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In Review

Consequences of Bullying in Schools

Ken Rigby, PhD[1]

For the most part, studies of the consequences of bullying in schools have concentrated upon health outcomes for children persistently bullied by their peers. Conclusions have been influenced by how bullying has been conceptualized and assessed, the specific health outcomes investigated, and the research method and data analysis employed. Results from cross-sectional surveys suggest that being victimized by peers is significantly related to comparatively low levels of psychological well-being and social adjustment and to high levels of psychological distress and adverse physical health symptoms. Retrospective reports and studies suggest that peer victimization may contribute to later difficulties with health and well-being. Longitudinal studies provide stronger support for the view that peer victimization is a significant causal factor in schoolchildren's lowered health and well-being and that the effects can be long-lasting. Further evidence from longitudinal studies indicates that the tendency to bully others at school significantly predicts subsequent antisocial and violent behaviour.

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Clinical Implications

- A child's involvement in bully–victim problems at school, either as a victim or as a bully or as both, can be considered as a risk factor for poor psychological health.
- The risk is greater if the bullying is severe and prolonged and the victim lacks adequate social support.
- Various strategies or treatments may be considered to reduce the chances of a child's further involvement in bullying that may worsen the condition. These include assisting victimized children to develop self-protective assertiveness skills and working therapeutically with bullying children to establish a greater awareness of the consequences of their antisocial behaviour.

Limitations

- Respondents providing the study data were essentially volunteers, and sampling could not therefore be random.
- Accordingly, the population to which the findings can be generalized is not clear.
- The study methods permit the establishment of probable risk factors only, rather than undisputed causal relations.

Key Words: *bullying, mental health, physical health, well-being*

The movement to counter bullying owes much of its impetus to claims that being repeatedly bullied can have serious consequences for the health and well-being of victims. These claims date from the 19th century at least, when public debate following the publication of *Tom Brown's School Days* focused on the harmful effects of bullying in English public schools (1). However, there was little systematic research to examine such claims until Professor Dan Olweus' series of 1970s studies on the nature and effects of bullying in Scandinavian schools (2). Since then, numerous studies of the short- and long-term consequences of school bullying have been carried out in many parts of the world. Although they have mainly focused on the effects on bullying's victims, they have also given some attention to the possible social consequences for those who bully others and also to the possible consequences of being involved in bully–victim problems as both bully and victim.

With regard to the conclusions that can be drawn from this work, it is useful to consider 1) how being victimized and bullying others have been conceptualized, 2) the kinds of consequences examined, 3) the research designs and modes of analysis that have been employed to define the relation between involvement in bully–victim problems and possible consequences for the participants, and 4) relevant empirical studies.

Conceptualizations of Victimization

Researchers have increasingly proposed that bullying invariably implies an imbalance of power in which the victim is less powerful than the aggressor (2–4). Bullying does not occur when there is conflict between people of equal or similar power. This distinction is important, because the effects of being repeatedly attacked or threatened by a more powerful person or group are likely to differ from the effects of being threatened or attacked by someone of equal power: in the former case, one is apt to feel more helpless. However, not all studies investigating the effects of being targeted for aggressive behaviour have made that basic distinction.

In some studies, bullying has been conceptualized globally as acting in any way that threatens or hurts someone less powerful. Others distinguish among the different ways in which aggressive acts are perpetrated; that is, among different types of bullying, such as physical, verbal, or indirect bullying. Distinctions have also been made among the aggressor's possible aims—for example, to physically hurt the victim or to damage the victim's relationships with others. This latter is commonly called "relational" bullying (5).

In considering peer victimization from the victim's viewpoint, one can distinguish between being victimized by an individual and being victimized by a group. Also, being victimized because one belongs to a group against which the bully or bullies are prejudiced can be distinguished from being bullied because of a perceived personal quality. Finally, a distinction can be made between being bullied on one or few occasions and being bullied over a long period of time. Each of these distinctions may be important in generalizing about bullying's effects.

Data from various sources have been used to make these concepts operational. They include self-reports (elicited using questionnaires or interviews), peer nominations, reports from other people who know the subjects (for example, parents, teachers, and managers), and direct observation of behaviour. In some cases, multiple sources of information have been used.

Consequences Examined

Studies investigating the consequences of involvement in bully–victim problems have focused upon possible negative mental and (or) physical health outcomes. Four categories of negative health conditions can be identified:

1. Low psychological well-being. This includes states of mind that are generally considered unpleasant but not acutely distressing, such as general unhappiness, low self-esteem, and feelings of anger and sadness.

2. Poor social adjustment. This normally includes feelings of aversion toward one's social environment, evident through expressed dislike for school or workplace, manifest loneliness, isolation, and absenteeism.

3. Psychological distress. This is considered more serious than the first 2 categories and includes high levels of anxiety, depression, and suicidal thinking.

4. Physical unwellness. Here, there are clear signs of physical disorder, evident in medically diagnosed illness. Psychosomatic symptoms can be included in this category.

Researchers have used subjects' responses regarding their health condition, obtained either through interviews (6) or through questionnaires that in some cases employ standardized measures of health status (7). In addition, some studies have examined the social or legal outcomes for children who frequently engage in bullying at school (for example, by reviewing criminal records) (2).

Research Designs and Modes of Analysis

Various research designs have been employed to examine the relation between peer victimization and the mental and physical health of children. These yield inferences that differ in kind and validity. Therefore, when drawing conclusions about the possible consequences of bullying, it is desirable first to consider the strengths and limitations of the research designs and the related statistical analyses.

Case Studies

Postdiction is the most rudimentary method of obtaining data about the relation between involvement in bully–victim problems and possible outcomes (8): when a negative condition is observed in a person, an inquiry is conducted to identify the condition's precursors. Numerous case studies have been reported in which suicide or attempted suicide has been attributed to sustained bullying (9). Some of these cases have been supported by suicide notes in which being victimized has been the stated cause. Although individual case histories appear persuasive, it is difficult to validate conclusions, especially as it is known that suicide is commonly multiply determined.

Cross-Sectional Surveys

These have been the principal means of establishing connections between bully–victim problems and health conditions. The findings from such studies provide evidence of correlations or associations rather than direct evidence of causation.

For example, a significant association between low self-esteem and being victimized may exist because people with low self-esteem "invite" bullying or, alternatively, because being bullied lowers self-esteem. The latter is often assumed because being bullied is a seen as a stressful and humiliating experience. However, it is possible that the effects are bidirectional: children with low self-esteem may attract bullies, and the resultant bullying may further reduce their self-esteem. Strictly speaking, cross-sectional studies demonstrate association between variables at a specific time; relations may be causal, but the temporal sequence of victimization and health conditions cannot be disentangled.

Retrospective Surveys

These compare data collected from individuals who have been involved in bully–victim problems with data collected from those who have not. Unlike more adequate research designs, no measures prior to the experience of interest are available, and it therefore remains uncertain what degree of change (if any) has occurred. The validity of retrospective studies also depends upon the reliability of people's memories. Memories may be influenced and distorted by the respondent's mood: feeling sad or angry may give rise to such unpleasant memories as being bullied and may result in a spurious correlation between being victimized and suffering from depression (10).

Longitudinal Studies

These provide the most persuasive evidence of the connection between bully–victim problems and health conditions. Typically, data on health status are collected both before and after respondents have experienced different levels of peer victimization in their natural environment; changes in the health status may be attributed to treatment they have received from others. This design controls for some extraneous factors, such as the effects of pretesting and maturation. However, there is no absolute guarantee that bullied respondents would not have experienced deteriorating health, regardless of their treatment. In theory, this difficulty could be overcome by conducting an intervention study in which, for example, subjects are allocated randomly to treatment groups to be bullied or not bullied. Such studies have not been attempted for understandable ethical reasons.

Measurement and Analyses

The measures employed in studies and their statistical treatment have implications for the conclusions that can be drawn. In some studies, it has been assumed that the measures yield normally distributed continuous or interval data, allowing relatively powerful parametric statistics to be applied. Unfortunately, the results obtained from measures of victimization actually indicate highly skewed distributions: relatively few children are frequently bullied or frequently bully others. Hence, in some studies (but not others) category or nominal data are preferred. The use of such data in appropriate nonparametric analyses implies less power to detect significant relations but has greater mathematical justification. It can be argued that results using this more conservative approach should be more strongly weighted in reaching valid conclusions about association. Further, some studies present results from univariate statistical tests, others from multivariate tests such as multiple regression analysis. The latter take into account statistical relations among a set of variables in a given analysis. Hence, a result that appears significant from a univariate test such as a simple correlation may be nonsignificant when examined in analyses that include interrelated variables. This may account for apparent inconsistencies in some of the findings regarding the relation between being victimized and specific health outcomes.

The empirical studies reviewed below were based upon convenience rather than upon random samples of respondents. Where some details of procedure and outcomes are provided, sample size is given. Estimations of effect size are based upon criteria suggested by Cohen (11), as inferred from the magnitude of correlation coefficients. Values less than 0.1 are regarded as insubstantial; 0.1 to 0.3 as small; 0.3 to 0.5 as moderate; and greater than 0.5 as large. In every case, the effect size could be described as small or moderate. However, given that sampling was not random, the reliability of the measures is, in most cases, not given. Similarly, because samples differed greatly in size, differentiation between small and moderate is not considered justified.

Empirical Findings

In the following report of empirical findings, I have excluded single-case studies claiming that bullying was responsible for an observed condition (such as posttraumatic stress disorder) or event (such as suicide). I have done so because many unknown factors may have contributed crucially to the assumed outcome. I have included cross-sectional surveys and retrospective studies based upon samples of respondents, despite uncertainty about their validity as indicators of cause effect relations. I have placed major emphasis upon longitudinal studies employing pre- and postmeasures.

Low Psychological Well-Being

The Delighted–Terrible Faces test, a 7-point scale devised by Andrews and Withey (12) has been used to assess happiness among school children. Australian students (n = 31 980) who reported being victimized more often than others tended to choose a face most like themselves—one that reflected greater unhappiness (13,14). A further study of Australian schoolchildren (n = 3918) found similar results, based upon a measure of happiness that presented students with the alternatives of "happy" and "not happy" (15).

In numerous studies, being victimized at school has been related to self-esteem. Using various reliable self-esteem measures, these study results generally indicate that low self-esteem or low global self-worth (a similar concept) is associated with repeated victimization (for examples, see 2,16–19). However, a different result has been reported when multivariate analysis has been used. A British study of the relation between self-esteem and being victimized at school (*n* = 904 students, aged 12 to 17 years) employed a logistic regression model controlling for anxiety and depression (20). While the authors' univariate analyses had suggested a significant relation with self-esteem, the multivariate analysis yielded a nonsignificant result. This suggests that low self-esteem may derive from feelings of anxiety and (or) depression.

A retrospective study relevant to self-esteem administered an anonymous questionnaire asking Australian students whether they had been bullied at school and, if so, how they had felt about it afterwards (21). Some 25 273 students reported that they had been bullied during the school year. Of these, approximately 40% reported that they had felt worse about themselves afterwards; 53 % said they had not felt any different; and surprisingly, 7% reported that they had felt better! With increasing levels of reported victimization, a higher percentage reported feeling worse about themselves. Another question in this study examined the emotional reactions of students to being bullied at school. Some 32% indicated that bullying had made them feel angry, and 37% indicated that they had felt sad as a result of being bullied.

A US longitudinal study of 189 children aged approximately 11 years employed a more stringent and sophisticated method to examine the effects of being bullied on self-esteem (22). Peer ratings identified victimized children. Self-regard was assessed using a questionnaire that provided both a global measure of self-worth and some specific aspects (for example, perceived social competence). This quality was indicated in part by a child's claim that it was "pretty easy to make friends." Children were retested after 5 months, and changes in self-worth of children identified as victimized were compared with changes in nonvictimized children. After taking into account another finding, that low self-worth in children attracted others to bully them, analyses showed low self-worth to be an effect of being victimized. The authors claim that their study "may be the first to show convincingly that actual maltreatment by significant others leads to an impairment of self-regard over time" (22, p 307). It should be noted, however, that this claim is based on a significant result in relation to "perceived social competence" and not to global self-worth.

There is one finding suggesting that a loss of self-esteem subsequent to being bullied may persist over a much longer period of time (23). A Norwegian study reported results for a small number of students (*n* =15) whose self-esteem was assessed by questionnaire at the age of 13 years. These individuals had previously been identified at school through teacher ratings and peer nominations as being frequently victimized by peers. Applying appropriate statistical controls, the researcher found evidence of an enduring loss of self-esteem that could be traced to peer victimization at school.

Poor Social Adjustment

Studies have shown that children who are repeatedly victimized at school have an aversion to the school environment. In an American study, kindergarten children (*n* = 200, mean age 5 years) who were nominated by their peers at school as being victimized by others were found to be more likely than others to report that they disliked school (24). A similar association was reported in relation to older primary and secondary students in Australia (13).

Studies conducted in Australia have observed that victimized students are likely to report more absenteeism from school than are other children (21,25). Moreover, absenteeism has been shown to increase as a function of the severity of victimization. Results based upon a large-scale survey of Australian students (*n* > 30 000) indicated that some 19% of boys and 25% of girls who are bullied frequently (at least weekly) had stayed at home because of bullying. The corresponding figures for those bullied less frequently were 4% among boys and 12% among girls. This study also suggests a likely sex difference in the effects of bullying on social adjustment.

Retrospective studies have suggested an association and possible causal relation, which needs to be confirmed, between being bullied at school and long-term adjustment. In a US study of 206 undergraduates aged 18 to 22 years, those reporting victimization at school (18 women and 8 men) were as adults significantly more lonely than others (26). In a UK study of 276 adults (aged 15 to 66 years) who had stammering problems at school, nearly one-half reported long-term effects, predominantly in personal relationships (27). Data from a retrospective study of US adults (*n* = 370) suggested that the interpersonal difficulties of men subjected to victimization at school may take the form of disabling shyness and fear of intimacy that make relationships with the opposite sex difficult or impossible (28). This suggestion was subsequently confirmed in a further Australian retrospective study of adult men and women (29).

The US longitudinal study of kindergarten children mentioned above (24) also shed light on cause–effect relations between social adjustment and peer victimization. For the most part, these children were meeting, and interacting with, children they had not met before. From interviews with the children, the researchers concluded that 20.5% of them were

being consistently targeted. A measure of peer victimization, repeated on 2 occasions separated by several months, was significantly correlated with being lonely at school, not liking school, and avoiding school. School avoidance was indicated by children's answers to questions such as "Do you ask your mom or dad to let you stay home from school?" Subsequent analyses led to the conclusion that "victimized children tend to become more lonely and school avoidant after they are victimized by peers." The authors add that "whereas children's feelings of loneliness were more pronounced while victimization was occurring, delayed effects were found for school avoidance" (24, p 1305). There was "no support for the counter-argument that school adjustment difficulties precede exposure to victimization" (24, p 1314).

Employing the sample of children described above, another study investigated whether peer victimization contributed uniquely to school maladjustment after effects attributable to other peer-relation factors were taken into account; namely, numbers of friends, general peer acceptance, and whether the children had a reciprocal best friend (30). Based on multiple regression analysis in which all peer-relation variables were entered, the authors concluded that peer victimization among children attending kindergarten was uniquely and significantly associated with school avoidance, both currently and predictively.

Pyschological Distress

Numerous correlational studies have reported that symptoms of chronic anxiety and fear are often associated with experiencing peer victimization. An early Swedish study of so-called "whipping boys" (that is, boys frequently targeted by aggressive peers) reported that such children were significantly more anxious and insecure than others (31). Further studies reported that feelings of anxiety characterized peer-victimized children in Ireland (16) and in England (20). In a large-scale study (n = 2692) of English primary school children aged 7 to 10 years it was concluded that "victimized children were significantly more likely to report 'not sleeping well' and also 'bed wetting'" (6). Fear of bullying was reported by 25% of students in a study of 11 535 students aged 13 to 15 years attending schools in England and Wales (32). Among English secondary school students (n = 703), it was observed that victimized children tended to report feeling irritable, nervous, and panicky after episodes of bullying. Many (32%) said that they had recurring memories of bullying incidents; some 29% said that they had subsequently found it hard to concentrate (33).

Depressive reactions on the part of victimized children have also been repeatedly reported. In an Australian study (n = 353, mean age 10 years), primary school students identified by peers as frequent victims were more likely than others to manifest symptoms of clinical depression (34). Studies of peer victimization among primary school children in England (6,35,36) and Finland (37) drew similar conclusions. Research with older students has also yielded similar results. An early study of Finnish school children (n = 110, aged 14 to 16 years) reported that 18 students identified by peers as frequently victimized showed significantly more depression than did others (38). A more recent, large study of Finnish adolescent school children (n = 16 410) has confirmed this finding (39)

Frequently victimized students may have mixed emotions and show various symptoms of distress. For example, in a nationwide survey of English primary and secondary school students (n = 6282), self-declared victims were frequently found to experience emotions of anger, vengefulness, and self-pity, with the latter more common among girls (40)

In Australia, a program of research into the possible effects of peer victimization was undertaken and reported in detail (41). This program used a multidimensional measure of mental unwellness, the General Health Questionnaire (GHQ) (7). The GHQ subscales assess the prevalence of 1) somatic symptoms, for example, "feeling run down and out of sorts"; 2) anxiety, for example, "felt constantly under strain"; 3) social dysfunction, for example, "felt (un)able to enjoy your normal day-to-day activities"; and 4) depression, for example, "felt that life was entirely hopeless." Results from an analysis of students who completed the GHQ (n = 713, age range 13 to 16 years) indicated that children who are repeatedly victimized at school (that is, at least once weekly) are significantly more likely than others to have high scores on each of the 4 aspects of mental ill-health, as well as on the total GHQ scale. A subsequent study of Australian students (n = 845) replicated these results after controlling for the effects of low levels of social support (42).

Correlational studies have also shown that peer victimization is significantly associated with suicidal ideation. An Australian study assessed peer victimization using both peer reports and peer nominations in a sample of 849 adolescent students (43,44). Results indicated that frequently victimized students of either sex, whether identified by self-reports or by peer ratings, were significantly more likely than others to think of taking their own lives. A Finnish study of adolescents (n = 16 410) reported a similar relation between peer victimization and suicidal ideation (39).

Evidence from longitudinal studies supports the hypothesis that being bullied tends to increase the likelihood of psychological distress. A longitudinal study discussed above focused upon the mental health of adults who had been victimized at school (2). The questionnaire employed included a reliable measure of depression. Multiple regression analyses showed

a significant relation between victim or nonvictim status as adolescents and elevated scores on the depression measure some 6 years later. The researcher concluded that an intervening variable—feelings of maladjustment and inadequacy—mediated the effect of peer victimization on the level of depression.

A further longitudinal study of the relation between peer victimization and psychological distress in 78 Australian adolescents attending a secondary school examined changes in peer victimization and health indices over a 3-year period (45). A shortened version of the GHQ was administered on 2 occasions. This included GHQ subscale measures of the somatic symptoms, "anxiety" and "poor coping." Being victimized frequently as a student during the first 2 years of secondary school predicted relatively high levels of psychological distress 3 years later as a student at the same school. A stronger effect on the health of girls was evident. Similar findings have been reported in a much larger prospective study of Australian students ($n = 2680$) surveyed twice in year 8 (at age 13 years) and once in year 9 (46). The researchers concluded that "a history of victimization is a strong predictor of the onset of self-reported symptoms of anxiety or depression and remains so after adjustment for other measures of social relations" (46, p 483). They also reported that the effect of bullying on mental health status was clearest for girls.

Physical Ill-Health Symptoms

Most inquiries into the relation between peer victimization and poor physical health have been correlational studies. A study of peer victimization among primary school children in England ($n = 2692$) included several questions designed to discover whether the children had frequently (that is, more than once weekly) experienced headaches and "tummy aches" (6). Based on interviews with children, the authors reported that peer-victimized children (that is, those who reported having been bullied at school) were more than twice as likely to say they had such ailments, compared with nonvictimized children. In a further study of English primary school children ($n = 1639$), which included analyses of data provided by parents, Wolke and others reported low-to-moderate associations between direct bullying (for example, hitting) and common health problems such as repeated sore throats, colds, and coughs (47). The authors found no relation between health problems and measures of relational bullying. In a study of Australian secondary students (41), respondents ($n = 819$) were presented with a list of 21 health complaints (the Physical Complaints Scale [PCS]). These comprised colds, ear infections, hay fever, injury from accidents, headaches, rashes, sore throats, anorexia, bulimia, dizziness, sinus problems, asthma, a bad cough, stomach ache, mouth sores, diarrhea, difficulty in seeing, fainting, "thumping" in the chest, vomiting, and wheezing. Students were asked to say how often (that is, "not at all," "a bit," or "a lot") they had experienced each complaint during the school year: Both boys and girls who reported having been bullied at least once weekly scored significantly higher than others on the scale. The largest differences between victims and others were in relation to headaches, mouth sores, and "thumping" in the chest: for each of these items, differences were significant at the 0.001 level. A similar study of adolescent students found that those who reported relatively high numbers of physical (or possibly psychosomatic) complaints tended to fall into the category of bully–victims rather than victims.

Longitudinal studies examining the relation between physical health and being victimized are less common. A small-scale study involving adolescent students ($n = 78$) examined possible changes over a 3-year period as a function of reportedly being bullied at school. A PCS was administered to secondary school children on 2 occasions (in 1994 and 1997) (44); peer victimization in 1994 and the PCS in 1997 were significantly correlated for both boys and girls. Analyses controlling for differences between 1994 health levels of victimized and nonvictimized students permitted the conclusion that being victimized by peers was the likely cause of the relatively poor physical health of the victimized students 3 years later.

Conclusions From Empirical Studies

It can be concluded that, whenever the health of children has been related to being bullied at school, findings suggest peer victimization and health status to be significantly associated. The effect sizes are not large, as inferred from the magnitude of correlation coefficients or their statistical equivalents; at best, they are moderate. It is unclear at this stage whether some of the suggested effects (for example, impaired psychological well-being) are the direct consequence of victimization or are mediated through an effect on another area of functioning, as indicated by clinical depression or physical unwellness. Finally, the results from longitudinal studies employing pretest–posttest research designs suggest that peer victimization is a significant risk factor and may have a causal role in reducing the health status of school children.

Possible Consequences for Those Who Bully

Where bullying is highly aggressive and conspicuously damaging to others, as in the case of physical assault, one would expect legal consequences. A much-cited study of Norwegian children claimed that children (sample size unreported) identified as bullies in school years 6 to 9 were 4 times more likely to come before the courts subsequently on charges of delinquency (2). A UK study with a longer time period provided similar results and, in addition, found evidence that men ($n = 411$) who had been identified as bullies at school were more likely than others to have children who behaved aggressively

(3). This suggests a degree of generational continuity, but how this can be best explained (for instance, whether by family influences or genetic transmission, or both) is unclear.

It has also been repeatedly claimed that children who habitually bully are significantly more likely than others to experience high levels of depression (20,34) and suicidal ideation (44,45). Whether this should be regarded as a consequence of bullying, possibly related to feelings of guilt or shame, or whether it is related to negative styles of parenting commonly experienced by children who bully (48), or both, is currently also unclear.

Discussion

In evaluating studies of the possible consequences of peer victimization at school, close attention should be paid to the following: how the term "bullying" has been conceptualized and assessed, precisely what aspect(s) of health or social behaviour are under consideration, and especially, whether the research method employed allows valid inferences regarding correlational or, alternatively, causal relations. The cross-sectional studies reviewed in this paper lead to conclusions about associations between peer victimization and health status that are similar to those presented in Hawker and Boulton's metaanalytical review of cross-cultural studies investigating the relation between peer victimization and psychosocial maladjustment (49). In their study, however, claims were limited to demonstrations of associations. The present study goes further, drawing upon several important longitudinal studies that strongly suggest causal relations.

Numerous investigations have with a high degree of consistency supported the case for an association between being victimized and manifesting symptoms of poor psychological and (or) physical health. On the whole, results from cross-sectional surveys suggest that being victimized by peers is significantly related to comparatively low levels of psychological well-being and social adjustment and to high levels of psychological distress and adverse physical health symptoms. Retrospective studies have provided results suggesting that the connections are causal. Stronger support for the view that reported victimization is a possible causal factor in the development of negative health conditions has been provided by several longitudinal studies involving children.

The common observation that being bullied is highly stressful (for example, 33) provides a clue to the mechanism underlying the process of deteriorating health in victims. It is known that stress, if experienced over an extended period, is not only likely to cause anxiety and depression but also likely to undermine the immune system (50), making affected individuals less resilient and less resistant to infection.

It is not known what forms of bullying are most likely to produce deterioration in the well-being and health of those who are targeted. Suggestions are that bullying seeking to destroy an individual's connectedness with others (so-called relational bullying) may be the most damaging (51), although the connection may be with older students among whom this kind of bullying is more common. It may also be that the damage is done through the cumulative effects of different forms of bullying from both individuals and groups over an extended period of time, as Sharp and others have suggested (52).

In predicting and understanding the consequences of being bullied, further attention also needs to be paid to factors that lower the risk of harm to individuals, such as the social support they receive, the extent to which they have an opportunity to disclose hurt feelings, and the cognitive strategies and attributions they employ regarding the treatment they experience (53). Research designs that take such factors into account are needed. More attention also needs to be paid to standardizing definitions of bullying and using them to provide reliable measures of the nature and severity of victimization experienced from peers. Reliable pre- and postmeasures of a range of dependent variables need to be employed, including indicators of both physical and psychological well-being and health. In particular, research designs and appropriate multivariate analyses are needed to identify both direct and indirect effects of peer victimization on health status. As yet, there are few well-controlled longitudinal studies from which specific effects of peer victimization can be reliably inferred.

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Résumé : Les conséquences de l'intimidation en milieu scolaire

Pour la plupart, les études sur les conséquences de l'intimidation en milieu scolaire se concentrent sur les effets sur la santé des enfants constamment harcelés par leurs pairs. Les conclusions sont influencées par 1) la manière dont l'intimidation est conceptualisée et évaluée, 2) les effets spécifiques sur la santé recherchés et 3) la méthode de recherche et l'analyse des données employées. Les résultats d'enquêtes transversales indiquent qu'être victimisé par ses pairs est significativement relié à des niveaux comparativement faibles de bien-être psychologique et d'adaptation sociale, ainsi qu'à des niveaux élevés de malaise psychologique et de symptômes indésirables de la santé physique. Les études et rapports rétrospectifs indiquent que la victimisation par les pairs est un facteur causal significatif de la santé et du bien-être affaiblis des enfants d'âge scolaire, et que ses effets peuvent être de longue durée. D'autres données probantes tirées d'études longitudinales indiquent que la tendance à intimider les autres à l'école prédit significativement un comportement subséquent antisocial et violent.

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