

Relationship of School Bullying and Socioeconomic Status in Japan

Teruki SANADA, Tohoku University, Japan, teruki.sanada.d2@tohoku.ac.jp

ABSTRACT

This study aims to analyze the social and economic status of children getting bullied using PISA data. Bully at school has been one of the important educational issues that have been long debated since the 1960s. Previous studies show that the factors which can cause bullying can be roughly divided into individual and group characteristics and implies that there is individual- and group-level factors which drive bullying in schools. However, children's SES is not only important on its own; their SES about their peers at school matters as well. The SES of children in a given school can help predict or drive bullying behavior because unique children are more likely to be bullied. The present study aims to extend scholars' thus far limited attention to the relationship between student's SES and victimization, so I conducted a multilevel regression using PISA data after segregated by gender. The results of the multilevel analysis show that the degree of an individual's difference from the average school SES did not influence the victimization, but that SES on a broader, societal scale was related to victimization.

Introduction and Background

Bullying in schools is a global problem. There are many causes of bullying, one of which is socioeconomic status (SES).

Previous studies on bullying have shown that poor children are more likely to be bullied (Tippet and Wolke 2014). However, the results of the recent PISA survey have revealed that in Japan, the more affluent children are more likely to be bullied. In this study, we analyze the impact of socioeconomic status on bullying using data from Japan.

Research Question

What socioeconomic status of children in Japan makes them vulnerable to bullying?

Hypothesis

We create hypotheses applying Social Comparison Theory (SCT)(Festinger 1954). SCT has two comparisons.

- Upper Comparison
Compare with a person who has high ability
- Downward Comparison
Compare with a person who has low ability

1. The more the child is from the average SES in school, the more likely he or she is to be bullied.
2. The more the child is from the average school grade, the more likely he or she is to be bullied.

Methods

Data : Programme for International Student Assessment 2015

Sample : 15-year-olds by OECD countries and some region.
This study focus on Japanese student, so other countries' sample is omitted. Final sample is 6365.

Statistical model: Factor Analysis and Multilevel Analysis

- First, we classify bullying under some factors by applying factor analysis. Second, we conduct multilevel analysis setting the factors as dependent variable.
- We estimate the effect of SES on those calculated factors about bullying in school.

Main Independent Variable:

Individual SES, School average SES, and the difference of (Individual SES – School SES). As well, we create grades variable. By doing this, we test above hypotheses.

Classification of bullying content

	Mental	Physical	Stolen or Broken Property	Commonality
Left out	-0.869	-0.008	-0.016	0.764
Teased	-0.329	0.659	0.107	0.706
Threatened	-0.403	0.274	-0.280	0.734
Theft or Broken	-0.051	0.032	-0.871	0.865
Mild Violence	0.073	0.903	-0.112	0.886
Nasty rumor	-0.708	0.042	-0.132	0.693

N = 6365

*As you can see, first factor consisted of three items, so we name this factor "Mental bullying." Second factor consisted of two items, so we name this "Physical bullying." And third factor considered one item, so we name this "Stolen or Broken Property."

The Impact of SES on Bullying

	Mental Bullying				Physical Bullying				Stolen or Broken Property			
	Male		Female		Male		Female		Male		Female	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Fixed Effect												
Intercept	1.06 ***	0.19	0.87 ***	0.17	1.09 ***	0.20	0.81 ***	0.16	1.03 ***	0.19	0.79 ***	0.15
Individual SES	0.04 *	0.02	0.07 ***	0.02	0.05 *	0.02	0.07 ***	0.02	0.04 *	0.02	0.06 ***	0.02
The Absolute Value of SES (Individual-School)	-0.02	0.03	0.01	0.03	-0.01	0.04	0.01	0.03	-0.02	0.03	0.00	0.03
Grades	0.07 **	0.02	0.01	0.02	0.11 ***	0.03	0.01	0.02	0.07 **	0.02	0.01	0.02
The Absolute Value of Grades (Individual-School)	0.07 †	0.04	0.10 *	0.04	0.06	0.04	0.07 †	0.04	0.04	0.04	0.07 *	0.04
Parental involvement	-0.05 ***	0.01	-0.04 ***	0.01	-0.06 ***	0.01	-0.04 ***	0.01	-0.05 ***	0.01	-0.04 ***	0.01
Group Level (M: 188, F: 190)												
Average SES of School	0.17 †	0.09	0.08	0.08	0.22 *	0.10	0.08	0.07	0.19 *	0.09	0.08	0.07
Average Grades of School	-0.09	0.06	-0.06	0.06	-0.13 †	0.07	-0.06	0.05	-0.11 †	0.06	-0.06	0.05
Advanced Placement Class	0.03	0.04	0.00	0.04	0.02	0.05	-0.01	0.03	0.03	0.04	0.00	0.03
Class Size	-0.04	0.04	-0.03	0.04	-0.01	0.05	-0.02	0.04	-0.01	0.04	-0.02	0.03
Public school (ref. Private)	-0.05	0.06	-0.09 †	0.05	-0.05	0.06	-0.08	0.05	-0.06	0.06	-0.08 †	0.04
City Size (ref. Town, Village)	0.04	0.05	0.02	0.04	0.04	0.05	0.01	0.04	0.05	0.05	0.02	0.04
N	3194		3171		3194		3171		3194		3171	

***p<0.001, **p<0.01, *p<0.05, †p<0.1 Maximum Likelihood Estimation

Conclusion

1. Hypothesis 1 is **rejected**.
But the higher the SES of an individual, the more likely he or she is to be bullied, which may be the result of upward social comparison.
2. Hypothesis 2 is **partially supported**.
The absolute value in grades and the mean in women has **positive effect**.

⇒ Japanese children's susceptibility to bullying is determined not by their SES in school, but by their SES in society as a whole. In addition, social comparison theory is valid for grades, not SES.