Title Registration for a Systematic Review: Manualized Social Emotional Learning Program for Preventing Violence in School-aged Children: A Systematic Review of the *Second Step* Program.

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TITLE OF THE REVIEW

Manualized Social Emotional Learning Program for Preventing Violence in School-aged Children: A Systematic Review of the *Second Step* Program.

BACKGROUND

Youth violence is a major social problem and public health issue for many communities. The problems and negative outcomes associated with school violence and aggressive behaviour in youth have been well documented. According to the Centers for Disease Control and Prevention (CDC), violence experienced by youth continues to be a major problem. According to the Web-based Inquiry Statistics Query and Reporting System (WISQUARS), 707, 212 young people were treated in emergency departments for injuries sustained from physical assaults, and 4,828 young people were victims of homicide (Centers for Disease Control and Prevention, 2012). A recent summary of youth risk behaviour surveillance revealed that 32.8% of a nationally-representative US sample of youth reported being in a physical fight in the preceding 12 months (Centers for Disease Control and Prevention, 2012). Serious violence is one of the most pernicious threats to the health, well-being, and constructive potential of youth (Hall, Simon, Mercy, Loeber, Farrington, & Lee, 2012). The range of negative outcomes varies amongst perpetrators, victims, and individuals otherwise exposed to violence; they include physical, psychosocial, and economic harms (Ferguson, San Miguel, & Hartley, 2009; Lepore & Kliewer, 2013; Ramirez, Wu, Kataoka, Wong, Yang, Peek-Asa & Stein, 2012). These outcomes are matters of concern for students, school staff, and society at large (Daniels & Bradley, 2012; Fisher & Kettl, 2003; Price, Telljohann, Dake, Marsico, & Zyla, 2002).

In light of the seriousness of the problem of youth violence, there is promising evidence that trends in youth violence are improving in some regards. The Youth Risk Behaviour Survey (YRBS) reported a decrease in the percentages of youth who carried a weapon, were threatened by the use of a weapon, and or who were in a physical fight from 1991-2013 (Centers for Disease Control and Prevention, 2013). This happens to coincide with an increased focus on social emotional learning (SEL) programs in schools as an approach to preventing youth violence. SEL programs are designed to provide children with skills and strategies for increasing self awareness, social awareness, emotion management, problem solving, and thoughtful decision making. A review of over 200 SEL programs reported significant positive effects in reducing conduct problems and increasing positive social behaviors (Durlak, Weissberg, Dymnicki, Taylor, Schellinger, 2011). Sustained exposure to social emotional learning programs reduced aggression and increased prosocial behavior (Bierman et al., 2010). Prosocial behaviors increased in participants exposed to interventions aimed at processing social information, and this was accompanied by a

reduction in violence and other forms of antisocial behaviors. (Fraser, Galinsky, Smokowski, Day, Terzian, Rose, Guo, 2005).

One of the most prominent universal SEL programs used in schools is *Second Step*. *Second Step* materials have been translated in 13 different languages and has been implemented in the US, Canada, Norway, Germany, Sweden, Turkey, Chile, and several other countries across the globe. Several research studies have examined outcomes for students who have participated in the *Second Step* program with varied results. Among studies examining prosocial outcomes, a study conducted in Germany reported decreased prosocial outcomes as a result of exposure to *Second Step* (Grumm, Hein, & Fingerle, 2013), and a study by Grossman et al (Grossman et al., 1997) reported weak positive prosocial outcomes; whereas Taub et al (Taub, 2002) reported increased prosocial outcomes. With regards to antisocial outcomes, a study by Espelage (Espelage, Low, Polanin, & Brown, 2013) reported increased antisocial outcomes, whereas the study conducted by Bogue (Bogue, 2011) reported reductions in antisocial outcomes. Studies authored by McMahon et al (McMahon, Washburn, Felix, Yakin, & Childrey, 2000) and Hart (Hart et al., 2009) reported positive outcomes related to program content knowledge. One objective of the present review is to examine factors that may explain the variability in the effects of this specific program.

Practice implications for the present review may be quite direct; school administrators and decision makers will have an overall effect size estimate of a *Second Step* on which to base program selection and implementation decisions. Results of the present review can also inform local program evaluation initiatives. Policy implications are more distal, yet increasingly relevant as local governments continue to develop educational policies related to SEL and violence prevention. In the past 15 years, federal and state legislation on school-based SEL programming has been proposed and passed in the U.S. By elucidating the putative impact of variables representing implementation contexts, the present review has the potential to inform these emerging policies related to school SEL programming. Furthermore, information synthesized about the measurement of SEL outcomes can inform any program evaluation and accountability aspects of educational policies related to SEL and violence prevention.

OBJECTIVES

The present review aims to synthesize research on a single, specific manualized SEL program delivered as a universal intervention with the intent to reduce (as much as possible), variability in the program features examined, so that, in relief, the impact of the moderators may be more detectible. One objective is to calculate an overall effect size estimate of the *Second Step* program with regards to student knowledge of program content, student prosocial behaviour, and student antisocial behaviour. A second objective is to estimate the degree to which program effects are moderated by variables related to implementation, including: nation or region of implementation, the scale of program implementation, training for teachers, grade level package, and dependent

variable reporter. An advantage to confining the scope of this review to a single program is the ability to reduce some of the observed variance in effect size due to the heterogeneity of program types represented in broader existing reviews on SEL interventions (e.g. Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). By confining the scope of the present review to a single intervention program, this project fills a research gap and complements the findings of existing systematic reviews on broader classes of SEL interventions mentioned in the following section.

EXISTING REVIEWS

According to Campbell Collaboration Systematic Reviews: Policies and Guidelines, Version 1.1, "Specific Named Programs" appears in a list of levels of breadth appropriate for Campbell reviews (Campbell Collaboration, 2015, p.6). The present review represents a review that falls into this specific level of breadth, whereas related existing reviews fall into broader levels of breadth described in the Campbell document cited above. A number of existing systematic reviews are related to the topic of SEL program implementation and youth violence prevention. Related reviews synthesized research on the topics of: social and emotional learning (Durlak et al., 2011); school violence prevention programs (Scheckner, Rollin, Kaiser-Ulrey, and Wagner, 2002; Derzon, 2006); and school-based interventions for aggressive and disruptive behaviour (Wilson & Lipsey, 2007; Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, and Singh, 2008; Hahn, Fuqua-Whitley, Wethington, Lowy, Crosby, & Fullilove, 2007). A systematic review conducted by Durlak and Dupre (Durlak & DuPre, 2008) focused on implementation factors impacting the effects of a wide range of youth health promotion programs, whereas the focus of the present review is confined to solely to the implementation of a manualized SEL program. The scope of the present review is intended to complement findings from reviews that are more inclusive of various intervention types, and to complement reviews that examine similar violence-related outcomes in youth.

Among reviews listed above, the Durlak et al (2011) review had one of the broadest sets of inclusion criteria. The Scheckner et al (2002) review only synthesized experimental designs. The Derzon et al (2006) review was focused solely on outcomes representing aggression and violence, the Wilson & Lipsey review (2007) was focused on aggressive and disruptive behavior outcomes, and the Hahn et al (2007) review was focused only on violent and aggressive behaviors. In contrast, the present review examines both sides of the prosocial/antisocial outcome continuum as well as an outcome related to knowledge about processing social and emotional information. The Park-Higgerson (2008) review did not include grey literature such as dissertations, whereas the present study does include a concerted effort to include grey literature.

INTERVENTION

Only studies conducted on the effect of the *Second Step* program on student outcomes will be included in this review. *Second Step* is a social emotional learning (SEL) program created with the intent to accomplish two main goals: the promotion of interpersonal and intrapersonal competencies, and reducing the development of social, emotional, and behavioral problems (Committee for Children, 1991, 1992a, 1992b, 1997). By providing direct instruction, modeling and observational learning opportunities *Second Step* aims to increase the interpersonal and intrapersonal skills of children exposed to the program. As a universal program, one of the goals is to cultivate a whole-school environment that addresses the social problems of children and supports the learning and use of positive social behaviors.

Globally, *Second Step* is one of the most prominent and widely disseminated social and emotional learning programs targeting the prevention of violence in youth. According to its publisher, Committee for Children, this pre-K-8 manualized curriculum has been translated from English into several other languages, and it has been implemented in thousands of schools around the world since 1986. International implementation sites included: Norway, Germany, Sweden, Turkey, and Chile (www.committeeforchildren.org). This particular program has garnered recognition by several agencies and organizations for its quality and utility in schools seeking to prevent or remediate violence, aggression, and other problem behaviours in students through the acquisition of social and emotional skills. For example, Second Step was granted an "Exemplary" rating by the U.S. Department of Education; it was given the distinction of a "Model" program by the Center for Substance Abuse Prevention; and it is regarded as a "SELect" program by the Collaborative for Academic, Social and Emotional Learning (Weissberg, Goren, Domitrovich, & Dusenbury, 2013).

The manualized materials provided to teachers include a suggested lesson script that may be used to facilitate each lesson. In addition to the lesson script, key concepts are identified and organized for reference. The sequence of the lessons is pre-determined, and earlier lessons often serve as scaffolding for subsequent lessons. Lessons usually begin with a warm-up activity, and then the presentation of audio and visual media is used to stimulate group discussion. In addition to group discussion, some lessons include worksheet activities that can be completed individually or in small groups. Behavioral skill training, modeling, and a combination of cueing, coaching and reinforcement are some of the eclectic teaching strategies used in Second Step to enhance the social and emotional learning of students.

POPULATION

The *Second Step* intervention is designed to be used with students from pre-kindergarten to 8th grade. A separate kit is designed for each respective grade level included in the pre-K to 8th grade range. Studies conducted on students enrolled in grades pre-K to 8 will be included

in the review. *Second Step* has been translated into 13 different languages; studies conducted across the globe will be eligible for inclusion in the present review.

OUTCOMES

Primary studies on Second Step have measured student outcome using a variety of methods, including direct observation, rating scales, and student performance. The present review will synthesize outcomes from these sources and organize them into the following outcome categories: knowledge of program content, prosocial behaviors, and antisocial behaviors. Among these, a study conducted in Germany reported decreased prosocial outcomes as a result of exposure to *Second Step* (Grumm et al., 2013), and a study by Grossman et al (Grossman et al., 1997) reported weak positive prosocial outcomes; whereas Taub (Taub, 2002) reported increased prosocial outcomes. With regards to antisocial outcomes, a study by Espelage (Espelage et al., 2013) reported increased antisocial outcomes, whereas the study conducted by Bogue (Bogue, 2011) reported reductions in antisocial outcomes. Studies authored by McMahon et al (McMahon et al., 2000) and Hart (Hart et al., 2009) reported positive outcomes related to program content knowledge. The following table summarizes the number of studies and participants with respect to each outcome type in the present review.

TABLE 1. STUDIES AND PARTICIPANTS BY DESIGN AND OUTCOME

	Independent Group Design Studies		Single Group Design Studies	
Dependent Variable	Number of Studies	Number of Participants	Number of Studies	Number of Participants
Prosocial Outcomes	9	4,207	6	1,198
Antisocial Outcomes	10	6,427	6	1,463
Knowledge Outcomes	2	215	8	4,874

The present review will synthesize knowledge, prosocial, and antisocial outcomes from a variety of measures used in the primary studies of Second Step. The following table provides a sample of the measures included in the primary studies.

TABLE 2. MEASURES INCLUDED IN PRIMARY STUDIES OF SECOND STEP

Instrument Title	Dependent Variable Measured
Achenbach System of Empirically Based Assessment (ASEBA) TRF, C-TRF	Externalizing Behavior [A] Obs. Externalizing Behavior [A]
Aggressive Behavior Scale (Orpinas & Frankowski, 1996)	Aggressive Behavior [A]

Aggressive Behavior Teacher Checklist (Dodge & Coie, 1987)	Reactive Aggression Low Baseline [A] Proactive Aggression High Baseline [A]
American Association of University Women Sexual Harrassment Survey (modified)	Sexual Violence Perpetration [A] Sexual Violence Victimization [A]
Child Behavior Checklist	Antisocial-Aggressive [A] Demanding-Disruptive [A] Aggressive Behavior [A] Delinquent Behavior [A] Acting Out [A] Assertive Social Skills [P] Peer Social Skills [P]
Child Behavior Checklist (CBCL) German version (Dopfner, Schmeck, & Berner, 1994).	Social Problems [A] Delinquent Behavior [A] Aggressive Behavior [A]
Classmate Social Behavior Questionnaire	Prosocial Skills [P] Impulsive Behavior [A] Aggressive Behavior [A]
Knowledge and Skills Survey (Evaluation Interview)	Second Step Knowledge [K]
PFK (Seitz & Rausche, 2004)	Aggressive Behavior [A]
Preschool Behavior Questionnaire	Hostile-Aggression [A]
School Social Behavior Scale (SSBS) (Merrell, 1992)	Social Competence [P] Antisocial Behavior [A]
School Social Behavior Scale- Second Edition (SSBS-2) (Merrell, 2002)	Prosocial Behavior [P] Antisocial Behavior [A]
Second Step Knowledge and Skills Survey	Second Step Knowledge [K] Second Step Knowledge (k-4) [K] Empathy [P] Impulse Control [A] Anger Management [A]
Second Step Knowledge Assessment Interview	Second Step Knowledge [K] Second Step Knowledge (pre-K) [K]
P: Prosocial Outcome, A: Antisocial Outcome, K: Knowledge Outcome	

STUDY DESIGNS

This review will include studies in which *Second Step* was implemented in school settings. This review will synthesize studies employing quasi-experimental design (QED) and randomized controlled trials (RCT) reporting quantitative data which represents student outcomes in the categories of program content knowledge, prosocial outcomes, and antisocial outcomes. Knowledge outcomes will be indicated by student scores on the proprietary *Second Step* summative knowledge assessment tool. Prosocial and antisocial outcomes may be represented by observational, self report, peer report, parent report, or teacher report data from reliable sources. Qualitative evidence will not be included in the present review.

Due to the preponderance of single-group pre-post design studies within the purview of the topic, studies using this design will be included in the review, but analysed separately from the comparison group design studies. Comparison conditions within these studies may

include: no intervention control group, wait-list control group, usual care, or placebo control group.

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ROLES AND RESPONSIBILITIES

• Content: Gregory Moy has researched various aspects of social-emotional learning, including: historical context, cultural components, school-based intervention, policy action, and outcome measurement. Dr. Moy has field experience implementing SEL interventions such as Second Step. Terri Pigott has contributed to systematic reviews in related content areas focused on school-based interventions.

• Systematic review methods: Gregory Moy received training in systematic review methods from Dr. Terri Pigott. Dr. Moy served as a protocol reviewer for Campbell Collaboration and attended the Campbell Colloquium in Chicago. Brian Trainor also worked under Dr. Terri Pigott and has experience developing and refining coding procedures in conjunction with Dr. Moy. Dr. Pigott is an international expert on systematic review methods and serves on the C2 Methods Group Advisory Board.

• Statistical analysis: Brian Trainor is a full-time faculty member in the Department of Mathematics and Statistics at the University of Toledo. Gregory Moy served as adjunct faculty in the Department of Research Methods at Loyola University Chicago, and Thuy-Vy

Phan is completing coursework in advanced applied statistics at Seattle University. Dr. Terri Pigott is a full professor of research methods and statistics.

• Information retrieval: Gregory Moy and Amy Hughes are experienced users of online bibliographic databases and expert information managers. Dr. Moy and Ms. Hughes have established professional relationships with university librarians at multiple institutions who are familiar with the needs of systematic reviewers. Dr. Moy attended Campbell Collaboration presentations on information retrieval and received individual consultation from Karianne Hammerstrom.

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POTENTIAL CONFLICTS OF INTEREST

No conflicts of interest exist.

PRELIMINARY TIMEFRAME

• Date you plan to submit a draft protocol: 15 March 2016

• Date you plan to submit a draft review: 15 June 2016

AUTHOR DECLARATION

Authors' responsibilities

By completing this form, you accept responsibility for preparing, maintaining, and updating the review in accordance with Campbell Collaboration policy. The Coordinating Group will provide as much support as possible to assist with the preparation of the review.

A draft protocol must be submitted to the Coordinating Group within one year of title acceptance. If drafts are not submitted before the agreed deadlines, or if we are unable to contact you for an extended period, the Coordinating Group has the right to de-register the title or transfer the title to alternative authors. The Coordinating Group also has the right to de-register or transfer the title if it does not meet the standards of the Coordinating Group and/or the Campbell Collaboration.

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