



A Comparison of Self and Peer Report in the Assessment of Bullying

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Abstract

This study compared self-report with peer nomination in identifying students involved in bullying. In a sample of 355 middle school students, the two measures demonstrated modest correspondence in identifying students as bullies ($r = .18, p < .01$) or victims ($r = .32, p < .01$). ROC analyses revealed that self-report predicted peer nominated status better than chance for victims but not for bullies. Peer-reported bullying was a stronger predictor ($r = .51$) of school discipline referrals than was self-report ($r = .28$). These results raise concern about the reliance on self-report to identify potential perpetrators and victims of bullying.

Rationale

Student self-report surveys are the most common method of assessing school bullying. Advocates of self-report surveys note that students have first-hand knowledge of bullying that may be unknown to others; however, critics point out that student self-report is potentially biased by under- or over-reporting of bullying. For example, students may be unwilling to admit that they have bullied others or that they have been victims of bullying. Unfortunately, bullying surveys are almost always administered anonymously so that researchers cannot determine the accuracy of student self-report. Therefore, the current study took the unusual step of administering a bullying survey on a confidential, but not anonymous, basis—using code numbers rather than student names. Students were assured that teachers would not have access to their self-reports, while the researchers who had access to the surveys would not have access to their names.

Peer nominations are a well-established alternative to self-report that has been widely used to identify aggressive students (e.g. Vaillancourt et al., 2003), but few studies have directly compared peer- and self-reports of bullying (Cornell & Brockenbrough, 2004; Pellegrini & Bartini, 2000). This approach asks children to list the names of classmates who fit definitions of bullying others or being bullied by others. The names of nominated students were replaced by code numbers and then compared with the self-report data. One advantage of peer nomination is that data are gathered from multiple sources, which tends to increase reliability and validity.

Peer nomination is not an absolute criterion of truth for verifying the accuracy of self-report. To supplement these analyses, we examined how well self- versus peer-reports of bullying predicted school discipline referrals and student GPA. We expected that bullying others would be associated with poorer school adjustment, including more discipline referrals and lower grades. We predicted that bullied students would suffer lower grades, too.

Study Questions

1. What is the correspondence between self- and peer-report for both bullying others and being the victim of bullying?
2. Which measure of bullying is a better predictor of school discipline referrals and GPA?

Methods

The sample was gathered from a suburban Virginia middle school (grades 6-8) undertaking an anti-bullying program. A total of 355 students completed the *School Climate Bullying Survey* (Cornell & Sheras, 2003), which presented a standard definition of bullying and asked students to report the number of times they have bullied others, and how many times they have been bullied by others, in the past month. Students could respond "never", "once or twice", "about once per week", or "several times a week." A response of "about once per week" or more was used as the threshold for bullying (Solberg & Olweus, 2003). The peer nomination measure asked students to list the names of peers who have bullied others and who have been bullied. A cutoff of 2 or more nominations was used to identify students as bullies or victims.

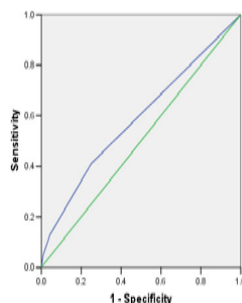
Results

Bullying Others

The correlation between self- and peer-reported bullying was $.18, p < .01$. The categorical percent agreement between self- and peer-reported bullying was 86% ($\kappa = .11, p < .05$). Sensitivity was $.28$ and specificity was $.89$ (PPV = $.13$, NPV = $.96$). One reason for the low correspondence is that, using a cut-off of 2 or more nominations, peer-report identified 11% ($n = 39$) of students as bullies, compared to just 5% ($n = 18$) for self-report. Receiver Operating Characteristic (ROC) analysis examined the ability of self-reported bullying to predict peer nominated bully status across multiple cut-offs. The AUC ($.59$) was not statistically better than chance ($.50$).

Peer Nominations as Bully	Self-reported bullying others in the past month				
	Never	Once or twice	About once per week	Several times a week	Total
0	193	53	9	1	256
1	34	10	1	2	47
2	11	5	1	0	17
3 or more	12	6	2	2	22
Total	250	74	13	5	342

ROC Curve

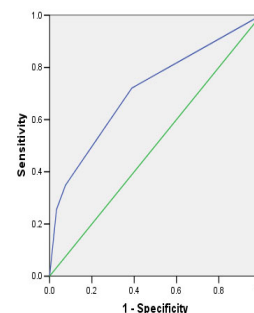


Victims of Bullying

The correlation between self- and peer-reported victimization was $.32, p < .01$. For victim status, the percent agreement between self-report and peer nomination was 85% ($\kappa = .29, p < .001$). Sensitivity was $.39$ and specificity was $.91$ (PPV = $.35$, NPV = $.92$). Using a cut-off of 2 or more nominations, peer-report identified 12.5% ($n = 44$) of students as victims, compared to 10.8% ($n = 38$) for self-report. ROC analysis obtained an AUC of $.71, p < .001$. A cutoff of "about once or twice" or more on self-report resulted in the highest sensitivity (.72) and specificity (.39) values.

Peer Nominations as Victim	Self-reported victim of bullying in the past month				
	Never	Once or twice	About once per week	Several times a week	Total
0	162	74	9	6	251
1	25	22	4	4	55
2	5	9	1	4	19
3 or more	7	7	3	7	24
Total	199	112	17	21	349

ROC Curve



Correlations with discipline referrals and GPA

For bullying others, discipline referrals correlated $.51$ with peer nomination and $.28$ with self-report. Fisher r -to- z transformation revealed that the $.51$ correlation was significantly larger ($p < .05$) than the $.28$ correlation. In other words, peer-reported bullying was more strongly associated with discipline problems than self-reported bullying. GPA correlated negatively with both peer ($r = -.19$) and self ($r = -.20$) reports of bullying.

GPA correlated significantly with both peer ($r = -.16$) and self-reports ($r = -.11$) of victimization. These correlations were not significantly different in magnitude. As expected, neither self ($r = -.01$) nor peer ($r = .09$) reports of victimization correlated with discipline referrals.

Conclusions

Our findings raise concern about the reliance on self-report surveys to identify students involved in bullying. There was little correspondence between self and peer report of bullying others, and only modest correspondence for reported victimization. This issue is important because bullying prevention efforts rely heavily on student self-report to evaluate program effectiveness, and most published studies of bullying prevention find disappointing results (Smith, Schneider, & Smith, 2004).

Other studies have found low correspondence between self and peer report for other constructs, including peer aggression. There are probably multiple reasons for the low correspondence found for bullying. Students may be reluctant to admit that they are bullies or that they have been the victim of bullying because of the stigma associated with bullying. Other students may over-report involvement in bullying because they do not take the survey seriously. Several studies have reported wide variations in estimated rates of bullying that may be attributable to student attitudes toward taking the survey (Cross & Newman-Gonchar, 2004).

Our decision to administer the survey confidentially, but not anonymously, was necessary for methodological reasons, but may have contributed to underreporting of bullying involvement. Comparisons of confidential versus anonymous survey methods are needed.

This study was conducted in a school that has an ongoing program to reduce bullying, and previous evaluations indicate that bullying has declined substantially over the past 4 years. The lower rates of bullying at this school may have contributed to the low correspondence between self and peer report, and studies in other middle schools are needed.

Peer nomination is not the ultimate criterion of truth for judging the accuracy of self-report; therefore, we examined how well each method correlated with behavioral and academic school outcomes over the course of the school year. Although both self and peer report (of both bullying and victimization) were associated with lower GPA and increased disciplinary infractions (bullying only), the relationship was somewhat stronger for peer report than self report. Ultimately, future studies could use follow-up interviews with students identified as bullies or victims through either self or peer report in order to determine whether or not the student is actually involved in bullying.

References

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