



Changing the Landscape of Social Emotional Learning in Urban Schools: What are We Currently Focusing On and Where Do We Go from Here?

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Abstract

This study provides a systematic review of the use of social emotional learning (SEL) interventions in urban schools over the last 20 years. I summarize the types of interventions used and the outcomes examined, and I describe the use of culturally responsive pedagogy as a part of each intervention. The review of the 66 studies revealed that few incorporated culturally responsive strategies, and none addressed racism and the role it can play in student mental well-being. Additionally, few researchers measured multiple categories of fidelity of implementation, and few studies included long-term follow-up results of study outcomes. I discuss recommendations for future research in light of Every Student Succeeds Act policies in support of school-based SEL interventions.

Keywords Social emotional learning · Urban · Culturally responsive pedagogy · Literature review

Introduction

Though urban living is associated with benefits including better overall health than living in rural areas (Befort et al. 2012; Dye 2008), there are often significant health disparities based on race, ethnicity, and socio-economic status in urban areas. Individuals who are non-White and who are from lower socio-economic backgrounds (often co-occurring demographic characteristics) are at greater risk of mental health concerns such as conduct disorder, depression, and suicide (Day et al. 2016; Fiscella and Williams 2004). A driving force in these disparities are the environmental risk factors faced by these populations such as institutional racism, neighborhood crime

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rates, residential mobility, and parental stress that contribute to complex trauma (Brondolo et al. 2009; Day et al. 2016; Dinwiddie et al. 2013; Jackson et al. 2010).

Complex trauma is caused by exposure to severe stressors that are repetitive or prolonged (O'Neill et al., 2010). These stressors may be related to abandonment or harm by a trusted adult or occur during developmentally vulnerable time periods such as early childhood or adolescence (Ford and Courtois 2009). Complex trauma has been linked to many negative outcomes including: (a) increased referrals for special education and disciplinary action (b) higher rates of school failure, grade retention, and school drop-out (c) lower grades and standardized test scores (Shonk and Cicchetti 2001; Slade and Wissow 2007), and (d) higher rates of mental health disorders (Greeson et al. 2011).

In addressing the mental health of students in urban schools, researchers often take a deficit approach to school-based interventions that is focused on “fixing” the student without drawing from students’ familial and cultural strengths to support mental health or address the systemic inequities that lead to negative mental health outcomes (Elias et al. 2003; Jimerson et al. 2004). To truly support the mental well-being of urban students, we need to engage them in strengths-based interventions that not only meets students’ needs but also acknowledges and builds on strengths within the individual student, their family, and community. Also, vitally important in supporting students’ mental health is the use of strategies centered around students’ interests and the use of this knowledge to help students retain, and in some cases build on, their social emotional skills. One method of creating strengths-based supports for social emotional programming is the use of culturally responsive pedagogy in delivering social emotional learning interventions.

Culturally Responsive Social Emotional Learning

Social emotional learning (SEL) is the process used by individuals to acquire and successfully apply the knowledge, skills, and attitudes to support the understanding and management of emotions; set and achieve constructive goals; be empathetic toward others; establish and maintain positive relationships and make responsible decisions (Collaborative for Academic and Social Emotional Learning 2016). Students involved in SEL see gains in academic achievement, improved classroom behavior, improved attitudes about themselves and others, and a decrease in stress and depression (Durlak et al. 2011). While these mental health outcomes appear to be promising, there are also some concerns presented in the research literature, regarding how teachers and school staff implement these interventions. One of the concerns has to do with ensuring participant engagement in the intervention (Durlak 2015). One way to increase participant engagement is to incorporate culturally responsive practices into SEL programming.

I define culturally responsive SEL as utilizing the lived experiences and frames of reference of students to reinforce and teach SEL competencies (McCallops et al. 2019). Culturally responsive SEL reinforces students’ cultural expression of effective social and emotional competencies. In addition, it supports students in navigating conflicts between their cultural expression and school desired expression of SEL

competencies in ways that sustain the cultural SEL competence of their communities. Incorporating student interests, views, and wants into already existing SEL programming and/or developing new SEL programming may increase buy-in from the student population (Barrera et al. 2011) thus increasing the possibility that they will engage in offered programming. To date, only one review of SEL has examined the use of culturally responsive SEL with urban populations internationally and none has looked specifically at the use of culturally responsive SEL in the United States.

As shown in reviews such as the one completed by Durlak et al. (2011), SEL interventions are efficacious in supporting student academic, social, emotional, and behavioral success. As with other areas of prevention science, researchers have called for not just the efficacy of SEL interventions (i.e., whether the intervention produces expected results under ideal conditions), but also the effectiveness of these interventions (i.e., whether the intervention is beneficial under “real world” conditions; Greene et al. 2001). With federal legislation that allows schools more flexibility in addressing school climate and student non-academic skills (United States, Congress, Cong., Health, Education, Labor, and Pensions 2015), it is more important than ever to ensure that the field is producing SEL interventions that are efficacious, effective, and sustainable for a diverse student population. McCallops et al. (2019) explore SEL intervention use in urban schools through an international review of the literature available over the last 10 years. The review included 51 studies, with only 5 that used of culturally responsive practices in teaching SEL. Moreover, the authors noted that few studies provided data on long term intervention effects, treatment fidelity or the social validity of the study, all of which may help in discerning the effectiveness and sustainability of SEL interventions in urban settings. In this study, I explore similar components of studies conducted within the United States.

Purpose

The purpose of this manuscript is to provide a systematic review of the use of SEL interventions in urban schools in the United States over the last 20 years. In this paper, I will summarize the intervention characteristics, the mental health outcomes examined, and describe the use of culturally responsive pedagogy in each intervention. I focus on culturally responsive pedagogy (Gay 2010) for this review, due to the 20-year time frame, but I will discuss my findings considering both culturally responsive pedagogy and culturally sustaining pedagogy (Paris 2012). Culturally responsive pedagogy is the notion of situating knowledge within the realm of student interests and lived experiences. Culturally sustaining pedagogy expands on this notion by calling educators to support children and youth in sustaining the cultural and linguistic competence of their communities while also gaining access to the majority culture (Gay 2010; Paris 2012).

Research Questions

The research questions that are examined as part of this literature review are:

1. What are the common characteristics across urban school-based SEL interventions, including the following:
 - a. study characteristics (e.g., publication year, study design, reporting treatment fidelity, social validity, and follow-up data);
 - b. intervention characteristics (e.g., intervention components, interventionists, delivery methods);
 - c. participant characteristics (e.g., age, race/ethnicity, socioeconomic status, language abilities, behavior problems); and
 - d. mental health outcomes related to these interventions?
2. Are culturally responsive pedagogical elements used in these interventions? If so, what elements are used? Are these elements described in enough detail to be replicable?
3. Are there interventions that address racism (individual or institutional) in supporting students' mental health? If so, in what ways?

Methods

I used several methods to ensure a thorough and comprehensive review of the literature on school-based SEL interventions. First, I created a list of key terms to enter into appropriate databases. Second, I identified appropriate databases for the literature search based on topics covered within the database (i.e., education, psychology, social sciences). Third, I created a list of inclusion criteria to identify papers for the literature review sample. Fourth, I completed a hand search of three journals that produced articles on school-based social emotional and mental health interventions (i.e., *Prevention Science*, *Journal of Consulting and Clinical Psychology*, and *Journal of School Violence*). Below, I present detail of the processes used for this literature search.

Search Terms

The key terms used to find original studies included all possible combinations of the following: *social and emotional learning*, *social competence*, OR *mental health*, *health promotion*, *prevention*, OR *positive youth development*, *social skills*, *self-esteem*, *empathy*, OR *emotional intelligence*, *social problem solving*, *conflict resolution*, *stress reduction*, AND *children*, *adolescents*, *intervention*, *students*, AND *urban schools*, *culturally relevant*.

Databases

I searched for relevant articles with a publication date of 1996–2016 using four databases: ERIC (ProQuest), EBSCOhost (Education Full Text), ProQuest (PsycINFO, Social Services Abstract, Sociological Abstracts), and ProQuest Dissertations and

Theses A & I. I chose these databases because of their focus on social science and education topic areas.

Inclusion Criteria

The studies included in this review were (a) dissertations or peer-reviewed articles published between 1996 and 2016; (b) conducted in urban K-12 schools in the United States and available in English; and (c) included an SEL intervention that was conducted in school settings during school hours (i.e., the intervention could also have a community-based component but needed to have at least one component that occurred in schools during school hours). Schools were considered “urban” based on how the original study described their location.

Procedure of Article Search

The database search and the hand search produced 957 results from all databases (EBSCOhost (20), ERIC (133), ProQuest (570), ProQuest Dissertations (234) and the hand search of journals (20). After removing 49 duplicates of studies, 938 results remained. Using the inclusion criteria, I reviewed each study’s title and abstract to determine eligibility based on inclusion criteria. Seven hundred and ninety-nine studies were removed at this stage. I then reviewed the introduction and methods section for the remaining articles which resulted in removal of 103 studies. This review yielded 37 articles that met inclusion criteria. I then completed an ancestral search of these articles which yielded an additional 29 articles. Thus, the sample of studies for this literature review is 66 (64 journal articles and 2 dissertations; Fig. 1).

Following the article search, I coded the 66 articles with a graduate assistant. To ensure reliability, we coded 20% of the 66 articles together and reached an interrater agreement of 93%. We discussed all coding disagreements and reached full agreement before coding the remaining studies separately.

Results

The purpose of this study was to examine the use of SEL interventions in urban schools over the last 20 years with an emphasis on the use of culturally responsive practices in SEL implementation. Below I summarize the findings for questions 1–3.

Question 1 What are the common characteristics across urban school-based SEL interventions.

Study Characteristics

The studies included in this review ranged in publication dates from 1996 to 2016 with 29% of studies published since the year 2010. Most of the studies (94%) used experimental or quasi-experimental designs. One study used a single subject design

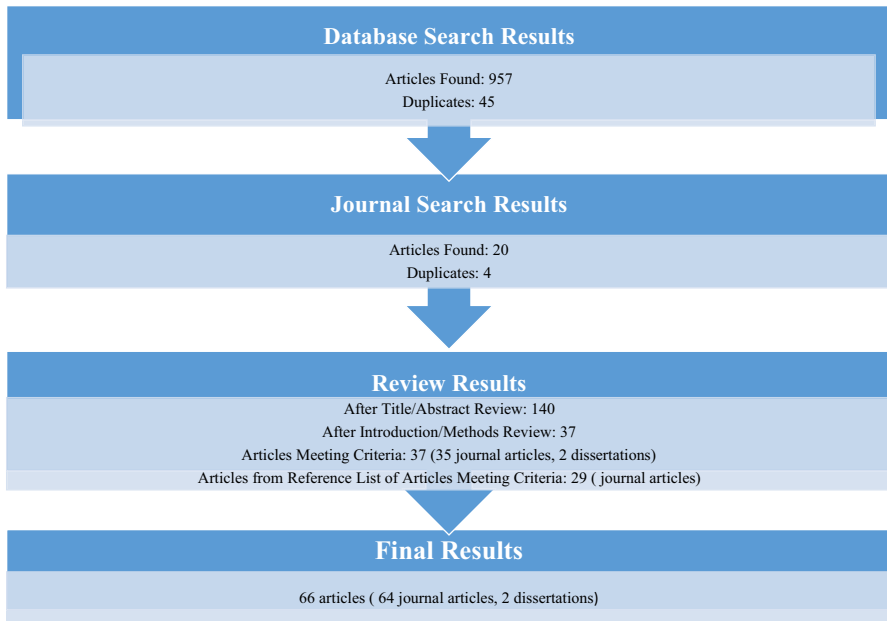


Fig. 1 Literature search results

(Lannie and McCurdy 2007), two presented descriptive information (Hill and Coufal 2005; Weist et al. 2010), and one was a qualitative study (Polleck 2011). Eight of the 66 studies examined the social validity of the SEL intervention that was implemented (e.g., Bosworth et al. 1998; Domitrovich et al. 2015; Lannie and McCurdy 2007; McMahon et al. 1999). In these studies, researchers found evidence of social validity for their intervention with mixed results for three studies (Domitrovich et al. 2015; Edwards et al. 2005; Reid et al. 1999). Among those that examined social validity was Domitrovich et al. (2015) who included the *Teacher Perceptions of the Intervention Attributes* measure to examine teachers' perceptions of intervention fit regarding their classroom schedule, teaching style, and their motivation to implement PAX Good Behavior Games. Domitrovich et al. (2015) found that teachers who felt that the intervention fit their teaching style implemented the intervention more often than those who did not feel like it was a fit.

Treatment fidelity and implementation includes strategies that examine and improve the accuracy and consistency of an intervention to ensure it follows the implementation plan, and that implementers deliver each intervention component in an equivalent manner to all study participants over time (Smith et al. 2007). Of the 66 studies, 20 reported data regarding treatment fidelity and implementation. In nine of those studies, the researchers presented the number of completed lessons from the curricula. In 11 of the studies, the researchers moved beyond just completion of lessons and reported the implementer's adherence to the components of the intervention and in some cases the quality of the implementer's delivery of intervention components.

Seventeen of the studies presented follow-up data and this data varied greatly. Five studies (e.g., Jones et al. 2011; Riggs and Pentz 2009) were follow-up studies of data collected at an earlier time-period. Nine studies (e.g., Botvin et al. 2001; McCraty et al. 1999; Storr et al. 2002) were original studies that included follow-up data as part of the study. The time that the follow-up data was collected ranged from 6 months to 11 years in these studies. Three additional studies (Kam et al. 2004; Kellam et al. 2014; Liu et al. 2013) used statistical analyses to predict future trajectories for treatment and control participants. Kam et al. (2004) utilized linear growth models to predict academic, internalizing behavior, and externalizing behavior trajectories for study participants while Kellam et al.'s (2014) used general growth mixture modeling to predict trajectories for aggressive and disruptive behavior through middle school and high risk sexual behavior along with drug abuse and dependence disorders into young adulthood. Liu et al. (2013) predicted primary grade students' (i.e., 1–3) substance use trajectories into 12th grade based on intervention group assignment using a latent transition longitudinal mixture model.

Intervention Characteristics

In all presented studies, at least one intervention component took place in a school setting. There was much variation in where and when the intervention was delivered in the school setting. In most of the identified studies, the intervention was delivered during school hours (59 out of 66 studies). However, researchers in three of the studies delivered the intervention in schools after school hours (Houck et al. 2016; Montañez et al. 2015; Whaley and McQueen 2004) and, in four studies, participants received the intervention either during and/or after school (Karcher 2008; Polleck 2011; Powers et al. 2014, 2016). In the August et al.'s study (2003), the school-based component was not a child-based SEL curricula, but involved a school advocate that worked with the teacher to support student development and in-school mentoring for students.

A member of the school staff or faculty (i.e., classroom teacher, school counselor, school psychologist) implemented the intervention in 38 of the studies while research staff not employed by the school (this includes graduate students and volunteers from the community) implemented the intervention in 14 of the studies. In 14 of the studies, research staff and members of the school staff (i.e., teacher, social worker, school psychologist) worked together to implement the intervention. In all but two studies, the school-based SEL intervention component was delivered in-person. In Mauricio et al.'s (2005) and Bosworth et al.'s (1998) studies, the researchers evaluated the effectiveness of computer-based SEL curricula. In both studies, the interventions were delivered to students in schools via computers and, thus, did not require a facilitator from the school staff or research team, though Bosworth and colleagues stated that a staff member was available to answer student questions.

Participant Characteristics

Student participants in the included studies spanned grades K-12. A majority of the studies included a majority racially, ethnically, and linguistically diverse

(RELD) students with eight studies including 51% or more participants identified as White (e.g., Hill and Coufal 2005; Kam et al. 2004; Nicoll 2013; Massey et al. 2007) and six studies not reporting student characteristics (e.g., Burgess 2005; Lannie and McCurdy 2007; Riggs and Pentz 2009). Socio-economic level was determined in various ways in these studies—most studies used free or reduced lunch status while others referred to family annual income, parent educational background, and neighborhood socio-economic status (SES). In two studies (August et al. 2003; Bierman et al. 2004), the *Hollingshead Four-Factor Index of Socioeconomic Status* was used. In a majority of studies (N=34), the study sample was composed of populations from low SES backgrounds. Eight articles included samples with mixed SES levels (i.e., 50% low SES or multiple samples with some with a majority of participants from low SES backgrounds and some with a majority of participants from moderate to high SES backgrounds). Sixteen articles did not present information on sample SES and the remaining studies (N=8) included a large proportion of students who were not from low SES backgrounds. Of the 66 articles, only seven presented information on the participants' primary language or their English proficiency (e.g., Brown et al. 2010, 2012; Marsiglia et al. 2016; Montañez et al. 2015). Participants in 22 studies were identified as having a social or emotional need prior to intervention while in the remaining 44 articles; the intervention was presented to students within a classroom or school without prior identification of social or emotional concerns.

Mental Health Outcomes

Externalizing behaviors, defined as problem behaviors that are directed toward others or the external environment, were measured in 46 of the 66 studies. The type of externalizing behaviors examined in these studies included aggression (e.g., August et al. 2003) substance abuse (e.g., Kullis et al. 2007), attention-deficit hyperactivity symptomology (e.g., Jones et al. 2010), and conduct problems (Lochman et al. 2009). Sixteen of the 66 studies examined internalizing behaviors (i.e., problem behaviors that are expressed inwardly). Examples of internalizing behaviors examined by the included studies are depression (e.g., Kam et al. 2004) and anxiety (e.g., Botvin et al. 2001). In some studies, researchers also examined social competence (e.g., Burgess 2005; Gottfredson et al. 2002; Jones et al. 2010), social skills (Karcher 2008; Kisiel et al. 2006), emotional intelligence (e.g., Nicoll 2013), attitudes and intention toward substance use (Botvin et al. 2001; Hecht et al. 2003) and student connectedness to peers and school (e.g., Karcher 2008). In addition to these mental health outcomes, some articles also examined academic achievement, school readiness, and student executive functions (e.g., August et al. 2003; Burgess 2005; Cappella et al. 2012). Parent and teacher outcomes were collected in eight studies and included parenting measures such as parenting practices, stress, and family environment (e.g., August et al. 2003; Lochman et al. 2009; Storr et al. 2002) and teacher measures including self-efficacy in behavior management and teacher burn-out (Domitrovich et al. 2015).

Question 2 Are culturally responsive pedagogical elements used in these interventions? If so, what elements are used? Are these elements described in enough detail to be replicable?

I operationalized interventions as culturally responsive if the researchers reported creating the intervention based on cultural knowledge of the participants and/or training was provided to facilitators on how to use culturally responsive strategies to engage the targeted population of students in the SEL intervention. I classified nine of the 66 studies as having culturally responsive SEL interventions because in these nine studies the researchers discussed creating or adapting the intervention to meet the needs of a RELD population of students (see Table 1). The most commonly presented culturally responsive intervention is the Keepin' it REAL curriculum, a substance use prevention program for middle school youth (Hecht et al. 2003; Gosin et al. 2003; Kullis et al. 2007; Marsiglia et al. 2016). The 10-week program utilizes teachers to facilitate learning of the REAL drug-resistance strategies—Refuse, Explain, Avoid, and Leave (REAL; Marsiglia et al. 2016). Researchers describe the intervention as culturally grounded and the creators incorporated culture into the intervention using several techniques. Cultural narratives were collected from adolescents in Mexican–American, European–American, and African–American ethnic groups and used to create the performance-based elements of the Keepin' it REAL curriculum. In addition, the creators incorporated cultural values from targeted ethnic groups within the intervention. In addition to the strategies listed above, the researchers also incorporated the following elements: (a) competence in communication and ethnic variations of communication; (b) use of narratives to increase participant identification with curriculum; (c) incorporation of various social norms as motivators in substance use; (d) focus on social learning theory, its role in risk assessment, and decision making; (e) inclusion of commonly employed and effective drug resistance strategies; and (f) a focus on the local social context (Hecht et al. 2003).

In their 2016 article, Marsiglia and colleagues presented a study on a newly established parent component of the Keepin' it REAL intervention, *Familias Preparando la Nueva Generación* (FPNG). Like Keepin' it REAL, FPNG is a parenting curriculum offered to the entire school population that was culturally grounded to engage the majority Latino population in the study. The intervention integrates the REAL drug-resistance strategies taught to students as part of the Keepin' it REAL intervention (Marsiglia et al. 2016). The intervention is based on the Ecocultural Theory with a strong emphasis on strengthening family function. Additional cultural components include bilingual facilitators.

Similar to Keepin' it REAL, the Imani Rites of Passage program (IROP) incorporates a family component into its intervention. The IROP intervention includes three components; the first is the IROP program that operates after school during the school year. As part of this program, children receive tutoring support and cultural activities to strengthen their racial/ethnic identities. Additionally, African–American guest speakers are presented to serve as models for career aspiration and successful coping in adulthood. A monthly parent component called *Parents Acting Together with Hope* provides support and fosters community and

Table 1 Summary of articles

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Aber et al. (2003)	11,160; 1–6th grade	Number of teacher contact with RCCP; Number of teacher-delivered lessons; Home Interview (Hostile Attributions and Aggressive Interpersonal Strategies); Seattle Personality Inventory; Teacher Checklist; Social Competence Scale	Resolving Conflict Creatively Program (RCCP)	Children receiving free lunch, Black and Hispanic students, and boys had higher risk. Higher exposure levels to classroom instruction in RCCP and lower levels of exposure to teacher training and coaching were related to reductions in risk	No	No
Aber et al. (1998)	5053; 2–6th grade	Number of teacher contacts to RCCP; Number of teacher-delivered lessons; Percentage of peer mediators in the classroom; What I think Instrument-Aggressive Fantasies; Home Interview (Hostile Attributions and Aggressive Interpersonal Strategies); Social Problem-Solving Measure; Seattle Personality Inventory; Degrees of Reading and CAT Math standardized tests; Normative Beliefs about Aggression Scale; Census (neighborhood poverty and violence)	RCCP	In high lesson groups, growth in hostile attribution bias slowed and did not decrease in use of competent negotiation strategies and did not increase in aggressive fantasies. No lessons or low lesson groups saw worsened hostile attribution bias and competent negotiation strategies, and growth in aggressive fantasies. Boys in the high lesson groups did not decrease in competent strategies over time but girls showed a slightly significant decrease over time, both genders decreased in the other two groups	No	No
Atkins et al. (2006)	Cohort 1 = 211, Cohort 2 = 52; K-4th grade	Iowa-Commers Rating Scale; Social Skills Rating System	Positive Attitudes Toward Learning in School (PALS)	Cohort 1 parents in the intervention were more likely to enroll their child in services compared to those assigned to clinic-based services. For cohort 2, there was reduced disruptive behavior for students enrolled in PALS. PALS service units were positively related to the teacher IOWA-Commers total scores suggesting a worsening of behavior	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
August et al. (2003)	327; K-1st grade	Woodcock–Johnson Tests of Achievement—Revised; Teacher Reports of Child Behaviors Behavioral Assessment System for Children (BASC)—Teacher and Parent Rating Scale; Pictorial Scale of Perceived Competence and Social Acceptance for Young Children; Walker–McConnell Scale of Social Competence and School Adjustment; Parent Reports of Child Behaviors; Parent Reports of Parenting Practices/Stress /Family Environment Alabama Parenting Questionnaire; Parenting Stress Index; Family Environment Scale	Dinosaur Curriculum for Promoting Social, Emotional and Problem-Solving Competence; Second Step; FLEX family support component	Significant gains in social competence and school adjustment. Most aggressive showed reductions in externalizing behavior	No	No
Bauer et al. (2007)	6518; 6–8th grade	Revised Olweus Bully/Victim Questionnaire; Student Climate Survey	The Olweus Bullying Prevention Program	Almost one third of students reported being a victim of frequent relational bullying and less reported being physically bullied. No effect of program on student-reported victimization. White students were less likely to report relational and physical victimization. Intervention students were more likely to perceive other students actively intervening on behalf of student victims and 6th graders were more likely to feel sorry for victims and want to help	No	No
Benson et al. (2000)	1753; 6–8th grade	GPA; Work habits; Cooperation; Attendance	Relaxation response curriculum	Not presented	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Bierman et al. (2004)	891; 4–5th grade	What Do You Think Instrument; The Social Competence-Teacher Instrument; Things That Your Friends Have Done scale; Parent Daily Report; Parents Ratings of Child Behavior Change Instrument; Teacher Observation of Classroom Adaptation-Revised (TOCA-R), TOCA-R Authority Acceptance	The Fast Track prevention program	Fast Track produced a one fourth (home and community problems) to one third (social competence and social cognitive problems; peer deviance) reduction in children's risks for problematic outcomes at the end of elementary school. Modestly reduced child risk for serious social problems with peers at the end of elementary school	No	No
Bosworth et al. (1998)	81; 7th grade	The Teen Conflict Survey [subscales included knowledge and attitudes regarding nonviolent and violent strategies of conflict resolution; self-efficacy as it relates to conflict resolution and anger management; intentions to use nonviolent strategies in conflict situations; self-reported caring and non-caring behaviors (i.e., helping others, fighting); and self-esteem, impulsivity, nonviolent role models, and peer influence]	SMART Talk computer program	A significant increase was found in the students' self-reported frequency of prosocial behavior	No	No
Botvin et al. (1997)	721; 7th grade	The questionnaire assessed current drug use, intentions to use drugs, normative expectations related to drug use, attitudes toward drug use, social competence (refusal skills and social assertiveness)	Psycho-social prevention program	The students in the prevention condition used drugs and drank alcohol less frequently, had lower levels of future intentions to do drugs and drink alcohol, more likely to use refusal skills, and lower normative expectations of adult and peer drug and alcohol usage than controls	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Botvin et al. (2001)	5222; 7th grade	Demographic information; Smoking Frequency Response Scale; Smoking Quantity Smoking Index; Alcohol Use Scale; Polydrug Use Scale; Behavioral intentions to use drugs; Normative expectations related to drug use; Teenager's Self-Test: Cigarette smoking with parallel items for alcohol, marijuana, and cocaine/hard drugs; Coping Assessment Battery; Gambrell and Richey Assertion Inventory; Eysenck Personality Inventory; Drug refusal skills efficacy; Advertising resistance skills; Anxiety reduction skills;	Cognitive-behavioral prevention program	Reduced risk-taking and the frequency of problem behaviors in school, and increased students' drug refusal skills efficacy	Yes	No
Brook et al. (2008)	520; 3–5th grade; Teachers = 51	The Child Demographic Questionnaire; The Classroom Practices Measure; The Social Skills Rating Scale; The School-Related Attitudes questionnaire; The Mock Report Card; Achievement tests; The Degrees of Reading Power test; The Connecticut Mastery Test; Math Section	The Responsive Classroom (RC) Approach	Teachers who implemented more RC practices had children in their classrooms who scored higher on ratings of social skills even after controlling for gender, risk, and previous scores. Children's perceptions mediated the concurrent relation between RC practices and teachers' ratings of children's social skills	No	No
Brown et al. (2010)	78 (82 teachers at follow-up); 3rd grade classes	The CLASS; Maslach Burnout Inventory-Educators Survey; Perceived Emotional; Intelligence Scale	The 4Rs Program	Higher levels of teachers perceived emotional ability at the beginning of the school year was related to higher observed classroom quality, instructional support, and classroom organization. Higher observed classroom quality, instructional support, and emotional support in intervention classes compared with controls at the end of the first year	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Brown et al. (2012)	403; K–4th grade	Knowledge of Social and Emotional Skills (KASS); BESS standardized rating that identifies behavioral and emotional strengths and weaknesses for children and adolescents	Second Step	Significant increases in student knowledge of social and emotional skills. However, students' emotional and behavioral risk increased over the course of the intervention	No	No
Burgess (2005)	84; K	Learning Accomplishment Profile—Diagnostic; Social Competence and Behavior Evaluation—Preschool Edition	Judy Center Early Intervention Methods of ProActive Competency Training (EIMPACT)	Lower externalized problematic behaviors	No	No
Capella et al. (2012)	364; K–5th grade	Intervention dosage using research created measures; Classroom Assessment Scoring System; Behavior Rating Inventory of Executive Function; Student Teacher Relationship Scale; Perception Profile for Children	Bridging Mental Health and Education in Urban Schools (BRIDGE)	Less victimization, and those with behavioral problems benefited more from intervention in social relations domain	No	No
Cho et al. (2005)	1080; Site A = 532, Site B = 686 (1042 at 6-month follow-up); 9–11th grade	The High School Questionnaire (subscales assessed substance use, problem behaviors, peer affiliations patterns and student connection to school); GPA; School attendance	The Reconnecting Youth program	Less delinquency and smoking compared to control. Site A showed less alcohol and cigarette use, whereas Site B showed negative program effects. At 6-month follow-up, only negative effects remained, anger and peer high-risk behaviors	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Dornovich et al. (2015)	222 Teachers	Quality of PAX Good Behavior Game (GBG) Delivery; Dosage of PAX GBG; demographics; Behavior Management Self-Efficacy Scale; Emotional Exhaustion Scale; Maslach Burnout Inventory; Acceptance of intervention; Organizational Health Inventory for Elementary Schools; Teacher-Coach Alliance Scale; Perceptions of Administrative Support Scale	PAX Good Behavior Game (GBG); Promoting Alternative Thinking Strategies (PATHS)	Not presented	No	No
DuRant et al. (1996)	209; 6–8th grade	The Use of Violence in Hypothetical Situations Scale; Avoidance of Violence Scale; Frequency of Use of Violence Scale (in last 30 days); Frequency of fighting; Frequency of injury during a fight requiring medical treatment (in last 30 days)	The Violence Prevention Curriculum for Adolescents and Conflict Resolution: A Curriculum for Youth Providers	Significant decreases in self-reported use of violence in hypothetical situations, frequency of use of violence and fighting in the previous 30 days. Conflict resolution curriculum was more effective in reducing the frequency of fights resulting in injuries requiring medical treatment and changing severe fighting behavior	No	No
Eddy et al. (2003)	361; 5–8th grade	Police Arrest Record; Substance use reported during interview	Linking the Interest of Families and Teachers (LIFT)	Youth in control groups were 1.55 times more likely to be arrested and 1.49 times more likely to report patterned alcohol use in middle school compared to those in treatment	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Edwards et al. (2005)	455 students; 4–5th grade, 24 teachers	Subscales from BASC; The Bully Survey; The Second Step Content Tests; Empathy, Impulse Control, and Anger Management; Student behavior grades; Student semi-structured interviews; Teacher interviews	Second Step	Students showed significant gains in the areas of empathy, anger management, impulse control, bully proofing, and self-reliance	No	No
Frank et al. (2014)	49; 9–12th grade	The Affect Valence Scale; The Brief Symptom Inventory-18; The Responses to Stress Questionnaire; The Transgression-Related Interpersonal Motivations Scale-12-Item Form	Transformative Life Skills	Reductions in youth reports of anxiety, depression, global psychological distress, reports of problematic involuntary stress responses	No	No
Frey et al. (2005)	1253; K-6th grade	Prisoner's dilemma game; audiotape of Outcome preference, reasoning, and expected satisfaction; Observed joint decision making and outcome satisfaction; Negotiated prize division; School Social Behavior Scale; Survey of beliefs and intentions	Second Step	Those with low baseline scores showed no change in antisocial behavior, whereas control students increased. Gains in social competence in years 1 and 2, and less likely to behave aggressively while negotiating for prizes	No	No
Gosin et al. (2003)	35 schools; 7th grade; Teachers = 52	Rate the quality of lessons based on: development of concepts and skills, problem solving opportunities, age and culture appropriateness, and sound pedagogy	Keepin' it REAL	Experimental site students showed a less positive attitude towards using drugs, increased ability to resist drugs, and increased alcohol and cigarette use at a smaller rate compared to the control group	Yes	No
Gottfredson et al. (2002)	255; 7–8th grade	Walker–McConnell Scale of Social Competence and School Adjustment; Attendance to social skills class; GPA; Social Competency Rating Form; What About You Student Self-Report Questionnaire	Social-Problem Solving curriculum	Less rebellious school behavior, less victimization in school, and more positive peer association	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Hecht et al. (2003)	3318; 7th grade	Demographic Characteristics; Substance use questionnaire; Focus Theory of Norms; Self-Efficacy Scale; Researcher-created measure of respondent's intent to accept offers of substances	Keepin' it REAL	Mexican American (MA) and Multicultural (M) versions produced positive effects on personal norms, and alcohol, marijuana, and overall substance use. MA version performed better than on cigarette use, self-efficacy, intentions, and descriptive norms. M version produced better outcomes on resistance strategies, positive substance use expectancies, and friend's injunctive norms. No impact for African American and European American versions	Yes	No
Hill and Coufa (2005)	23; 7–11th grade	Student Reports-behavior performance	Social skills instruction	Disruptive behavior change totals were in the direction of improvement for Groups 1 and 3. All groups reported substantial mean differences in their ability to tell themselves to stay out of trouble	No	No
Houck et al. (2016)	420; 7th grade	Youth Inventory-4, Adolescent Symptom Inventory; Sexual Activity Frequency Survey; Youth Risk Behavior Surveillance Survey; Emotion Regulation Behaviors Scale; Self-efficacy Questionnaire for Children; Emotion Regulation checklist; Abstinence Attitudes; HIV knowledge	Emotion Regulation (ER); Health Promotion (HP)	Risky decision making related to alcohol and violence were greater among young people in the HP condition	No	No
Hudley et al. (1998)	384 (263 at 12-month follow up); 3–6th grade	The Social Skills Rating System-Teacher Version; Hypothetical student scenarios	The Brain-Power Program	Students in the intervention had greatest improvements in self-control, which persisted across time, and displayed reductions in judgments of hostile intent as hypothesized, which were not maintained at follow-up	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Jones et al. (2011)	1184; 3–4th grade	Adaptation of the Home Interview Questionnaire (hostile attribution bias and aggressive interpersonal negotiation strategies); Normative Beliefs about Aggression Scale; ADHD Symptomatology Scale; Diagnostic Interview Schedule for Children Predictive Scale; What I Think Instrument (aggressive fantasies subscale); BASC; Social Competence Scale, Early Childhood Longitudinal study 3rd grade assessment; Community Risk and Resources Questionnaire	The 4Rs Program	After 1 year of program, decrease in aggressive behavior and depressive symptoms. After 2 years, less hostile attribution, ADHD symptoms, depression, and teachers reported lower levels of aggression	No	No
Jones et al. (2010)	942; 3rd grade	Home Interview Questionnaire; Normative Beliefs About Aggression scale; What I Think Instrument; Home Interview Questionnaire; BASC; Social Competence Scale; Diagnostic Interview Schedule for Children Predictive Scales; ADHD Symptomatology Scale; Early Childhood Longitudinal Study; Kindergarten Cohort of 1998–1999, 3rd grade assessment; New York State standardized assessments of math and reading achievement; Attendance rate; Household Socioeconomic Risk Index; Community Risks and Resources Questionnaire; Behavioral Assessment System for Children	The 4Rs Program	Reduced hostile attributional biases and reduced depression	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Ialongo et al. (1999)	578; 1–2nd grade	The Parent Observation of Child Adaptation; Peer Assessment Inventory; The Comprehensive Test of Basic Skills	The Classroom-Center (CC) Intervention and The Family-School Partnership (FSP)	CC students demonstrated fewer total problem behaviors in both 1st and 2nd grade, and FSP students showed lower levels of problem behaviors in 2nd grade than controls. CC High and FSP boys with mild to moderate elevations of peer nominated aggression had significantly fewer peer nominations than control boys	No	No
Ialongo et al. (2001)	597 (509 6th grade follow-up); 1st and 6th grade	TOCA-R; The Comprehensive Test of Basic Skills-Version IV; Structured Interview of Parent Management Skills and Practices-Parent Version; Teacher Report of Classroom Behavior-Checklist Form, Diagnostic Interview Schedule for Children; Service Assessment for Children and Adolescents Parent Report; School Mental Health Professional Report; Structured Interview of Parent Management Skills and Practices-Parent Version	CC Intervention and FSP	Relative to controls, by the spring of sixth grade, CC students were less likely to have a lifetime diagnosis of conduct disorder, and to have received, or been judged in need of, mental health services. Both CC and FSP children were rated by teachers as exhibiting lower levels of conduct problems in 6th grade than standard setting or control students	No	No
Kam et al. (2004)	133; 1–3rd grade	Teacher-Child Rating Scale; Child Behavior Checklist-Teacher Report Form; Children's Depression Inventory; Social Problem-Solving Interview; Kusché Affective Interview	PATHS	Reductions in teacher reported externalizing and internalizing problems and self-reported depression	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Kamps et al. (1999)	52; 1–7th grade	Direct observation; Teacher ratings of student behaviors	Social, behavioral, and academic prevention program for students with EBD	The intervention group increased in request for attention, on-task behaviors, positive peer interaction and play during recess, with decreases in observed or reported aggression, disruptions, and out-of-seat behaviors	No	No
Karcher (2008)	516; 5–12th grade	Hemingway; Measure of Adolescent Connectedness (5.5 version); Self-esteem Questionnaire; Perceived Social Support Scale; Social Skills Rating System; Connors' Child Rating Scale; Global Index; Grades; Perceived Matterring Survey; Children's Hope Scale	Mentoring program	Small but positive main effects on two measures of self-reported self-esteem, on connectedness to peers, and on perceived social support from friends	No	No
Kellam et al. (1998)	1084 (682 students at 6-year follow-up); 1–6th grade	TOCA-R; The Peer Assessment Inventory; Independent behavior observation noting explicitly aggressive and disruptive behaviors	GBG	First grade classroom levels of aggressive behavior enhanced the risk of males being highly aggressive. First grade boys were more aggressive than girls. Boys' and girls' poverty was associated with increased risk of being highly aggressive, disruptive in middle school regardless of aggressive behavior in first grade, and thereby, increased their vulnerability to classroom level of aggression	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Kellam et al. (2014)	Cohort 1 = 407, Cohort 2 = 373; 1st grade	First graders: TOCA-R; Young Adults: CIDI-U < to reflect DSM-IV; Survey regarding sexual partners/patterns, high-risk sexual behavior index	GBG	Drug abuse and risky sexual behaviors were related to aggressive, disruptive behavior through elementary and middle school. GBG significantly lowered drug abuse and dependence disorders and high-risk sexual behaviors among males in the persistent high class. Individuals with less aggressive behavior improved less and no significant effect for females	No	No
Kistell et al. (2006)	140; 4th grade	Social Skills Rating System–Elementary Level; Youth Coping Inventory; Normative Beliefs About Aggression	Urban Improv (UI)	At post-assessment, participants in the UI program maintained baseline levels of externalizing behaviors, increased in levels of all prosocial behaviors, social skills across domains, and decreased in level of internalizing symptoms and hyperactivity	No	No
Kullis et al. (2007)	1364; 7–8th grade	Report of substance abuse	Keepin' it REAL	Not presented	Yes	No
Lane-Garon et al. (2005)	600; 6–8th grade	Interpersonal Reactivity Scale; Mediator Status; Language Arts Standardized Test Scores; School Climate Survey	Building A Peaceful Community; Community Boards of San Francisco's School Initiatives Mediator Training	Mediators demonstrated significantly higher gains on measures of social-cognitive development	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Lannie and McCurdy (2007)	22; K-5th grade	Classroom observations of student on-task and disruptive behaviors; Teacher response rates and behavior frequencies; The Intervention Rating Profile	GBG	The Game was effective in reducing disruptive behavior. There was no increase in teacher praise. Alternatively, as the level of disruptive behavior decreased, the teacher neutral and negative responses decreased. Similarly, increases in student disruptive behavior increased in the level of teacher neutral and negative responses	No	No
Liu et al. (2013)	678; 1st–3rd grade (follow-up 8–12th grade)	TOCA-R; Monitoring the Future National Survey (marijuana frequency in high school)	CC Intervention (included GBG) and FSP	For both males and females, CC intervention was found to reduce the odds of following the high aggression trajectory in grades 1–3. CC intervention groups had slightly lower probabilities of being in the high marijuana use class compared to those in the control group. Childhood aggression was significantly associated with adolescent marijuana use	No	No
Lochman et al. (2009)	531; 4th grade	The National Youth Survey; BASC-Teacher and Parent; Alabama Parenting Questionnaire	Coping Power program	Maintained their levels of externalizing behavior problems and lower rates of assaultive behaviors	No	No
Marsiglia et al. (2016)	267; 7th grade	Substance Use survey; Anti-Drug Norms survey;	Keepin' it REAL	Decreased likelihood of substance use in later adolescence and into adulthood	Yes	No
Massey et al. (2007)	84; 9th grade	Disciplinary Referrals; The Behavioral and Emotional Rating Scale	On-Campus Intervention Program; Think First curriculum	Decrease in total number of referrals and violent referrals. Improvements in teacher ratings of social, emotional, and behavioral functioning and self-report measures of behavioral self-control. Larger effect sizes for class-based group	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Mauricio et al. (2005)	198; 9th grade	Attitudes Towards Guns and Violence Questionnaire; Conflict Resolution Knowledge and Skills	KnowConflict Conflict Management Education Program	Not presented	No	No
McCraty et al. (1999)	92; 6–8th grade	Achievement Inventory Measurement; The Social Competence Interview	Heart Smarts	Risky or harmful behavior problems decreased. Increase in management of stress, anger, and negative self-talk	No	No
McCurdy et al. (2009)	615; K-6th grade	Observations of disruptive behavior defined along five categories of behavior: out of seat, play fighting, physical contact with force, throwing objects, and screaming; The Children's Intervention Rating Profile	The Lunch-room Behavior Game (LBG)	LBG was effective in reducing disruptive behavior in the lunchroom during each lunch period and across all grade levels. Implementation of the LBG in each consecutive lunch period resulted in an immediate and sustained decrease in the level of disruptive behavior	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
McMahon et al. (1999)	891; 1st grade	The Emotion Recognition Questionnaire; The Interview of Emotional Experience; The Social-Problem Solving Measure; The Home Inventory with Child; The Woodcock-Johnson Psycho Educational Battery-Revised; The Diagnostic Reading Scales; The Social Competence Scale-Parent Form; Peer nominations for behavior items; The Parent Questionnaire; The Parent-Teacher Involvement Questionnaire-Parent; The Developmental History; The Ratings of Parent Change; The Behavioral Coding System; The Externalizing Scale of the CBCL; The Parent Daily Report; The Parent Ratings of Child Behavior Change; Teacher ratings on the externalizing scale of the TRF; TOCA-R; the Teacher Ratings of Child Behavior Change; School observation of child initiated aggressive behaviors; TOCA-R Authority Acceptance Scale; the CII and the BCS; The Parent-Child Interaction Task	The Fast Track intervention	Intervention students improved in emotional and social coping skills, recognizing emotions, verbalizing appropriate emotions in situations, positive peer relations, as well as the reduction of disruptive and aggressive behavior problems. The two groups did not differ in the proportion of hostile attributions, but the intervention-group children were less likely than the control-group children to offer aggressive responses to the situations. Intervention group engaged their peers in prosocial activities and were more accepted by classmates than the control-group children	No	No
Mendelson et al. (2010)	97; 4–5th grade	The Responses to Stress Questionnaire; The Involuntary Engagement Coping Scale; The Short Mood and Feelings Questionnaire-Child Version; The Emotion Profile Inventory; People in My Life measure	Mindfulness-based yoga intervention	The intervention reduced problematic involuntary engagement responses to social stress	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Metropolitan Area Child Study Research Group (2002)	2181 (1518 had 2 years of intervention); 2–3rd grade and 5–6th grade	The Peer Nomination Inventory; The Iowa Test of Basic Skills in reading and mathematics; Teacher predictions of peer nominations; Youth Self Report of the Child Behavior Checklist; Children who spoke insufficient English for testing were assessed with La Prueba de Realizacio'n [The Path to Success]	Level A: classroom intervention. Level B: classroom intervention and small-group peer-skills training. Level C: intervention, small-group peer-skills training, and family intervention	Schools serving poor urban communities with more resources, Level C intervention reduced aggressive behavior of high-risk children when delivered in the early grades or when delivered early and continued later. In schools and communities with few resources, students in Level C intervention increased in aggression. In both communities, no effect for Level A and B interventions and when only delivered in the late elementary grades	No	No
Metropolitan Area Child Study Research Group (2007)	1365; 2–3rd grade	Hypothetical Situations; Children's Fantasy Inventory; The Normative Beliefs About Aggression Scale	Social cognition classroom and small-group components	In classroom condition, social cognition supported aggression decreased only in the moderate resource communities. Neither classroom nor classroom plus small-group interventions yielded significant reductions in proximal aggression	No	No
Montañez et al. (2015)	174; 3–5th grade	The Strengths and Difficulties Questionnaire; Student Assessment Survey	Turn 2 Us	Student showed significant improvements in social and classroom performance, and greater impact on those at highest risk	Yes	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Nicoll (2013)	18; ages 16–19 years old	Mayer-Salovey-Caruso Emotional Intelligence Test	Counseling sessions	Significant increase in emotional intelligence	No	No
Petras et al. (2011)	666; 1–3rd, 6–12th grade	TOCA-R; Teacher Report of Classroom Behavior-Checklist Form	CC Intervention and Family-Centered Intervention	Treatment participants had higher odds of being in the low aggressive/disruptive behavior trajectory in grades 1–3. The family-centered intervention did not show a proximal, but only a significant distal effect for males	No	No
Poduska et al. (2008)	1556; Cohort 1 = 689; Cohort 2 = 867; 1–2nd grade	TOCA-R; The Services Assessment of children and Adolescents	GBG	Males rated high on aggressive, disruptive behavior in first grade benefited most from GBG. Cohort 1 and Cohort 2 males in GBG were less likely to receive school-based services for problems with behavior, feelings, or drug and alcohol by young adulthood. Cohort 1 males used less social services and Cohort 2 males used less services from mental or medical health professionals by young adulthood	No	No
Pollock (2011)	12; 9–11th grade	Not presented	Book Clubs	Book clubs promoted academic literacy learning and social–emotional competencies	Yes	No
Powers et al. (2014)	61; K–5th grade	Not presented	School based Mental Health program	Of the 61 participants, 15 received formal mental health diagnoses	No	No
Powers et al. (2016)	322; K–5th grade	Not presented	School based support program	Females in SBS had higher social/behavioral scores than males, and students who received more SBS services had lower social-behavioral scores	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Reid et al. (1999)	671; 1st and 5th grade	The Family Assessment; Family interview; Questionnaires regarding parenting practices; Child behavior at home; Parent/child involvement; Child/peer relationships, laboratory task (First grade families: communication task, social teaching task, problem solving task, and free play task; Fifth grade families: communication task and two problem solving tasks); Global ratings from each staff members; Peer nominations, Teacher interview; Questionnaires for teachers about academic and social adjustment of each child; Playground observations; The Interpersonal Process Code; The Peer-Preferred Social Behavior subscale from the teacher rated Scale of Social Competence and Social Adjustment	LIFT	Social skills of children in the intervention groups were viewed more favorably by their teachers the following year than children in the control group. Mothers in the intervention and control groups were not significantly different in the middle range scores of aversive behaviors, rather mothers with the highest levels of aversive verbal behavior exhibited the largest immediate reduction. Child physical aggression on the playground decreased for the intervention group for both first and fifth graders. However, the first graders this effect increased as pre-intervention scores increased and for fifth graders the effect remained the same across levels of the pre-intervention score	No	No
Riggs and Pentz (2009)	1017; 6–7th grade	Health Behavior Survey	Midwestern Prevention Project	Intervention group began high school using less marijuana per week	No	No
Rimm-Kaufman and Chiu (2007)	157; 1–4th grade; Teachers = 62	The Child Demographic Questionnaire; The Teacher Demographic Questionnaire; The Classroom Practices Measure; The Mock Report Card; The Student–Teacher Relationship Scale; The Social Skills Rating Scale; The Social Competence and Adjustment Scale	RC Approach	Use of the RC Approach enhanced social skills among children	No	No
Stoolmiller et al. (2000)	671; 1–5th grade	Interpersonal Process Code	LIFT; GBG	Lowered rates of aggression, and the more aggressive the child was initially, the greater the reduction in aggression	No	No

Table 1 (continued)

References	Sample	Measures	Intervention	Mental health outcomes	Culturally responsive?	Addresses racism?
Storr et al. (2002)	678; 1st grade	Audio Computer-Assisted Self-Interview National Health and Nutrition Examination interview; Parent Management Skills and Practices interview; TOCA-R	(CC) Intervention (included GBG); The Parents on Your Side	Children's' risk of starting to smoke tobacco during the primary school years reduced	No	No
Weist et al. (2010)	839; K-6th grade	Not presented	PATHS to PAX; Coping Power; Incredible Years	Increase in ability to work with others, in friendship-making skills, and in feelings identification	No	No
Whaley and McQueen (2004)	25; high school	Classroom behavior assessed by teacher on report card; number of times displaying aggressive behavior in the program	Imani rites of Passage (IROP) afterschool program	Improved academic and social behavior, significant reduction in aggressive behavior	Yes	Yes

common goal setting among families. In addition, a school component is included where IROP program staff support children and families by working with the school's teachers and counselors when a child is having difficulty in school (Whaley and McQueen 2004).

Turn to Us (Montañez et al. 2015) is a school-based mental health prevention program for young, at-risk Latino students. The program's objectives are to: (a) identify and extend intervention services to at-risk students (grades 3–5) to support their social, behavioral, and academic performance, and (b) provide teachers and parents with psychoeducation intended to increase mental health knowledge to support at-risk students. Program participants engage in one of four tracks. Those with internalizing symptoms engage in a 12-week creative arts or drama track facilitated by the researcher's partner program, CARING at Columbia. Cultural sharing of rituals, music, foods, and language, along with building self-pride while appreciating the culture of others is presented as part of the creative arts track. The drama track addresses culture by engaging students to create a script with an underlying theme of being members from different places or regions and encouraging students to explore ways to cope with these differences while working together to solve a common issue. Those with externalizing behavior could participate in the sport or dance track (Montañez et al. 2015). Both tracks are driven by culturally desirable physical activities as expressed by students, to support in program engagement. In addition, the program aimed to hire bilingual staff to facilitate services to students for whom English is a second language and their parents. Polleck (2011) examined the use of book clubs to enhance social-emotional and academic learning for adolescent females of color. Cultural components included using multicultural adolescent literature regarding content, characters, and themes that aligned with the participants' literacy levels and interests.

Botvin et al.'s (2001) drug prevention program aimed to teach students cognitive-behavioral skills to support positive interpersonal and intrapersonal well-being to reduce risk of cigarette, alcohol, or drug use. Though the underlying intervention strategy remained the same, there were cultural modifications to the intervention informed by focus groups and key informant interviews. Examples of these changes included the addition of illustrations or pictures of racial minority youth, changes in language and reading level of intervention, and creation of appropriate role-play scenarios for the target population.

Question 3: Are there interventions that address racism (individual or institutional) in supporting students' mental health? If so, in what ways does this happen?

Of the interventions discussed in the 66 articles, none explicitly addressed racism and its role in children and youth's social and emotional development. This is disheartening, as researchers have found that racial discrimination contributes to stress and trauma for people of color (Bryant-Davis and Ocampo 2005). Providing a means to express stories of racism and a means to address the stress and trauma caused by racism is an important but underemphasized area of social

emotional well-being. In Whaley and McQueen (2004)'s intervention, the focus on culture and strengthening identity in African American communities did lend itself to discussions about race and the preservation of black people and culture. This is promising as it opens the door to discussions around institutional racism and efforts to stand against it collectively.

Discussion

In this paper, I reviewed the literature on school-based SEL intervention studies in urban school settings. The first area of focus was on intervention characteristics (i.e., study, intervention, participant, and mental health outcome characteristics). In regard to study characteristics, the use of primarily experimental and quasi-experimental design in intervention studies of SEL is unsurprising considering the push for the use of randomized control trials in the education, psychology, and prevention science literature where SEL interventions are often published (Gartlehner et al. 2006; Imai et al. 2011; Odom et al. 2005). Ensuring the efficacy of school-based interventions is an important expectation but is only one piece of the puzzle. Also important is examining the effectiveness of these interventions. School-based SEL interventions are often examined in “real world” settings but the sustainability of the intervention over time without the continued support of the research team are often not examined. This implementation research moves beyond just experimental and quasi-experimental design to incorporate mixed methods to support the evaluation of sustainability of effective interventions in practice (Greene et al. 2001).

Also important to examining the sustainability of SEL interventions is the examination of fidelity of implementation (Barnes et al. 2014; Century et al. 2010). Fidelity is measured in five ways: (1) adherence (2) dose (3) quality of program delivery (4) participant responsiveness, and (5) program differentiation (Dusenbury et al. 2003). Unfortunately, less than half of the included studies present this information and among those that do, adherence and dosage were most likely to be examined (Century et al. 2010). According to O'Donnell (2008), adherence and dosage are a part of one of two categories of fidelity of implementation (i.e., fidelity to structure). Missing from most studies in this sample are measures of fidelity to process (i.e., quality of delivery, program differentiation). This is unfortunate, as researchers have cited the need to examine both categories of implementation for effectiveness and efficacy studies (Keller-Margulis 2012; O'Donnell 2008). In fact, in studies that did examine the use of other measures of fidelity such as Domitrovich et al. (2015), researchers were able to ascertain insightful information on how their SEL intervention's effectiveness was influenced by teacher engagement with the intervention. Thus, I encourage researchers to include a wider range of measures of fidelity in future research on SEL intervention use in urban schools.

In examining intervention characteristics, there seemed to be much variation in intervention components. This finding mimicked those of other reviews of SEL and school-based mental health interventions (e.g., Barnes et al. 2014; Durlak et al. 2011). In more than half of the intervention studies, school staff were involved in or took a primary role in intervention delivery. This is encouraging as it speaks to

the issue of sustainability of an intervention. Successfully training school staff to implement the intervention examines whether school staff are able to continue the intervention long term once the research study is complete. This is, of course, just one piece of the puzzle. Another piece of the sustainability puzzle is determining whether the targeted population finds the intervention valuable or socially valid. Unfortunately, few studies in our sample examined the social validity of its SEL intervention.

Only two of the studies included a computer-based SEL intervention. In Clarke, Kuosmanen and Barry's (2015) review of youth mental health promotion and prevention interventions, they found only 29 online intervention programs in the literature since the year 2000. Of these, only six took place in the United States and none took place in K-12 urban schools.

Internalizing behaviors were only examined in 16 of the 66 SEL interventions. This aligns with research presented by Carnevale (2012) who conducted a review of universal depression prevention programs for adolescents. The author cited the lack of universal intervention for depression, an internalizing behavior, as a reason for the review and through the review was only able to identify eleven studies over a 10-year period (i.e., 2000–2010). Most SEL interventions tend to be implemented universally (Jones and Bouffard 2012) and it seems interventions for internalizing behaviors are more likely implemented at a targeted or indicated level. This is unfortunate since teachers are less likely to notice internalizing behaviors to identify students for these targeted and indicated interventions.

Limitations

There are several limitations to this review of SEL intervention use in urban schools. First, for this review, I chose to include only studies that focused on SEL intervention use in urban school locations. As a result of this, I left out studies of SEL interventions that included both urban and suburban or rural locations. In cases where the data was not disaggregated by location type, the study was left out of the final sample due to the inability to factor out results specific to just the urban sites. This is a limitation in that there may be additional studies that met criteria but because of diversity in intervention settings, they were not included in this review.

Another limitation is that I did not examine the overall effect size of these interventions in supporting indicators of social and emotional competencies in students. I encourage researchers to conduct a meta-analysis of SEL intervention efficacy in urban schools to explore the overall effect size of SEL interventions on outcomes for the population of interest. Another important factor when exploring effectiveness will be an examination of differences in participant outcomes based on the measures used in each study.

In addition to limitations of the literature review, there were also limitations in the literature. There was much variation in the types of outcome measures presented in each study and thus exploring, not only the measure, but psychometric properties of the measures and how they influenced reported outcomes would inform future research in the field. Another related limitation is the use of primarily self-report

and teacher-report measures in many studies. Though these reports of social and emotional functioning are necessary and important, they are also subjective and should be balanced with more objective measures of outcomes (e.g., observation of behavior).

In the sample of studies, I found few that presented follow-up data. This is problematic because without this information it becomes unclear whether the immediate intervention effects are sustained long term for participants. Future research that examines the long-term effects of SEL intervention use in urban settings is needed in the field. In examining the use of culturally responsive SEL strategies, I found that there was much work to be done in this area. Few culturally responsive SEL interventions exist and among those that do, few researchers presented explicit information on their process or the intervention components that made their SEL intervention responsive to a particular student population. Additionally, though an intervention may be intended to be culturally responsive, the facilitator must have skills to make that happen. White middle-class women make up over 80% of the teaching force and thus are from different cultural backgrounds than the students they serve (U.S. Department of Education 2016). Much like training educators in the use of culturally responsive pedagogy to support students in academic learning, training is needed to support students of color in social emotional learning. Ideally, teacher training will begin with a foundation in culturally responsive pedagogy and expand to include training on how to incorporate instruction on social emotional learning within this framework (Barnes and McCallops 2019). Measures of facilitator's use of culturally responsive practices when implementing SEL interventions may help with this. Moreover, future research should examine the feasibility and effectiveness of white teachers providing SEL instruction that includes topics of racism and social justice with students of color. Most SEL interventions in urban schools focus on Black and Latino student populations as these populations make-up a large portion of urban students. There is still a need, however, to examine the use of SEL interventions in urban schools focused on the cultures of additional RELD groups including Native American/Alaskan Native groups, Asian-American groups, and students who have recently immigrated to the United States.

Implications and Conclusions

SEL instruction is now recognized as an important and worthwhile component of the school curriculum to support student success. Over a decade ago, researchers like Greenberg (2004) called for a move toward effectiveness research with a focus on sustainability of programs, policies, and community partnerships centered on SEL. It has been over 10 years since this call and we still see a continued need for growth in the area of effectiveness research in SEL intervention use, particularly among urban school populations. Little research is available on the long-term sustainability of these interventions in schools or on ways to ensure participant buy-in among RELD populations. In light of legislation such as the Every Student Succeeds Act (United States, Congress, Cong., Health, Education, Labor, and Pensions 2015) that defines student success as broader than academic outcomes and incorporates

language around creating safe and supportive school environments (CASEL 2016) now, more than ever, is the time to ensure the effectiveness of evidence-based interventions as schools move to more widely adopt these interventions.

As the field works toward effectiveness research, there is a need for future research on the influence of individual and contextual factors on moving SEL interventions from research to practice. Researchers such as Domitrovich et al.'s (2015) have assessed the influence of teacher perceptions and school-level variables (i.e., demographics, school organizational health) on the implementation of the PAX Good Behavior Game (GBG) and found that these factors were, indeed, related to intervention implementation. Specifically, teachers who reported feeling more exhausted and overwhelmed implemented a lower dosage of the intervention and teachers who were younger had higher rates of PAX GBG implementation quality. In regard to school-level variables, the Metropolitan Area Child Study Research Group (2007) found that the resources available in the community that a school was located influenced the effects of the intervention.

Conclusion

SEL interventions show great promise in supporting student success. Though a number of reviews have been conducted on SEL intervention efficacy, few have specifically focused on the use of SEL interventions in urban school settings nor have there been many that have examined the use of culturally responsive strategies as part of these interventions. This review has provided some future directions in light of policy changes in favor of SEL intervention use in schools. I encourage researchers to continue exploration of SEL intervention efficacy, particularly for RELD student populations, and relatedly, echo calls for more studies focused on the effectiveness and sustainability of SEL interventions in the school setting.

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