



EDITORIAL

The importance of risk factors for bullying perpetration and victimization^{☆,☆☆}



A importância dos fatores de risco para a prática de *bullying* e vitimização

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It is a great pleasure for me to welcome this very interesting article by Silva et al.¹ It is especially important in identifying key risk factors for bullying perpetration and victimization in Brazil. It shows that the most important risk factors for victimization include being female, being bisexual or homosexual, having low self-esteem, and using downers or tranquilizers. The most important risk factors for perpetration include being male, having poor school performance, consuming alcohol, being a transgressor, and having a favorable attitude to peer violence. The identification of risk factors should be very useful in developing risk assessment instruments and in targeting risk-focused interventions.

School bullying is defined as behavior that is intended to harm, that is repetitive, and that involves an imbalance of (social or physical) power between the bully and the victim.² The main types of school bullying include being called nasty names, being excluded by peers, spreading unpleasant rumors, being hit or kicked, and having belongings stolen.³ Boys are generally more involved in direct bullying such as hitting or kicking, while girls may be more involved in indirect or relational bullying such as spreading rumors or excluding other students.³

In recent years, cyberbullying has also become a great problem. Cyberbullying is defined as bullying perpetrated by electronic means, such as mobile phones, social media, or the internet.⁴ One difference from school bullying is that the perpetrator can be anonymous in cyberbullying. The main types of cyberbullying are online aggression or harassment, denigration, impersonation, exclusion, and posting unwanted embarrassing or sexual images (especially to girls). There is considerable overlap between school bullying and cyberbullying. Students who are victims in school tend also to be victims of cyberbullying, and *vice versa*.⁵ However, I will only focus on school bullying in this article.

Surprisingly, the Brazilian study reports that the prevalence of victimization was much less than the prevalence of perpetration. Of course, prevalence depends a great deal on the definition of bullying, on the way it is measured, and on the time period enquired about.⁶ Large-scale surveys have reported that the prevalence of both perpetration and victimization in the previous month is about one-third of students.⁷ Also, surprisingly, the Brazilian article reports a very low prevalence of combined perpetrator-victims (2%). For comparison, in a study in Nicaragua, perpetration was reported by 6%, victimization was reported by 25%, and an additional 19% were combined perpetrator-victims.⁸ Perpetrator-victims are often quite common in research on school bullying.⁹

School bullying is associated with many undesirable effects on perpetrators and victims. For example, Baldry et al. found that perpetrator-victims reported more symptoms of post-traumatic stress than did other students.¹⁰ It is sometimes difficult to determine whether particular risk factors, such as low self-esteem, are causes or consequences.

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However, a systematic review of prospective longitudinal studies by Ttofi et al. showed that victims of school bullying tended to be depressed up to 36 years later, even after controlling for several childhood risk factors.¹¹ Another systematic review of prospective longitudinal studies showed that perpetrators of school bullying tended to be offenders up to 11 years later, even after controlling for several childhood risk factors.¹² Still another similar review discovered that perpetrators tended to be drug users up to 15 years later.¹³ This is the most convincing kind of evidence about the consequences of perpetration and victimization.

Widely recognized risk factors for perpetration include antisocial peer influence, low empathy, antisocial attitudes or moral principles, and externalizing problems such as aggression and defiance.^{7,14} Widely recognized risk factors for victimization include low self-esteem, low social competence, low status with peers (unpopular, with few friends), and internalizing problems such as being withdrawn, anxious, or depressed.^{7,14}

Bullying perpetration at ages 14 and 18 was investigated in a major longitudinal study of 411 London boys, in which information was obtained from peers, parents, teachers, and records, as well as from the boys themselves.² The most important risk factors for bullying included individual factors such as low intelligence, low school attainment, and high daring or risk-taking, family factors such as having a convicted parent and poor parental supervision, peer factors such as having delinquent peers and not having few friends, and socio-economic factors such as low family income, large family size, and poor housing. In many ways, risk factors for bullying perpetration are similar to risk factors for delinquency.¹⁵

Widely recognized protective factors against perpetration include a positive school climate, a good home environment, high social competence, prosocial peer influence, good academic performance, and high empathy.¹⁶ Widely recognized protective factors against victimization include high social competence, high self-esteem, high academic achievement, high peer status or popularity, prosocial peer influence, a positive school climate, and good family relationships.¹⁶ Ttofi et al. carried out a systematic review of prospective longitudinal studies to investigate protective factors that interrupted the continuity from victimization to later internalizing problems, and from perpetration to later externalizing problems.¹⁷ The most important protective factors included good social skills, good school performance, prosocial friends, social support, coming from an unbroken family, and high parental attachment.

Returning to the Brazilian research, I was very happy that the authors chose to analyze dichotomous variables and to report odds ratios. This makes their results very easy to understand and communicate to researchers and policy-makers, which is very important. It is not difficult to understand the statement that the odds of being victimized are 2.4 times greater for students with low self-esteem. I am concerned when researchers score bullying scales (such as from "never" to "several times a week") from 0 to 4 and analyze these numbers as though they were normally distributed equal-interval scales like height and weight. These mean scores are not very meaningful. Also, the distributions of these types of bullying variables are often highly skewed, with the standard deviation often exceeding the

mean, making confidence intervals meaningless because the lower confidence interval is a negative number.

The good news is that many interventions, based on knowledge about risk and protective factors, successfully prevent and reduce school bullying. Gaffney et al. reviewed 100 evaluations of school bullying prevention programs and found that, overall, they reduced victimization by about 15–16%.¹⁸ These researchers also reviewed school bullying prevention programs across the world and concluded that they were most effective in reducing victimization in Italy, Spain, and Norway.¹⁹ Unfortunately, the only evaluation in South America (actually in Brazil) that met their inclusion criteria did not yield encouraging results, at least according to the analyses of Gaffney et al.²⁰ The most effective programs were No Trap! from Italy, Bully-Proofing Your School from the United States, and the Olweus Bullying Prevention Program from Norway. Zych et al. recommended that the Spanish concept of *convivencia* should be promoted in schools.⁶

There is a great need, in Brazil and in other countries, for a longitudinal study of perpetration and victimization in schools from ages 8–10 to ages 16–18. Ideally, there should be yearly assessments of perpetration and victimization and of modifiable risk and protective factors. Ideally, information should be collected from students, peers, teachers, parents, and school records. It would then be possible to document within-individual changes in risk and protective factors that were reliably followed by within-individual changes in perpetration and victimization. Importantly, this project would establish whether changes in specified factors (e.g., self-esteem), preceded, followed, or coincided with changes in perpetration and victimization. In turn, this would greatly advance knowledge about the causes of perpetration and victimization and suggest which factors should be especially targeted in intervention programs.

In conclusion, it is clear that school bullying is a major problem, causing great distress to many students. There is a great need for more widespread investment in research on this topic and in effective intervention programs. I hope that the article by Silva et al. will direct attention to the important problems of bullying and victimization of children and young people, and the need for more investment in school-based intervention programs.

Conflicts of interest

The author declares no conflicts of interest.

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