



Abstract

This study examined the stability of bully victimization experiences over three years of middle school in a cohort of 126 students. Students were assessed by self-report survey in the fall and spring of grades 6, 7, and 8. Three groups were created to identify victim status: approximately 50% of students were (1) never categorized as bullied, 30% were (2) bullied one year only, and 20% were (3) bullied two years or more. As expected, increasing victimization was associated with depressive reactions and increased risk behaviors. There were no group differences in GPA, Math scores, or Reading scores on state-mandated tests. An unexpected finding was that when surveys were screened for students who responded inappropriately to validity items (e.g., answering False to "I am telling the truth on this survey"), the group differences were no longer statistically significant. These results suggest that screening self-report surveys can have a substantial impact on study findings.

Rationale

Studies that use a single cross-sectional assessment cannot demonstrate the course of bullying and how more persistently bullied students are affected. The present study was designed to examine the stability of bully victimization and distinguish students who were persistently bullied during middle school. A recent study (Cornell, Klein, Konold, & Huang, in press) recommended the use of validity screening items for adolescent self-report surveys, so we compared the results of this study before and after validity screening.

Study Question

1. How persistently are students bullied over the three years of middle school?
2. Is more persistent bullying victimization associated with lower academic achievement and greater involvement in risk behavior at the end of 8th grade?
3. How does validity screening affect study findings?

Methods

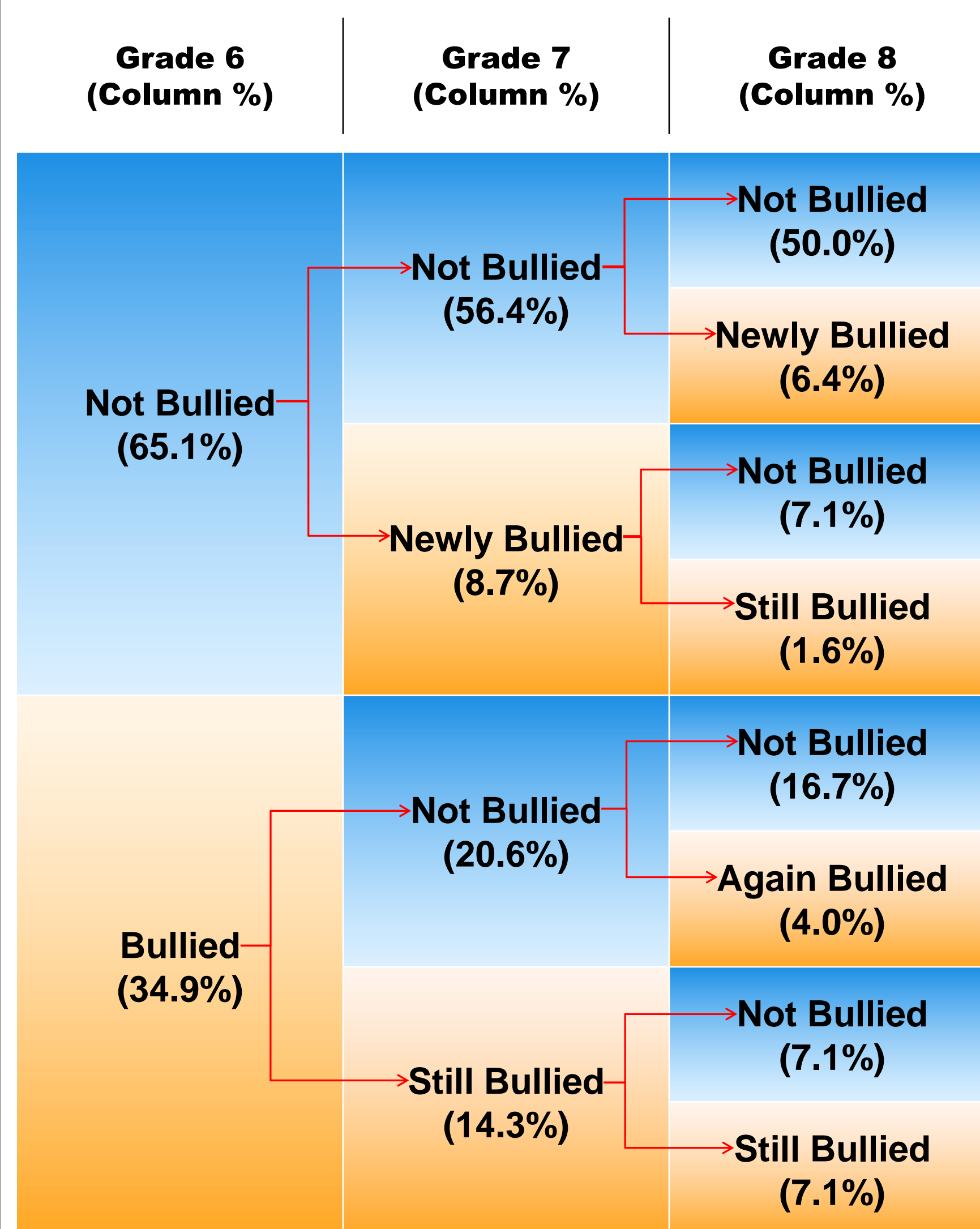
The sample included 66 boys (52%) and 60 girls (48%) from a public middle school in central VA. There were 80 (63%) students who identified themselves as White, 16 (13%) as African American, 14 (11%) as Hispanic, 9 (7%) as Asian American, and 7 (6%) as another ethnicity.

The School Climate Bullying Survey (SCBS; Cornell, 2011), was administered by teachers in homeroom classes. Those who self-reported being bullied one or more times per

week during the past month were categorized as victims and any student identified as a victim on either the fall or spring survey was categorized as bullied for that year. Surveys were given a code number, allowing student responses to remain confidential while being tracked.

Depressive reactions and risk behaviors were measured by summing fall and spring 8th grade scores. Student responses were identified as invalid if they answered one of two validity questions inappropriately on either the fall or spring 8th grade survey.

Stability of Middle School Bullying (N=126)



Results

The concordance (bullied or not bullied) across years was 70.6% (Kappa = .299) from grade 6 to grade 7, 75.4% (Kappa = .261) from grade 7 to grade 8, and 68.3% (Kappa = .219) from grade 6 to grade 8. The percentage of students identified as victims in grade 6 (34.9%) declined in grade 7 (23.0%), matched pairs $t = 2.52, p = .013$, and declined

further in grade 8 (19.0%), matched pairs $t = 1.92, p = .057$. All tests of significance are two-tailed. The course of bully victimization indicated that 50% of students were never bullied. In contrast, about 7% reported being bullied each year of middle school.

Unscreened Data

A 2 x 3 analysis of variance (ANOVA) measured the effects of gender (boy or girl) and victim group (never bullied, bullied one year, and bullied two years or more) on 8th grade academic achievement and self-reported depressive reactions and risk behavior.

There was a significant main effect for bullying group and reports of feeling sad, $F(2, 90) = 5.51, p = .006, \eta^2 = .115$, and thinking about suicide, $F(2, 91) = 4.01, p = .022, \eta^2 = .085$. Persistently bullied students felt sad and thought about suicide significantly more than non-victims. Students who reported being bullied once felt sad significantly more than those who were never bullied.

There was a significant interaction between bullying group and gender for 8th grade reports of missing school because of feeling unsafe, $F(2, 91) = 4.88, p = .010, \eta^2 = .102$, carrying weapons to school, $F(2, 90) = 4.36, p = .016, \eta^2 = .093$, and smoking cigarettes, $F(2, 91) = 4.75, p = .017, \eta^2 = .091$. Post-hoc tests indicated that more persistently bullied girls reported each of these risk behaviors significantly more than both non-victims and less persistently bullied girls. In contrast, none of the behaviors were significantly different among boys.

No statistically significant main effects or interactions were found for bullying group and gender for any of the academic achievement measures.

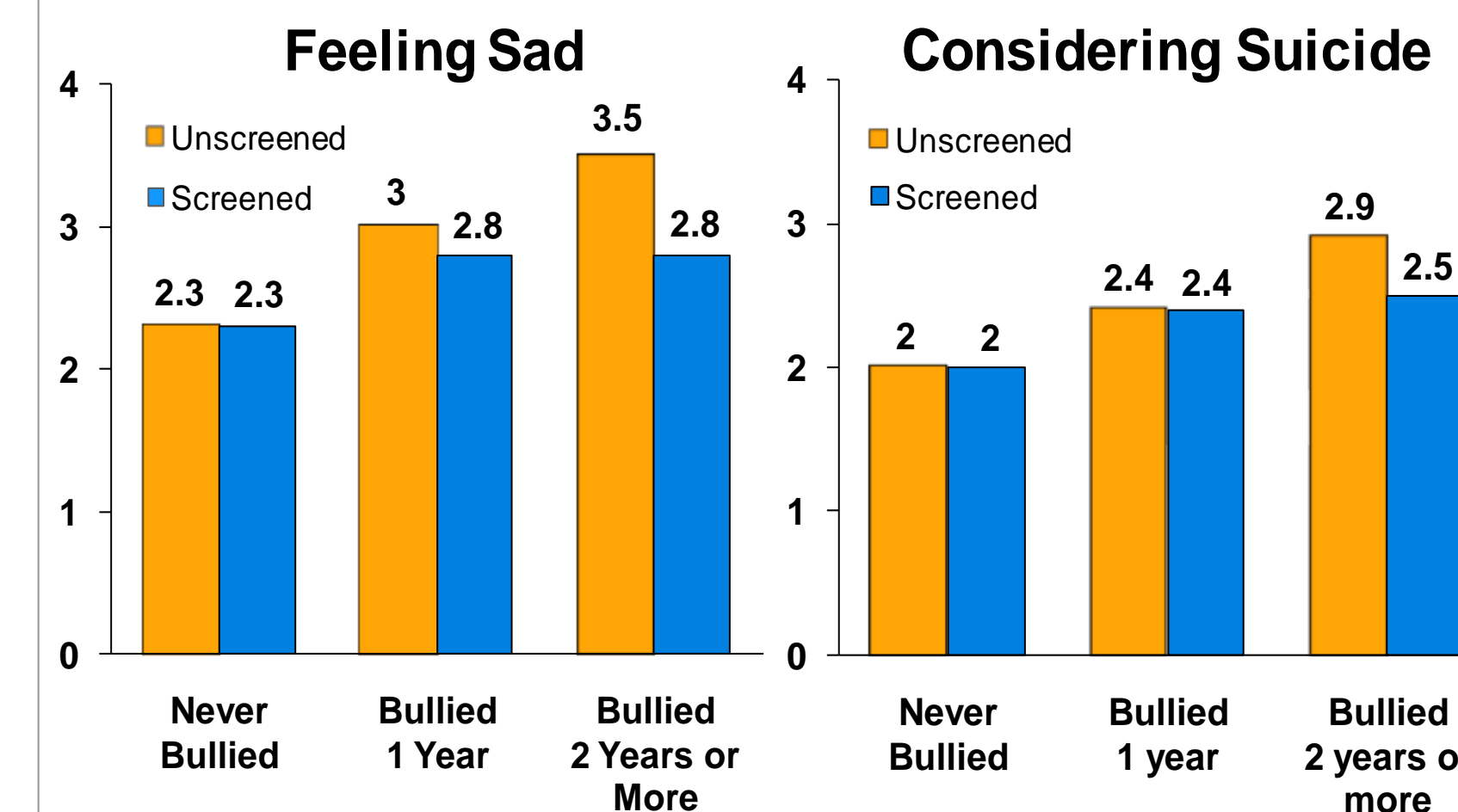
Source	Feeling Sad			Suicide			Unsafe			Weapons		
	F	η^2	p	F	η^2	p	F	η^2	p	F	η^2	p
Gender	6.47	.071	.013	1.83	.021	.179	8.31	.088	.005	2.62	.030	.109
Victims	5.51	.115	.006	4.01	.085	.022	3.18	.069	.046	5.07	.107	.008
G x V	0.61	.014	.548	0.45	.010	.638	4.88	.102	.010	4.36	.093	.016

Source	Cigarettes			Alcohol			Marijuana			Fighting		
	F	η^2	p	F	η^2	p	F	η^2	p	F	η^2	p
Gender	3.29	.037	.073	0.09	.001	.763	0.03	.000	.854	1.45	.017	.232
Victims	2.50	.055	.088	1.25	.029	.291	0.96	.017	.385	2.13	.048	.126
G x V	4.30	.091	.017	0.85	.020	.432	0.92	.016	.400	0.46	.011	.630

Source	Absences			Overall GPA			Reading Test			Math Test		
	F	η^2	p	F	η^2	p	F	η^2	p	F	η^2	p
Gender	0.18	.001	.675	0.14	.001	.705	0.19	.002	.667	1.21	.010	.273
Victims	0.15	.003	.857	0.51	.009	.603	1.64	.027	.199	0.51	.009	.601
G x V	1.94	.031	.149	1.96	.032	.145	1.63	.026	.200	2.74	.044	.069

Screened Data

After validity screening, 22 students were dropped for invalid responses to either the fall or spring 8th grade survey. The screened data produced no new effects and previous group differences were no longer statistically significant.



Conclusion

Student victimization experiences varied widely from those never bullied to those persistently bullied. Using unscreened data, there was support for the hypothesis that more persistently bullied students were more likely to feel sad and engage in risky behavior. However, after screening for invalid responders, persistently bullied students no longer differed from the other groups. These results suggest that some students may intentionally exaggerate their responses on self-report surveys in a manner that produces artifactual relationships between bullying and negative outcomes, consistent with findings from other studies (Cornell et al, in press).

Self report surveys are a convenient and efficient way to gather data, but are vulnerable to systematic error if some students provide exaggerated answers. More research on the accuracy of adolescent self-report and the effects of validity screening on findings is needed.

References

- Cornell, D. G. (2011). *The School Climate Bullying Survey: Description and research summary*. Charlottesville, VA: University of Virginia.
- Cornell, D., Klein, J., Konold, T., & Huang, F. (in press). Effects of validity screening items on adolescent survey data. *Psychological Assessment*.