

# The Power of Friendship: Protection Against an Escalating Cycle of Peer Victimization

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This study examined 2 aspects of friendship (presence and perceived qualities of a best friend) as moderators of behavioral antecedents and outcomes of peer victimization. A total of 393 children (188 boys and 205 girls) in the 4th and 5th grades (mean age = 10 years 7 months) participated during each of 2 waves of data collection in this 1-year longitudinal study. Results indicated that teacher-reported internalizing and externalizing behaviors predicted increases in peer-reported victimization, but the relation of internalizing behaviors to increases in victimization was attenuated for children with a protective friendship. Victimization predicted increases in internalizing and externalizing behaviors but only for children without a mutual best friendship. Results highlight the importance of peer friendships in preventing an escalating cycle of peer abuse.

Approximately 10% of elementary and middle-school children have been identified as being victimized by their peers on a regular basis (Kochenderfer & Ladd, 1996; Olweus, 1978; Perry, Kusel, & Perry, 1988). Moreover, victimization is highly stable, indicating that many of the same children experience verbal and physical attacks from peers over several years (Egan & Perry, 1998; Hodges, Malone, & Perry, 1995; Olweus, 1978). The experience of being victimized by one's classmates has been linked to several negative adjustment indexes, including anxiety, depression, loneliness, low self-esteem (Boivin & Hymel, 1997; Boivin, Hymel, & Bukowski, 1995; Egan & Perry, 1998; Olweus, 1978, 1992), school avoidance (Kochenderfer & Ladd, 1996), poor academic

performance (Olweus, 1978), peer rejection (Hodges, Malone, & Perry, 1997; Perry et al., 1988), and a limited number of friends (Bukowski, Sippola, & Boivin, 1995; Hodges et al., 1995, 1997). Considering the wide range of negative adjustment indexes associated with peer victimization, it is important for researchers to understand the processes and conditions that are likely to put children at risk for peer victimization as well as factors that can temper the negative effects of victimization.

Several studies have sought to determine factors associated with risk for peer victimization. Much of this focus has been on proximal influences that operate within the peer group, especially forms of social impairment exhibited by children that might contribute to their victimization. The guiding assumption has been that victimized children behave in ways that invite and/or reinforce attacks against them. Many victimized children do exhibit behaviors that very probably signal that they will be unlikely to successfully defend themselves against attacks: They cry easily; are manifestly anxious and withdrawn; lack humor, self-confidence, and self-esteem; and use ineffectual persuasion tactics. Moreover, they reward their attackers by being submissive and by relinquishing resources (Boivin & Hymel, 1997; Olweus, 1978; Patterson, Littman, & Bricker, 1967; Perry et al., 1988; Perry, Williard, & Perry, 1990; Schwarzl, Dodge, & Coie, 1993). Many of the foregoing attributes are consistent with a picture of the victimized child as having *internalizing difficulties*. Some victimized children also display *externalizing problems*, such as disruptiveness, aggression, and argumentativeness (Boivin & Hymel, 1997; Olweus, 1978; Perry et al., 1988; Perry, Perry, & Kennedy, 1992). These behaviors have been hypothesized to irritate and provoke other children, especially bullies; victimized children with these attributes are sometimes called *provocative victims*.

Children's interpersonal relationships (e.g., friendships) have also been implicated as possible risk factors for peer victimization. Chil-

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This research was supported by postdoctoral research fellowships from the Faculté des Sciences Sociales de l'Université Laval and the Research Unit on Children's Psycho-Social Maladjustment and by research grants from the Social Sciences and Humanities Research Council of Canada, the Conseil Québécois de la Recherche Sociale, the Fonds de Recherche en Santé du Québec, the Fonds pour la Formation de Chercheurs et l'Aide à la Recherche, and the Richelieu Foundation.

We thank the administrators and the children of the Québec Catholic School Board, the Découvreurs School Board, the Montcalm School Board, and the Charlesbourg School Board for their participation in the study. The contributions of Marielle Dion, Lise Côté, and François Poulin are gratefully acknowledged.

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dren's friendships serve many important developmental functions (Hartup, 1993). Friendships are contexts for learning social skills, are information sources for self-knowledge and self-esteem, and provide emotional and cognitive resources for support and coping, as well as practice for later relationships. One function, however, that has received relatively little attention is that of a protective function. Several investigators (Bukowski et al., 1995; Hodges et al., 1997; Kochenderfer & Ladd, 1997; Rizzo, 1989) have recently proposed that having one or more friends helps to protect children against victimization. Children are well aware of the social networks within the classroom (Cairns, Cairns, Neckerman, Gest, & Gariépy, 1988), and aggressive children probably prefer to target children who lack friends because they can do so without fear of retaliation or ostracism from the children's friends. Initial support for the hypothesis that friendship protects children at risk for victimization was offered by Bukowski et al. (1995) and Hodges et al. (1997), who found that friended children were less victimized.

In studying factors that may contribute to children's risk for being victimized by peers, Hodges et al. (1997) found it useful to distinguish between the two sets of risk factors discussed above—behaviors relevant to the child (*individual risk factors*) and indexes relevant to the child's interpersonal relationships (*social risk factors*). Hodges et al. (1997) hypothesized that individual risk would be most strongly related to peer victimization when children were also at social risk. Indeed, having friends moderated the relation of several individual risk indexes to victimization. For example, the relations of internalizing (anxiety, depression, and withdrawal) and externalizing (aggression, dishonesty, and argumentativeness) problems to victimization were exacerbated when children had few friends but were minimized when children had many friends. However, interpretation of the Hodges et al. (1997) study was hampered by the concurrent design and by shared method variance. One purpose of the present study was to examine the Hodges et al. (1997) hypothesis within a developmentally (i.e., longitudinal) informative design and to use multiple sources of information. It was hypothesized, then, that having a best friend would minimize the relations of internalizing and externalizing behaviors to changes (i.e., increases) in victimization, whereas a lack of a best friend would maximize these relations.

Having a best friend may not be sufficient, however, in protecting children who are at risk for victimization. Variability exists in children's abilities to provide a protective function (Bukowski, Hoza, & Boivin, 1994; Hodges et al., 1997; Hodges & Perry, 1997). Hodges and Perry, for example, found that the relation of internalizing behaviors to victimization was attenuated when children's friends were known by the peer group to rescue children from bullies. In addition, Hodges et al. (1997) found that when children's friends exhibited behaviors that were thought to interfere with their ability to provide a protective function (i.e., friends who had internalizing problems or who lacked strength), the relation of individual risk to victimization was enhanced. The protective function of friendship, however, was inferred in the Hodges et al. (1997) study, whereas the Hodges and Perry study examined a general behavioral pattern of rescuing, as specific to friendship. In the present study, children reported on the degree to which their best friend sticks up for them when they are attacked or threatened by other children. It was hypothesized that under high levels of reported protection from a best friend, the relation of behavioral

problems to increases in victimization would be minimized, but this relation would be maximized under low levels of protection.

Internalizing and externalizing behaviors are not likely to be related to peer abuse solely in a unidirectional manner. Indeed, recent longitudinal evidence indicates that increases in these behaviors also result from the experience of victimization (Boivin et al., 1995; Egan & Perry, 1998; Hodges et al., 1995; Olweus, 1992). Most of these longitudinal studies, however, are limited because of the use of common respondents (e.g., peers) for measures of victimization and behavioral problems, thus opening the door to alternative interpretations such as response biases and shared method variance. Stronger support for the hypothesis that behavioral problems and peer victimization reciprocally influence each other would be provided if independent sources of information were used within a longitudinal design. The present study used such a design, measuring behaviors with teacher reports and peer victimization with peer reports.

The hypothesis that friendship can buffer the negative effects of victimization discussed above was also examined. Sullivan (1953) suggested that during preadolescence, the establishment of a "chumship" becomes crucial in children's socioemotional development. Sullivan argued that children adjust their behaviors in this relationship to become increasingly similar to one another over time. The presence of a best friend, then, may serve to limit the effects of victimization on children's behavioral repertoire, such as internalizing and externalizing problems, because changes in these behaviors may threaten the child's relationship. Children who lack a best friendship are also less likely to have access to many of the benefits that friendships have to offer, such as companionship, intimacy, and emotional support (e.g., Bukowski et al., 1994). Thus, it was hypothesized that the experience of peer victimization would lead to increases in internalizing and externalizing behaviors primarily when children lacked a best friend. Finally, the possibility that individual differences in the quality of children's best friendship may buffer the negative effects of victimization was also examined.

## Method

### Participants

A total of 533 French-Canadian children (274 boys and 259 girls) in the fourth ( $n = 259$ ) and fifth grades ( $n = 274$ ) from seven elementary schools participated in the Time 1 data collection (mean age = 10 years 7 months). Participants were from diverse socioeconomic backgrounds. The participation rate for the Time 1 data collection exceeded 98%. Parents provided written consent for their children to participate.

Of the children who participated during the Time 1 data collection, 393 (188 boys and 205 girls) participated during the following school year (Time 2) when children were in the fifth and sixth grades. The 26% attrition rate was due primarily to missing data because of absenteeism and incomplete questionnaires as well as students moving to nonparticipating schools. Selective attrition was not evident in that participants who continued to participate in the second wave of data collection did not significantly differ from those who did not continue to participate on initial levels of the primary variable of interest (i.e., peer victimization).

### Procedure

Measures were collected during the spring (April–May) within a 6-week time period. Children completed self-reports of loneliness and completed the victimization scale during separate group testing. Teachers completed a behavioral questionnaire. Each measure is described in detail below.

Table 1  
Partial Correlations Among Measures at Each Time of Testing

Measure	1	2	3	4	5	6	7	8
1. Victimization	—	.29***	.33***					
2. Internalizing problems	.21***	—	.13**					
3. Externalizing problems	.33***	.15**	—					
4. Mutual best friendship	-.28***	-.17***	-.19***	—				
5. Protection	-.02	-.11*	.01	—	—			
6. Companionship	-.15**	-.07	-.01	—	.42***	—		
7. Security	.01	.05	-.02	—	.37***	.53***	—	
8. Conflict	.00	.03	.18***	—	-.02	-.12*	-.15**	—

Note. Partial correlations were controlled for sex and age. Partial correlations among variables during Time 1 are presented below the diagonal, and for Time 2, above the diagonal. For Time 1, *ns* ranged from 479 to 529 for the first four measures. The *ns* for the friendship quality variables (Measures 5–8) ranged from 315 to 335 (these *ns* were restricted to those who had a reciprocated best friendship). For Time 2, *ns* ranged from 388 to 398.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## Measures

**Peer victimization.** The degree to which children were victimized by peers was assessed using the Perry et al. (1988) peer-report victimization scale. Children nominated two children on seven items describing victimization experiences such as getting hit, pushed, shoved, threatened, or called names. Victimization scores were computed for each child by summing the seven victimization items and standardizing the scores within class. This scale has been well validated by prior research (e.g., Boivin & Hymel, 1997; Hodges et al., 1997; Perry et al., 1988). Cronbach's alphas for Time 1 and Time 2 victimization were, respectively, .97 and .97.

**Behavioral problems.** Teachers reported on children's behaviors using Rutter's (1967) Children's Behavioral Questionnaire (CBQ), a 26-item behavioral questionnaire using a 3-point scale ranging from 0 to 2. Four items were used to assess internalizing problems: (a) worried about many things; (b) tends to work alone, rather solitary; (c) looks sad, unfortunate, close to tears; and (d) tends to be fearful or afraid of novel things or situations. Five items were used to assess externalizing behaviors: (a) often destroys own or others' belongings, (b) frequently fights with other children, (c) often tells lies, (d) has stolen things on more than one occasion, and (e) bullies other children. These questions tap similar dimensions to those that have been used in prior research (e.g., Egan & Perry, 1998; Hodges et al., 1997) when studying the relation of internalizing and externalizing behaviors to victimization.<sup>1</sup>

Scores for each child were computed by summing across relevant items. High scores for the internalizing scale reflect greater internalizing difficulties, whereas high scores on the externalizing scale reflect greater externalizing behaviors. Cronbach's alphas for Time 1 and Time 2 internalizing behaviors were, respectively, .76 and .70. For Time 1 and Time 2 externalizing behaviors, Cronbach's alphas were, respectively, .83 and .80.

**Friendship.** Children identified their three best friends. Children were considered to have a best friendship if their first choice reciprocally nominated them as one of their three best friends. Children were then asked to respond to the initial version of the Bukowski et al. (1994) Friendship Qualities Scale while thinking about their best friend. Four scales were computed from this questionnaire: (a) Protection, two items (e.g., My friend would stick up for me if another kid was causing me trouble; Cronbach's  $\alpha = .78$ ); (b) Companionship, seven items (e.g., My friend and I spend all our free time together; Cronbach's  $\alpha = .79$ ); (c) Security, five items (e.g., If my friend or I do something that the other doesn't like, we can make up easily; Cronbach's  $\alpha = .72$ ); and (d) Conflict, five items (e.g., My friend and I argue a lot; Cronbach's  $\alpha = .67$ ).

## Results

Results are divided into three major sections. First, intercorrelations among the measures are presented. Second, the hypotheses concerning the causes of victimization are tested. Third, the hypotheses regarding outcomes of victimization are examined.

### Intercorrelations Among Variables

Table 1 presents partial correlations among all measures (controlling for age and sex) for each data collection (Times 1 and 2). Two aspects of Table 1 are noteworthy. First, both of the adjustment indexes (internalizing and externalizing problems) were significantly related (in expected directions) to peer victimization, replicating previous research (e.g., Boivin & Hymel, 1997; Egan & Perry, 1998; Hodges et al., 1997). In addition, the significant associations among teacher-reported behavior problems and peer-reported victimization eliminates the alternative explanation left open by prior research that these associations may be due to shared method variance. Second, in the bottom right-hand corner of Table 1, the usefulness of keeping the friendship variables as distinct dimensions is shown by the low-to-moderate relations among them.

Table 2 presents partial correlations of the measures across time. Three aspects of Table 2 deserve comment. First, all of the measures that were collected at both time points showed significant stability coefficients over the 1-year interval. However, the stability of internalizing problems was considerably lower than that of externalizing problems. The low stability of teacher-reported internalizing problems, however, is consistent with prior research (e.g., Vitaro, Gagnon, & Tremblay, 1991). Second, both types of behavioral problems significantly correlated with victimization 1

<sup>1</sup> We also ran a factor analysis (with varimax rotation) on the nine items from the CBQ to ensure that the two expected factors would emerge. Two clear factors emerged, with eigenvalues greater than 1, with each item loading highly (range = .63 to .85) on the appropriate factor (i.e., Externalizing or Internalizing Dimensions) and low cross-factor loadings (less than .20).

Table 2  
Partial Correlations of Time 1 Measures With Time 2 Measures

Time 1 measure	Time 2 measure		
	1	2	3
1. Victimization	<b>.69***</b>	<b>.26***</b>	<b>.34***</b>
2. Internalizing problems	<b>.22***</b>	<b>.23***</b>	<b>.04</b>
3. Externalizing problems	<b>.29***</b>	<b>.14***</b>	<b>.63***</b>
4. Mutual best friendship	<b>-.28***</b>	<b>-.14**</b>	<b>-.16**</b>
5. Protection	<b>-.12*</b>	<b>.00</b>	<b>-.03</b>
6. Companionship	<b>-.09</b>	<b>.03</b>	<b>.02</b>
7. Security	<b>.04</b>	<b>.02</b>	<b>-.04</b>
8. Conflict	<b>.04</b>	<b>.11</b>	<b>.18**</b>

Note. Partial correlations were controlled for sex and age. The *n*s ranged from 377 to 393 for the first four measures. The *n*s for the friendship quality variables (Measures 5–8) ranged from 259 to 267 (these *n*s were restricted to those who had a reciprocated best friendship). Stability coefficients are in boldface.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

year later and both were significantly predicted by victimization the prior year. Third, two of the friendship variables also related to future victimization—the presence of a mutual friend and having a protective friend negatively related to future victimization. The hypotheses relating the adjustment indexes and friendship to victimization, however, were offered at the level of moderation and at the level of predicting change. These hypotheses are evaluated in the following sections.

### Antecedents of Victimization

Two regression analyses were performed to evaluate whether internalizing problems and externalizing problems predicted increases in victimization. For each analysis, Time 2 victimization was the criterion, victimization at Time 1 and age and sex were entered on the first step as control variables, and then one of the two Time 1 predictors was evaluated on the second step.

As predicted, internalizing behaviors,  $\Delta F(1, 385) = 4.35$ ,  $pr = .11$ ,  $p < .05$ , and externalizing behaviors,  $\Delta F(1, 384) = 5.99$ ,  $pr = .12$ ,  $p < .05$ , at Time 1 significantly accounted for increases in victimization over 1 year, over and above the control variables.

Does best friendship decrease risk for victimization? We first evaluated whether having a best friend would moderate the relation of behavioral problems to increases in victimization. To do so, one regression analysis was performed in which Time 2 victimization was the criterion. Time 1 victimization was entered on the first step. Age and sex were entered as controls on the second step. Time 1 internalizing problems and externalizing problems were entered on the third step. Reciprocated best friendship (coded 0 or 1) was entered on the fourth step, and the two internalizing and externalizing problems by reciprocated-friendship product terms were entered on the final step. The overall equation was significant,  $F(8, 377) = 47.83$ ,  $R^2 = 50.4\%$ ,  $p < .001$ . Victimization at Time 1 accounted for the majority of the variance,  $F = 48.1\%$ . On the second step, age and sex did not account for additional variance,  $\Delta F = 1.90$ ,  $\Delta R^2 = 0.5\%$ . Internalizing problems ( $pr = .09$ ,  $p < .05$ , one-tailed) and externalizing problems ( $pr = .11$ ,  $p < .05$ ) together accounted for an additional 1.2% of the variance at Step 3.  $\Delta F = 4.60$ ,  $p < .05$ . The partial correlations for the behavioral

problems on this step indicate that there was a small degree of overlap when predicting increases in victimization from internalizing and externalizing behaviors but that they were largely independent of one another. On the fourth step, having a best friend marginally added to the variance explained,  $\Delta F = 3.27$ ,  $pr = -.09$ ,  $p < .05$ , one-tailed, with the presence of a best friend predicting decreases in victimization. Internalizing and externalizing problems, however, did not differentially relate to increases in victimization depending on whether children had a mutual best friend, indicated by nonsignificant best friendship by internalizing-problems and friendship by externalizing-problems product terms.<sup>2</sup>

Behavioral problems were entered prior to friendship in the above analysis because internalizing and externalizing behaviors were considered to be more directly responsible for victimization than were children's interpersonal relationships. This equation was reanalyzed with the order of entry of behavioral problems and friendship reversed. Having a best friendship significantly predicted change in victimization when entered prior to behaviors,  $\Delta F = 4.97$ ,  $\Delta R^2 = 1.0\%$ ,  $p < .05$ . In addition, internalizing and externalizing problems together accounted for a significant increment in variance accounted for over and above that explained by Time 1 victimization, age, sex, and friendship,  $\Delta F = 3.74$ ,  $\Delta R^2 = 1.0\%$ ,  $p < .01$ . This pattern of results indicates that although the effect of friendship on victimization was partly explained by behavioral problems, behavioral problems predicted increases in victimization independent of having a friend.

Next, we evaluated whether the four friendship quality variables would moderate the relation of internalizing and externalizing problems to victimization. Because children reported on the friendship qualities of their best friend, it is only meaningful to discuss these qualities for children who had a best friend. Thus, the following analyses were restricted to children whose best friend reciprocally nominated the child as one of his or her three best friends. Initially, a regression analysis was performed with victimization at Time 2 as the criterion. Time 1 victimization, age, sex, and all six main effects (the two behavioral risk indexes and the four friendship quality measures) were entered on the first step. On the second step, the eight (4 friendship quality variables  $\times$  2 behavioral variables) product terms were tested. Because only one friendship quality (i.e., perceived protection) interacted with risk, the other three friendship quality variables and their respective interactions were dropped from the analysis.

As hypothesized, the friendship quality of protection interacted with internalizing problems to predict Time 2 victimization,  $\Delta F(1, 247) = 4.96$ ,  $\Delta R^2 = 1.3\%$ ,  $p < .05$ , after controlling for Time 1 victimization, age, sex, and the main effects of Time 1 externalizing behaviors, internalizing behaviors, and friendship protection. The nature of this significant interaction was examined using the appropriate standardized solution recommended by Aiken and

<sup>2</sup> These interaction terms were also tested using two other methods for determining friendship (number of reciprocated friendships, range = 0–3, and having any [second and third choices] reciprocated friend, range = 0 or 1). Each interaction was nonsignificant. Furthermore, sex did not interact with any of the risk variables to predict change in victimization, nor were there any significant three-way interactions involving sex. Thus, all of the effects in this section are equally applicable to boys and girls.

West (1991). This procedure allows one to see how the relation of a predictor variable (e.g., Time 1 internalizing problems) to a criterion (e.g., Time 2 victimization) varies depending on the moderator variable (e.g., Time 1 friendship protection). Specifically, the relation of a predictor to the criterion is estimated in the form of a standardized regression coefficient ( $\beta$ ) at each of three levels of the moderator variable ( $-1$ ,  $0$ , and  $1$  *SD*; i.e., at low, medium, and high levels of the moderator). Comparing the  $\beta$ s across the three levels of the moderator variable allows one to see how the relation (i.e., slope) between the predictor and the criterion changes with level of the moderator.

The follow-up analysis confirmed that having a friend who served a protective function buffered the relation of internalizing problems to victimization. When children perceived decreasingly less protective friends from high ( $1$  *SD*) to medium ( $0$  *SD*) to low ( $-1$  *SD*), the relation of internalizing problems to victimization increased (respective  $\beta$ s =  $.00$ , *ns*;  $.10$ ,  $p < .05$ ;  $.21$ ,  $p < .005$ ).<sup>3</sup> Note that children's internalizing problems no longer related to victimization if they had a friendship characterized by high protection, thus completely buffering children's risk at this level.

To summarize, internalizing and externalizing behaviors predicted increases in victimization over the 1-year interval of the study. In addition, having a best friend predicted decreases in victimization. Moreover, and as expected, having a friend characterized by high protection eliminated the relation of internalizing behaviors to changes in victimization, whereas having a friend characterized by low protection exacerbated this relation.

### Outcomes of Victimization

To evaluate the hypothesis that the experience of victimization is likely to lead to increases in internalizing and externalizing problems, two multiple regression analyses were performed, one for each outcome. For each analysis, initial level (Time 1) of the outcome, age, and sex were entered on the first step, and victimization at Time 1 was entered on the second step.

Victimization at Time 1 significantly predicted both outcomes over and above initial levels and the control variables. Victimization predicted increases in internalizing problems,  $\Delta F(1, 379) = 21.36$ ,  $pr = .23$ ,  $p < .001$ , and increases in externalizing problems,  $\Delta F(1, 378) = 13.83$ ,  $pr = .19$ ,  $p < .001$ .

Does best friendship buffer the effects of victimization? First, we examined whether the sheer existence of a mutual best friendship would decrease the effects of peer victimization. Two regression equations were evaluated, one for each outcome. Initial levels of the criterion variable were entered on the first step. Age and sex were controlled on the second step. Time 1 victimization and best friendship were entered on the third step. And on the final step, the best friendship by victimization product term was evaluated.

When predicting Time 2 internalizing problems, the overall equation was significant,  $F(6, 377) = 9.01$ ,  $R^2 = 12.5\%$ ,  $p < .001$ . Time 1 internalizing problems accounted for 5.4% of the variance on the first step,  $F = 21.67$ ,  $p < .001$ . On the second step, age and sex did not contribute additional variance,  $\Delta F = .11$ , *ns*. Together, victimization ( $pr = .21$ ,  $p < .001$ ) and having a best friend ( $pr = -.05$ , *ns*) accounted for an additional 5.3% of the variance on the third step,  $\Delta F = 11.19$ ,  $p < .001$ . More important, and as expected, having a best friendship significantly interacted with victimization

to predict change in internalizing problems,  $\Delta F = 7.89$ ,  $\Delta R^2 = 1.8\%$ ,  $p < .005$ .

To examine the nature of this interaction, separate regression analyses were performed for children who had a mutual best friendship and for children who did not. Victimization at Time 1 predicted increases in internalizing problems (after controlling for Time 1 internalizing problems, sex, and age), for children without a mutual best friend,  $\Delta F(1, 110) = 15.30$ ,  $pr = .35$ ,  $p < .001$ , but not for children with a best friend,  $\Delta F(1, 264) = 0.42$ ,  $pr = .04$ , *ns*. Thus, having a best friend completely eliminated the effects of victimization to increases in internalizing problems.

When predicting externalizing problems, the overall equation was also significant,  $F(6, 376) = 53.67$ ,  $R^2 = 46.1\%$ ,  $p < .001$ . Initial levels of externalizing problems accounted for the majority of the variance explained,  $\Delta F = 163.90$ ,  $R^2 = 42.1\%$ ,  $p < .001$ . Sex and age did not explain additional variance on the second step,  $\Delta F = 0.71$ , *ns*. On the third step, victimization ( $pr = .21$ ,  $p < .001$ ) and having a best friend ( $pr = -.01$ , *ns*) together accounted for an additional 2.8% of the variance explained,  $\Delta F = 9.54$ ,  $p < .001$ . More important, and as hypothesized, the presence of a mutual best friendship interacted with victimization to predict changes in externalizing problems,  $\Delta F(1, 376) = 7.41$ ,  $\Delta R^2 = 1.1\%$ ,  $p < .01$ .

Again, to examine the nature of this interaction, separate regression equations were analyzed for children with and without best friends. Time 1 victimization predicted increases in externalizing problems for children without a best friendship,  $\Delta F(1, 259) = 0.79$ ,  $pr = .06$ , *ns*. Having a best friend, then, considerably reduced the relation of victimization to increases in externalization problems while enhancing this relation for children without a best friendship.

The two outcomes (internalizing and externalizing behaviors) were significantly associated with each other at Time 2. To ensure that the observed relations between victimization and increases in the two outcomes were not redundant (i.e., predicting a common latent construct), the analyses reported above were reanalyzed for each outcome while adding the other Time 2 outcome to the existing controls. Results were essentially the same.

To summarize, internalizing and externalizing behaviors were also a result of peer abuse. However, the experience of victimization did not affect changes in behaviors when children had a best friend.

Although victimization was not related to increases in internalizing and externalizing problems for children with a mutual best friend, it does not preclude the possibility that at different levels of friendship quality, victimization may still produce negative adjustment outcomes. To test this possibility, a series of regression analyses were performed in which the product term of each friendship quality by victimization at Time 1 was evaluated when predicting the two adjustment indexes.

Only one of the eight interaction terms was significant. Companionship interacted with Time 1 victimization to predict Time 2 internalizing problems (after controlling for sex, age, Time 1 internalizing problems, and companionship),  $\Delta F(1, 246) = 4.86$ ,

<sup>3</sup> All variables were standardized, thus effectively centering each variable (i.e., given a mean of zero). Centering of variables is necessary for the interpretation of interactions in multiple regression (Aiken & West, 1991).

$\Delta R^2 = 1.9\%$ ,  $p < .05$ . To examine the nature of this interaction, the Aiken and West (1991) procedure outlined previously was used. Unexpectedly, the relation of victimization to increases in internalizing problems was apparent when children reported high levels (1 *SD*) of companionship ( $\beta = .26$ ,  $p < .05$ ), but not at medium (0 *SD*;  $\beta = .12$ , *ns*), and low (-1 *SD*) levels of companionship ( $\beta = -.02$ , *ns*).<sup>4</sup>

### Discussion

The list of concurrent adjustment correlates of victimization is long and growing, but longitudinal studies designed to shed light on antecedent-outcome relations are few and far between. The present study adds to the existing literature on peer victimization by shedding light on some of the processes that are responsible for victimization. In addition to answering questions about why children are victimized, the present study answers questions about when victimization is most likely to occur.

Hodges et al. (1997) postulated that peer victimization should be most likely to occur when children have behavioral problems that put them at individual risk and they have relational problems that put them at social risk. The results of the present study provide support for their conceptualization of children's interpersonal relationships as contexts that govern whether aggression is directed toward at-risk children. Moreover, the results of the present study indicate that friendship can be a powerful buffer against the negative adjustment often experienced by victimized children. We discuss, first, findings related to the children's risk for victimization and then turn to the consequences of victimization. Then, we note some strengths and limitations of the present study.

Both internalizing and externalizing behaviors predicted increases in peer victimization. These findings lend support to the conceptualization of behavioral problems as risk factors for peer abuse (Boivin & Hymel, 1997; Boivin et al., 1995; Egan & Perry, 1998; Hodges et al., 1997; Perry et al., 1992). Furthermore, that internalizing and externalizing behaviors were largely independent predictors of victimization indicates that behaviors that reinforce or provoke aggressors are likely to put children at risk for victimization.

Having a best friend did not interact with the individual risk variables to predict increases in victimization. However, having a best friend did predict decreases in victimization over the year, although marginally so after controlling for behavioral problems. Having a best friend, then, should still be considered important for warding off aggressive attacks. That is, having a best friend appears to decrease victimization for children, regardless of whether they have behavioral problems.

Moreover, the quality of friendship that was hypothesized to be the process by which friendship reduces children's risk for victimization was supported. Indeed, internalizing problems no longer predicted victimization for children who perceived a high (1 *SD*) level of protection from their friend. Having a friend characterized as providing little protection (-1 *SD*), however, exacerbated the relation of internalizing problems to victimization. These findings highlight the importance of assessing the quality of children's friendships in addition to the quantity of friendships and also show that friendships may not always be salutary for children's social experiences (Hartup & Stevens, 1997).

Friendship security, companionship, and conflict did not predict changes in victimization, alone or in combination with any risk factor. Other aspects of friendship, however, are likely to play a role in exacerbating or reducing children's risk for victimization. Hodges et al. (1997) pointed to characteristics (weakness and internalizing behaviors) of children's friends that exacerbate children's risk for victimization. In addition, friends' strategies for protecting their friend may also be important. As Kochenderfer and Ladd (1997) noted, children may attempt to protect their friends in a number of ways. For example, when a friend is being victimized, some friends may respond by telling the teacher, whereas others may respond by fighting back. Further research is needed to identify specific strategies that friends use to most effectively stop chronic victimization.

The results of the present study suggest an additional important role that friendship can play with regard to the behavioral consequences of peer victimization. As hypothesized, increases in behavioral problems were not apparent for children with a best friend—only children without a best friend showed increases in internalizing and externalizing behaviors. Children tend to befriend similar others on the basis of a number of salient behavioral dimensions such as externalizing and internalizing behaviors (e.g., Hodges et al., 1997; Hogue & Steinberg 1995). If behavioral similarity is important for the maintenance of friendships, changes in these observable behaviors may threaten children's relationships (Sullivan, 1953). Future research could examine the possibility by examining whether the maintenance of friendships is less likely when children's similarity on behavioral dimensions decreases over time.

Another possibility for the buffering role of friendship on the behavioral outcomes of victimization may be that victimization is not as chronic (i.e., stable) for children with a best friend. To test this possibility, a post hoc regression equation was analyzed, with Time 2 victimization as the criterion. The friendship by Time 1 victimization product term was evaluated after controlling for Time 1 victimization, sex, age, and best friendship. This interaction term was not significant, however, indicating that victimization is as chronic for children with a best friendship as it is for those without a best friend.

Unexpectedly, children who spent an above average (1 *SD*) amount of time with their friend evidenced increases in internalizing problems when they were victimized. Albeit speculative, a high degree of companionship may be reflective of an overly close and exclusive relationship, perhaps characteristic of children who use preoccupied coping strategies (which is also associated with internalizing behaviors) with their friend to deal with stressful situations at school (Hodges, Finnegan, & Perry, in press).

A strength of the present study was the large number of participants and the strong methodological design. Much of the previous work on the relation of behavioral problems to peer victimization has been limited by shared method variance (Boivin & Hymel, 1997; Boivin et al., 1995; Egan & Perry, 1998; Hodges et al.,

<sup>4</sup> Sex was also examined as a possible moderator of the main effects of victimization and as a moderator of all friendship by victimization product terms. No interaction term involving sex was significant, indicating that all observed findings reported here apply equally to both sexes.

1997). The present study overcame this limitation by assessing behavioral problems through teachers, friendship qualities from children, and victimization by peer reports.

Another strength of the present study was the longitudinal design. Such designs are essential for evaluating causal models such as those tested in the present study. However, the high stability of the measures (except for internalizing problems) limited the amount of variance that could be explained by the predictors. When this occurs, even small percentages of variance accounted for become important, especially for making causal inferences. It is also important that the significant interactions indicate that the effects were much stronger at high levels of social risk. Moreover, the effects are likely to cumulate over several years in a compounding fashion, thereby adding up to be substantial. To optimize the amount of change that can be studied during middle childhood, researchers may wish to consider targeting transition periods (e.g., moving from elementary to middle school) or extended periods of time, in which there may be more opportunities for children to escape victimization (or to become victimized).

The present study focused on the friendship qualities of children's best friendships because Sullivan (1953) argued for the importance of this relationship over other friendships during pre-adolescence. However, children's larger social networks are clearly important as well (e.g., Harris, 1995). Research on friendship may benefit from what has occurred in the literature on attachment, which suggests that the quality of relationships may be quite different from one relationship partner to another (e.g., Cox, Owen, Henderson, & Margand, 1992; Hodges et al., in press). Future research could examine, for example, whether some friends provide protection whereas other friends primarily provide intimacy exchange, self-validation, and so forth.

Victimization, in this study, was measured in terms of the receipt of direct physical and verbal aggression; other kinds of victimization, such as indirect or relational victimization (Crick & Grotpeter, 1995), may operate according to different processes. Relational aggression refers to acts intended to harm a child's interpersonal relationships with peers (e.g., by encouraging one's friends to exclude someone from a social function or clique); girls are more likely than boys both to enact and to receive this form of aggression. It is important to keep in mind, however, that studies have shown that girls are just about as likely as boys to experience the kind of direct overt form of abuse investigated here (Egan & Perry, 1998; Hodges et al., 1997; Kochenderfer & Ladd, 1997; Perry et al., 1988). Moreover, the present results indicate that the antecedent-outcome relations of the type of victimization assessed here did not interact with sex, indicating that the results are equally applicable to boys and girls.

The overall pattern of results suggests an escalating cycle of peer abuse for children at risk who do not have a best friend. That is, because behavioral problems reciprocally influence victimization over time for children without a best friend, victimization may be especially difficult to escape. However, the findings also indicate that there is hope for intervention. Having a friend can help reduce the likelihood of being victimized in the first place, and having a friend can reduce the further exacerbation of behavioral problems due to being victimized. When designing interventions to ameliorate victimized children's plight, investigators should also keep in mind that children at risk for victimization need skills to

establish friendships with those who can provide a protective function.

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Received December 5, 1997

Revision received June 18, 1998

Accepted June 29, 1998 ■