that bullying occurs to other students as well. It is also possible that students gained greater confidence in their ability to handle the situation and thus minimized their reports of how often bullying occurred.

Researchers in the future should consider methodological limitations. We selected the 45-minute interval between questionnaire administrations to correspond with the duration of the puppet show. By asking students just before and again after the show about the frequency of bullying, we reduced the chances of bullying actually occurring so we could determine whether increased reporting was a result of seeing the

puppet show rather than experiencing new incidents of bullying. However, this short duration may not have been sufficient to affect students' responses, and it is possible that students remembered and simply repeated their responses from the first administration. This design did not permit an examination of whether the number of bullying incidents decreased as a result of the program. Also, the study did not measure students' actual use of strategies, but rather their inclination to use various coping strategies. Another limitation is that children may not have been able to detect the subtle suggestion about a power imbalance in some of the examples of bullying behaviors, making it difficult for them to accurately identify bullying.

In regards to possible iatrogenic effects, the puppeteers selected scenarios that many students were most likely to have witnessed and/or experienced, and that would unlikely introduce new bullying methods. At several of the performances that I (Tanya) attended, I noted that students did not laugh or appear to encourage the bullying while it was being enacted. Informal feedback from teachers after the performances indicated that such scenarios were typical; they mentioned no concerns about causing students further distress. Teachers also told students after the play to talk to someone they trusted about how they felt during the puppet show.

The conclusions of this project provide one of the first glimpses of changes in student understanding of bullying and strategies for dealing with bullying following interventions. These results also demonstrate the importance of using both a quantitative approach and open-ended questions. In the present study, most of the quantitative results were nonsignificant but students' responses to the open-ended question revealed the program's impact on students' feelings, thoughts, and behaviors. We recommend that evaluative approaches include the methods we used in combination with alternative methods to determine how anti-bullying programs have an impact on students. For example, researchers may ask students to demonstrate their anti-bullying strategies when read or shown a bullying scenario both before and after an intervention. This type of action approach to the identification of strategies would allow students to demonstrate the ways they would deal with bullying situations prior to and following an educational

experience. Thus, a multi-method approach could better determine whether the goals of an intervention are met (Rossi, Lipsey, & Freeman, 2004). In the context of bullying, an approach that encompasses quantitative and qualitative evidence, and self-report and behavior measures would help identify how students structure their understandings of managing bullying. It would also assist program developers and facilitators to highlight, reinforce, and add positive strategies for students to deal with bullying behavior.

Although the P4 program did not meet the intended goals of increasing knowledge and skills, it showed an alternative effect of increasing student courage. More research is needed on how various school- and community-based programs have an impact on children. Very few bully prevention and intervention programs have been evaluated and published. With more effort to implement such programs emerging from teachers' concerns about how to manage bullying, it is imperative that educators conduct evaluations on this timely issue. This study, one of few to consider the effects of anti-bullying programs on students, determined that students seem to feel empowered and confident in using anti-bullying strategies when they discussed these strategies with the use of puppets. Because many home, school, and individual factors contribute to bullying, a single short-term strategy such as a puppet show can be expected to be useful as only part of a comprehensive, evidence-based, or school- and family-based effort to help students act in a socially responsible manner.

#### ACKNOWLEDGEMENTS

The Alberta Advisory Committee for Educational Studies funded this study.

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