School Bullying and Mental Health in Children and Adolescents

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Bullying is a malicious aggressive behavior that is intended to harm others repeatedly. There is an imbalance in strength or power between the bullies and the victims of bullying. Studies in European countries and U.S. suggest that 20% to 30% of students are frequently involved in bullying as bullies and/or victims. Cross-sectional and longitudinal studies have recognized bullying and being victimized by bullies as health problems for school children and adolescents because of their association with a range of adjustment problems, including poor mental health and violent behavior. Bully-victims, who are involved in both bullying others and being bullied by others, have the greatest number of mental and behavioral problems. Children needing special health care are especially vulnerable to being bullied. The significant association between involvement in bullying and adverse mental health in children and adolescents indicates that the early identification of and intervention on children and adolescents at risk should be a priority for the society.

Key words: Bully, mental health, school health
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[5]. Being bullied is one of the most distressing experiences for a child or adolescent, especially when it occurs over a prolonged period of time [6]. It is necessary for psychiatrists, pediatricians, school psychologists, educators and parents to increase knowledge about school bullying and victims in children and adolescents.

**Definition**

Bullying is an aggressive behavior characterized by three defining conditions: (a) negative or malicious behavior intended to harm or distress, (b) behavior repeated over a time period, and (c) a relationship in which there is an imbalance in strength or power between the parties involved [7, 8]. Thus, fighting between two persons of similar strength and skill would not be defined as bullying.

Bullying behavior can be physical acts (hitting, pushing, and kicking), verbal utterances (name calling, provoking, making threats, and spreading rumors), or other behaviors (making faces or social exclusion) [9]. Bullying takes place within relatively small and stable settings (like classes), which are characterized by the presence of the same people (e.g., children) [10].

Four groups have been distinguished: pure bullies, those who bully other children only; pure victims, who are children who are victimized by bullies; bully-victims, who are children who are involved in bullying other children and who also are victims of bullying, and neutral children [11, 12]. The study on the trajectory found that the bully-victims had been bullied for the most part during an earlier time period than they bullied others; some were bullies and victims during the same period; and very few bullied others before being a victim of bullying [13]. Generally, children other than the bullies and their victims are also involved in the bullying process and may actually maintain the bullying by supporting the bully or failing to defend the victim. Salmivalli and colleagues [14] suggested that all the children in a particular class play a role in bullying and that only few of them may be considered to be uninvolved.

**The Prevalence**

Large studies in European countries and U.S. suggest that 20% to 30% of students are frequently involved in bullying as perpetrators and/or victims [7,15-18]. For example, in a nationally representative study of 6th to 10th grade US students (n = 15,686), 13% were identified as bullies, 11% as victims, and 6% as bully-victims [7]. However, the prevalence of bullying involvement could be various across different countries and studies. For example, in a cross-national study of 113,200 students between the ages of 11 and 15 from 25 countries found that involvement in bullying varied dramatically across countries, ranging from 9% to 54% of youth [19]. A study on 5,074 adolescent school children in grade 8 (mean age 14.2 years) and grade 11 (mean age 17.4 years) in South Africa found that over a third (36.3%) of students were involved in bullying behavior, 8.2% as bullies, 19.3% as victims and 8.7% as bully-victims [20]. A study on 1,756 Korean middle school students found that 40% of all children participated in school bullying, 17% as bullies, 14% victims, and 9% bully-victims [21].

Except for variations in social background and culture, several possible explanations for the variations in the prevalence of school bullying have been found in previous studies. School children and adolescents with difference socio-demographic characteristics may have different prevalence of bullying involvement (discussed below).
Meanwhile, prevalence of bullying depends highly on the behaviors studied and how questions about bullying are posed. Several methods have been used in school bullying research: self-report, peer nomination and teachers’ and parents’ observation. Self-report has most commonly been used and has advantages by providing direct access to the feelings and experiences of children involved in bullying. This is particularly useful because the children are alert to the possibility of peer abuse, have strong emotional reactions to such events, and develop vivid and lasting memories of such experiences [22]. Peer nomination allows for assessment of an individual’s behaviors by peers who are most likely to have witnessed or participated in these behaviors. Meanwhile, it permits the aggregation of peer/classmate judgment about individuals’ roles in school bullying [21]. Teachers’ and parents’ observations have also been frequently used to represent the conditions of bullying activities in school children and adolescents. However, several studies have indicated that many students do not agree with the view of adults and researchers as the specific types of behaviors that should be regarded as bullying [23]. Meanwhile, a subset of relational type behaviors (e.g., spreading rumors, social exclusion) is covert and has recently been shown to be harder to be detected by both teachers and parents [24, 25]. Children are less likely to report incidents of relational aggression when compared with direct physical or direct verbal incidents [26]. Even the studies applying self-report to detect the prevalence of school bullying involvement varied in the contents of questions and definition: while some studies used simple one or two questions to inquire participants’ experiences of bullying or victimization [27, 28], other studies used multi-dimensional questionnaires to measure bully/victim problems [29, 30]. Readers should take these differences in methods to detect bullying involvement into consideration when comparing the various results of studies.

**Demographic Correlates**

Several researchers have found that boys are more often involved in bullying than girls, both as bullies and victims [20, 31, 32]. However, although boys engage in more physical aggression and bullying, the sex difference is less pronounced for verbal bullying and is sometimes the reverse for indirect bullying [33]. Bulling by physical acts is, however, less common among girls; girls typically use more subtle and indirect ways of harassment such as slandering, spreading rumors, intentionally excluding someone from the group, and manipulating friendship relations [13, 34].

Several studies have found that both bullying and being bullied tend to be more common among younger students than older ones [7, 29, 35]. But two UK studies did not find any age effect [36, 37]. According to the developmental theory of aggression of Björkqvist et al. [38], younger age groups tend to use direct (particularly physical and psychological or verbal) types of aggression more because their social skills have not developed sufficiently to use more subtle forms of aggression (such as gossiping, ostracising and spreading rumors).

Victimization is more frequent in younger age groups [33]. The odds of being a victim (vs. a neutral child) were 10% lower for every 1 point increase in grade point average [39]. Accordingly, Olweus [32] found that more than 50% of bullied children in the lowest grades (8- and 9-year-olds) reported that older students bullied them. From a developmental perspective for the vulnerability to being victimized in younger children, Smith and colleagues in 1999 gave two explanations: First, younger children in school have more older chil-
dren who can bully them. Second, younger children have not yet acquired the social skills to deal effectively with bullying incidents [40]. But in a Finnish cohort, bullying and being bullied are found to be rather stable between the ages of 8 and 16 years: almost all boys who were bullied at the age of 16 years had been bullied already at age of 8 years, and half of them who bullied at 16 years of age had already been bullying when they were 8 years of age. [18].

Involvement in Bullying and Mental Health

Victims of bullying

Children and adolescents who are bullied have been found to have both physical health problems [19, 41, 42] and mental health problems, such as depression [19, 26, 29, 42], anxiety [16, 44], suicide ideation [45], hyperactivity [46], and conduct problems [46] and physical health problems. The effects of bullying on emotional health may persist over time. For example, children who were bullied repeatedly through middle adolescence were found to have lower self-esteem and more depressive symptoms after they grew up [47]. Girls who were bullied tended to have eating disorders [16]. Victims have also been found to show various social difficulties [15, 46, 48, 49], such as high levels of social anxiety [50, 51], loneliness [47], avoidance of social situations [52] and social skills deficits [53].

Both chronic adversities and failure to receive support from the social network might increase the risk of depression. The “learned helplessness” theory may be used to explain why some victimized youth experience internalizing symptomatology [54]. On the other hand, it has been reported that internalizing problems contributed to becoming a victim, which again increased later internalizing symptoms [50]. The direction of causality between victimization and mental health complaints can thus be both ways [16]. Meanwhile, peer rejection and peer abuse that are inherent to school bullying may have a direct effect to cause suicidal ideation and suicidal behaviors in children and adolescents [29].

Researchers also found that violent and antisocial behaviors were increased in victims of bullying [20]. One could speculate that the increased levels of violence in victims may be due to their victimization and/or subsequent need for self-defense. Contrarily, the increased level of violence in victims can produce both anxious and aggressive reaction patterns in the subset of vulnerable victims [32]. Increased levels of theft in victims may be in response to extortion from bullies (e.g., stealing from home to pay off bullies). Or it may be a form of “comfort stealing” or attention-seeking as a response to the distress of victimization [20].

Although some research were found that low self-esteem is not associated with victimization when the effects of anxiety and depression have been controlled for [44], the results of most of studies generally indicate that low self-esteem or low global self-worth is associated with repeated victimizations [47, 48, 50]. Low self-esteem has also been found to mediate the linkages of victimization with emotional problems for girls [55].

Bullies

Bullying is associated with violent behaviors [56], hyperactivity [41, 46, 57] and school problems [58, 59]. Some research have shown that the aggression displayed by bullies is likely to reflect a controlled behavior that is oriented toward achieving instrumental outcomes [60, 61]. Bullies engage in high rates of interpersonal power dominance and instrumental aggression such as coerc-
ing others to give them their property. Longitudinal studies show that this type of behavior pattern, i.e., externalizing problems, is relatively stable over time. Aggressive trajectories are associated with subsequent antisocial and criminal behavior in adolescence [62]. Age at onset and level or form of aggression have become important factors in understanding antisocial development [63], because early onset of antisocial behavior is regarded as a reliable predictor of adult antisociality [64].

Bullies have been found to have higher risk for health problems [19] and social adjustment [19]. Among girls, eating disorders were associated with bullying [16]. Children who habitually bully are significantly more likely to experience high levels of depression [19, 26, 44] and suicidal ideation [65]. Another study showed that the association between bullying and suicidal ideation exist in boys [65]. The relatively high levels of suicidal ideation of male bullies are possibly related to generally high levels of aggressiveness. This explanation may be based on psychological effects of having engaged repeatedly in unjustifiable acts of aggressiveness against less powerful individuals [65]. Furthermore, the association is also possibly related to negative styles of parenting commonly experienced by children who bully [66].

Whether bullies have low self-esteem is still a disputed issue [34, 67, 68].

**Bully-victims**

Previous studies found that compared with the pure bullies and victims, the bully-victims have the greatest number of problems including (a) externalizing behavior, hyperactivity, and conduct disorder [41, 69], and the highest risk of weapon carrying [19]; (b) concurrent and future psychological and psychosomatic symptoms [15-17, 70,]; (c) referrals to psychiatric services [71]; (d) the highest probability of persistence of involvement in bullying [71]; (e) the highest relative risk of suicidal ideation [43]; (f) the poorest school and interpersonal function [11, 19, 41, 72-74]; (g) the highest relative risk of alcohol use [19]; and (h) the most physical injuries [2, 74]. Meanwhile, boy bully-victims tend to have eating disorders [16]. This group may be at greatest risk of developing psychopathology [73, 75]. These findings suggest that bully-victims may be a distinct group of the most troubled among all students involved with bullying. Thus, it has been proposed that bully-victims could benefit from early identification and intervention in particular [76].

Some researchers failed to differentiate the bully-victims from the bullies and victims. For example, the study of Liang and colleagues [20] showed that the bully-victims’ level of fighting, weapon-carrying, theft, and risk-taking behaviors do not significantly exceed those of the bullying group, and that their increased suicidal ideation is similar to that in the victim group. These findings suggest that bully-victims constitute an overlap between bully and victim categories, and that an elevated risk exists for the negative outcomes of both groups [20].

In contrast to the aggression displayed by bullies, bully-victims are likely to have a controlled behavior which is oriented toward achieving instrumental outcomes [60, 61]. Often, bully-victims’ aggression is reflecting an underlying state of poorly modulated anger and irritability [77].

**Results of longitudinal studies**

The association between school bullying and psychopathologic behavior has been extensively debated with two 2 causal hypotheses [75]: (A) antecedent psychopathologic behavior is a cause
of subsequent bullying, and (B) bullying can lead to future psychopathologic behaviors. The first hypothesis was supported by previous findings showing that children with internalizing or externalizing problems have a higher risk of involvement with bullying [48, 50]. The second hypothesis was supported by previous reports of deteriorating behavioral, emotional, and psychosocial functioning in children who experienced peer victimization [32, 78, 79]. This debate is unresolved because cross-sectional research designs have made it impossible to establish causality in either direction [75]. Only longitudinal studies can provide data to clarify the causality of direction.

Table 1 lists the results of several large-scale, longitudinal studies on the associations between involvement in bullying and mental health. The results of longitudinal studies suggest that involvement in bullying in children and adolescents is a risk factor for subsequent mental health and conduct problems.

Table 1. The results of large-scale, longitudinal studies on the associations between involvement in bullying and mental health

<table>
<thead>
<tr>
<th>Authors</th>
<th>Sample</th>
<th>Follow-up period</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arseneault et al., 2006</td>
<td>2,232 US children at the age of 5 years</td>
<td>2 years</td>
<td>Pure victims and bully/victims showed more behavior and school adjustment problems at 7 years of age after controlling for preexisting adjustment problems at 5 years of age.</td>
</tr>
<tr>
<td>Bond et al., 2001</td>
<td>2,680 Australian adolescents at the age of 13 years</td>
<td>1 year</td>
<td>Victimization at age 13 predicted the onset of self-reported symptoms of anxiety and depression 1 year later.</td>
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<tr>
<td>Kim et al., 2006</td>
<td>1,655 Korean seventh and eighth-grade students</td>
<td>10 months</td>
<td>Victims at baseline showed increased risk of social problems. Bullies had increased aggression. Bully-victims had increased aggression and externalizing problems.</td>
</tr>
<tr>
<td>Kumpulainen et al., 2000</td>
<td>1,316 Finnish children at the age of 8.5 years</td>
<td>Wave 1: 8.5 year old; Wave 2: 12.5 years old; Wave 3: 15.5 years old</td>
<td>Children involved in bullying, in particular those who were bully-victims at the age of 8.5 years and those who were victims at the age of 12.5 years had more psychiatric symptoms at the age of 15.5 years. The probability of being deviant at the age of 15.5 years was higher among children involved in bullying at the age of 8.5 or 12.5 years than among non-involved children.</td>
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<tr>
<td>Sourander et al., 2007a</td>
<td>2,551 Finnish boys at the age of 8 years</td>
<td>8 to 12 years</td>
<td>Frequent pure bullying predicted both occasional and repeated offending, whereas bully-victimization predicted repeated offending. Bullying predicted most types of crime when controlled with parental education level. Frequent bullies or victims without a high level of psychiatric symptoms were not at an elevated risk for later criminality.</td>
</tr>
<tr>
<td>Sourander et al., 2007b</td>
<td>2,540 Finnish boys at the age of 8 years</td>
<td>10 to 15 years</td>
<td>Frequent pure victimization predicted anxiety disorders, and frequent pure bullying predicted antisocial personality disorder, whereas frequent bully-victimization predicted both anxiety and antisocial personality disorder.</td>
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Involvement in Bullying among Children with Special Health Care Needs

A study on the attributions of getting bullied in a sample of 10-year-old children found that the most common characteristic was that the victims have a different appearance [80]. Another study also found that children thought that other children get bullied because they were small, weak, and soft [81]. Those study results indicate that children needing special health care may be more vulnerable to being bullied. The National Survey of Children’s Health on 102,000 US households found that being a child needing special health care is associated with being bullied [82]. Previous studies found that children with learning difficulties [83], autism [84, 85] and intellectual disability [86] are more likely to be bullied than those in general children population. Contrariwise, the National Survey of Children’s Health also showed that a child having a chronic behavioral, emotional, or developmental problem is associated with bullying others and with being a bully/victim [82]. While children with autism but without attention-deficit/hyperactivity disorder (ADHD) are not at greater risk for bullying, children with both autism and ADHD have increased odds of bullying others [87]. Those findings may help mental health providers, pediatricians, and schools use targeted screening and interventions to address bullying for children with special health care needs [82].

Clinical implication

The significant association between involvement in bullying and adverse mental health in children and adolescents mentioned above indicates that the early identification of those at risk should be a priority for the society. All mental health workers, educators, pediatricians, and family physicians have a pivotal opportunity to screen, identify, and prevent school bullying and adverse mental health in children and adolescents [29]. Although bullying is probably referred for psychiatric consultation [41], many bullies and victims had no contact with the child mental health services. Identifying the bullies and victims is the first step to assess and to intervene in their mental health problems. On the other hand, an approach to screening that relies first on identifying bullies, victims, or bully-victims, and then conducts a psychiatric screening could be a cost-effective alternative to universal screening of all children for psychiatric problems, especially when child mental health resources are scarce. However, the screening approach requires second-stage clinical evaluations, effectively functioning child mental health services, and efforts to assist families in obtaining help [73]. Additional studies that address the prevalence of involvement in bullying, their negative impacts on mental health, and resilience factors (e.g., parental and social support systems and the child’s cognitive and social skills in dealing with bullying behavior) among children and adolescents in Taiwan are warranted.

References


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