



Comparison of Self-Report, Peer-Report, and Principal-Report in Bullying Victimization and Perpetration Among Iranian Students

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Abstract

Background: Bullying among adolescences is known as a public health abnormality and studying the prevalence of bullying behaviors using different methods of data gathering can help researchers in surveillance and planning preventions.

Objectives: The objective of this study was to compare the prevalence of perpetration and victimization of bullying reported by self-report, peer-report, and principle-report.

Methods: In this cross-sectional study that was conducted in 2017-2018, a total of 1,540 students from 42 schools throughout Mazandaran province completed self- and peer-report questionnaires and 42 principals of 42 schools completed a principal-report questionnaire. The chi-square test was used to compare the prevalence of victimization and perpetration of bullying with self-report, peer-report, and principal-report methods across gender, school types and grade levels.

Results: The prevalence of bullies and victims in self-, peer-, and principal-report methods were different (20.2% as victim and 7.8% as a bully for self-report, 9.4% as victim and 8.9% as a bully for peer-report, and 4.3% as victim and 3.1% as a bully for principal-report).

Conclusions: This study showed the discrepancy in the prevalence of perpetration and victimization of bullying reported in three measurement methods (self-, peer-, and principal-report) in Iranian schools and suggests the use of multiple assessment methods for bullying behaviors.

Keywords: Bullying, Prevalence, Self-Report, School, Iran

1. Background

Bullying among adolescences is known as a public health abnormality and children involved in bullying behaviors have a significantly higher risk of a variety of subjective and objective health complaints compared with uninvolved children (1, 2). Bullying behaviors occur in various forms like hitting, pushing and kicking, name-calling and teasing in a hurtful way, social exclusion and spreading rumors, and also sending hurtful text messages via internet, email, and online social networking or creating web-sites (3). There is a variety of data collection methods to measure bullying victimization and perpetration, including observation, self-report, peer-report, parent-report, teacher-report, and administrative/disciplinary records or principal-report (4). Self-report, peer-report, and principal-report are the most common methods.

With respect to the lack of a gold standard for bullying information gathering and also insufficient research

about comparing multiple sources of information, examining self-, peer-, and principal-reports of bullying can increase the knowledge of this phenomenon and also help to interpret the findings of these methods.

2. Objectives

The objective of this study was to compare the prevalence of perpetration and victimization of bullying reported by self-report, peer-report, and principle-report across gender, school types, and grade levels.

3. Methods

3.1. Study Sample

A stratified three-stage cluster sample design was used to recruit 1,540 pupils from 42 schools throughout Mazandaran province in northern Iran in 2017-2018. Mazandaran

province has 22 cities. We randomly selected 7 cities. We chose the schools based on gender (girls and boys) and the type of school (state, private, gifted). Then, one school was randomly selected from each school type. In the third stage, one or two classes were randomly selected from each school and the whole population of those classes was enrolled in the study. This study was approved by the Ethics Committee of Kerman University of Medical Sciences (ethics code: IR.KMU.REC.1395.89). Informed consent was obtained from both parents and students. A brief description of bullying behaviors was written at the beginning of the questionnaires.

3.2. Data Collection

3.2.1. Self-Reported Bullying Behavior

Student involvement in bullying victimization and perpetration was measured by the Persian-Olweus bullying questionnaire (P-OBQ) that is a modified version of the Olweus bullying questionnaire (OBQ) validated among Iranian students (5). Victimization was assessed by 11 items (Cronbach's alpha = 0.80). Perpetration of bullying was assessed by 11 items as well (Cronbach's alpha = 0.81). The response options were "never," "only once or twice," "2 or 3 times a month," "about once a week," or "several times a week". The cut-off point of "2 or 3 times a month" was recommended as the suitable cut-off point for breaking data into involved and not involved in bullying victimization and perpetration (6).

3.2.2. Peer-Reported Bullying Behavior

Students were asked to report on their peers' bullying behaviors using a single item for victimization and perpetration: "How many students do you know have been bullied (or have bullied others) about 2 times per month or more according to the definition mentioned above, in your class, since the beginning of school until now?" In the peer-report method, the prevalence of bullying was estimated by adding up the numbers reported by each student and dividing it by the class population.

3.2.3. Principal-Report Bullying Behavior

The principal of the school or assistant principal were asked to report the number of students who bullied others or who were victims of bullying in the selected classes using a single question. In the principal report method, the prevalence of bullying was estimated by dividing the number of students with the defined bullying behavior by the number of students in that class.

3.3. Data Analysis

Correlation between the different reporting methods was evaluated by Pearson test. Relative frequency and chi-square tests were used to compare the prevalence of victimization and perpetration of bullying with self-report, peer-report, and principal-report methods across gender, school types and grade levels and one-way ANOVA was used for comparing the total prevalence across three methods.

4. Results

Pearson correlations between self, peer, principal reports of bullying victimization and perpetration are presented in Table 1. In the same type of bullying, self-reported and peer-reported bullying victimization ($r = 0.32$), and self-reported and principal-reported bullying perpetration ($r = 0.55$) significantly correlated.

The frequency and percentage of victimization and perpetration of bullying using self, peer, and principal report by gender, school types and grade are shown in Table 2. The prevalence of victim self-report (20.2%) was significantly higher than peer-report (9.4%) and principal report (4.3%) (P value < 0.001). While the prevalence of bully self-report (7.8%) and peer-report (8.9%) were close, and principal report (3.1%) was significantly lower (P value = 0.003).

5. Discussion

This study expands the literature about comparing the prevalence of victimization and perpetration of bullying, according to self-, peer-, and principal-reports. In this study, the prevalence of victimization for girls in peer- and principal-report was almost similar; and the prevalence of principal-reported bullying behaviors was much lower than self-, and peer-report. This may be because of weak supervision or weak communication between students and teachers or other staff members in the schools. On the other hand, it seems that the principal-report can be used more as an indicator of the effectiveness of bullying programs rather than estimating the prevalence of bullying behaviors according to Lee and Cornell study (7), bullies have more disciplinary records than other students and acquire lower discipline grades. Our results showed higher reports of victimization in self-report than peer-report; however, Wei et al. in Taiwan showed the opposite (8).

Consistent with a previous study (9), our study showed a moderate correlation between self-report and peer-report for bullying victimization, while self-report demonstrated a very low and non-significant correlation with

Table 1. Pearson Correlations Between Self-Report, Peer-Report, Principal-Report Methods of Bullying Victimization and Perpetration

School Bullying Behaviors	Victimization			Perpetration		
	Self-Report	Peer-Report	Principal-Report	Self-Report	Peer-Report	Principal-Report
Victimization						
Self-report	-					
Peer-report	0.32 ^a	-				
Principal-report	0.16	-0.179	-			
Perpetration						
Self-report	0.16	0.54 ^b	-0.00	-		
Peer-report	0.17	-0.18	0.99 ^b	-0.01	-	
Principal-report	0.29 ^c	0.79 ^b	-0.15	0.55 ^b	-0.17	-

^aP < 0.01.

^bP < 0.001.

^cP < 0.05.

Table 2. The Frequency and Percentage of Victims and Bullies Using Self-Report, Peer-Report, and Reports of School Principal Across Gender, School Types and Grade Levels (N = 1,540 Students)^a

Variables	No. (%)	Victimization of Bullying			Perpetration of Bullying		
		Self-Reports	Peer-Reports	Principal-Reports	Self-Reports	Peer-Reports	Principal-Reports
Gender							
Girl	840 (54.5)	157 (10.2)	46 (3.0)	46 (3.0)	31 (2.0)	39 (2.5)	31 (2.0)
Boy	700 (45.5)	154 (10.0)	98 (6.4)	20 (1.3)	95 (6.2)	98 (6.4)	15 (1.0)
P value ^b		0.11	< 0.001	0.011	< 0.001	< 0.001	0.075
School types							
Public	628 (40.8)	131 (8.5)	65 (4.2)	45 (2.9)	51 (3.3)	66 (4.3)	25 (1.6)
Gifted	512 (33.2)	101 (6.5)	48 (3.1)	12 (0.8)	47 (3.1)	45 (2.9)	12 (0.8)
Private	400 (26.0)	79 (5.1)	31 (2.0)	9 (0.6)	28 (1.8)	26 (1.6)	11 (0.6)
P value ^b		0.864	0.377	< 0.001	0.49	0.088	0.253
Grade							
8 th	674 (43.77)	122 (7.9)	60 (3.9)	16 (1.0)	44 (2.9)	56 (3.6)	16 (1.0)
9 th	602 (39.09)	162 (10.5)	71 (4.6)	49 (3.2)	60 (3.9)	68 (4.2)	31 (2.0)
10 th	264 (17.14)	27 (1.8)	13 (0.8)	1 (0.1)	22 (1.4)	13 (0.8)	1 (0.1)
P value ^b		< 0.001	0.005	< 0.001	0.081	0.007	< 0.001
Total	1540 (100)	311 (20.2)	144 (9.4)	66 (4.3)	120 (7.8)	137 (8.9)	48 (3.1)
P value^c			< 0.001			0.003	

^aThe P value < 0.05 is considered statistically significant.

^bChi-square test.

^cOne-way ANOVA test.

peer-report for bullying perpetration ($r = -0.014$). This may be justifiable if bullies are students outside of these classes. In other words, in peer-report, students report bullies inside the class, while in self-report each student reports bullies in the whole school.

A strength of this study was the use of a relatively large sample comprising diverse grades and school types.

However, there were a number of limitations regarding this study. First, further studies are needed to determine whether the cut-point of self-report (“two or three times a month”) is appropriate for the peer-report and principal-report questionnaires, as well. Second, this study was limited to only one province of Iran. Third, the bullying data focused on total bullying, not various forms of bullying be-

haviors. Fourth, a single question was used for the peer-reports and principal-reports. Finally, the present study did not assess within or outside class bullying victimization and perpetration separately.

5.1. Conclusions

This study showed the different prevalence of perpetration and victimization of bullying reported in three measurement methods (self-, peer-, and principal-report) in Iranian schools. This differential perception and reports of bullying behaviors among administrators and students provide significant implications for implementing effective programs addressing school bullying in Iran.

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Footnotes

Conflict of Interests: The authors declare they have no competing interests.

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