



Peer involvement in bullying: insights and challenges for intervention

PAUL O'CONNELL, DEBRA PEPLER AND WENDY CRAIG

The purpose of this research was to examine the peer processes that occur during bullying episodes on the school playground. These processes were examined from a social learning perspective, allowing us to consider the effects of various types of reinforcement among bullies, victims, and peers. Fifty-three segments of video tape were examined. Each segment contained a peer group (two or more peers) that viewed bullying on the school playground. Peers were coded for actively joining or passively reinforcing the bully, and for actively intervening on behalf of the victim. On average, four peers viewed the schoolyard bullying, with a range from two to 14 peers. Averaged across all episodes, peers spent 54% of their time reinforcing bullies by passively watching, 21% of their time actively modelling bullies, and 25% of their time intervening on behalf of victims. Older boys (grades 4–6) were more likely to actively join with the bully than were younger boys (grades 1–3) and older girls. Both younger and older girls were more likely to intervene on behalf of victims than were older boys. The results were interpreted as confirming peers' central roles in the processes that unfold during playground bullying episodes. We discuss the results in terms of the challenges posed to peer-led interventions. Peers' anti-bullying initiatives must be reinforced by simultaneous whole-school interventions.

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Introduction

In this paper we examine the potential roles that peers play in bullying on the school playground. To date, studies of children's aggressive behavior, and bullying in particular, have been limited by a focus on the individual child. Researchers have often overlooked the fact that, like other forms of aggression, bullying occurs within a social context. As Cairns and Cairns (1991) note, the social behaviors of individuals and dyads unfold in the context of larger social settings which influence the interactions among individuals. To examine the systematic processes that unfold during bullying, we investigated bullying episodes on the school playground using the peer group as the unit of analysis. An understanding of the dynamic social processes will provide direction for broad systemic interventions to address problems of bullying at school.

It should be noted that the observational data reported in this paper were collected from elementary school children (ranging in age from 5 to 12 years). While the majority of this age group might be considered too young for the scope of a journal dealing with adolescence, researchers have found that considerable continuity exists between aggressive behavior during childhood and adolescence (Eron, 1987; Farrington, 1993). For peers, involvement in bullying during pre-adolescence may evolve and coalesce into gang activity with aggressive peers during adolescence (Cairns *et al.*, 1997). Thus, it makes sense to look at bullying and

Reprint requests and correspondence should be addressed to Dr D. Pepler, LaMarsh Research Centre on Violence and Conflict Resolution, York University, 4700 Keele St., Toronto, Ont., M3J 1P3, Canada.

related peer processes as possible precursors of later antisocial and problematic behavior patterns.

Bullying

Bullying is defined as negative actions which may be physical or verbal, have hostile intent, are repeated over time, and involve a power differential. It may involve one or more perpetrators and recipients (Farrington, 1993). Bullying may also be indirect rather than direct, and this type of aggression often involves peers. For example, indirect bullying might involve subtle social manipulation such as gossip, spreading of rumours, and exclusion (Lagerspetz *et al.*, 1988), or aversive levels of competition and social comparison (Besag, 1989). Power differentials in the bully–victim relationship can accrue through many means—one is having a group of supportive peers backing the aggressor.

The problem of bullying is pervasive. In a series of recent surveys of almost 5000 Canadian elementary and middle school children (aged 5 to 14), 38% reported being bullied at least “once or twice” during the term; and 15% reported being bullied “more than once or twice” during the term. The prevalence of perpetration is almost as high: 29% reported bullying others “once or twice” during the term and 6% reported bullying others “more than once or twice” during the term (O'Connell *et al.*, 1997).

The problem of bullying is systemic, extending beyond the bully and victim. Like other forms of aggression, bullying unfolds in a set of social contexts: the dyad, the peer group, the playground setting, and the school environment. The focus of the present analyses is on the peer context in which bullying unfolds.

Peer context and bullying

When asked about bullying and victimization, children's responses are somewhat ambiguous. On one hand, children seem concerned about bullying: 83% of Canadian children aged 5 to 14 stated that bullying made them feel either “a bit” or “quite” unpleasant; 41% indicated that they “try to help” the victim when they observe bullying; and 11% indicated that other peers “almost always” tried to stop bullying when they saw it. On the other hand, 31% of students admitted that they “could join in bullying someone they don't like”. With age, children were less likely to say they would offer support for victims (O'Connell *et al.*, 1997).

Rigby and Slee (1992) reported similar findings from their survey of 685 Australian children. Although the majority of children of all ages reported support for victims, this support was significantly greater from children under the age of 12 than from older children. There was a substantial minority of children who had little or no sympathy for victims (19% of boys, 14% of girls). Factor analysis revealed that those who were not supportive of victims tended to reject weakness in children, and to enjoy the spectacle of bullying. In contrast, a third factor comprised items indicating the desire to support victims.

Thus, children's reports reflect an awareness of bullying episodes and a stated interest in helping victims, however, reported levels of pro-social intervention seem to overestimate actual behavior. Craig and Pepler (1997) examined coded playground observations and found that peers were involved, in some capacity, in 85% of bullying episodes. Peers intervened in 11% of bullying episodes. This relative lack of intervention by peers is likely to reinforce bullies, who may interpret peers' behaviors as condoning bullying.

There may be many reasons for the discrepancies between children's stated intentions and their observed behaviors. It may be that social desirability influences questionnaire responses. Children know that adults expect them to support each other; however, it may be difficult to

follow through with this intention on the school playground. Another possibility is that children would like to protect victims, but are discouraged from intervening by peer processes that tend to maintain the status quo. The social psychological research into bystander behavior might provide insight regarding children's inaction when faced with playground bullying. One factor related to inaction of a bystander is diffusion of responsibility, first identified by Darley and Latané (1968). The experiments by Darley and his colleagues (Darley and Latané 1968; Latané and Darley, 1968; Darley *et al.*, 1973) demonstrated that participants were less willing to become involved in seemingly dangerous situations if they were led to believe that many peers were participating in the experiment. They were also less likely to become involved if other observers (confederates) behaved nonchalantly. In the former case, responsibility was thought to be diffused among each observer to the point of individual inaction. In the latter case, the ambiguous nature of the emergency raised the participants' concerns about disapproval for reacting inappropriately to the situation.

These experiments were designed to elicit pro-social behavior, and might be viewed as analogous to the problem of bullying in a playground setting. In playground bullying, peers are frequently present and may diffuse responsibility, thereby reducing the impetus to intervene.

The power differential that bullies enjoy, coupled with peers' concerns for self-preservation, may also limit pro-social interventions. When children intervene they risk becoming the next victims. Thus, members of the peer group might acquiesce to bullying out of concerns for their own safety. A final possibility is that children lack a clear understanding of the process of bullying and a set of effective strategies to counteract bullying.

Theoretical perspective

Within the present study, the peer processes that surround bullying episodes were examined from a social learning perspective of modeling and reinforcement. Bandura (1977) identified three conditions that influence the likelihood of modeling. Children are more likely to imitate a model when: the model is a powerful figure; the model is rewarded rather than punished for the behavior; and the model shares similar characteristics with the child. In the case of bullying, these conditions are often present. Peers who are present during a bullying episode have the opportunity to observe a powerful figure (the bully). Our observations indicate that bullies are seldom punished for their aggressive behavior: peers and teachers were observed intervening in only 11% and 4% of episodes, respectively (Craig and Pepler, 1997). Given these conditions, bullies may influence peers to become involved in bullying as active participants.

In the context of bullying, reinforcement can be provided in several directions. For the present paper, we are interested in the reinforcement provided by peers to the bully, and the support provided by peers to the victim. Patterson *et al.* (1967), using naturalistic observations of children's play, highlighted social learning processes during aggressive exchanges. They described the nursery school as a training ground for aggression. The school playground may also be a context in which children are trained by their peers to become bullies. Peers may actively or passively reinforce the aggressive behaviors of bullies through their attention and engagement. In contrast, peers may also shape the behaviors of victims either by intervening in or ignoring the bullying behaviors.

In summary, the social learning processes of modeling and reinforcement may operate to shape bullying on the school playground. In the following sections, we consider the research related to these social learning processes in bullying from the perspective of the influence of

the bully on peers, the peers on the bully, and the peers on the victim. For this paper, we are specifically interested in how peer behaviors may influence the persistence or desistance of bullying behaviors.

Modelling: the influence of the bully on peers

There are several ways in which bullies may influence the behaviors of peers. First, by engaging in aggressive behaviors, bullies may attract the attention of peers who come to observe the bullying interaction. In our earlier research, we observed peers to be present in 85% of bullying episodes on the school playground (Craig and Pepler, 1997).

Bullies who are "successful" (i.e. are not negatively sanctioned for their actions) model for peers that aggression can be performed without fear of consequences. Bystanding peers may be more likely to act out these impulses after viewing a successful act of aggression by a powerful peer (i.e. the playground bully). Evidence for peer modeling on the playground comes from our earlier observations in which peers were actively involved in bullying in 48% of the episodes (Craig and Pepler, 1995).

Another effect of repeated exposure to aggressive interactions on peers is desensitization to the negative aspects of this form of aggression. Although there is no research specifically examining desensitization to bullying, research on exposure to television violence in a laboratory context indicates that young adults become less aroused by subsequent scenes of real-life violence (Thomas, 1977). Corroborating evidence for desensitization related to repeated exposure to bullying comes from the work of Rigby and Slee (1992) who found that with age, children become less concerned and empathic for victims of bullying. The disinhibiting effects of peers' viewing of aggression might promote imitation in which bullying spreads throughout the peer group, through a social contagion process. Klaczynski and Cummings (1989) demonstrated that elementary school-aged boys, particularly those who are prone to aggressive behavior, are more likely to act out these impulses after viewing a successful act of aggression by a powerful model. We are concerned that similar processes may occur on the school playground during bullying episodes.

Reinforcement: peer effects on bullies

When bullying occurs on the school playground, peers may reinforce the bullies' aggression through their attention. Global ratings of peer behaviors indicated that peers reinforce the bullies' behaviors, in some way, in 81% of bullying episodes (Craig and Pepler, 1995). In addition, peers were coded as being more respectful and friendly to bullies than to victims. These observations suggest that peers align with and reinforce the bully. These peer behaviors may serve to prolong bullying episodes.

Intervention: peer support for victims

Given the many conditions that would seem to discourage peers' engaging in pro-social behaviors, it is important to consider what conditions might encourage peers to intervene on behalf of victims. One possibility is that children with high social standing might be relatively immune from the peer pressures that maintain the bully's power differential and dominance. Ginsburg and Miller (1981) examined third-child intervention into playground fighting by dyads of 8- to 11-year-old boys, using hidden video-recording equipment. Only a relatively small number of boys were interveners; these children held positions of high peer group social status, as rated by naive observers during non-conflict portions of the video tapes. Salmivalli

et al. (1996) report similar findings from their recent questionnaire data obtained from Finnish sixth grade students. Children who had high sociometric status in their classroom (i.e. were group leaders, or were relatively popular with classmates) were more likely to report that they would intervene to help a victim of bullying behavior. Taken together, these findings suggest that social roles are well established on the school playground, and that only peers with higher than average social status may have enough influence to successfully intervene on behalf of victims.

Thus, social roles play an important role in influencing the balance of power on the school playground. One socially influential child might singlehandedly shift a power differential by siding with a victim. Another possibility, however, is that several peers might collectively have enough social influence to shift the power differential in favor of the victim, and away from the bully.

In summary, the critical social learning processes that are likely to occur during bullying episodes involve peer modeling of the bully's aggression, social reinforcement of the bully by peers, and, likely less frequently, peer interventions to support the victim.

Gender and peer responses to bullying

To date, the majority of research into children's aggressive behavior has focused on boys (Bjoerkqvist and Niemelae, 1992). Boys tend to have extensive, relatively unintimate playgroups, therefore the conflictual behavior of boys is more likely to involve salient behaviors such as direct physical aggression, yelling, and assertions of status and dominance. In contrast, girls' playgroups tend to be more intimate (Maccoby and Jacklin, 1974). Girls may, therefore, be more likely to use indirect aggression—hostile acts where the perpetrator remains anonymous (Lagerspetz *et al.*, 1988). Crick and Grotpeter (1995) found that this type of relational aggression is significantly more likely to occur among girls, while direct physical and verbal aggression are more likely among boys.

Age and peer responses to bullying

The propensity to use various types of aggression varies not only by gender but also by age. Bjoerkqvist *et al.* (1992) suggest that physical, verbal, and indirect relational aggression are developmental phases that partly follow and partly overlap each other. Similarly, Boulton (1993) traces a developmental progression from overt to more covert forms of playground aggression.

Gender and age differences in peer responding to playground bullying were examined in the present study.

Objectives

In the present study, peer involvement in bullying was examined using a samples of naturalistic video-taped playground data (Pepler and Craig, 1995). The peer processes that were examined included: the bully's influence on the peer group as assessed through modeling, peer reinforcement of bullying, and the extent of peer support for the victim through pro-social interventions. Specific questions were as follows. (1) What percentage of the video-taped bullying interactions occur in the context of a peer group (defined as two or more peers who "onlook" for five or more seconds)? (2) To what extent do peers model the bully's behaviors by actively joining the bully in abusing the victim? (3) To what extent do

peers passively watch the bullying episode? And (4) to what extent do peers behave in a way that supports the victim?

Method

Participants

Participants were drawn from an ongoing study of bullying and victimization at two Toronto area elementary schools. As part of the larger study, children from grades one to six (aged 5 to 12 years) provided self-report information on bullying, victimization, and school climate. Participants also completed nominations of peers. All parents gave informed consent, while children gave assent prior to their participation in the study.

Each year, a subsample of approximately 120 children was drawn from the larger sample for the purposes of video-taping. This observation sample was stratified in order to include approximately equal numbers of boys and girls in each of four categories: bullies, victims, bully/victims, and comparison children. Categories were determined by two or more agreements on self, peer, and teacher nominations of bully/victim status (see below). Other peers who were video-taped while playing with members of the focal sample were included in the coding. Observations of the focal children and peers who may or may not have been in the focal sample provide the data for the analyses presented in this paper.

Measures

The video-taped subsample was derived from the following measures, completed by all children with consent in the participating classrooms. Children in the younger grades (grades 1–3) were individually administered measures, while those in the older grades (grades 4–6) received classroom administration.

Self-nominations were derived from a Bully/Victim Questionnaire, based on Olweus (1989). Two items (“How often have you bullied in the past six weeks?” and “How often have you bullied in the last five days?”) were combined to determine self-nominations for bullying. Four items (“How often have you been bullied during the past six weeks?”, “How often have you been bullied in the last five days?”, “How often do you spend recess alone?”, and “How often does it happen that other kids won’t let you join in what they’re doing?”) were combined to determine victimization status. Scores were summed and standardized within class and gender, and 0.75 or higher standard score on bullying or victimization was taken as a self-nomination. A 0.75 or higher standard score on both bullying and victimization was considered a bully/victim self-nomination.

Peer nominations for each student were obtained through the Modified Peer Nomination Inventory (MPNI), using a “class play” format (Masten *et al.*, 1985; Perry *et al.*, 1988). Students were asked to pretend their class was putting on a play, and to nominate classmates who could “best play the part of” a given behavior descriptor. The descriptor items on the MPNI contained seven aggression, seven victimization, and distractor items. Peer nominations were summed and standardized within class and gender. Children who received a 0.75 or higher standard score on bullying or victimization were considered as peer nominated for the respective category. A 0.75 or higher score on both bullying and victimization was considered a bully/victim peer nomination.

Teacher nominations were assessed using a Nomination Form. Teachers were asked to nominate any children in the class who fitted behavior descriptors which defined bullies, victims, and bully/victims.

Observation procedure

Focal children were asked to wear a waist pouch containing a wireless FM transmitter (for details, see Pepler and Craig, 1995). In order to decrease the salience of the transmitter, all children in the focal child's classroom were asked to wear a placebo pouch which was outwardly identical to the wireless microphone pouch. All children who wore the pouches assented to the procedure. Participants were asked to "play as you normally do" while wearing the pouches. Approximately 3% of the children refused to wear the pouches over the course of filming.

Filming was done by trained research assistants. Video cameras and microphone receivers were placed at strategic points on the playground which allowed for the greatest filming range with minimal moving of the camera. Video-taping at each collection period took place over a 2-week period, thus allowing students time to acclimatize to the filming process. Each target child was filmed for a period of approximately 10 min at each observation phase during unstructured free play at recess or lunchtime.

A total of 120 h of video and remote audio recordings of playground behavior were collected over a 3-year period, from a sample of approximately 120 children each year. These data comprise six collection periods, during the winter and spring of each of the three school years. The same children were followed over time whenever possible, however sampling with replacement was used as children became unavailable for the study (e.g. they left the school to attend junior high school, moved away, or were assigned to a classroom that was not a part of the study).

Data coding

In the first stage of coding, the 120 h of video tape were viewed to identify segments with aggressive behaviors. This process identified episodes with evenly matched aggressive exchanges as well as bullying (a detailed description of the coding scheme is available in O'Connell, 1999). In the second stage, episodes with peers were identified according to the following criteria: (1) the aggression involved a power differential, and thus qualified as bullying; (2) the bullying segments contained at least four actors (a bully, victim, and two or more peers); and (3) the taped segments were technically adequate (segments were eliminated if picture or sound quality was poor).

This two-stage data screening process resulted in a sample of 57 segments of playground bullying within the context of a peer group (two or more peers). These tape segments were of sufficiently high quality to be analysed. Codes, their definitions, and reliability are summarized in Table 1.

Frequency of bullying in a group context

Our initial screening of playground aggression identified 185 video-taped segments that contained bullying (i.e. aggression plus a power differential). Ninety-nine of the 185 bullying segments (53.5% of all bullying episodes) were included in the present research because they contained a peer group (two or more peers). Thus, at least two peers were found to be involved in slightly more than half of playground bullying episodes.

Table 1 *Event codes, code definitions, and inter-rater agreement*

Event code	Definition	Kappa
Bully attacks	Bully attacks victim (physical, verbal, or indirect)	0.77
Peer actively joins bully	Peer joins bully in physically or verbally abusing a victim	0.71
Peer passively joins bully	Peer is clearly aware of bullying (onlooks for more than 5 seconds) but does not intervene or leave	0.68
Peer intervenes	Peer offers support to a victim (e.g. by joining physically or verbally, distracting the bully)	0.69

Note: reliability calculated on 13 of 57 episodes (23% of sample).

Of the 99 video-taped playground bullying segments, 57 segments were of sufficiently high quality to conduct fine-grained analyses. The remaining 42 segments were eliminated because of poor sound or picture quality.

Non-independence of segments

The 57 segments selected for detailed analysis were examined for the identities of the bullies. We were able to identify four segments where a bully was present for a second time (i.e. four bullies who bullied in two video tape episodes each). Random selection was used to eliminate one of the two segments for each of the over-represented bullies. This resulted in a final sample of 53 segments that were used in the present analysis.

Coding of peer behaviors

For analyses of the time spent by peers actively modeling or passively attending to the bully, or actively intervening on behalf of the victim, we coded the duration of these behaviors for each peer independently. These times were then expressed as a percentage of the total bullying segment length. The average of these figures was calculated, across all segments combined, as a global indicator of the processes of modeling and reinforcement during peer involvement in bullying episodes. In cases where peers were present for only a portion of the entire video-tape episode, peers' activities were calculated as a proportion relative to the amount of time that they were present in the video-taped bullying segment.

Reliability

Initial screening of the tapes, for all types of aggressive behavior, was done by two trained undergraduate researchers. One-quarter of the tapes were coded by both raters, in order to establish inter-rater agreement. Per cent agreement averaged 0.84. This figure surpasses the minimum acceptable level for per cent agreement of 0.80 (Bakeman and Quera, 1995).

Stage two involved coding segments that contained bullying. Bullying was defined as any instances of aggression where the aggressor, or aggressors, had a power differential over the victim or victims. Inter-rater agreement for this coding was 0.82.

Stage three involved detailed coding of those segments that contained bullying interchanges in a group context. The agreement between independent video tape raters was calculated for 23% of the data. Cohen's kappa statistic (1960)—a formula that corrects for chance agreement among raters—was used for the coding of events. Kappas, averaged across all categories and episodes, were 0.67. Kappa statistics of 0.60 or greater are

considered highly adequate (Bakeman and Quera, 1995) (See Table 1 for a summary of Kappa statistics).

Results

The results are organized by first providing descriptive data on the number and duration of bullying episodes and the number of peers present. This is followed by descriptive data that examine bullying and peer involvement. Finally, the analyses related to specific questions are presented.

Although they were not a focus of the present study, school effects were assessed and one significant difference is reported. In cases where there were no school differences, we collapsed over this variable.

Descriptive statistics

Number of peers present. Across the 53 coded video tape segments, the average number of peers involved was four. The number of peers present ranged from two to 14. The minimum number of peers present (two) was determined by the inclusion criteria for video taped segments.

Number of peers present by gender. The mean number of peers present, and the gender of the peer group, was examined by categorizing each of the 53 segments as boys only, girls only, and mixed gender (defined as having less than an 80% representation of one gender). A crosstabulation of these data is presented in Table 2.

Playgroups that were made up of girls only were smaller than both boys, and mixed playgroups (mean=2.5 peers). There were no girls' playgroups that contained both younger and older students. Boys' playgroups were slightly larger than girls' groups (mean=3.3 peers). Mixed play groups comprised the largest type of peer group (mean=5.3 peers).

Table 2 Description of video-taped episodes* (n = 53): mean number of peers involved, by peer-group gender and grade level

(Peer-group gender)	Grade level			Total
	Younger (grades 1-3) (n s.d.)	Older (grades 4-6)	Mixed	
Boys	3.2 (15, 1.8)	3.6 (7, 2.5)	3.0 (1, -)	3.3 (23, 1.9)
Girls	2.7 (4, 0.5)	2.0 (2, 0.0)	—	2.5 (6, 0.5)
Mixed	4.4 (11, 1.5)	5.3 (9, 2.8)	8.3 (4, 3.9)	5.4 (24, 2.8)
Total	3.6 (30, 1.7)	4.3 (18, 2.7)	7.2 (5, 4.1)	4.2 (53, 2.5)

*Only episodes with two or more peers were included in the analyses.

Duration. The average duration of the coded episodes was 79.4 seconds, with a range from 7 seconds to 720 seconds. At school A the segments averaged 51.1 seconds (ranging from 7 to 128 seconds); at school B the segments averaged 111.1 seconds (with a range from 15 to 720 seconds). Video taped segments were significantly longer at school B than at school A ($t(51) = -2.09, p < 0.05$). The greater duration of bullying at school B may be related to the extreme length of one segment (720 seconds); the next longest segment was 151 seconds.

Number of peers present and duration. One index of peer influence on bullying is the relationship between the number of peers present and the length of the bullying episode. The overall Pearson product-moment correlation for both schools was $r = 0.23$ ($p < 0.05$), indicating a significant positive relationship between number of peers present and duration of the bullying episode.

Peers' modeling of bullying. Peers actively reinforced the bully by physically or verbally joining in the aggression for 20.7% of the time in each bullying episode.

Peers' passive reinforcement of bullying. The amount of time peers spent in passively reinforcing the bully by watching without joining in was, on average, 53.9% of the time in each bullying segment.

Peers' intervention for victims. Peers actively supported the victim by intervening, distracting the bully, or otherwise discouraging the aggression, for 25.4% of the time in each bullying episode.

Effect of gender and grade level on peers' use of time. How peers spent their time during bullying episodes was further examined using three ANOVAs. Each ANOVA used school (A, B), peer gender (boy, girl), and grade level (younger, older) as independent variables, while the three dependent variables were time spent in "modeling the bully", "passively reinforcing the bully", and "supporting the victim". The variables "modeling the bully" and "supporting the victim" were negatively skewed and were square-root and log transformed to improve the shape of their distributions.

The ANOVA on modeling the bully revealed a two-way interaction for gender and grade level, $F(1, 210) = 6.5, p < 0.02$. *Post-hoc* analyses revealed that older boys were significantly more likely to join with the bully than younger boys or older girls. In contrast, the analyses of variance using passive reinforcement of the bully as the dependent variable was non-significant. There were no discernible differences based on school, peer gender, or grade level. Finally, the ANOVA on time spent in supporting the victim revealed a two-way interaction for gender and grade level, $F(1, 210) = 4.7, p < 0.04$. *Post-hoc* analyses revealed that both younger and older girls were significantly more likely to support the victim than older boys. These data are shown in Figure 1.

Discussion

The present study confirms peers' central roles in the processes that unfold during playground bullying episodes. Peer presence is positively related to the persistence of bullying episodes, and peers are most likely to behave in ways that reinforce bullying behaviors. Our

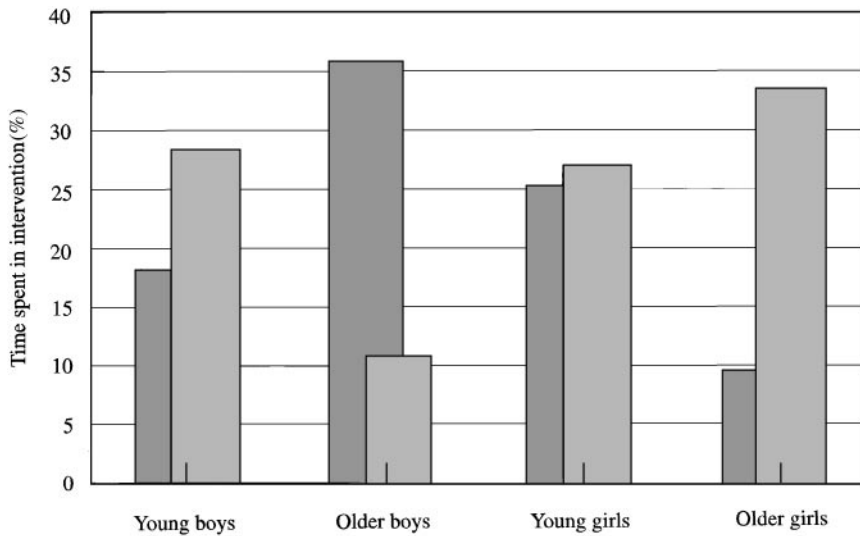


Figure 1. Peer time spent in joining bully (■) and supporting the victim (□), by grade level and gender.

analyses allowed us to consider the various directions of influence present during bullying episodes. These processes are considered below, with implications for intervention.

The influence of the bully on peers

Bullies had a direct effect on peers: peers spent more than one-fifth of their time (21%) in actively joining with the bully to abuse the victim. This relatively high frequency of actively reinforcing the bully can be understood if we acknowledge that the playground context is ripe for modeling (Bandura, 1977): the bully is powerful, teachers and peers seldom intervene, and peers can share in the bully's status and power by becoming accomplices.

Our data highlight the ambivalence that peers may have towards bullying. Recall that 83% of children in our surveys stated that bullying made them feel either "a bit" or "quite" unpleasant, while 31% of students admitted that they "could join in bullying someone they don't like" (O'Connell *et al.*, 1977). Our findings are congruent with those of Salmivalli *et al.* (1996), who found that sixth grade children underestimated their own participation in active bullying relative to peers' estimates of their behaviors.

In the current research, older boys spent significantly more time in joining with the bully. This finding corresponds with those of Rigby and Slee (1992) who found significantly less support for victims from older children in their study.

In summary, playground bullying behaviors appear to have a high potential for drawing peers into actively assisting the bully.

While anti-bullying interventions need to set clear consequences for those who bully, we believe that attention on only the individual bully is inadequate. Based on the potential influence that the bully has on peers, a larger goal of intervention is to reduce the bully's influence on the audience and help peers perceive the inappropriateness of aggression.

One intervention that could help to decrease peers' modeling of bullying is to sensitize children to the group processes that operate during playground bullying. Bullying can be framed as a problem on the playground that involves all children, regardless of their role.

Using this strategy, children's awareness can be heightened regarding how their reaction to bullying affects the problem. For example, children could be made aware of the group processes of arousal and disinhibition by exploring how these processes lead students to do things that they wouldn't normally do, or even approve of.

The strategy of raising peers' awareness of group processes is evident in existing anti-bullying methods, such as the No Blame Approach (Maines and Robinson, 1992) and the Method of Shared Concern (Pikas, 1989). These approaches address the problem of bullying by making the peer group culpable, and stressing that the group can influence bullying episodes. One important aspect of these approaches is the use of the group to heighten empathy toward the victim. By combining an educational approach (i.e. teaching students about group dynamics) with existing group problem solving approaches, students can understand the process of victimization both cognitively and emotionally. In this way, they can become more aware and active in reducing bullying problems among peers.

Peer attention to the bully

Children who simply watch bullying will often contend that they "aren't doing anything". In our observations, we found that peers reinforced bullying 54% of the time by passively attending to the episode and not helping the victim. The message for the bully, therefore, is positive: their aggressive behavior draws an attentive audience of peers who comprise a silent majority. Hazler (1996) describes the audience for school bullies as those who "... recognize what is happening yet do not know enough about their roles, emotional reactions, and responsibilities to take viable actions" (p. 12).

Our observations draw attention to the importance of including the entire peer group in anti-bullying interventions. While it might be intuitive to focus on the most active participants in bullying episodes (i.e. the bully, victim, and active joiners or interveners), we know now that peers spend a large proportion of their time passively observing during playground bullying. Through their passive observations they are inadvertently reinforcing the bully and giving the message that they approve of his or her actions.

Existing interventions, for example the Method of Shared Concern (Pikas, 1989), do place an emphasis on the larger peer group, with the message being that children are responsible for helping each other feeling safe and comfortable at school.

Given that 83% of children in our Canadian surveys stated that bullying made them feel either "a bit" or "quite" unpleasant, we would recommend intervention strategies in which peers are taught to attend to their discomfort. A heightened awareness of the negative aspects of bullying might lead peers to spend less time passively viewing, and perhaps increase their active opposition to bullying. When the peer group stops being an audience, the bully's attempts to gain dominance go unnoticed, therefore, the peers' reinforcement of the bully is removed.

Peer intervention

Peers spent one-quarter of their time (25%) intervening on behalf of victims during bullying episodes. Our observations of actual amounts of intervention contrast considerably with the questionnaire reports, where fully 41% of students indicated that they "try to help" the victim when they observe bullying. The data from the present analyses reveal the relatively small proportion of time that peers actually spent in aiding the victim. Taken together, the questionnaire and observational data suggest that many peers have a positive orientation to intervene, however they hesitate to do so for a variety of reasons.

Hawkins *et al.* (1998) examined how peers intervened using video-taped data drawn from the same sample as the present study. They found that peer interventions were equally likely to be made by boys or girls, and were evenly divided between aggressive and non-aggressive intervening. Interventions directed at the bully were more likely to be aggressive, while interventions directed at the victim were more likely to be non-aggressive. Three-quarters of the peer interventions were effective in stopping bullying. This study confirms that peers can be effective interveners, while simultaneously raising concerns about some of the intervention strategies that they use.

Several factors need to be considered in developing peer intervention strategies to counter bullying. First, children must be given a mandate to help change entrenched patterns of bully, victim, and peer behaviors. Second, children need strategies in order to intervene effectively. It is important that their interventions not be hostile or aggressive, because these may elicit a counter attack and place the intervener at risk of becoming the next victim. Children will only have the confidence to intervene when this behavior is promoted in the context of a whole-school anti-bullying initiative. Whole school approaches to countering bullying involve all members of the school community (students, teachers, parents, and administrators) in the development of clear rules and consequences that discourage all forms of aggression (Sharp and Thompson, 1994). With a whole-school policy, children know that adults will follow through and protect interveners when bullying occurs. Whole-school anti-bullying policies should be initiated during elementary school and continue to support students throughout all levels of the school system.

The interventions targeting peer processes will need to vary according to developmental level. For example, strategies such as "Ha Ha, So?" are appropriate for very young children (Garrity *et al.*, 1994), "Peacemakers" is geared towards children in middle grades (Johnson and Johnson, 1996), and peer counseling strategies might best be used by middle and upper level children (Cowie, 1994). Regardless of developmental level, it is essential to recognize the central role that peers have in the maintenance and course of playground bullying, and to promote interventions that effect change at the peer group level.

Limitations

Although the observational data provide insights into peer processes that are not available through questionnaires, we recognize that there are also limitations to the research. First, the data presented here are largely descriptive. A fine-grained examination of the data, involving sequential analysis of peers' playground behaviors, is presently being conducted and will be reported in a subsequent paper. This strategy will provide more information on the nature of influences among the peers, bully, and victim.

The observational methodology is also limited. First, some children were self-conscious about wearing microphones: this was particularly true of older children, suggesting that the methodology is more appropriate for younger children. A related concern was that the methodology allowed us to capture overt forms of bullying; indirect bullying was less likely to be identified. Although we observed indirect bullying, it was not coded for the present analysis if the victim was not visible.

The level of precision required by the coding scheme allowed us to examine only 57 out of 99 segments for technical reasons. Despite this limitation, our impression is that there was no systematic bias in the type of segment that was eliminated.

Finally, some non-independence existed in the data because four of the 57 episodes contained a bully who was also involved as a bully in another episode. Duplicate episodes

were randomly removed from the analyses, resulting in a final sample of 53 video tape segments. We chose to eliminate these episodes because the bully is the central, initiating figure in bullying episodes. There may have been further non-independence due to peers appearing in more than one segment of video tape. With the quality of filming, however, it was not possible to identify all peers present during bullying episodes.

Despite these limitations, the observational data that were coded remain a valuable source of naturalistic information about peer group involvement in bullying episodes, and represent an important step beyond relying on self-reports and other questionnaire data.

Conclusion

In summary, our analyses of the observational data confirm that peers are substantially involved in playground bullying, whether as active participants or as bystanders who are unable or unwilling to act pro-socially. During bullying episodes, 75% of peers' time is spent in ways that may provide positive reinforcement to the bully and do not help the victim.

Effective interventions that involve the peer group will need to have two components. First, it is important to raise peers' awareness of individual responsibility and increase empathy for the victim. Second, it is necessary to provide effective intervention strategies for children, and to encourage them to withstand the dynamics of the peer group. In combination, these strategies might mobilize the silent majority to act against playground bullying.

Interventions targeting the peer group in anti-bullying programs must be reinforced by simultaneous broader systemic initiatives. Whole-school approaches which involve students, teachers, school administrators, and parents might successfully challenge existing social conditions that tolerate, and inadvertently promote, bullying and victimization within the peer context.

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