School Wide Bullying and Victimization: A Multilevel Longitudinal Study

Introduction

Bullying and peer victimization have been a public concern. One out of every five students reported being bullied, and 41% of those who reported being bullied at school believe the bullying would happen again (National Center for Educational Statistics, 2019). The prevalence of school wide bullying was around 28 percent (U.S. Department of Education, 2015). A recent study showed that approximately 37% of adolescents reported experiencing cyberbullying as victims in their lifetimes (Hinduja & Patchin, 2019). Previous studies have shown the detrimental impacts of bullying and cyberbullying on academic achievement and mental health outcomes (Centers for Disease Control, 2019).

Most former studies have focused on examining the individual level factors on the development of bullying and victimization and their effects, and additional research is needed to examine school environmental factors of bullying (Hong & Espelage, 2012). Therefore, the present study aimed to fill the research gap by understanding the trajectories of different types of bullying and victimization. Specifically, the study focused on examining the effects of school wide SEL and school characteristics on school wide bullying, traditional bullying victimization and cyberbullying victimization, and also examine whether SEL contributes to the change of school wide bullying and victimization over time.

Research Questions:

1. What are the relationships of SEL and school characteristics (i.e. school grade levels, ethnic diversity index, and school size) with different types of bullying (i.e. school wide bullying, traditional bullying victimization, cyberbullying victimization) across schools?

2. Do school wide bullying, traditional bullying victimization, and cyberbullying victimization change over time?

If so, how do SEL and school characteristics contribute to the changes?

Methods

Participants were students enrolled in Grades 3-12 recruited from public schools in the state of Delaware in the US. 58,758 participants (52.1% female) in 134 schools were recruited in 2017-18, 34,871 participants (51.8% female) in 124 schools in 2018-19, and 39,942 participants (51.9%) in 124 schools in the 2019-20 academic year. To track the changes of schools (elementary, middle and high schools) in three years, the merged data resulted in 139 schools for the present study, including 86 elementary schools, 30 middle schools and 23 high schools.

School wide bullying was measured by 3-item subscale of the Delaware School Climate Survey-Student (DSCS-S; Bear et al., 2011). The traditional bullying (TBV) and cyberbully victimization (CBV) were measured using subscales of the Delaware School Bullying Victimization Scale–Student (DBVS–S; Yang et al., 2018). The Delaware Social Emotional Competencies Scale–Student (DSECS-S; Manz et al., 2018) was used to measure students’ SEL competencies. Demographic factors including school levels, diversity index, and school size were included in a series of linear growth curve models.

Results

1. Main Effects on School Wide Bullying
   - SEL has a significant negative effect on school wide bullying at a significant level of 5% (beta = -1.41, p < 0.001), controlling for school characteristics and time.
   - Time, quadratic time, grade levels, school size and diversity index did not have a main effect on the school wide bullying at a significance level of 5%.
   - The school wide bullying at the school level does not change over time.

2. Main Effects and Interaction on Traditional Bullying Victimization
   - The coefficient of time was significant, beta = -0.34, p < 0.001.
   - Grade levels had main effects on TBV (middle school, beta = -0.24, p < 0.001, high schools, beta = -0.34, p = 0.001).
   - SEL had a significant negative effect on traditional bullying victimization: beta = -1.23, p < 0.001.
   - However, the school characteristics and school wide SEL did not contribute to the change of TBV on the school level, as the interaction terms were not significant.

3. Main Effects and Interaction on Cyberbullying Victimization
   - As shown in Model 6, both time and quadratic time were significant (Time, beta = -0.05, p < 0.05; Quadratic Time, beta = -0.03, p = 0.01).
   - In comparison with middle schools, high schools had significantly higher cyberbullying victimization, beta = 0.06, p < 0.001.
   - SEL had a significant negative effect on cyberbullying victimization, beta = -0.50, p < 0.001.
   - Ethnic Diversity Index had a significant negative effect on cyberbullying victimization, beta = -0.27, p < 0.05.

Conclusions

The study highlights the importance of understanding the trajectories of school wide bullying and victimization and school level factors that contributed to the change. Findings revealed that school wide bullying is stable, traditional bullying victimization increases linearly, and cyberbullying victimization decreases follows a curvilinear change over a period of three years. The school wide SEL competencies were significantly associated with school wide bullying, traditional bullying victimization, and cyberbullying victimization. However, SEL did not contribute the change of both traditional and cyberbullying victimization over time. It indicated that school wide SEL alone may not be sufficient to reduce school wide bullying and victimization. In terms of school levels, high schools have highest traditional bullying victimization, followed by middle schools and elementary schools. High schools also reported significantly higher cyberbullying victimization compared to middle schools. Interestingly, diversity index only had significant effect on cyberbullying victimization. The increase of diversity of the schools is associated with less cyberbullying victimization at the school level, suggesting the protective role of diversity on preventing school level cyberbullying victimization. Consistent with former studies, the school size did not have effect on school wide bullying and victimization. All interactions between explanatory variables and time were not significant, indicating that there were other school level factors that contribute to the change of school wide bullying.

Future studies may examine other school level factors, such as school policies, teacher-student relationship, school climate, on the change of different types of bullying at the school level. Future studies may examine other school-level factors, such as school policies, teacher-student relationship, school climate, on the change of different types of bullying at the school level.