Clinical trial of Second Step© middle-school program: Impact on aggression & victimization ☆

Dorothy L. Espelage [a,*], Sabina Low [b], Joshua R. Polanin [c], Eric C. Brown [d]

[a] Department of Educational Psychology, University of Illinois, Urbana-Champaign, United States
[b] School of Social and Family Dynamics, Arizona State University, United States
[c] Peabody Research Institute, Vanderbilt University, United States
[d] Miller School of Medicine, University of Miami, United States

ARTICLE INFO

ABSTRACT

School-based social-emotional (SEL) programs that address interpersonal conflict and teach emotion management have succeeded in reducing youth aggression among elementary school youth, with few studies in middle schools. Results of a two-year cluster-randomized (36 schools) clinical trial of Second Step Middle School Program (Committee for Children, 2008) on reducing aggression and victimization are presented. Teachers implemented 28 lessons (6th & 7th-grade) that focused on social emotional learning skills (e.g., empathy, problem-solving). All 6th graders (n = 3658) completed self-report measures assessing bullying, aggression, homophobic name-calling and sexual harassment at three waves. Multilevel analyses revealed significant intervention effects for two of the seven outcomes. Students in intervention schools were 56% less likely to self-report homophobic name-calling victimization and 39% less likely to report sexual violence perpetration than students in control schools in one state. SS-SSTP holds promise as an efficacious program to reduce homophobic name-calling and sexual violence in adolescent youth.

School crime and violence have emerged as significant public health crises that include behaviors ranging from bullying, hate-based language, sexual harassment, physical assaults, to other crimes (Robers, Kemp, & Truman, 2013). A recent study found that about a third of students in grades 9–12 reported they had been in a physical fight at least one time during the previous 12 months anywhere, and 12% said they had been in a fight on school property during the previous 12 months (Robers et al., 2013). Rates of victimization were similarly high. Approximately 28% of 12- to 18-year-old students reported they had been bullied at school during the school year, and victimization was the highest among 6th graders (37%), compared to 7th or 8th graders (30% and 31% respectively). Furthermore, approximately 9 to 11% of youth report being called hate-related words having to do with their race, religion, ethnic background, and/or sexual orientation (Robers et al., 2013).

These prevalence rates, taken together suggest that youth in US middle and high schools regularly experience a wide range of aggression and school violence, including name-calling, physical fights, hate-based victimization, and sexual harassment. For decades, scholars have tended to study each type of aggression or violence in isolation of one another and only recently recognized the need to examine multiple forms of violence simultaneously given the high incidence of poly-victimization and overlap during a person's lifespan (Hamby & Grych, 2013). Bullying victimization, verbal and physical aggression during early adolescence, for example, has been shown to be strong predictors of involvement in homophobic name-calling and sexual harassment among middle school students (Birkett & Espelage, Online First; Espelage, Basile, & Hamburger, 2012; Espelage, Low, & De La Rue, 2012; Poteat & Espelage, 2007). Further, many of these forms of aggression and victimization share common risk and protective factors, (e.g., lack of empathy; Endresen & Olweus, 2001; attitudes supportive of aggression; Boulton, Trueman, & Flemington, 2002) and often are maintained and reinforced in similar peer contexts (Dishion & Owen, 2002; Espelage, Holt, & Henkel, 2003; Low, Espelage, & Polanin, 2013). As such, there exists a need for school-based violence prevention programs that target multiple risk and protective factors in order to decrease multiple forms of violence (Hamby & Grych, 2013; Nation et al., 2003). Thus, the current study presents results of a two-year randomized controlled trial of a social–emotional middle school program that targeted shared risk and protective factors for physical aggression, bullying, homophobic name-calling, and sexual harassment/violence.

School-based social–emotional violence prevention approaches

Recent heightened media attention given to bullying in our schools, and subsequent changes in policies and legislation has increased the number of school-based bullying prevention programs; however, their efficacy has varied tremendously across contexts and program effects often have been modest (Ttofi & Farrington, 2011) or have produced mixed results (Pearce, Cross, Monks, Waters, & Falconer, 2011). Two meta-analyses found that effects were non-existent or too small to be practically significant (Merrell, Gueldner, Ross, & Isava, 2008; Smith, Schneider, Smith, & Ananiadou, 2004). The most comprehensive meta-analysis that applied the Campbell Collaboration Systematic Review procedures (Campbell Collaboration, 2014) included a review of 44 rigorous program evaluations and randomized clinical trials (RCT; Ttofi & Farrington, 2011). Ttofi and Farrington (2011) found that the programs, on average, were associated with a 20%–23% decrease in bullying perpetration, and a 17%–20% decrease in victimization (Ttofi & Farrington, 2011).

It is important to understand the elements of programs that are driving these reductions. Decreases in rates of *victimization* were associated with the following special program elements: disciplinary (non-punitive) methods, parent training/meetings, use of videos, and cooperative group work. In addition, the duration and intensity of the program for children and teachers were significantly associated with a decrease in victimization. Interestingly, more elements were needed to bring about changes in bully perpetration. Specific program elements that were associated with decreases in rates of *bully perpetration* included (Ttofi & Farrington, 2011): parent training/meetings, improved playground supervision, disciplinary (non-punitive) methods, classroom management, teacher training, classroom rules, whole-school anti-bullying policy, school conferences, information for parents (ranging from information in newsletter to suggestions for helping children with bullying situations), and cooperative group work. Further, the number of elements and the duration and intensity of the program for teachers and children were significantly associated with a decrease in bullying in studies in Norway and Europe.

Successful elements of the programs that are consistent with the social–emotional learning approach evaluated in this study include the use of multimedia, classroom rules, teacher training, psycho-educational information for parents, and cooperative group work. Cooperative group work was defined in the Ttofi and Farrington meta-analysis as teachers being trained to implement cooperative learning and role-playing activities to their students around bullying issues. Of note, use of curriculum across the 44 studies was the second most frequent program element ($n = 34$), but this element was not significantly associated with decreases in bully perpetration or victimization (Ttofi & Farrington, 2011). However, the majority of these programs are narrowly focused on the topic of bullying, whereas the social–emotional learning program evaluated in this study draws from the risk and protective framework literature and purposively teaches a wide range of skills to prevent conflicts and skills to prevent escalation of conflicts (e.g., communication, problem-solving, emotion regulation). The risk and protective factors targeted in Second Step have been consistently found to increase or mitigate the likelihood of problem behaviors such as aggression and alcohol and drug use (e.g., Fraser, 1997; Sameroff & Gutman, 2004).

Although bullying programs, more generally, have yielded mixed results, school-based social–emotional (SEL) programs that address interpersonal conflict and teach emotion management have succeeded in reducing youth violence, including bullying (see Brown, Low, Smith, and Haggerty (2011)) as well as disruptive behaviors in classrooms (Wilson & Lipsey, 2007). Many of these social–emotional learning (RULER, Brackett, Rivers, Reyes, & Salovey, 2012) and social-cognitive intervention programs (e.g., Fourth R, Wolfe et al., 2003; Life Skills, Botvin, Griffin, & Nichols, 2006) target common risk and protective factors that have been associated with aggression, bullying, and violence

in cross-sectional and longitudinal studies (Basile, Espelage, Rivers, McMahon, & Simon, 2009; Cook, Williams, Guerra, Kim, & Sadek, 2010; Espelage, Low, Anderson, & De La Rue, 2013; Espelage et al., 2003), including anger, empathy, perspective-taking, respect for diversity, attitudes supportive of aggression, coping, willingness to intervene to help others, and communication and problem-solving skills. It is important to note that not all social–emotional learning programs address bullying, and the majority of bully prevention programs do not include comprehensive instruction in the aforementioned skills.

Second Step: Student Success Through Prevention (SS-SSTP) middle school program

A theoretical logic model of this evaluation of SS-SSTP is presented in Fig. 1. The SS-SSTP program (Committee for Children, 2008) includes direct instruction in risk and protective factors linked to aggression and violence, including empathy training, emotion regulation, communication skills, and problem-solving strategies. The curriculum indirectly targets school violence by targeting the peer context for bullying, which will be elaborated on later. Next, research support for those risk and protective factors targeted through the social–emotional framework is highlighted, followed by research focused on the importance of addressing peer involvement in bullying and victimization.

Program inputs: classroom curriculum content domains

Empathy

Empathy has been defined as a multidimensional construct that contains aspects of emotions and cognitions (Davis, 1983; Endresen & Olweus, 2001). Empathy is an integral part of social competence (Halberstadt, Denham, & Dunsmore, 2001) and has an inhibitory effect on aggression (Jolliffe & Farrington, 2004). Feshbach (1978) describes empathy as encompassing three components: 1) cognitive ability to discriminate affective cues in others, 2) mature cognitive skills involved in assuming the perspective of another person, and 3) emotional responsiveness to the experience of emotions. Research has found that empathy and perspective-taking skills in youth are associated with less bullying perpetration (Espelage, Green, & Polanin, 2012) and greater defender behaviors (Barchia & Bussey, 2011; Nickerson & Mele-Taylor, 2014; Pöyhönen, Juvonen & Salmivalli, 2010; Pozzoli & Gini, 2010; Rigby & Johnson, 2006). Thus, it was hypothesized that students who receive the Second Step condition would report less bullying perpetration and physical aggression.

Communication

Understanding the feelings and perspectives of others requires the ability to communicate effectively and assertively (Izard, 2002; Nilsen & Fecica;, 2011). However, communication skills include a host of skills that need to be introduced and practiced in order to maximize the sustainability of such skills. Communication involves being able to engage in active listening, which involves the meta-skills of maintaining eye contact, allowing others to talk without interruption, some indication that you are listening (e.g., nodding), and finally it is helpful to use reflective statements to confirm that the correct message is being received. In the SS-SSTP program, youth learn and practice these skills through dyadic and group activities, a practice that is supported by research in the area of communication (Izard, 2002). Activities focus on the difference between aggressive, passive, and assertive communication. Research demonstrates that youth can learn how to effectively communicate and use assertive communication through modeling, feedback, and role playing with adults and peers (Reddy, 2012).

Emotion regulation

Emotion regulation is a developmental challenge for many youth, especially those youth who come from communities and homes were emotion management is not modeled (Silk et al., 2007). Youth who