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Investigation of CASEL SELect Programs with Minority Students From High Poverty Communities

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This meta-analysis examined the efficacy of CASEL SELect programs when used with minority students from high-poverty communities. Based on a review of the literature, prior evidence provided support for the efficacy of these programs (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Reid et al., 2007). The Hedges and Olkin meta-analytic approach was used for the current study (Johnson, Mullen, & Salas, 1995). Findings from the meta-analysis supported three of four research hypotheses. In particular, SEL programs yielded significant positive effects on targeted outcomes when used with minority students from high-poverty communities. SEL programs increased prosocial behaviors, reduced conduct problems, and improved academic performance. Findings from this meta-analysis built on prior results from the Durlak et al. (2011) meta-analysis. School districts may begin to identify, select, and use high-quality and evidence-based SEL programs with minority students from high-poverty communities. One of the study's major limitations was that it was restricted to only select studies from elementary and middle schools. An important next step will be to disseminate findings of CASEL SELect programs that had positive effectiveness ratings with minority students from high-poverty communities.

Keywords: Social-emotional learning, SEL, CASEL, meta-analysis, minority children, youth, poverty, low-income, and urban.

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CHAPTER 1

INTRODUCTION

The present study consolidated available empirical findings concerning the efficacy of Social Emotional Learning (SEL) programs used with populations of minority students from high-poverty communities. A meta-analytic approach was used to compare a number of interventions that have been identified in the 2013 CASEL Guide as promising for use with minority students from high-poverty communities. More specifically, the present study focused on interventions designed to improve behavioral and academic outcomes in this population. This study adds to the SEL literature by consolidating the available data concerning the efficacy of SEL programs for meeting the needs of minority groups from high-poverty areas.

This chapter will introduce the topic of SEL and provide a common framework for distinguishing these programs from other educational interventions. The importance of considering race and poverty within the context of evaluating these programs will be discussed. The prevalence of mental-health concerns in children and youth will also be reviewed in order to highlight the challenges and needs currently being faced by these populations. Finally, a statement of the problem, definition of key terms, research questions, and hypotheses of the study will be provided.

Beginning in the late 1960's, researchers in the fields of education and child development began focusing on ways to improve outcomes for children such as increasing attendance rates, reducing behavior problems, and improving academic performance. Researchers, educators, and professors worked collaboratively to find the most effective means to improve student outcomes. As the knowledge base evolved, researchers introduced a comprehensive framework for addressing the needs of children and youth. As such, SEL began to emerge as a method to teach children how to develop essential skills such as recognizing emotions, demonstrating empathy,

establishing healthy relationships, and making good decisions (Elias et al., 2007). This effort gave rise to a movement to develop curricular approaches to provide the basis for healthy social and emotional competencies to school children. As programs began to emerge purporting to improve social and emotional outcomes for children, the Collaborative for Academic Social and Emotional Learning (CASEL) was created for the specific purpose of advancing the field of SEL as a means of improving outcomes for children. The organization also sought to prevent problem behaviors and drug use in schools, to promote healthy choices, and to establish school-community connections (Domitrovich, Durlak, Goren, & Weissberg, 2013). CASEL conceptualizes SEL as the practice of attaining and successfully applying the knowledge, attitudes, and skills needed to recognize and manage emotions (Zins & Elias, 2007). Furthermore, SEL is the process of effectively teaching students to develop caring and concern for others; to make decisions that are responsible; to develop prosocial relationships; and to effectively manage challenging situations. Taken together, CASEL was established to make SEL an integral part of education, spanning from pre-kindergarten through high school and into adulthood.

According to its website, www.CASEL.org, CASEL is an organization of educators, policy makers, and researchers seeking to advance the practice of school-based SEL (CASEL, 2011). The organization was founded by Daniel Goleman and Eileen Rockefeller Growald with the mission of promoting the healthy development and well-being of children. The founders sought to establish evidence-based SEL programming as an integral component of education for students in pre-school through high school. As previously mentioned, a primary motivation for forming CASEL was to advance SEL science, evidence-based practice, and policy. One way that CASEL is able to advance the practice of SEL is by reviewing and maintaining a

clearinghouse of high quality empirically supported programs. The organization provides practitioners, researchers, policymakers, and advocates with a variety of resources intended to help advance SEL practices. A panel of SEL experts serves to help CASEL advance these practices. The organization maintains a board of directors, staff, and consultants with the unified purpose of advancing the field of SEL. Together, the board of directors, consultants, researchers, and supporters collaboratively work to advance the practices of CASEL and to promote the field of SEL.

Additionally, the organization advances its mission by setting rigorous standards for best practices in SEL, outlining its core competencies, and monitoring outcomes related to SEL. The organization provides current resources related to SEL district initiatives, SEL policies, and recent SEL research. Further, the organization provides practitioners and researchers with access to SEL research from the field, current research projects, and the online CASEL library. CASEL's online library includes an assortment of resources relevant to SEL, which is available for free to practitioners, researchers, educators, and the public.

CASEL frequently reviews, updates, and addresses SEL-related topics such as: academic integration, school-wide approaches, impact and evidence of SEL, school-family partnerships, assessments, as well as other topic related to practice. This provides practitioners and educators with current SEL literature and resources in order to advance the mission of the organization. Also, users may download the most recent CASEL publications. These publications include guidance concerning the best evidence based SEL programs in the field. One such publication available for researchers and practitioners is the 2013 CASEL Guide: *Effective social and emotional learning programs—Preschool and elementary school edition* (CASEL, 2013). The

next section will briefly introduce the 2013 CASEL Guide and more detail will be provided in chapter 2.

The authors of the 2013 CASEL Guide reviewed, identified, and selected high-quality, empirically-supported interventions. The interventions included in the 2013 CASEL Guide "fully integrate social and emotional learning with academic content in specific content areas" (Domitrovich et al., 2013, p.7). Further, these programs must meet standards including being well-designed, delivering high-quality training, and must be evidence-based. According to CASEL, well-designed programs provide opportunities to practice SEL skills and allow for development of SEL skills over multiple years. High-quality training is defined as the initial preparation or teaching of SEL skills. This includes ongoing support to ensure sound implementation of the SEL intervention. Programs are considered evidence-based when at least one carefully conducted evaluation provides evidence of a positive impact on student behavior or academic performance. Further, programs are included in the CASEL Guide only if their evidence base included research demonstrating effectiveness using true experimental designs with a control group and pretest-posttest measures of behavior. Therefore, this study focused only on CASEL SELect programs, since they have met criteria for inclusion in the 2013 CASEL Guide as being well-designed, delivering high-quality training, and being evidence-based.

Authors of the 2013 CASEL Guide reviewed and selected well-designed and evidence-based SEL programs from such national databases as The What Works Clearinghouse, The National Registry of Evidence-Based Programs and Practices, and Blueprints for Violence Prevention Model and Promising Programs. Then, these programs were examined and reviewed by trained coders. Programs had to be classroom-based and designed for use with a universal student population. An evaluation of each program was required in a school setting with a

preschool or elementary population (pre-kindergarten through 8th grade). Then, student social and/or academic behavior outcomes were documented, with group comparisons all statistically significant. Subsequently, four student outcomes were identified in the 2013 CASEL Guide: academic performance, positive social behavior, ability to avoid or overcome conduct problems, and capacity to deal well with emotional distress. These outcomes will be discussed in more detail in the next chapter. However, before moving forward, it will be important to discuss the rationale for integrating SEL into educational settings.

The motivation for integrating SEL practices into educational settings was guided by an effort of practitioners and policy makers to respond to the needs of children being served in our nation's schools. According to Masi and Cooper (2006), mental-health problems often begin at a young age, are widespread, and occur commonly among children and youth. These authors estimate that 10% of youth have a serious mental-health problem that significantly impairs their functioning across multiple settings, including home, school, and the wider community (Masi & Cooper, 2006). Alarmingly, up to 80% of children and youth who need mental health services are left untreated. Yet the reported prevalence rates of emotional and behavioral disorders in pediatric populations have steadily increased in recent years (Parens & Johnston, 2008). More importantly, estimates suggested that only 15 to 30% of these children were receiving services (Ringel & Sturm, 2001). Recent data suggests approximately 16% of children in the Unites States received services due to their child's emotional or behavioral difficulties during the past 12 months (Simpson, Cohen, Pastor, & Reuben, 2006). Moreover, 20% of boys received services for emotional or behavioral difficulties compared to 12% of females during the past 12 months. Additionally, boys were prescribed medication at a higher percentage when compared to girls, 7% to 3%, respectively. Putting these percentages into some context, Kataoka, Zhang, and Wells

(2002) estimated that some 7.5 million children had unmet mental health needs. The National Center for Children in Poverty (2006), meanwhile, looked at the prevalence of mental illness among minority children and youth. It reported that 77% of African Americans had unmet mental-health needs, exceeded only by Latinos with an 88% figure. These disparities are even more troubling, however, when race and insurance status are taken into consideration. The National Center for Children in Poverty (2006) reported that only 13% of children with minority backgrounds received services for mental health needs. By comparison, 31% of Caucasian children received treatment for their mental-health needs. These data suggest that minority children have a number of mental-health needs that often go untreated.

Based upon available data, however, the present trends indicate a large number of children with insurance do not receive mental-health treatment. The trend is only magnified for children without insurance (The National Center for Children in Poverty, 2006). As a result of these unmet mental-health needs, minority and high-poverty children and youth may struggle to succeed at school, at home, and in their community (Masi & Cooper, 2006). In view of this barrier to mental health care, the focus of this study was to identify effective interventions and programs that improved the mental health and the social-and-emotional functioning for minority students from high-poverty communities.

Social and Emotional Learning Programs Defined

According to Ginsburg and colleagues, schools are key locations to reach children and youth who have unmet mental-health needs (Ginsburg, Becker, Newman-Kingery, & Nichols, 2008). Students are more likely to receive services at school due in part to the familiarity of the setting and the reduced transportation barriers. Karoly and colleagues found that well-designed early-intervention programs offered in schools have a range of benefits for students (Karoly,

Kilburn, & Cannon, 2005). More specifically, the authors found that well-designed early-intervention programs produced significant, sizable benefits in student outcomes, such as cognition, academic achievement, behavior, emotional competencies, and educational progression and attainment while also reducing the subjects' participation in delinquency and crime.

As noted previously, SEL programs emphasize prevention by fostering the development of social, emotional, and behavioral skills. CASEL has identified five interrelated core competencies targeted by SEL programs that meet their rigorous standards. These include self-awareness, social awareness, self-management, social management, and responsible decision-making. These core competencies are especially important because they provide the student with a basis for better adjustment and academic performance (Bridgeland, Bruce, & Hariharan, 2013). These competencies have been found to be associated with an increase in pro-social behavior, fewer conduct problems, less emotional distress, and improved grades and test scores (Karoly, Kilburn, & Cannon, 2005; Zins & Elias, 2007). These core competencies will be reviewed in greater detail.

Self-awareness, the most frequently discussed skill in SEL literature, is characterized as the ability to identify, recognize, and explain one's emotions accurately (Harlacher, 2008). Domitrovich and colleagues define *social awareness*, the next core competency, as the ability to identify and recognize emotions in other people and to understand how those emotions can influence social situations (Domitrovich, Durlak, Goren, & Weissberg, 2013). According to Harlacher (2008), self-awareness and social awareness both involve identifying and recognizing emotions. The difference between the two is that social awareness involves being empathetic and capable of understanding the perspectives of others. *Self-management*, then, involves a

person's ability to control and regulate his or her emotions, thoughts, and behaviors. Furthermore, children who can manage themselves successfully seem able to achieve their academic goals as well. So the evidence shows that there are positive academic as well as emotional impacts from SEL programs. *Relationship skills* involve the ability to manage social relationships with peers or adults and to maintain those relationships well over time (Domitrovich et al., 2013). Moreover, as Harlacher (2009) explained, these relational or social-management skills include "the ability to effectively communicate, cooperate and negotiate with others, manage and read one's own and other's emotions in social settings, deal with and resolve conflicts that arise, and seek and provide help to others" (p.10). The final competency, *responsible decision-making*, is defined as the "ability to make constructive and respectful choices about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others" (Domitrovich et al., 2013, p.1). Responsible decision-making involves the ability to analyze a situation properly, a process which involves a fairly sophisticated use of SEL skills, to make safe and appropriate choices across a variety of settings. Conceptually, all five SEL core competencies are interrelated and must be mastered as a set of skills for an individual to navigate social and emotional situations optimally.

Need for SEL Programs for Minority Students from High-Poverty Areas

Previous literature has linked race to poverty and has shown that wealth is often divided along racial lines (Bradley & Corwyn, 2002; Kataoka, Zhang, & Wells, 2002; McLeod & Shanahan, 1993). Further, Caucasian children are more likely to be represented among more advantaged segments of the population, while racial minorities account for large proportions of children from high-poverty communities (Gilens, 1996). Racial groups, in particular African-

Americans and Native Americans, have the highest child poverty rates exceeding 30%. Moreover, racial minorities living in high-poverty areas are more likely to be exposed to adverse mental and physical conditions in comparison to their more wealthy counterparts. Additionally, a review of the literature consistently suggests that minority children and youth living in poverty are at an increased risk of poor academic achievement and behavioral problems (Masi & Cooper, 2006; Skiba et al., 2008; Sugai et al., 2000; Wagner et al., 2005). These children and youth often encounter significant challenges in their school, home, and community settings, including language barriers, limited family support, substantial academic and behavioral problems, financial hardships, medical and mental-health issues, and myriad other concerns.

Despite these challenges, minority students from high-poverty communities are still expected to perform at or above grade level on state assessments and exhibit socially acceptable behavior. Given these challenges, minority students in high-poverty communities are often overrepresented in special-education classes in comparison with their peers (Duchnowski & Kutash, 2011). Moreover, minority students are disciplined at disproportionate rates in comparison to their white counterparts (Masi & Cooper, 2006; Skiba et al., 2008, U.S. Department of Education, 2012). Masi and Cooper reported that African-American students are suspended 30% more often in comparison to their white counterparts, and children with mental-health needs are suspended three times more often than their peers. These trends are also reflected in data from the U.S. Department of Education (2012), which revealed a significant percentage of African-American students who received special-education services were suspended for more than ten days during the 2006-2007 school year. In addition, a significant percentage of African-American students received in-school suspension at rates higher than that of other racial groups. These data provide some insight into the level of need that minority and

high-poverty students face (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Merrell et al., 2008; Nakayama, 2008; Wagner et al., 2005; Whitcomb, 2009).

Racial Disproportionality

Research has documented patterns of disproportionality with students who are minority, high-poverty, and receive special education services as far back as 1968 (Hosp & Reschly, 2004; Skiba et al., 2008). Disproportionality has been defined as "the representation of a group in a category that exceeds expectations for that group or differs substantially from the representation of others in that category" (Skiba, 2008, p. 266). Data from the 31st Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (U.S. Department of Education, 2012) found that in 2007 African-American students were 1.45 times more likely to receive special-education services than students in other groups. African-American students (ages six to 21) were 2.64 times more likely to receive special-education services under the category of Intellectual Disability (ID) and 2.29 times more likely for Emotional Disabilities (ED) than their counterparts in all other groups combined. In addition, Wagner et al. (2005) reported that 70% of the students identified with ED were males.

Risk factors related to poverty may be associated with academic underachievement and emotional/behavioral problems among minority students (Skiba et al., 2008). These findings suggest that students from economically disadvantaged backgrounds will exhibit academic or maladaptive behaviors at higher rates than their peers, which in turn makes them more likely to be referred to special-education classrooms. Therefore, the need exists for evidence-based mental-health interventions, which support the social and emotional well-being of minority students from high-poverty communities.

SEL Interventions for Minority Students from High-Poverty Communities

This study will contribute to the SEL literature by investigating the effectiveness of various SEL interventions and their use with different sub-groups based on race, sex, socioeconomic status, and geographic location. Emerging literature suggests that SEL may be a promising approach for improving outcomes for minority students from high-poverty communities. Thus, by using a meta-analytical approach, this study adds to the literature by providing more specific information concerning the efficacy of these programs when implemented with minority youth from high poverty communities.

As a result of research demonstrating positive outcomes associated with SEL programs, many states and school districts are incorporating SEL into their curriculums. For example, Illinois has mandated the use of SEL programming in its schools. More specifically, the 2003 Illinois Children's Mental Health Act (2003) required that all schools provide SEL for every student. In addition, all school districts were required to develop policies to incorporate SEL into their educational programs. Lastly, the Illinois Board of Education mandated all school districts in the state to incorporate the development of SEL standards into their educational program (Illinois Children's Mental Health Act, 2003). According to a national teacher survey on the impact of SEL on children and youth, it was found that a "strong, evidence-based SEL program can help reduce student absenteeism and improve student interest" (Bridgeland et al., 2013, p.7). This survey is consistent with prior findings, which suggest the use of SEL programs positively impacts student outcomes (Durlak et al., 2011). The researchers also suggested that SEL programs boosted student academic performance, increased their interest in learning, improved behavior, prevented and reduced bullying, and enhanced the overall school climate. Additionally, a major review of outcomes for school-aged students participating in SEL

programs demonstrated reduced emotional distress in the classroom, fewer behavioral problems, and an increase in pro-social behavior and emotional skills (Weissberg & Cascarino, 2013).

To date, an increasing number of studies have investigated the effectiveness of SEL programs with students from minority and high-poverty communities. Thus, a major aim of this study was to examine and summarize the impact and benefits of SEL programming with minority students in high-poverty communities by consolidating the available literature. This study focused on outcomes related to SEL programming such as reduced emotional distress, decreased behavior problems, and increased pro-social behavior. Potential limitations of this study include selection of studies, choice of relevant outcomes, methods of analysis, interpretation of heterogeneity, and generalization and application of results (Chiappelli, 2010).

Research Questions

The research questions for this study provided the means to understand the selected effectiveness of CASEL SELect programs with minority students from high-poverty communities. Further, the study sought to better understand the relationship between the implementation of CASEL SELect programs and student outcomes associated with SEL programming. The research questions for this study were as follows:

1. Do CASEL SELect programs increase positive social behaviors for minority students residing in high-poverty communities?

It is hypothesized that there will be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. In particular, CASEL SELect programs will increase positive social behaviors for minority students from high-poverty communities (CASEL, 2011; Durlak et al., 2011; Zins & Elias, 2007).

2. Do CASEL SELect programs reduce conduct problems for minority students residing in high-poverty communities?

It is hypothesized that there will be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. In particular, CASEL SELect programs will reduce conduct problems and/or emotional distress for minority students from high-poverty communities (CASEL, 2011; Domitrovich et al., 2013).

3. Do CASEL SELect programs reduce emotional distress for minority students residing in high-poverty communities?

It is hypothesized that there will be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. More specifically, CASEL SELect programs will reduce emotional distress for minority students from high-poverty communities (CASEL, 2011; Domitrovich et al., 2007; Jones et al., 2010; Reid et al., 2007; Linares et al., 2005).

4. Do CASEL SELect programs improve academic performance for minority students residing in high-poverty communities?

It is hypothesized there will be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. More specifically, CASEL SELect programs will increase academic performance for minority students from high-poverty communities (CASEL, 2011; Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007).

Summary

The available body of knowledge has demonstrated the effectiveness of SEL programs across a variety of student outcomes (Durlak et al., 2011; Weissberg & Cascarino, 2013; Zins & Elias, 2007). A meta-analysis of these studies may reveal that few have investigated the specific emotional or academic impacts of SEL programs on poor, minority public-school students. The anticipated sample will include children from published studies. These students will consist of individuals ranging from age four through sixteen in pre-kindergarten through eighth grade. Consequently, this study, in evaluating CASEL SELect programs identified in the 2013 CASEL Guide, will examine the extent to which SEL programming meets the needs and improves both behavioral and social-emotional outcomes for minority students from high-poverty communities. A major benefit of this study is that it will include an examination of studies with students who have pre-existing behavioral, emotional, or academic concerns. The desired outcome of this study will be to generalize its findings to minority students in high-poverty communities throughout the United States.

Definitions of Key Terms Used in This Study

- CASEL - CASEL is an organization of educators, policy makers, and researchers seeking to advance the practice of school-based SEL.
- CASEL SELect programs - These are well-designed, evidence-based SEL programs that have met the rigorous inclusion criteria for listing in the 2013 CASEL Guide.
- Culture - The Longman Dictionary (online) defines culture in a society as "the beliefs, way of life, art, and customs that are shared and accepted by people in a particular society." In a group, then, the term can mean "the attitudes and beliefs about something

that are shared by a particular group of people or in a particular organization" (retrieved from http://www.ldoceonline.com/Sociology-topic/culture_1).

- Disproportionality - This term refers to the representation of a group in a category that surpasses expectations for that group or differs substantially from the representation of others in that category (Skiba, 2008).
- High-Poverty - This term as found in many studies describes populations in which 40% or more of the sample is considered "low-income." Their status is determined by such measures as eligibility for free or reduced school lunches or attendance at a school designated as Title I.
- Mental Health - Mental health is a state of psychological well-being as opposed to one characterized by mental illness, which, per the Mayo Clinic, refers to "a wide range of mental health conditions—disorders that affect . . . mood, thinking and behavior. Examples . . . include depression, anxiety disorders, schizophrenia, eating disorders and addictive behaviors" (retrieved from http://www.mayoclinic.org/diseases-conditions/mental-illness/basics/definition/con-20033813).
- Meta-analysis - A meta-analysis is a statistical method used to synthesize research findings from a number of studies. A meta-analysis allows researchers to determine if significant trends occur across a variety of studies (DeCoster, 2009).
- Minority - This term refers to anyone who is not single-race white; examples include African Americans, Hispanics, and Asians. (U.S. Census Bureau, 2000).
- Positive Behavior Interventions & Supports (PBIS) - PBIS is defined as "a systems approach for establishing the social culture and individualized behavioral supports

needed for schools to be effective learning environments for all students" (Horner, Sugai, Todd, & Lewis-Palmer, 2005, p. 11).

- Poverty - Poverty may be defined as lack of the usual or socially acceptable amount of money or material possessions. High poverty, as defined above, is an extreme subset of poverty.
- Race - A somewhat ambiguous term, *race* as a social concept refers to a subset of people who share similar and distinct physical characteristics.
- Responsible Decision-Making - The term identifies the ability to properly analyze a situation, which involves more than a superficial knowledge of SEL skills, and requires the use of SEL skills to make safe and appropriate choices across a variety of settings (Domitrovich et al., 2013).
- Rural Region - A rural region is an area outside an urban area with a population density of less than 500 residents per square mile (U.S. Census Bureau, 2000).
- Self-management - This skill denotes a person's ability to control and regulate his or her emotions, thoughts, and behaviors (Domitrovich et al., 2013).
- Social Awareness - Social awareness involves being empathetic and capable of understanding the perspectives of others (Harlacher, 2008).
- Social Emotional Learning (SEL) - As defined by Zins and Elias (2007), SEL is the capacity to recognize and manage emotions, solve problems effectively, and establish positive relationships with others.
- Social Management - It names the ability of children to manage social relationships with peers or adults and to maintain those relationships successfully (Domitrovich et al., 2013).

- Suburban Region - A suburban region is an area outside a principal city and inside an urban area with a density of 500 people per square mile (U.S. Census Bureau, 2000).
- Urban Region - An urban region refers to an area that includes a central city and the surrounding densely settled territory that together have a population of 100,000 or more (U.S. Census Bureau, 2000).

CHAPTER 2

LITERATURE REVIEW

This chapter provides a review of the literature highlighting the needs of minority students living in high poverty communities with academic and/or behavior concerns. First, this chapter will review literature related to the variables of interest such as mental health, race, and poverty. Then, the chapter will introduce and discuss emerging SEL literature in order to provide the reader with more knowledge of well designed, evidence-based SEL programs. In particular, studies from the CASEL Guide that provide evidence for use with minority students in high-poverty communities will be discussed. Additionally, student outcomes pertinent to this study will be reviewed. Also, a rationale will be given to explain why the student outcomes were chosen for this study.

Mental Health, Race, and Poverty as Risk Factors

As discussed in the first chapter, children and youth frequently encounter significant challenges in their school, home, and community settings, which include mental health issues and concerns. Mental health refers to the psychological well-being of an individual. The Mayo Clinic (2015), defines mental health as a state of psychological well-being as opposed to one characterized by mental illness, which includes a wide range of mental health impairments or disorders that negatively affect mood, thinking, and behavior. Children with mental health concerns frequently have a more difficult time being successful in school, manifesting both academic and behavioral challenges. For example, research has noted that children with mental health needs are suspended three times more often than their peers, have poor attendance, and are more likely to drop-out of school between 9th and 12th grade (Skiba et al., 2005). Untreated mental health issues can lead to lower self-esteem, poor physical health, substance abuse, poor academic achievement, poverty, and conflicts with peers (Michael & Crowley, 2002). More

importantly, these data suggest that minority and high-poverty students are at greater risk for experiencing challenges in the school setting (Durlak at al., 2011; Wagner et al., 2005).

Research has consistently demonstrated a correlation between poverty and academic outcomes, with students in poverty experiencing less success in school when compared with their non-low-income, non-minority counterparts both with and without disabilities (Ainsworth-Darnell & Downey, 1998; Bradley & Corwyn, 2002; Evans, 2004; Kataoka, Zhang, and Wells, 2002; Wagner et al., 2005). Poverty may be defined as the lack of the usual or socially acceptable amount of money or material possessions. The Census Bureau uses financial income to determine who is in poverty. If a family's total income is less than the financial threshold determined by the Census Bureau, then the family is considered to be living in poverty. In the school setting, socioeconomic status is determined by measures such as eligibility for free or reduced lunches or the school's determination as qualifying for Title I funding. The U.S. Department of Education (2012) defines Title I as a federal program that provides financial assistance to school systems with high percentages of impoverished children to support and foster their academic achievement. The Federal Government designates Title I schools based on the percent of underprivileged students in attendance. According to the U.S Census Bureau (2000), a larger proportion of these schools are located in high-poverty rural and urban areas.

It is also important to operationally define the term minority. The term minority refers to any individual who is not single-race white and includes African-Americans, Hispanics, Indian, and Asians (U.S Census Bureau, 2000). It is important to understand these terms because minority children who live in poverty are at an increased risk for manifesting behavioral concerns and poor academic achievement (Masi & Cooper, 2006; Skiba et al., 2008). Additionally, these statistics are especially disheartening for African-American students, who

have lower high school graduation rates and higher drop-out rates in grades 9-12 (Stillwell, 2009). Behaviorally, minority students, especially African-American males, are referred for disciplinary infractions at disproportionate rates by comparison to Caucasian students. These negative trends are also reflected in significantly higher rates of suspensions for minority students (Skiba et al., 2011).

The impact of poverty has received attention in the emprical literature (Durlak et al. 2011, Weissberg & Cascarino, 2013, Zins & Elias, 2007). A review of these findings clearly suggests that exposure to poverty plays a pivitol role in shaping outcomes for children and youth. For example, McLeod and Shanahan (1993) provide evidence demonstrating the amount of time spent in poverty is a predictor of mental health for children. The authors used data from the Children of National Longitudinal Survey of Youth to explore the relationship between poverty and children's mental health. The authors found that persistent poverty significantly predicted children's internalizing symptoms and current poverty predicted externalizing symptoms. Reports of unhappiness, depression, dependence, and anxiety increased as the length of time children spent in poverty increased. Stressors such as poor nutrition, unsafe living conditions, and high rates of crime were cited as primary contributors to the negative outcomes experienced by children from these communities.

A review of the literature suggests that not only are children living in poverty at higher risk for mental health and behavioral problems, but they are less likely to report them or seek service. A recent study by Cokley et al. (2014) revealed approximately 4.3 million or 39% of African-American children under the age of 18 are living in poverty. This study provides support demonstrating youth and children living in high-poverty areas are more likely to experience stressors and often have insufficient resources to adequately meet their mental health

needs. In addition, research by Samaan (2000) also found children who live in poverty are more likely to experience higher rates of internalizing symptoms such as anxiety, depression, or withdrawal. Taken together, these findings illustrate that children who live in persistent poverty are at higher risk for mental illness, and in greater need of mental health treatment.

Chow et al. (2003) noted that minority children from high-poverty communities were more likely to be referred for mental health treatment through social services, child protective services, or the child welfare system. Regardless of poverty level, minorities were less likely than Caucasians to seek, initiate, or refer themselves for treatment on their own accord. Further, minorities were at higher risk for involuntary commitment and more likely to be referred by law enforcement. Access to primary care was also an issue for minorities who were more likely to use emergency services in comparison to their white counterparts. These findings suggest the use of mental health services with minorities are more forceful (involuntary treatment or hospitalization) and less voluntary (outpatient services). According to Ayalon and Alivdrez (2010), when minorities seek mental health services, they tend to have fewer visits and are less likely to follow treatment recommendations in comparison to Whites. Moreover, prior research provides evidence that limited access to preventive services may be contributing to higher rates of hospitalization, longer lengths of stays in inpatient settings, and less treatment through outpatient settings (Ayalon & Alvidrez, 2010; Chow et al., 2003; Hines-Martin, Usui, Kim, & Furr, 2004). Taken together, these findings illustrate that treatment outcomes for minorities are less favorable than Whites.

A robust body of literature has indicated that minority children living in high-poverty communities encounter significant stressors, which predispose them to greater risk for mental health problems, substance abuse issues, suspension or expulsion, school dropout,

criminalization, and incarceration (Chow et al., 2003, Cokley, 2014; Samaan, 2000; Skiba et al., 2011; Stillwell, 2009). These students are also more likely to be suspended or expelled for violating school policies. Students who are removed from school are also at greater risk of entering into the juvenile justice system (Skiba, 2008). This is referred to as the school-to-prison pipeline. The school-to-prison pipeline can be described as the link between educational exclusion and the criminalization of minority children (Wilson, 2014). These children are often suspended or expelled from school as a result of zero tolerances policies. Under zero tolerance policies, students may be suspended or expelled for violating school rules such as possession of firearms, drugs (tobacco, alcohol, controlled substances, etc.), fighting, defiance, and disruptive behavior. Such policies are strict, uncompromising, result in automatic punishments, and tend to increase rates of disproportionality (Skiba, 2004).

Again, the removal of minority students from classrooms for disciplinary infractions often results in negative effects on student outcomes. Research has shown that students who are excluded from school are at higher risk for failure, grade retention, and dropping out of school (Stillwell, 2009; Skiba 2008). Students who have been excluded from school have lower scores on standardized and state assessments. Also, students that have been removed from school due to suspension or expulsion are more likely to have poorer academic performance due to missed instruction. These statistics are especially disheartening for African-American males, who are referred for disciplinary infractions at disproportionate rates and more likely to receive office discipline referrals (ODRs) in comparison to Caucasian students. Additionally, African-American males have lower high school graduation rates and higher drop-out rates in grades 9-12 (Stillwell, 2009). Moreover, African-American males have historically been suspended and expelled at significantly higher rates than their counterparts (Skiba et al., 2005). Despite these

alarming statistics, the mental health needs of minority students and especially African-American males, are often left untreated. Taken together, these students are more likely to receive ODRs, be removed from school, are at increased risk of dropping out of school and entering into the juvenile justice system. Therefore, the need exists for evidence-based mental-health interventions, which support the social and emotional well-being of minority students from high-poverty communities.

History of SEL

The history of Social Emotional Learning (SEL) dates back to the late 1960s. James Comer, is cited as the founder of The School Development Program at Yale School of Medicine Child Study Center. His program focused on children who were African-American and in elementary schools located in New Haven, Connecticut. The students at the New Haven school had low attendance rates and performed poorly academically. The New Haven school in collaboration with The School Development Program created a collaborative team of educators and mental health professionals tasked with improving academic performance, attendance rates, and decreased problem behavior for this group of children. The early efforts of these researchers have been credited with establishing the foundation for what would eventually evolve into the contemporary SEL framework. Roger Weissberg, a professor of psychology and Timothy Shriver, a graduate from Yale, were key contributors in the advancement of SEL. Shriver was a pivotal figure in coordinating the district-wide SEL program in New Haven, Connecticut. Shriver, along with Weissberg, Daniel Goleman, and Eileen Rockefeller Growald are credited with officially founding CASEL in 1994. Since the inception of CASEL in 1994, the organization has advanced SEL research, promoted sound educational practices, and even

published a comprehensive review of SEL programs. The organization has also provided a working definition of SEL.

SEL can be operationally defined as "the capacity to recognize and manage emotions, solve problems effectively, and establish positive relationships with others, competencies that clearly are essential for all students" (Zins & Elias, 2007, p.1). As research and practices in child development evolved, CASEL was created to advance SEL programming to prevent problem behaviors and drug use in schools, to promote healthy choices, and to strengthen school-community collaborations (CASEL, 2011).

How CASEL Selects and Makes Recommendations

With the proliferation of empirical studies, CASEL and its team of researchers has identified high-quality and evidence-based programs that effectively support SEL in schools. A resource designed specifically for the identification of well-designed evidence-based programs is the 2013 CASEL Guide. The authors of the 2013 CASEL Guide evaluated the quality of classroom-based SEL programs using a systematic framework. By using a systematic framework, the researchers rated and then identified well-designed, evidence-based SEL programs. Findings from the Guide may be used to provide educators, researchers, or policy makers with useful information for selecting and implementing SEL programs. Authors of the CASEL Guide first established inclusion criteria to evaluate if a program was well-designed or evidence-based.

As mentioned, the authors of the CASEL Guide began the review process by first developing rigorous standards for inclusion. In order to meet inclusion criteria, programs had to target all five areas of social and emotional competence including: self-awareness, social awareness, self-management, social management, and responsible decision making. In addition

to targeting the five areas of social and emotional competence, programs also had to be designed for all students to easily use inside the classroom setting. To be eligible, the potential programs had to be well-designed, deliver high-quality training and other implementation supports, and be evidence-based. Programs were considered well-designed if they addressed all five areas of social and emotional competence and provided opportunities to apply learned cognitive, affective, and behavioral skills. SEL programs are also considered well-designed if they offered trainings to staff members prior to implementation and provided continuous support. Further, these programs are considered well-designed and high-quality only if its study had a control group, used pretest-posttest measures, and taught explicit SEL skills. After establishing the inclusion criterion, the researchers evaluated potential programs across approximately 84 studies.

The authors reviewed, identified, and then selected well-designed evidence-based SEL programs from national databases such as The What Works Clearinghouse, The National Registry of Evidence-Based Programs and Practices, and Blueprints for Violence Prevention Model and Promising Programs. Next, all selected programs were examined by trained coders. The coders were trained in the coding system by senior SEL researchers. Once trained, the coders completed an intensive content analysis for each program that was reviewed. This consisted of reviewing program materials for preschool, first-grade, fourth-grade, and additional grades as necessary. To establish reliability, all coders had to maintain the same level of agreement (85%) in coding. After the rigorous inclusion criterion was applied and the coders completed the content analysis, 23 programs were designated as CASEL SELect.

A variety of studies provided evidence that implementation of CASEL SELect programs produced significant positive effectiveness ratings and effect sizes, which offer evidence in support of these interventions (Battistich, Schaps, & Wilson, 2004; Domitrovich, Cortes, &

Greenberg, 2007; Flay, 2014; Jones, Brown, & Aber, 2011; O'Neill, Clark, & Jones, 2011; Schonert-Reichl & Lawlor, 2010). Moreover, students in the treatment groups had positive gains in improvement in comparison to students in control groups at post-test treatment. These findings suggest that SEL programs may effectively increase knowledge of SEL skills and decrease conduct problems such as bullying, harassment, truancy, and physical aggression for students in intervention groups.

CASEL SELect Recommended Programs

In its final form, the 2013 CASEL Guide provided evidence of highly effective, well-designed evidence-based SEL programs. Twenty-two programs were identified and included in the CASEL Guide. These programs were supported by research findings that were methodologically sound, included a comparison group, pretest-posttest measures of behavior, taught explicit SEL skills, and delivered high-quality training. The vetting process yielded a few programs being identified as meeting expectations for best practice in the field. These programs were designated as the CASEL SELect programs. CASEL SELect programs have positive effectiveness ratings, medium to large effect sizes that provide evidence supporting the intervention, and positive gains in improvement post intervention (Battistich, Schaps, & Wilson, 2004; Domitrovich, Cortes, & Greenberg, 2007; Flay, 2014; Jones, Brown, & Aber, 2011; O'Neill, Clark, & Jones, 2011; Schonert-Reichl & Lawlor, 2010). These findings suggest that SEL programs may effectively increase knowledge of SEL skills and decrease conduct problems such as bullying, harassment, truancy, and physical aggression for students in intervention groups.

An initial review of the CASEL Guide revealed a number of interventions that reported positive outcomes for minority students from high-poverty areas. Moreover, these interventions

improved or increased student achievement, positive social behavior, social and emotional knowledge, and school climate, and/or, concurrently, reduced aggression, emotional distress, and problem behaviors for minority students in high poverty communities (Barnett et al., 2008; Hall & Bacon, 2005; Hennessy, 2007; Lynch, Geller, & Schmidt, 2004; Pickens, 2009). Implementation of these interventions produced significant positive effectiveness ratings and effect sizes, which offer evidence in support of these programs. Moreover, students in the treatment groups had positive gains in improvement in comparison to students in control groups at post-treatment.

The next section will discuss and review CASEL SELect programs that were used to define the literature search. In particular, this section will review and examine the extent to which SEL programming meets the needs and improves both behavioral and academic outcomes for minority students from high-poverty communities. Each CASEL SELect program will be introduced, followed by a review of all the supporting studies, see Table I. Moreover, this review will not be limited to those studies included in the final meta-analysis.

4Rs Program Description (Reading, Writing, Respect, and Resolution)

4Rs is a program that provides sequential, interactive lessons to support and develop SEL skills (Jones, Brown, Hoglund, & Aber, 2010). In particular, the program teaches students to understand and manage feelings, develop empathy, how to be assertive, and how to solve conflict peacefully. The program covers pre-kindergarten through eighth grade, has on average 35 sessions per academic school year, and is designed to build upon academic skills. The 4Rs program targets social and emotional skill performance. The 4Rs program provides extensive opportunities to practice social and emotional skills, and for use within the classroom, school-

wide and family setting. The 4Rs program also provides tools for monitoring implementation and measuring student behavior.

The 4Rs program has provided promising findings for use with minority students from high poverty communities (Jones et al., 2010; Jones et al., 2011). A randomized control study tracked 1,184 third and fourth grade students in an urban setting for three years. Students in the study were majority African-American and Latino children and youth. Findings from this evaluation revealed the 4Rs program improved student outcomes. More specifically, students who received the intervention had improvements in standardized test scores, exhibited an increase in favorable behavior, and had a reduction in reported problem behavior (2011). Another benefit of the 4Rs program is that it has demonstrated positive developmental outcomes in the general population of students and also among students at highest behavioral risk.

Table 1
CASEL SELect Summary of Programs

SEL Program	Grades	# of Sessions	Race/ Ethnicity	%Low SES	Population	Outcomes
4Rs	3-4	35 sessions	AA, Hispanic	61%	Urban	IAP, IPSB, RCP, RED
Competent Kids	K-5	35 sessions	MM	52-63%	Urban	IAP
HighScope	PreK	n/a	AA	100%	Urban	IAP, IPSB, RCP, RED
PATHS	PreK-6	40-52 per grade	AA	55%	Rural, Urban	IAP, IPSB, RCP, RED
I Can Problem Solve	PreK-5	59-83 per grade	AA, Hispanic	91%	Rural, Urban	IPSB, RCP
Positive Action	PreK-12	140 lessons	AA, Asian Pacific, Hispanic	56-90%	Urban	IAP, RCP
Second Step	PreK-8	22-28 weekly lessons	MM	46-74%	Suburban, Urban	IPSB, RCP, RED
The Incredible Years	Prek-2	64 lessons	MM	56-84%	Not Reported	IPSB, RCP
Resolving Conflict Creatively Program	PreK-8	16 lessons per grade	AA, Hispanic	86%	Urban	RCP, RED

Note: AA = African-American, MM = Multiple minority; U = Urban, R = Rural, S = Suburban, NR = Not reported. . IAP = Increased Academic Performance, IPBS = Improved Positive Social Behavior, RCP = Reduced Conduct Problems, RED = Reduced Emotional Distress.

A second study of the 4Rs program provides additional empirical support for its use with minority students from high poverty communities (Jones, Brown, Hoglund, & Aber, 2010). In this study, Jones and colleagues studied the effects of the 4Rs program on individual students across several domains of functioning after one academic school year. This randomized study employed an experimental design and followed third grade students in an ethnically diverse, urban elementary school. Students in this study were 45.6% Hispanic, 41.1% African-American, 13.3% identified as Other and 61% of participants received free or reduced lunch. There were main effects after one year on two outcomes: children's self-reports of hostile attributional biases

and depression. Children in the intervention group reported lower levels of symptoms related to depression as well as hostile attributional bias in comparison to the control group. Taken together, these studies provide support of the 4Rs program, which has a positive impact on minority students' social-cognitive processes (Jones, Brown, Hoglund, & Aber, 2010; Jones et al., 2011).

PATHS Program Description

The Promoting Alternative Thinking Strategies (PATHS) program promotes peaceful conflict resolution, emotion regulation, empathy, and responsible decision-making" (Domitrovich, Durlak, Goren, & Weissberg, 2013, p.53). This program is for students in pre-kindergarten through sixth grade and is designed to prevent or reduce problem behavior and improves social emotional competence. As such, the targeted outcomes of this program include enhanced academic achievement, improved behavior outcomes, and reductions in social-emotional stress. Further evaluation outcomes included improved academic behaviors, improved climate, and improved social and emotional attitudes/ skills. The PATHS program provides broad opportunities (40-52 lessons per year per grade level) to practice SEL related skills, across both school and family settings.

The PATHS program offers empirical support for use with minority students from high-poverty communities across multiple studies (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Domitrovich et al., 2013). In a large scale study of 2,397 participants, Domitrovich and colleagues found that children who received the intervention had significantly lower anger attribution bias scores at posttest in comparison to children that participated in the control group. The Conduct Problems Research Group (1999) found that use of the PATHS curriculum effectively improved emotional understanding and regulation of its

participants. More specifically, use of the program demonstrated significant effects with a high-risk sample of 845 children who were assigned to the intervention or control group. Participants in the study were identified as 51% African-American, 47% European-American, and 69% male. The percentage of students in the study receiving free or reduced lunch was 55%, which accounted for the majority of students in the study. Findings yielded significant effects on classroom behavior for children receiving the intervention. In particular, students had significant reductions in aggressive behavior and showed improvement with on-task behavior and with self-control. The PATHS curriculum is also effective with at-risk pre-school students, according to findings from a randomized clinical trial with a wait-list control group (Conduct Problems Prevention Research Group, 1999; Conduct Problems Prevention Research Group, 2010; Domitrovich, Cortes, & Greenberg, 2007).

Participants in this study included 246 pre-school students in Head Start classrooms. Moreover, 64% of the students in this study were disadvantaged or from a high-poverty community based on their participation in the Head Start program. Results from the study demonstrated that the PATHS curriculum increased children's emotional knowledge and significantly reduced anger attribution bias for students in the intervention group. Students who participated in the control group had improved academic performance, increased positive social behavior, reduced conduct problems, and reduced emotional distress. Taken together, the results from the study provided evidence that Head Start teachers can effectively provide an SEL intervention such as PATHS.

I Can Problem Solve Program Description

I Can Problem Solve is a SEL curriculum developed by Shure and colleagues (1979). This curriculum is a universal prevention program, intended for use with students in pre-

kindergarten through fifth grade, which focuses on children's cognitive processes and problem-solving skills rather than on specific behaviors. Lessons are approximately 20 minutes and teach students explicit SEL skills such as developing self-awareness, making responsible decisions, and controlling emotions. The targeted outcomes of this program include improvements in pro-social behavior, reduced conduct problems, and reduced emotional distress. Additional evaluation outcomes of this program include improved social and emotional skill performance.

The I Can Problem Solve curriculum has been evaluated across several studies and has demonstrated positive effectiveness with minorities (Boyle & Hassett-Walker, 2008; Kumpfer, Alvarado, Tait, & Turner, 2002). More specifically, Boyle and Hassett-Walker examined distinct aspects of aggression, specifically relational and overt aggression in kindergarten and first grade classrooms with a majority Hispanic population. Schools were randomly assigned to intervention or control classrooms. Over 80% of participants in both the control and intervention schools were identified as Hispanic. The school district had one of the lowest per capita incomes in the state. Almost 25% of the districts children were living in poverty and 91% of the participants in the study received free or reduced lunch.

Teachers delivered instruction from the I Can Problem Solve curriculum twice a week for four months. Students' behavior was rated by teachers at two times in the instruction and control schools. In relation to control students, those who received the intervention showed greater improvement in behavior. Further, students who received two years of the intervention demonstrated an increase (from a 12% effect size to 19% effect size) in prosocial behavior and a decrease in aggressive behavior and conduct problems. These findings suggest that the I Can Problem Solve curriculum may be effective for use with minority students from high poverty

communities. An intervention that also targets influences of behavior is the Positive Action (PA) program.

Positive Action Program Description

The Positive Action (PA) program is a comprehensive school-based program designed to prevent substance use, violent behaviors, and sexual activity among students in pre-k through twelfth grade (Li et al., 2011). The PA program was developed to encourage a strong sense of ones-self and to improve overall well-being. This program stresses "effective self-management, social skills, character, and mental health, as well as skills for setting and achieving goals. The PA classroom curriculum contains separate sets of lessons (140 lessons) for use each year" (Domitrovich et al., 2013, p.55). The targeted evaluation outcomes of the PA program include improved academic performance, reduced conduct problems, and reduced emotional distress. Additional evaluation outcomes include improved academic behaviors, and substance abuse prevention.

This program has been evaluated in large (i.e., n = 1,714) trials with students in kindergarten through fifth grade and across multiple studies (Beets et al., 2009; Flay, 2014; Lewis et al., n. d.; Li et al., 2011; Snyder et al., 2010). Findings from these studies showed that the PA program improved academic performance and reduced conduct problems. These findings also suggest the PA program may be used to effectively teach minority children from high-poverty communities SEL skills and character development.

Flay (2014) collected data from an evaluation of the PA program across 14 Chicago Public Schools that were randomly assigned to an intervention or control group. Approximately 54% of the 1,170 children were African-American, 31% Hispanic, 8% Caucasian, 4% Asian, and 3% listed as Other. Additionally, 90% of the children in this study received free or reduced

lunch. Confirmatory factor analysis demonstrated consistency with the conceptualization of SEL related skills. Results of this study provided promising support for the use of the PA program with minority students from high-poverty communities. In particular, students who participated in the PA program had increases in academic achievement and reductions in conduct problems.

A second study evaluating the effectiveness of the PA program provides further empirical support of its use with minority students from high-poverty communities (Beets et al., 2009). Beets and colleagues used a randomized-control design to measure the usefulness of the PA program in a 4-year trial with Hawaiian students. Students attending intervention schools had significantly lower reports of risk-related behaviors such as substance use and violence. The authors of the study provided evidence that a comprehensive school-based program had a significant effect on student behavior, increased academic achievement and reduced problem behaviors. Li and colleagues sought to replicate these findings using a similar design as in the Hawaii trial (Li et al., 2011). The researchers investigated the effectiveness of PA for reducing negative behaviors with elementary school students in one of the largest districts located in inner city, Chicago, Illinois. The final sample of students that participated in the study was 46% African-American, 27% Hispanic, 17% mixed, 7% white, and 3% Asian. Additionally, 75% of the students were eligible for free or reduced lunch.

Findings from the Li et al. study extended the body of evidence supporting the effectiveness of the PA program with minority students from high poverty communities. Students in the control group had improvement in academic performance, reductions in conduct problems, and reductions in emotional distress. Also, students receiving the PA intervention reported less lifetime substance use, lifetime violence, bullying behaviors, and disruptive behaviors three years after receiving PA (Li et al., 2011). However, the authors of the study

indicated, "it takes a much longer period of time for many low-performing schools to fully adopt and implement a comprehensive program than it did previously and, indeed, that a high level of program fidelity may be a largely unobtainable goal for many schools" (Li et al., 2011, p.199). This means that under-performing schools may need up to seven years to fully implement a comprehensive program and to see sizable benefits from it. This demonstrates the critical need as well as urgency for future research of effective and well-designed SEL programs for minority students in high-poverty areas.

Snyder et al. (2010) reported that previous quasi-experimental studies provided initial evidence of the effects of the PA program on behavior and academic achievement; however these findings needed confirmation utilizing a randomized design. As such, Snyder and colleagues applied a matched-pair, cluster-randomized, controlled design that evaluated the effects of PA on indicators of academic achievement, absenteeism, and disciplinary outcomes. The final samples of schools in the study were at higher risk based on percentage of students receiving free or reduced lunch (56% of students at pre-test). The sample was majority minority, racially diverse and representative of the larger population. Results of the study demonstrated moderate to large effect sizes. More specifically, schools with students that received the PA intervention scored significantly better than control schools in reading and math. Also, schools with students receiving the PA intervention had significantly lower rates of absenteeism and suspensions at 1-year post trial.

According to the authors, “these findings were especially noteworthy because many of the schools were in low-income areas and had a high level of racial/ethnic diversity” (Snyder et al., 2011, p.47). The findings of this study provide evidence that the PA program not only decreases absenteeism and disciplinary outcomes (Beets et al., 2009; Li et al., 2009), but also,

positively impacts student achievement with minority students in high-poverty communities. A study by Lewis et al. also evaluated the effects of the PA program with low-income, urban youth using a matched-pair, cluster-randomized control (Lewis et al., n.d.). Students were selected from Chicago Public Schools over a 6-year period with outcomes assessed for a cohort of students that were followed since the third grade. Students reported their beliefs on disruptive and violent behaviors. School-wide data on disciplinary referrals and suspension data were used. Also, parent reports of youth bullying behaviors were collected. Results of the study revealed that students who received the PA program reported a lower rate of problem behaviors in comparison to students in the control group. These findings indicated positive program effects on disciplinary referrals and suspensions. When taken together, empirical evidence supports the use of the PA program, in particular, with minority students from high-poverty communities (Beets et al., 2009; Flay, 2014; Lewis et al., n. d.; Li et al., 2011; Snyder et al., 2010).

Competent Kids Program Description

A program that has demonstrated positive findings in an urban setting is Competent Kids (Linares et al., 2005). The purpose of the Competent Kids curriculum is to promote essential SEL skills in kindergarten through fifth grade students. The curriculum is taught to students across thirty-five sessions and the targeted outcomes include academic performance and pro-social behavior. This program is unique because it has a family-systems component, which promotes family-school collaboration and also has activities to support newly learned skills within the home setting. The targeted outcome of this program is improved academic performance.

This program was evaluated with students from diverse multiethnic backgrounds and was predominantly minority (19% Hispanic, 19% Asian, 16% Arabic, and 9% described as Other) in

comparison to only 16% White. Students in the control (52%) and intervention (63%) were similar in regard to eligibility for free or reduced lunch. The study used a quasi-experimental design in order to examine the effects of the intervention and was implemented at an urban school. Findings from this study demonstrated that students who received the intervention had higher reports of self-efficacy beliefs related to learning, and demonstrated higher pro-social problem solving skills. Students who participated in the program also had improvements in academic performance. Based on these results, the Competent Kids program appeared to improve the social and emotional development of minority students in an urban setting.

Second Step Program Description

Second Step is a SEL program that explicitly teaches skills for controlling emotions, building friendships, solving problems effectively, and developing empathy. The curriculum uses four essential strategies to reinforce the development of SEL skill development; brain builder games, weekly activities, reinforcing activities, and reinforcement at home. The curriculum is taught to students in pre-k through eighth grade across 22-28 weekly lessons. The Second Step curriculum is designed to teach children skills that will decrease aggressive and impulsive behavior and improve pro-social behavior of its participants (Grossman et al., 1997). As such, the targeted outcomes of the program are improved pro-social behavior, reduced conduct problems, and reduced emotional distress. Additional evaluation outcomes of this program include improved social and emotional skill performance

The curriculum has been widely used across the nation and has been evaluated across multiple quasi-experimental and randomized studies. McMahon and Washburn (2003) were the first researchers to evaluate the Second Step curriculum with minority students from high-poverty areas. McMahon and Washburn evaluated the effectiveness of the program with

minority students in 5th - 8th grade. These students lived in housing developments in urban inner city Chicago, Illinois. The findings revealed positive gains in self-reported knowledge and skills for students who participated in the study. However, the study was limited due to lack of a control group and missing data. As such, it may be possible that the positive improvements were a result of alternative influences and not the Second Step curriculum. Cooke et al. sought to enhance the effectiveness of Second Step by widening the scope of the program and addressing some of the reasons for lack of success in the past (Cooke et al., 2007).

The focus of the study was on implementing Second Step with high fidelity, staff support, community involvement, and intensive support. In the Cooke et al. study, Second Step was evaluated with 3rd and 4th grade students in Meriden, Connecticut and 46% of the students were eligible for free or reduced lunch. Additionally, the sample was representative of the student population. More specifically, 53.2% of the students in the study were minorities. Students participating in the study demonstrated significant improvements in "positive approach/coping, caring/cooperative behavior, suppression of aggression, and consideration of others" (Cooke et al., 2007, pg. 102). Importantly, students in the study that made improvements in pro-social variables had correlations with declines in negative variables. Despite these positive findings, students showed significant increases in angry and aggressive behaviors during the school year and had no significant change in fighting behavior. Cook et al. reasoned that changes in aggressive behavior were not significant potentially as a result of a "natural increase in levels of aggression among students over the course of the school year" (Cooke et al., 2007, pg. 108). A major limitation of this study is that it did not include a control group.

Previous studies evaluating the effectiveness of Second Step had methodological shortcomings and lacked the use of control groups to make comparisons (Cook et al., 2007,

McMahon, et al., 2000, McMahon & Washington, 2003). A more recent study evaluated the effectiveness of the Second Step program with middle school students across Illinois and Kansas (Espelage, Low, Polanin, & Brown, 2013). This study had a nested cohort of sixth graders and was a longitudinal study assessing the 1-year impact of the program on its participants. Further, the study employed a matched-pair, randomized-control design to evaluate the effectiveness of the Second Step program. African-American students accounted for 26% of the sample, Hispanics 34%, bi-racial 15%, and White students were 25% of the sample. Additionally, 74% of the sample were eligible for free or reduced lunch. Results from the study revealed that minority students who received the Second Step program reported significantly lower levels of physical aggression at post-test in comparison to participants in the control group. More specifically, students who participated in the control group had increases in positive social behavior, reduced conduct problems, and reduced emotional distress. Even nine months after baseline, group differences between intervention and control remained statistically significant even while baseline differences were controlled for across outcome measures. The findings are encouraging for support of Second Step with minority students in high-poverty areas.

HighScope Program Description

HighScope is a system of educational teaching practices created to enhance the school and learning environment. HighScope emphasizes active participatory learning, positive interactions between adult and child, optimal learning environments, and establishment of daily routines (Schweinhart & Weikart, 1980). The program is intended for pre-k students. A positive feature of HighScope is that it provides extensive strategies and recommendations to support the development of diverse student populations. In addition, the program encourages teachers to make home visits to their students and to incorporate culturally relevant materials and activities

into the classroom. Targeted outcomes of this program include improved academic performance, increased pro-social behavior, conduct problems, and emotional distress. This program also evaluates the following outcomes; improved academic behaviors, improved adult economic stability, and reduced adult criminal activity.

This program has been evaluated with a sample of preschool student's ages 3-4, considered high-risk based on low socio-economic status and low IQ scores that ranged from 60 to 88 (Farnworth, Schweinhart, & Berrueta-Clement, 1985). These students were considered at high risk for school failure and involvement in delinquency. Moreover, participants included 123 African-American children from low socioeconomic levels. Of these students, 42% of their parents were unemployed and 50% received welfare assistance. Results from the analysis demonstrated that Low IQ and achievement scores were not significant predictors of delinquent involvement by age 15. Students who participated in the control group improved academic performance, increased positive social behavior, reduced conduct problems, and reduced emotional distress. The authors also found that "preschool intervention affects more than test performance, affecting delinquency involvement through such factors as school placement and students' attitudes toward school" (Farnworth et al., 1985, p. 461). Muennig and colleagues extended this research by investigating if the High Scope program improved adult health outcomes and behavioral risk factors (Muennig, Schweinhart, Montie, Neidell, 2009).

To investigate the impact of High Scope, the authors used a randomized controlled trial to evaluate if the program improved adult health outcomes and behavioral risk factors. For inclusion in the study, children were required to be of low socioeconomic status, which was based on characteristics such as parent income level, education, and occupation. The sample included 123 African-American children that were all of low socioeconomic status. In addition,

these children had IQ's between 70 and 85, according to scores on the Stanford-Binet. Then, participants were randomized to the intervention or control group. Children were continuously followed through until participants were 40 years old. Findings from the study showed that children who received the intervention were more likely to complete schooling, have a stable family environment, have insurance, and to earn more than those in the control group. Lastly, findings showed that use of preventive health care services were related to effects of participation in the program. These results show that preventive programs such as High Scope are promising for minority students in high-poverty areas and may improve academic performance, increase positive social behavior, reduce conduct problems, and reduce emotional distress (Muennig et al., 2009).

The Incredible Years Series Program Description

The Incredible Years Series is composed of three curricula for children, school staff, and parents. The curriculum for students targets pre-k through second graders and focuses on the development of SEL skills such as identifying and recognizing emotions, managing anger, effectively solving problems, and building positive relationships. The curricula is taught across 64 lessons. This program targets the following outcomes; increased pro-social behavior and reduced conduct problems. Additionally, this program evaluated the following outcomes; improved climate, improved social and emotional skill performance.

The Incredible Years curricula has been evaluated over the past 20 years in six randomized control group studies (Webster-Stratton, 2001). Further, the series has been evaluated as treatment programs for children that have been diagnosed with Oppositional Defiant Disorder and Conduct Disorder. The targeted population includes teachers of high-risk and average children and parents of children with behavior concerns. This program is unique in that

it is culturally sensitive and is even available in multi-ethnic videotapes and puppets. Webster-Stratton and colleagues studied the effectiveness of parent and teacher training as a prevention program with Head Start teachers, parents, and their children (Webster-Stratton, Reid, & Hammond, 2001). Participants were randomly assigned to the intervention or control condition, which was the regular Head Start program. Minority students represented 63% of the sample. Also, 84% of the total sample was on welfare, which illustrates the majority of families participating in this study were socioeconomically disadvantaged.

The dependent variable was teacher and parent ratings of child behavior as well as independent observations in both the home and school settings. Findings showed that mothers in the intervention group had significantly lower negative parenting and higher positive parenting scores than mothers in the control group. Additionally, children that received the intervention had significantly fewer conduct problems at school in comparison to children in the control group. Another significant finding was that participants at highest-risk who received the intervention had more clinically significant reductions in negative behaviors than high-risk children in the control group. More importantly, effects from use of the intervention were maintained at 1-year follow-up. This study revealed that child conduct problems were significantly reduced for students that received the intervention. In particular, observed aggressive and noncompliant behaviors were significantly reduced. According to the authors, findings show “the importance of training and supporting teachers as a relatively cost-effective method of improving social outcomes for children and preparing them for kindergarten" (Webster-Stratton, Reid, & Hammond, 2001, p. 298). Also, the results from this study indicate that this intervention is effective with minority students in high-poverty communities.

Webster-Stratton, Reid, and Stoolmiller (2008) used a randomized trial to evaluate the Incredible Years Teacher Classroom Management and Child Social and Emotion curriculum, which is referred to as Dinosaur School. This curriculum was designed as a universal prevention program for students in Head Start through first grade to "promote children's social competence, emotional self- regulation (e.g., engagement with classroom activities, persistence, problem solving, anger control), and school behavior (e.g., following teacher directions, cooperation)" Webster-Stratton et al., 2008, p. 476). For the purpose of the study, culturally diverse Head Start programs and low-income elementary schools were randomly assigned to intervention or control conditions. All participants in the intervention group received the Incredible Years curriculum (Dinosaur School).

Teachers in the intervention were found to use better classroom management strategies. Students in the intervention group also exhibited more social competence and emotional self-regulation than those in the control group. This study provides evidence that the Incredible Years intervention is effective at improving school protective factors and reducing risk factors encountered by students in high-poverty communities. According to the authors, this program is similar to the PATHS curriculum because it focused on pre-school and kindergarten minority students in high-poverty communities. Moreover, both the PATHS and Incredible Years curricula showed comparable findings as it relates to increased social emotional knowledge and enhanced problem-solving skills (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007). Additionally, a strength of this study was the use of classroom observations, which indicated the intervention improved teacher classroom management skills and a reduction in student's conduct problems. The authors indicated that future research should also include parent ratings of their child's behavior. Therefore. Reid and colleagues conducted

the first evaluation of the parent program. Schools were randomly assigned matched pairs either to the intervention or control conditions. All children in intervention schools received the classroom intervention. Some children were randomly assigned to receive the classroom intervention and the parent training. A primary goal of the classroom intervention is to improve students' ability to solve problems reasonably and to properly regulate their emotions (Reid, Webster-Stratton, & Hammond, 2007). Additionally, the parent training portion of the program sought to equip parents with the necessary skills to teach their children to how problem solve, handle emotions, and make responsible decisions.

Fifty-six percent of students in the intervention group received free or reduced lunch. Similarly, 58% of students in the control group also received free or reduced lunch. The sample was diverse (20% Latino, 14% African-American, 14% Asian, 14% Minority and 38% Caucasian). Results showed that mothers of children in the intervention group (parent training and classroom intervention) reported fewer externalizing problems and more emotional regulation in comparison to children in the control condition or classroom intervention alone. According to the authors, findings from the study suggest the parent program was beneficial for minority students in high-poverty areas. More specifically, evidence was provided demonstrating the positive impact of parent training in addition to classroom interventions. According to teachers, mothers in the other conditions were less involved than mothers in the combined conditions. Lastly, the authors indicated that involving parent intervention is essential for shifting key protective factors. These protective factors included parental involvement and behavior of parent, which were all identified as key factors when developing school-based prevention programs for minority students in high-poverty communities (Reid et al., 2007).

Resolving Conflict Peacefully Program Description

The Resolving Conflict Peacefully (RCP) is a universal, school-based intervention aimed at violence prevention for students in pre-k through eighth grade (Aber et al., 1998). A primary goal of the RCP is to address stereotypes and racial biases. Students receive 16 lessons per grade level, which focus on relationship building, understanding feelings, building empathy, managing emotions, addressing stereotypes, addressing biases, and being socially responsible. The 16 lessons that students receive teach and emphasize relationship building, understanding feelings, building empathy, managing emotions, and being socially responsible. This intervention has a peer mediation and family aspect, which is essential to implementation of the program. The targeted outcomes include reduced conduct problems and reduced emotional distress.

RCP has been evaluated in two large (n = 11,160) randomized control trials that followed participants for two years (Aber et al., 2003). The objectives of the program were to make children aware of their choices and then to make better choices. Also, lessons were aimed to teach children to respect their own and the culture of others. A quasi-experimental design was used to evaluate children's social-emotional developmental trajectories across a two-year span. Additionally, the authors investigated if the trajectories differed based on demographic subgroups. Based on inclusion criteria for the study, 11, 160 students participated in the study. The sample was 40% African-American, 41% Hispanic, 14% Caucasian, and 5% identified as other. Approximately 86% of the participants received free or reduced lunch. Findings from the study provided evidence that between the ages of 8 and 9, participants experienced significant acceleration in hostile attribution bias or deceleration in competent interpersonal negotiation strategies. Findings indicated that within-group differences in trajectories toward violence were found with minority students in high-poverty urban elementary schools. Children demonstrated

positive changes in their social-emotional development trajectories and were less likely to remain on a trajectory towards aggression and violence. Moreover, these students had reductions in conduct problems and reductions emotional distress. Future research of this curriculum should randomly assign participants to either a treatment or control condition. Next, the student outcomes outlined by CASEL will be discussed.

Measuring Student Outcomes

As previously discussed, CASEL outlined specific outcomes related to SEL programs. These outcomes are associated with the core SEL competencies; self-awareness, self-management, social-awareness, relationship skills, and responsible decision-making skills. Students who participated in quality evidence-based SEL programs reported improvements with pro-social behavior and academic performance, decreased conduct problems, and reduced emotional distress (CASEL, 2011; Weissberg & Cascarino, 2013). Moreover, achievement scores significantly increased when compared to students who did not receive SEL instruction. Additionally, students who received SEL instruction were more motivated to learn, had a deeper commitment to school, and exhibited better classroom behavior. Further, these students demonstrated decreases in disruptive class behavior, non-compliance, delinquency, forms of aggression, and disciplinary infractions. Students participating in SEL programs also had fewer reports of internalizing behaviors such as depression, stress, anxiety, and social withdrawal. Durlak and colleagues (2011) completed the first large scale meta-analysis of school based SEL programs to promote SEL development and to investigate the impact of these programs across a variety of student outcomes.

Durlak's meta-analysis provided evidence supporting the impact and benefit of SEL programs. Durlak's study is relevant to the proposed dissertation because it provides support for

the proposed methodology. By reviewing this body of work by Durlak et al., it will provide a rationale for the selection of student outcomes in the current study. The study included 213 experimental-control group studies of students in grades K-12 who participated in SEL programs. This allowed Durlak et al. to explore effects of SEL programs across multiple student outcomes. The authors of the meta-analysis explored six student outcomes: social and emotional skills, attitude towards self and others, positive social behavior, conduct problems, emotional distress, and academic performance. The methodology of the Durlak et al. study will be used as a framework for this dissertation. A major difference in contrast to the meta-analysis conducted by Durlak and colleagues is that this study will not exclude students who have pre-existing behavioral, emotional, or academic concerns. This will be discussed in more detail in the exclusion criteria outlined in chapter 3. The next section will discuss significant findings from the meta-analysis.

Results from the Durlak et al. (2011) meta-analysis revealed that students participating in SEL programs demonstrated an increase in social skills, emotional skills, and academic achievement. Further, Durlak et al. found that students who participated in SEL programs had fewer maladaptive behaviors such as conduct problems, physical aggression, and delinquent acts. In addition to fewer maladaptive behaviors, Durlak et al., found that students who participated in SEL programs had less emotional distress such as anxiety, depression, and social withdrawal.

Durlak et al., also found that SEL programs are more likely to be effective when program implementers use "sequenced step-by-step training, active forms of learning, focus sufficient time on skill development, and have explicit learning goals" (Durlak et al., 2011, p.408). These four recommended practices referred to as SAFE (sequenced, active, focused, and explicit), are practices related to effective SEL skill development, which are often found in well-

designed SEL programs. These findings provide evidence that effective SEL programs, when implemented with high-fidelity, may increase social and emotional skills, decrease maladaptive behaviors, and increase academic achievement (Durlak et al., 2011; Weissberg & Cascarino, 2013). Next, the outcome variables will briefly be defined.

The social and emotional skills outcome category included ratings from students, teachers, or parents. This category was based on evaluations of different types of cognitive, affective, and social skills. Specifically, this area included those skills related to "identifying emotions from social cues, goal setting, perspective taking, interpersonal problem-solving, conflict resolution, and decision making" (Durlak et al., 2011, p.410). The next category, attitude toward self and others, included self-report measures related to positive attitudes about self, school, and social environment. The outcomes within this category included self-esteem, self-concept, self-efficacy, attitudes towards school and others, pro-social beliefs, and beliefs towards violence.

The next four student outcomes academic performance, positive social behavior, conduct problems, and emotional distress were identified in both the Durlak et al. study and in the 2013 CASEL Guide. These student outcomes have been investigated across a variety of CASEL SELect programs. For example, the 4Rs program has provided promising findings across several studies and has been shown to improve academic achievement and SEL skills, while decreasing problematic and unfavorable student behavior (Jones, Brown, Hoglund, & Aber, 2010; Jones, Brown, & Aber, 2011). Next, the remaining student outcome categories will be discussed in greater detail.

The next category, positive social behavior included behaviors such as getting along with others, works well with others, positive peer relations, assertiveness, resolving conflicts, and

social skills. These outcomes were derived from behavior ratings completed by the student, teacher, parent, or an independent observer. Ratings of student's social skills from scales such as the Social Skills Rating Scale (SSRS) were included under the category of positive social behavior. Additionally, according to Durlak et al., positive social behavior reflects daily behavior instead of performance in hypothetical situations. A CASEL SELect program that investigated positive social behavior is RCP. As discussed earlier, the RCP addresses stereotyping and reduces racial/sex biases. This intervention also has a peer mediation and family aspect, which is essential to implementation of the program. Findings provided evidence that children demonstrated positive changes in their social-emotional development trajectories and were less likely to remain on a trajectory towards aggression and violence. The next student outcome to be discussed will be conduct problems.

The conduct problems category included ratings from different measures of student behavior. Behavior measures included ratings from scales such as the Child Behavior Checklist, self-reports, observations, teacher and parent ratings, suspension data, or discipline data from school records. Behavior problems such as disruptive class behavior, noncompliance, aggression, bullying, school suspensions, and delinquent acts, were included under the category conduct problems. Further, the conduct problems domain measured significant program effects on measures of disruptive or aggressive behavior. A program designed to address student behavior by improving student's problem-solving skills is I Can Problem Solve, which focuses on problem-solving skills rather than on specific behaviors (Boyle & Hassett-Walker, 2008). The I Can Problem Solve intervention effectively produces positive and significant findings, such as less inhibited classroom behavior and better problem-solving skills. Importantly, minority students participating in the intervention had significant improvements in behavior and

a reduction in overt and relation aggression. The PA program also targets behavior problems and was designed to prevent substance use, violent behaviors, and sexual activity among elementary-aged students. According to Flay (2014), this program successfully improved academic performance and reduced conduct problems.

Students participating in the Second Step curriculum demonstrated significant improvements in areas such as positive approach/coping, caring/cooperative behavior, suppression of aggression, and considering other (Cooke et al., 2007). Findings across studies examining The Incredible Years intervention revealed that child conduct problems were significantly reduced for students that received the intervention and the results indicate that this intervention is effective with minority students in high-poverty communities. Moreover, both the PATHS and Incredible Years interventions both enhanced problem-solving skills (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007).

The emotional distress category included ratings from students, teachers, or parents, on measures such as the Children's Manifest Anxiety Scale. These ratings focused on internalizing problems such as depression, anxiety, withdrawal, or stress. This domain included significant program effects on measures of depressive symptoms, social stress, or withdrawal. The PATHs program was designed to improve children's social competence and reduce emotional distress by providing extensive opportunities to practice social and emotional skills across a variety of settings (such as home, community or in school). Children had lower anger attribution bias scores at posttest in comparison to children that participated in the control group (Domitrovich, Cortes, & Greenberg, 2007). Additionally, The Conduct Problems Research Group (1999) found that use of the PATHs curriculum effectively improved emotional understanding and regulation

with a high-risk sample of children. Students had significant reductions in aggressive behavior and showed improvement with on-task behavior and with self-control.

Additionally, Domitrovich et al. (2007) found that during the preschool stage children's emotional competence can be improved through instruction, especially for minority pre-school students in high-poverty communities. Similarly, the 4Rs program has demonstrated positive emotional outcomes in the general population of students and also among students at highest behavioral risk (Jones et al., 2010). The next section will discuss the last student outcome, academic performance.

Lastly, the academic performance category included results from standardized reading or mathematics achievement test. Measures such as the Student Achievement Test (SAT), school grades (student's overall grade point average), or grades in specific subject areas were included in this category. Only data from school records were used. Moreover, teacher developed tests, intelligence measures, and teacher ratings of academic competence were not included in the academic performance category. Snyder et al., evaluated the effects of PA on indicators of academic achievement, absenteeism, and disciplinary outcomes and found schools with students that received the PA intervention scored significantly better than control schools in reading and math (2010). The Student Success Skills (SSS) program is an intervention that has also shown emerging support for use with minority students from high-poverty communities. The SSS intervention uses teaching strategies to support social-emotional growth and is designed to be implemented within the classroom setting (Lemberger et al., 2015). Teachers deliver five lessons, which provide strategies for setting goals, monitoring growth, building a positive and supportive learning environment, developing cognitive skills, regulating emotions, and building resiliency. The program also includes a mindfulness component, which focuses on students

learning to use strategies such as muscle relaxation and other calming techniques. After the five lessons, teachers reinforce strategies and skills throughout the remainder of the school year during academic lessons.

Findings from a randomized control study provide initial support of the SSS program. Lemberger and colleagues evaluated the effectiveness of the SSS program with 346 seventh grade students who were predominantly Hispanic (66%) and more than 80% of the students received free or reduced lunch. The study found that students who participated in the program improved academic performance when compared to students in the control group (Lemberger et al., 2015). These findings suggests the SSS program effectively and significantly improves academic outcomes for minority students from high-poverty communities.

Summary

This chapter focused on a review of relevant literature pertaining to variables of interest and SEL programs. Also, this chapter provided a review of the student outcomes identified in the 2013 CASEL Guide and by Durlak et al. (2011). Prior research has demonstrated effectiveness with minority students in high-poverty communities (Battistich, Schaps, & Wilson, 2004; Domitrovich, Cortes, & Greenberg, 2007; Flay, 2014; Jones, Brown, & Aber, 2011; O'Neill, Clark, & Jones, 2011; Schonert-Reichl & Lawlor, 2010). Investigative studies provide evidence that several CASEL SELect programs improve or increase student achievement, positive social behavior, social and emotional knowledge, and school climate, and/or, concurrently, reduce aggression, emotional distress, and problem behaviors for minority students in high poverty communities (Barnett et al., 2008; Hall & Bacon, 2005; Hennessy, 2007; Lynch, Geller, & Schmidt, 2004; Pickens, 2009). Implementation of these interventions produced significant positive effectiveness ratings and effect sizes, which offer evidence in support of

these programs. This chapter provided a review of literature, which demonstrate the efficacy of CASEL SELect programs with minority students from high-poverty communities. There is evidence to argue that use of CASEL SELect interventions with minority students from high poverty communities produce significant effect sizes (Boyle & Hassett-Walker, 2008; Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Domitrovich et al., 2013; Espelage et al., 2013; Li et al., 2011; Reid et al., 2007).

A major difference of this study in contrast to the meta-analysis conducted by Durlak and colleagues (2011) is that this dissertation did not exclude studies with students who had pre-existing behavioral, emotional, or academic concerns. In fact, a major impetus of this study was to determine the effect that SEL programming has with a variety of students across multiple outcomes. Therefore, students were included who presented with a variety of behavioral, emotional, or academic concerns. A meta-analysis was used to synthesize the effect sizes and findings from these studies. By using a meta-analytic approach, the findings from this study will illustrate the impact SEL programs may have on the emotional development and learning outcomes of minority children from high-poverty communities. The next chapter will discuss the methodological features of the meta-analysis.

CHAPTER 3

METHODOLOGY

The methodology used in the study will be discussed in this chapter. The design and statistical method used in the study to synthesize research findings will be provided. This chapter will discuss the independent and dependent variables. A coding system will be introduced based on the selection criteria, which will also be defined in this chapter.

Design

The theoretical relation of interest in this study was CASEL SELect programs and their impact on minority students from high-poverty communities. In particular, the study sought to examine whether and the extent to which CASEL SELect programs improved outcomes associated with core SEL competencies such as self-awareness, self-management, social-awareness, relationship skills, and responsible decision-making skills, when used with minority students from high-poverty communities. This study systematically reviewed, extracted data, and calculated effect sizes from previous findings to investigate the impact of SEL programs that were implemented with minority students living in high-poverty communities. Any studies that failed to report adequate data, such as means or standard deviations, were excluded. Studies investigating SEL programs in relation to student outcomes in pro-social behavior, academic performance, conduct disorder, and emotional distress were chosen based on selection criterion outlined later in this chapter. Based on a review of these studies, CASEL SELect interventions appear to improve outcomes such as pro-social behavior and academic performance, decreased conduct problems, and reduced emotional distress, and thus provides evidence in support of these programs with minority students from high-poverty communities (Conduct Problems Research Group, 1999; Domitrovich et al., 2007; Reid et al., 2007).

Sample

No actual human participants participated in the present study. The sample consisted of studies chosen for analysis, which met selection criterion. More specifically, 85 studies were initially reviewed from the 2013 CASEL Guide, EBSCOhost, PsychArticles, ERIC, and PsychInfo. Keywords used in search terms included; social-emotional learning, SEL, CASEL, meta-analysis, minority children, youth, poverty, low-income, and urban. Then, studies were excluded due to their failure to meet all of the inclusion criteria. There were relatively equal numbers of Urban (44.0%) and Mixed (44.0%) settings, and slightly less Suburban (12.0%) schools. Out of the 20 studies, only 9 reported adequate raw data to compute effect sizes. It is important to note the Durlak et al., study had a broader sample (213 studies) in comparison to this dissertation because it included all races and income levels (2013). The limited sample in this study highlights the scarcity of SEL related research focusing on the needs of minority youth living in poverty.

Selection Criteria

For the purpose of this study, only research that used a CASEL SELect program with a control group were eligible for inclusion. Additional inclusion criteria were as follows. First, eligible studies had to be published by December 2015 and included students between the ages of four and sixteen (i.e., grades pre-k to 8). Studies had to report sufficient demographic data such as poverty and minority status. Then, studies had to use pre-/post-test data and report information necessary for calculating effect sizes to be eligible. Moreover, if a study did not report the overall mean effect size, then sufficient data (i.e., standardized mean differences, confidence intervals, standard error) had to be available to allow for alternative methods of calculating the effect size (DeCoster, 2009; Kepes et al., 2013).

Next, data were extracted and coded from each study, then double checked by a second rater. The second rater was a graduate student in the educational research program at George Washington University. The second rater has an extensive background in coding and data collection. The coding manual was reviewed and discussed with the rater prior to data collection. After data was extracted and coded, any discrepancies between raters were confirmed prior to analysis. More specifically, studies were categorized and coded based on whether at least 51% of the sample were minority. Codes included predominantly African-American, Latino/ Hispanic, Asian, Indian, Asian Pacific, or Multiple Minority. Similarly, SES status was categorized and coded. Studies were coded as high-poverty if 40% or more of the sample was eligible for free or reduced lunch or if the school was designated as Title I.

Codes were used to describe individual outcomes within studies by categorizing each outcome as a skill, attitude, behavior, or measure of school performance, see Appendix. Each outcome was coded under one of the following categories: positive social behavior, conduct problems, emotional distress, academic performance, or none of the above. Positive social behavior included outcomes such as building positive relationships, effectively communicating with peers, and adjusting in various social contexts. These ratings were taken from child, teacher, and independent observers. The conduct problems category included child, teacher, or independent observer ratings of disruptive school behavior such as teacher reports of acting out in the classroom. School record data of suspension and expulsion incidents were all included. Role play behaviors and attitudes towards violence were excluded from this category. Additionally, the emotional distress category included outcomes such as depression, anxiety, school stress, and social withdrawal. These measures were taken from child, teacher, or independent observer ratings. Academic performance included outcomes such as testing scores,

curriculum-based assessments, or grades from report cards. Lastly, data from each study was extracted and coded to calculate effect sizes.

The selection criterion for a study to be included in the meta-analysis is as follows:

- pre-kindergarten through eighth grade;
- Ages four through 16;
- 40% or more of sample is described as low-income
- At least 51% of sample is identified as predominantly African-American, Latino/ Hispanic, or combination of both
- Use of pre-/post-test data
- Must report sufficient data for calculating effect sizes
- At least one outcome coded under prosocial behavior, conduct problems/ emotional distress, or academic performance

Studies who had pre-existing behavioral, emotional, or academic concerns were not excluded in this study. Moreover, students were included who presented with a variety of behavioral, emotional, or academic concerns. Studies that focused exclusively on promoting achievement through educational curricula, academic instruction, or other methods of academic support alone were excluded. Interventions targeting outcomes associated with the students' physical health like HIV prevention programs or drug-abuse programs were also excluded from this study.

Procedures

After approval was received, the next step was to conduct a comprehensive review of the available literature on CASEL SELect programs. This task was completed by first reviewing programs identified in the CASEL Guide using the inclusion and exclusion criterion. Then, the

reference section was reviewed in the CASEL Guide from each program that met selection criteria. It is important to note that the review of studies was not limited to the 2013 Guide and was inclusive of all studies evaluating each respective program. As such, studies were then selected that were not a part of the CASEL Guide. These studies were selected by searching and reviewing databases including EBSCOhost, PsychArticles, ERIC, and PsychInfo. Keywords included social emotional learning, positive youth development, urban students, minority students, pro-social behavior, social-skills, empathy, resiliency, meta-analysis, children, adolescents, SEL, and school. After the comprehensive review of literature, 20 studies were selected that met inclusion criteria for the intended sample (minority and high-poverty). Once all of the eligible studies were selected, the variables of interest and effect sizes were then extracted from studies. These studies were then coded using the coding manual and those that did not report data necessary to compute effect sizes were excluded, for a final count of 9 studies who met inclusion criteria. Finally, data was entered into the statistical software, Comprehensive Meta-Analysis V. 3.3 (Bornstein et al., 2005) and the analyses were conducted.

Data Analysis

Before data could be entered into the Comprehensive Meta-Analysis statistical software, a coding system was developed to record data from previous studies that were selected based on the selection criteria. The characteristics of each study were coded, and then the mean effect sizes were computed. Low-inference codes, which were based on information directly reported in the study, were used for the current study. Low-inference codes were used since they typically have higher reliabilities in comparison with high-inference codes (DeCoster, 2009). Categories were used to summarize and code the relevant characteristics from the collected studies. The categories used were identified in prior research. In particular, categories included

descriptive characteristics such as ethnicity and poverty status, from each study that met the inclusion criteria. These studies are illustrated in Table 2. This table describes characteristics by author, intervention studied, sample size, and student outcome(s) measured. Table 3 displays the characteristics of students categorized by sex, race, percentage receiving free or reduced lunches, and geographic location. The meta-analytic approach used in this study will be discussed next.

Table 2
CASEL SELect Descriptive Characteristics

Study	Program Title	Study Design	Total N (treat. group n)	Target Problem
Barnett et al. (2008)	Tools of the Mind	RC	N = 274 (n = 106)	RCP
Boyle & Hassett-Walker (2008)	I Can Problem Solve	MP, RC	N = 226, (n = 96)	IPSB RCP
Conduct Problems Prevention Research Group. (1999)	PATHs	RC	N = 7, 560 (ns)	IAP, IPSB, RCP, RED
Domitrovich et al. (2007)	PATHS	RC	N = 246 (ns)	IAP, IPSB, RCP, RED
Espelage et al. (2013)	Second step	Long., MP, RC	N = 3, 616 (n = 1,940)	IPSB, RCP, RED
Farnworth et al. (1985)	High Scope	Long	N = 123 (n = 58)	IAP, IPSB, RCP, RED
Hall & Bacon, 2005	Too Good for Violence	MP, RC	N = 999 (n = 442)	IPSB
Jones et al. (2010)	4Rs	RED	N = 942 (n = 515)	IAP, IPSB, RCP, RED
Jones et al. (2011)	4Rs	RC	N = 1,184 (n = 630)	IAP, IPSB, RCP, RED
Lemberger (2015)	Student Success Skills	RC	N = 193	IAP
Lewis et al. (n.d.)	Positive Action	MP, RC	N = 1, 170 (n = 7 schools)	IAP, RCP
Li et al. (2011)	Positive Action	MP, RC	N = 510 (n = 260)	IAP, RCP
Linares et al. (2005)	Competent Kids	Long., QED	N = 119 (n = 57)	IAP
Muennig et al. (2009)	High Scope	RC	N = 123 (n = 58)	IAP, IPSB, RCP, RED
Nichols-Barrer & Haimson (2013)	Expeditionary Learning	QED	N = 3016	IAP
Reid, et al. (2007)	The Incredible Years	MP, RC	N = 1152 (n = 155)	IPSB, RCP
Snyder et al. (2010)	Positive Action	MP, RC	M = 544 (10 schools)	IAP, RCP
Webster-Stratton et al. (2001)	The Incredible Years	RC	N = 272 (n = 191)	IPSB, RCP
Webster-Stratton et al. (2008)	The Incredible Years	MP, RC	N = 1768	IPSB, RCP

Note: RC = Randomized Control, MP = Matched Pair, Long = Longitudinal, QED = Quasi-experimental design. IAP = Increased Academic Performance, IPBS = Improved Positive Social Behavior, RCP = Reduced Conduct Problems, RED = Reduced Emotional Distress. ns = Not specified.

Table 3
CASEL SELect Student Characteristics

Study	Sex (% Male)	Predominant Race	% Low SES	Population
Barnett et al. (2008)	53%	92% Hispanic	80%	U
Boyle & Hassett-Walker (2008)	46%	84% Hispanic	93%	U
Conduct Problems Prevention Research Group. (1999)	69%	51% African-American	55%	R, U, & S
Domitrovich et al. (2007)	48%	57% MM	64%	U
Espelage et al. (2013)	53%	75% MM	74%	R, U, & S
Farnworth et al. (1985)	59%	100%	50%	U
Hall & Bacon, 2005	52%	60% MM	54%	R, U, & S
Jones et al. (2010)	49%	95% MM	67%	U
Jones et al. (2011)	49%	96% MM	61%	U
Lemberger (2015)	44%	80% MM	81%	R
Lewis et al. (n.d)	47%	75% MM	83%	U
Li et al. (2011)	49%	93% MM	75%	U
Linares et al. (2005)	35%	63% MM	63%	U
Muennig et al. (2009)	NR	100% African-American	100%	U
Nichols-Barrer & Haimson (2013)	50%	72% MM	71%	U
Reid, et al. (2007)	59%	62% MM	62%	NR
Snyder et al. (2010)	NR	83% MM	56%	U
Webster-Stratton et al. (2001)	54%	63% MM	84%	U
Webster-Stratton et al. (2008)	50%	73%	57%	NR

Note: MM = Multiple minority; SES = Socio-economic Status; U = Urban, R = Rural, S = Suburban, NR = Not reported.

A meta-analytic statistical method was used to synthesize research findings from a number of studies. This approach allows researchers to determine if significant trends have occurred by systematically consolidating and summarizing a variety of studies. For the purpose of the current study, a meta-analysis was used to examine the effects of CASEL SELect programs across multiple student outcomes with minority students in high-poverty communities. This meta-analysis followed similar protocols used in previous studies conducted by Durlak et al. (2011) and the recommendations from DeCoster (2009). The Hedges and Olkin (1985) meta-analytic approach was used to estimate an overall, or mean effect size. This approach is one of the most widely used meta-analytic approaches (Kepes, McDaniel, Brannick, & Banks, 2013). A primary reason that the Hedges and Olkin approach was used for this study is because it allowed for effect sizes to be calculated and analyzed using a variety of statistical procedures. More specifically, effect sizes were analyzed by extracting, then calculating data ranging from correlations and correlation ratios, unstandardized and standardized mean differences, to effect sizes for binary data such as risk and odds ratios. In the Hedges and Olkin meta-analytic approach, study outcomes are typically converted into standard deviation units or *g* values (Johnson, Mullen, & Salas, 1995). As such, Hedges' *g* was used as the measure of effect size for this study. Then, heterogeneity was examined across outcomes for each analysis.

In the present study, a graphical representation of the meta-analysis referred to as a forest plot, was developed and produced in the results section to visually display the examination of heterogeneity between studies. The treatment effect size was calculated using a fixed-effects model when heterogeneity was not present and a random-effects model was used when significant heterogeneity was present. Lastly, publication bias was explored by examining funnel plots and fail-safe *N*s. There are no assumptions of the fail-safe N's or the funnel plots. These

look at distribution and probability, and are not impacted by the assumptions of normal, linear relationships.

Variables of Interest

Independent variable**.** The independent variable in this study was CASEL SELect programs that met selection criteria for inclusion in the meta-analysis. For CASEL SELect programs to be included in the proposed meta-analysis they had to target at least one of the five core SEL competencies, described in the first chapter of this dissertation. Moreover, the programs reviewed for inclusion in this study were evaluated using student outcomes associated with SEL programming. In addition, these programs needed to have included minority students from high-poverty communities in their sample.

Dependent variables**.** As previously discussed, four primary student outcomes were identified in the 2013 CASEL Guide: [positive] academic performance, positive social behavior, [the overcoming of] conduct problems, and [successful avoidance of or dealing with] emotional distress. These four student outcomes are also identified in the meta-analysis by Durlak and colleagues (2011). The dependent variables in the current meta-analysis included the four student outcomes identified in the 2013 CASEL Guide. More specifically, the outcomes in this study are academic performance, positive social behavior, conduct problems, and emotional distress. For the purpose of this study, qualifying studies had to include outcome data for at least one behavioral domain (conduct problems, emotional distress, positive social behavior, or academic performance).

Summary

A meta-analysis was used for the current study. In particular, the Hedges and Olkin approach was used (Kepes et al., 2013). By using this meta-analytic approach, research findings from a number of studies were synthesized to determine the overall effect sizes of SEL programs with minority students from high-poverty backgrounds. These findings will add to the current body of literature by measuring the impact of SEL programs when used with minority students from high-poverty communities. This study has positive implications that could help policy-makers, researchers, and key stakeholders make better decisions regarding how best to improve the social and emotional health of minority students from high-poverty areas.

CHAPTER 4
RESULTS

The primary purpose of this study was to examine the efficacy of Social Emotional Learning (SEL) programs when used with minority students living in high-poverty communities. To examine the overall efficacy of these programs from prior research, this study utilized a meta-analytic approach. Specifically, this study aimed to examine the impact of SEL programs on outcomes related to academic achievement, prosocial behaviors, conduct problems and/ or emotional distress. This chapter outlines the specific meta-analytic and statistical procedures and findings, starting with a summary of the extraction process, followed by the statistical findings of the meta-analysis by specific research questions.

Extraction Process

Based on the inclusion criteria as described previously in Chapter 3, the review of the literature found 20 studies that met inclusion criteria for this study based on population, outcomes, intervention, etc. Raw data was extracted from these studies. Results of the extraction indicated that of the 20 studies, only 9 studies reported sufficient raw data to compute the necessary effect size, including the mean, standard deviation, and sample size. Multiple effect sizes from the same study were computed so long as the following conditions were met: (1) effect sizes were derived from different samples (e.g., grade levels, academic years) and/or (2) for differing outcomes. This was done to insure independence of effect sizes so that no participant was included multiple times in the same level of analysis. In instances where there were multiple outcomes falling under the same domain, one outcome was chosen to represent that sample. A total of 25 effect sizes were extracted and computed from the original studies. Extracted data were coded and then double checked for accuracy by a Master's level research

assistant. There were very few discrepancies between raters. Moreover, any discrepancies between raters were addressed by revisiting the source article prior to analysis.

Data Analysis

This study utilized the Hedges and Olkin (1985) meta-analytic approach. All outcomes of interest were continuous measures taken at pre- and post-intervention. As such, the measure of effect size used in the current study was Hedges' *g*. Hedges' *g* was chosen over other standardized mean differences, such as Cohen's *d*, because Hedges' *g* pools variance to a degree of *n*-1, which makes comparisons across samples of varying sizes better than other methods of pooled variance (Johnson, Mullen, & Salas, 1995). Hedges' *g* can be interpreted similarly to Cohen's *d* with the following standard interpretations: ~ .30 is considered small, ~ .50 is considered moderate, and anything greater than .80 is considered a large effect (Cohen, 1988).

Analyses for the current study were conducted using the Comprehensive Meta-Analysis software version 3.3 (Comprehensive Meta-Analysis, 2015). For each analysis, the heterogeneity across outcomes in a given study was examined using both the *Q* statistic and I^2. A significant *Q* test and a high I^2 value are indicative of a high degree of heterogeneity across samples, suggesting that the variance within each sample was different across samples. When no heterogeneity was present, the treatment effect size was estimated using a fixed-effects model; however, when there was significant heterogeneity present, a random-effects model was used at the recommendation of Hedges and Olkin (1985) to account for the differences in the variance distributions across samples.

Each individual meta-analysis tests the significance for each individual effect size at the study level. Additionally, the meta-analysis computes a weighted, or summary effect size, which is further tested for significance. Significance for all analyses was set at the .05 level. A

Bonferroni correction was not necessary because all the multiple comparisons were determined prior to analysis; furthermore, the *p* values observed were all far below the critical value, indicating that a Bonferroni would not change the interpretation of the findings. In addition to primary analyses, publication bias was also explored. Publication bias refers to the notion that when examining peer-reviewed articles for a meta-analysis, there is potential that only significant and meaningful studies get included. To examine publication bias, both funnel plots and fail-safe *N*s were calculated. Funnel plots provide a graphic distribution of the obtained effect sizes. A symmetrical funnel plot suggests low likelihood of a strong impact of publication bias. The fail-safe *N* is a technique used to determine the number of non-significant studies that would need to exist in order to meaningfully and statistically shift the findings of a meta-analysis (Rosenthal, 1979).

Sample Characteristics

A summary of the sample characteristics are outlined below in Table 4. As shown, there were a total of 25 effect sizes computed from the 9 articles included in this study. There was a wide range of specific SEL programs included. As previously discussed, there were comparatively equal numbers of Urban and Mixed settings, and slightly less Suburban schools. Most studies were completed in elementary schools (88.0%) with the remaining 12.0% being completed in middle schools. The greatest number of effect sizes found was related to Conduct Problems (36.0%), followed by Prosocial Behaviors (28.0%), then Emotional Distress (20%) and Academic outcomes (16.0%). Examination of the effect sizes across levels and studies revealed significant overlap between study and program, indicating that most effect sizes for a given program were from the same study. Taken together with the limited distributions across

population density and grade level, further moderation analysis across these variables could not be conducted.

Table 4
Descriptive of Effect Sizes

	k	%
Program		
ICPS	4	16.0
Fast Track	2	8.0
PATHS	3	12.0
TGFV	2	8.0
4Rs	3	12.0
SSS	3	12.0
UMSP	5	20.0
Classroom	3	12.0
Population Density		
Urban	11	44.0
Suburban	3	12.0
Mixed	11	44.0
Grade Level		
Elementary	22	88.0
Middle	3	12.0
Outcome Domain		
Conduct Problems	9	36.0
Prosocial Behaviors	7	28.0
Emotional Distress	5	20.0
Academic	4	16.0

Note: *k* = # of studies

Research Question 1: Do CASEL SELect programs increase positive social behaviors for minority students residing in high-poverty communities?

A summary of the findings for this research question are outlined in Figure 1. There was significant heterogeneity observed, Q (6) = 116.03, $p < .001$. Using a random effects model, the

overall summary treatment effect (or effect size) of SEL programs on prosocial behaviors was moderate = .186 (95% CI: .112 to .259; z = 2.98, p = .003). As shown, 5 of the 7 individual effect sizes for prosocial outcomes were significant, indicating greater levels of measurable prosocial behaviors following intervention. These results confirm the research hypotheses, which stated that there would be a significant increase in prosocial behaviors following a SEL program.

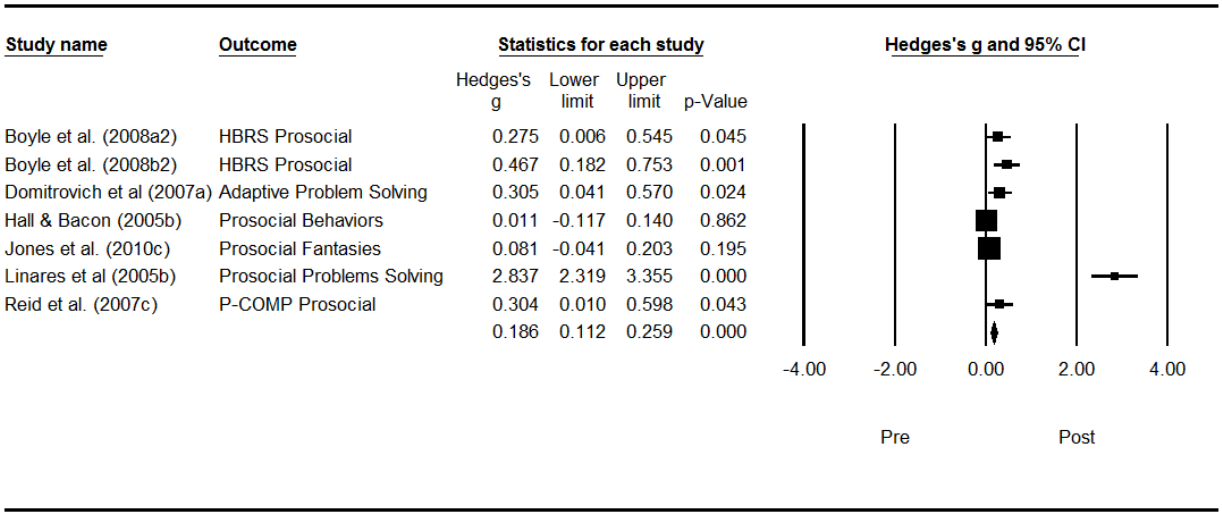

Figure 1. Forest plot of prosocial outcomes. This figure illustrates each study in the analysis that had a prosocial outcome. The statistical findings from each respective study (with a prosocial outcome) are also reported in this figure (Hedges's *g*, lower/upper limits, *p*-value, and confidence intervals). Hahnemann Behavior Rating Scale = HBRS; Social Competence Scale – P-COMP

Research Question 2: Do CASEL SELect programs reduce conduct problems for minority students residing in high-poverty communities?

A summary of the findings for conduct problems is outlined in Figure 2. There was no significant observed heterogeneity, Q (8) = 2.93, p = .939, I^2 = .000. Using a fixed effects model, the point estimate of SEL programs on conduct problems was -.184 (95% CI: -.242 to -

.126; $z = 4.93$, $p < .001$), which suggests a high significance. As shown in Figure 2, 5 of 9 individual effect sizes were significant. These results are supportive of the research hypothesis, by confirming a significant effect of SEL programs on reducing conduct problems.

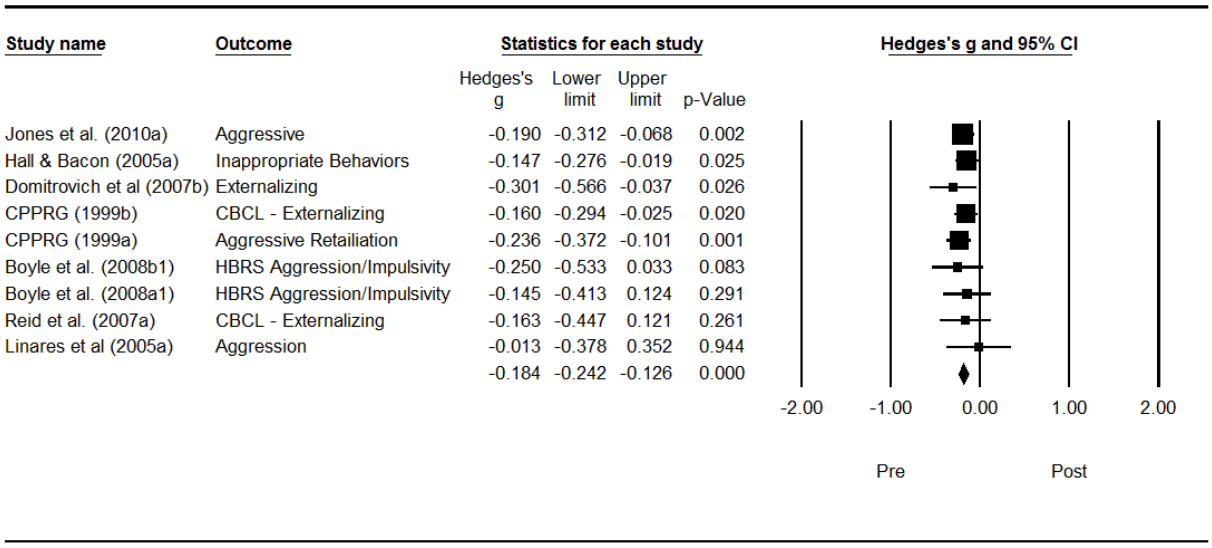

Figure 2. Forest plot of conduct problem outcomes. This figure illustrates each study in the analysis that had conduct disorder as an outcome. The statistical findings from each respective study (with a conduct problem outcome) are also reported in this figure (Hedges g, lower/upper limits, p-value, and confidence intervals). Hahnemann Behavior Rating Scale = HBRS; Child Behavior Checklist – CBCL.

Research Question 3: Do CASEL SELect programs reduce emotional distress for minority students residing in high-poverty communities?

A summary of the findings for emotional distress outcomes is outlined in Figure 3. There was significant observed heterogeneity, Q (4) = 193.97, $p < .001$, $I^2 = 97.94$. Using a random effects model, there was no significant estimated treatment effect of SEL programs on reducing emotional distress (point estimate = -.778; 95% CI = -1.569 to .0012; $z = -1.930$, $p = .054$). As shown in Figure 3, only two of five the individual effect sizes were significant. Taken together, these results suggest the non-significant finding for the random effects model is likely due to heterogeneity across studies, which results in a confidence interval that includes 0.00. While the

findings were nonsignificant, the estimated treatment effect trended towards the negative, suggesting a general pattern towards reduced emotional distress following s SEL program.

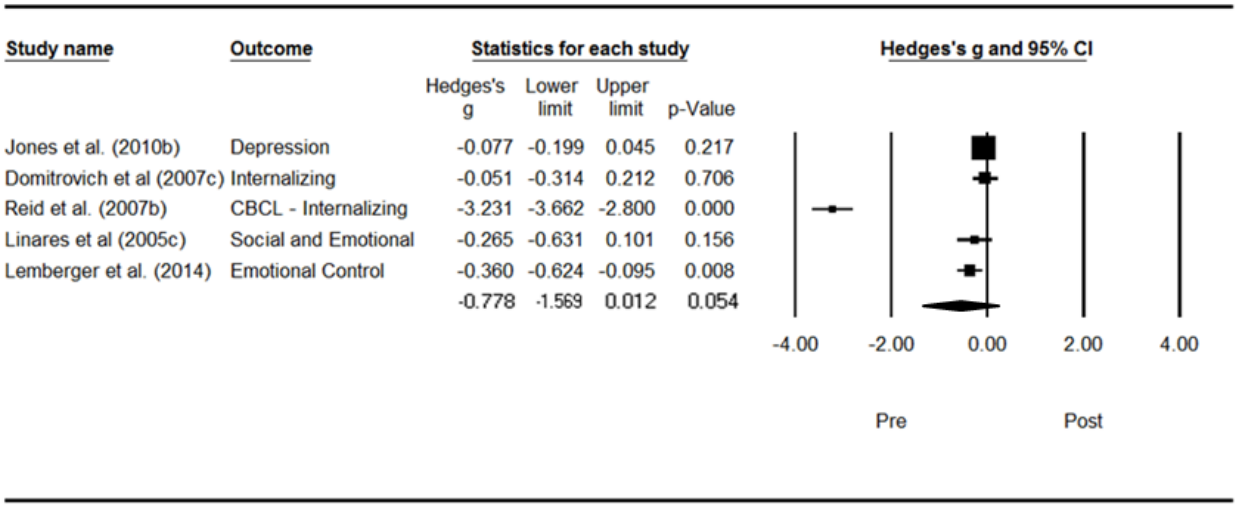

Figure 3. Forest plot of emotional distress outcomes. This figure illustrates each study in the analysis that had emotional distress as an outcome. The statistical findings from each respective study (with an emotional distress outcome) are also reported in this figure (Hedges's *g*, lower/upper limits, *p*-value, and confidence intervals).

Research Question 4: Do CASEL SELect programs improve academic performance for minority students residing in high-poverty communities?

A summary of the effects on academic outcomes are outlined in Figure 4. As shown, all effect sizes were significant and positive. There was no significant heterogeneity across effect sizes, Q (3) = 3.16, p =.367, I^2 = 5.246. Using a fixed effect model, the estimated effect size was moderate to high (point estimate = .725; 95% CI: .569 to .880, z = 9.13, p < .001). Further examination by outcome time suggests that SEL programs may have a slightly higher effect on increasing reading outcomes (point estimate = .866, 95% CI: .643 to 1.089) compared to math outcomes (point estimate = .590; 95% CI: .373 to .808). Overall, these results confirm the research hypothesis by linking SEL programs to increases in academic performance.

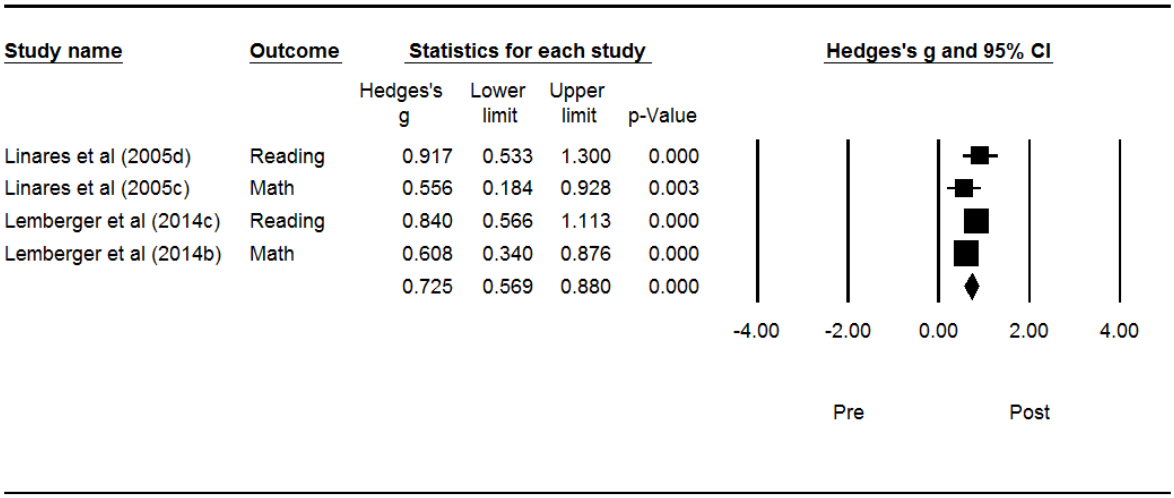

Figure 4. Forest plot of academic outcomes. This figure illustrates each study in the analysis that had an academic outcome. The statistical findings from each respective study (with an academic outcome) are also reported in this figure (Hedges g, lower/upper limits, p-value, and confidence intervals).

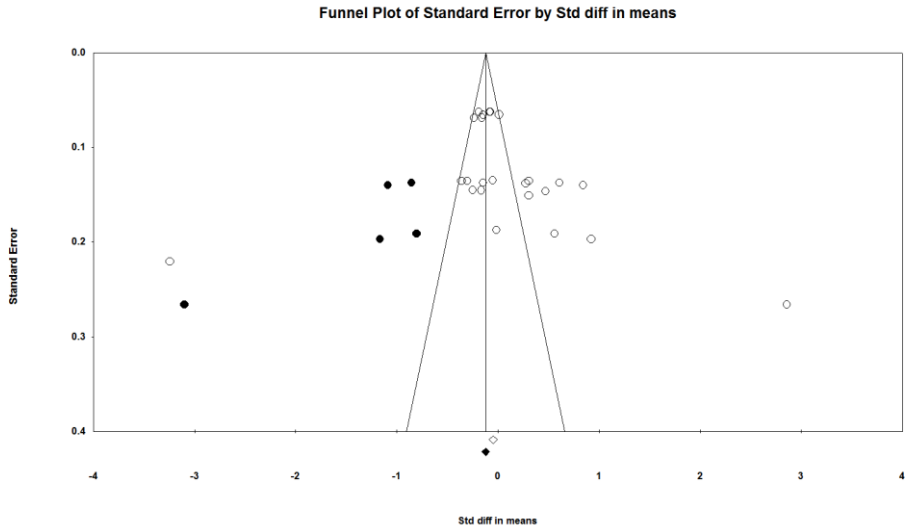

Figure 5. Funnel plot examining publication bias. This figure illustrates a funnel plot of standard error by standard difference in means.

Publication Bias

Funnel plots and fail-safe *N* analysis were examined to analyze and determine the presence of publication bias. Findings from the analyses revealed there was no evidence of publication bias. No other variables were identified that might have served as an alternative explanation for the current results of the meta-analysis. Evaluation of the funnel plot revealed a semi-symmetrical distribution, suggesting little impact of publication bias, which is illustrated in Figure 5. The current analysis included both significant and non-significant effect sizes from individual studies. Overall, the analysis suggests that there was little impact of publication bias on the current study.

Summary

This chapter outlined the statistical findings of this study. Overall, the findings supported three of the four research hypotheses, which demonstrate the benefit of SEL programs for achieving positive impacts on minority student outcomes with regard to conduct problems, prosocial behaviors, and academic outcomes. However, there was no significant estimated treatment effect of interventions on reducing emotional distress for minority students from high poverty communities. The following chapter will discuss the practical implications of these findings as well as limitations and directions for future research.

CHAPTER 5

DISCUSSION

Previous literature has shown that minority children in high-poverty communities encounter significant stressors, which places them at disproportional risk for mental health problems, substance abuse, school dropout, criminalization, and incarceration (Chow et al., 2003, Cokley, 2014; Samaan, 2000; Skiba et al., 2011; Stillwell, 2009). These behavioral and mental health needs are often left untreated (National Center for Children in Poverty, 2006). Therefore, an opportunity exists for evidence-based mental-health interventions to be offered in educational settings that support the social and emotional well-being of minority students from high-poverty communities. A variety of studies provided evidence that implementation of SEL programs may support the social and emotional well-being of students. A number of studies were found to have achieved significant positive benefit, which offer compelling evidence in support of SEL interventions (Battistich et al., 2004; Domitrovich et al., 2007; Flay, 2014; Jones et al., 2011; O'Neill, Clark, & Jones, 2011; Schonert-Reichl & Lawlor, 2010). More specifically, these findings suggest that CASEL SELect programs may effectively increase knowledge of SEL skills and decrease conduct problems such as bullying, harassment, truancy, and physical aggression for students in intervention groups.

Similarly, there is evidence to argue that use of CASEL SELect interventions with minority students from high poverty communities may also yield benefits (Boyle & Hassett-Walker, 2008; Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Domitrovich et al., 2013; Espelage et al., 2013; Li et al., 2011; Reid et al., 2007). Further, empirical research suggests that several CASEL SELect programs improve outcomes such as student achievement, pro-social behavior, social and emotional knowledge, and school climate,

while also reducing aggression, emotional distress, and problem behaviors for minority students in high poverty communities (Barnett et al., 2008; Hall & Bacon, 2005; Hennessy, 2007; Lynch, Geller, & Schmidt, 2004; Pickens, 2009).

For the purpose of the current study, a meta-analytic approach was used to examine the empirical outcomes of CASEL SELect programs with minority students in high-poverty communities. The outcomes of interest in this study included positive social behavior, academic achievement, conduct problems, and emotional distress. A meta-analysis was used to synthesize the effect sizes across multiple samples and programs. By using a meta-analytic approach, the findings from this study may evaluate the potential benefit SEL programs had on the emotional development and learning outcomes of minority children from high-poverty communities. Present findings from the meta-analysis will be discussed in this chapter in relation to each hypothesis. Additionally, implications, limitations, as well as recommendations for future research will be discussed.

Current Findings

A limited number of studies was available. The dearth of research in this area may be a focus of future research. Given the available literature, current findings suggest that SEL programs yielded significant positive effects on targeted outcomes when used with minority students from high-poverty communities. SEL programs increased prosocial behaviors, reduced conduct problems as well as emotional distress, and improved academic performance. When taken together, findings from this meta-analysis are largely consistent with prior meta-analytic studies (see Durlak et al., 2011). Durlak's meta-analysis found that students participating in SEL programs demonstrated an increase in social skills, emotional skills, and academic achievement. Further, Durlak showed that students who participated in SEL programs had fewer maladaptive

behaviors such as conduct problems, physical aggression, and delinquent acts. In addition to fewer maladaptive behaviors, Durlak et al., found that students who participated in SEL programs had less emotional distress such as anxiety, depression, and social withdrawal. A major difference in contrast to the meta-analysis conducted by Durlak and colleagues is that the present study did not exclude students who had pre-existing behavioral, emotional, or academic concerns. As such, this study included minority students from high-poverty communities who may or may not have unaddressed behavioral, emotional, or academic needs.

Research Question 1

The first research question asked if CASEL SELect programs increased positive social behaviors for minority students residing in high-poverty communities. The null hypothesis was rejected. Results confirmed the research hypotheses, which stated that there would be a significant increase in prosocial behaviors following a SEL program. More specifically, it was hypothesized there would be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities**.** In particular, CASEL SELect programs will increase positive social behaviors for minority students from high-poverty communities (CASEL, 2011; Durlak et al., 2011; Zins & Elias, 2007).

Based on the analysis, minority students from high-poverty communities who participated in CASEL SELect programs had greater levels of measurable prosocial behaviors at post-test (Boyle et al., 2002; Domitrovich et al., 2007; Jones et al., 2010; Linares et al., 2005). The summary treatment effect (hedges's *g*) of SEL programs on prosocial behaviors was .186. Moreover, the estimated treatment effect was in the moderate range. The results of the present study are consistent with findings from previous studies suggesting CASEL SELect programs may increase prosocial behaviors (Domitrovich et al., 2007; Durlak et al., 2011). Future research

will want to focus on the impact of SEL programs with minority students from high-poverty communities at the secondary level (middle school and high school). More specifically, researchers should examine if these programs increase prosocial behaviors for minority students from high-poverty communities at the secondary level.

Research Question 2

The null hypothesis stated there would not be a significant mean effect across a variety of outcomes for minority students from high-poverty communities. The research hypothesis stated that there would be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. In particular, it was hypothesized that CASEL SELect programs would reduce conduct problems for minority students from high-poverty communities (CASEL, 2011; Domitrovich et al., 2013). A summary of the findings notes a significant reduction of conduct problems for minority students from high-poverty communities who received the intervention. The point estimate of SEL programs on conduct problems was -.184. Moreover, the null hypothesis was rejected based on the findings. Evidence in support of the research hypothesis revealed that these programs significantly reduced problem behaviors. There was no significant observed heterogeneity and the estimated treatment effect was small in magnitude. Taken together, these findings provide evidence that CASEL SELect programs may be effective interventions for reducing conduct problems when used with minority students from high-poverty communities. It may be argued that CASEL SELect programs effectively decrease outcomes related to conduct problems because the lessons are aimed to teach students to make better choices, teaches them to respect their own culture and the culture of others, and also addresses stereotypes and racial biases (Aber et al., 1998). These findings further demonstrate

that effective SEL programs may decrease maladaptive behaviors for minority students from high-poverty communities, when they are implemented with high-fidelity and are well-designed.

Research Question 3

It was hypothesized that CASEL SELect programs would reduce emotional distress for minority students from high-poverty communities (CASEL, 2011; Domitrovich et al., 2013). Findings from the meta-analysis did not reveal a significant positive mean effect for reducing emotional distress. As a result, the null hypothesis was accepted. Further, only two out of the five individual effect sizes were significant within the emotional distress outcome. However, it should be noted the estimated treatment effect of -.778 trended towards the negative, suggesting a general pattern towards reduced emotional distress following use of a SEL program. In light of the prior research demonstrating the benefit of these programs for reducing emotional distress (Domitrovich, Cortes, & Greenberg, 2007; Jones et al., 2010), further research is likely necessary to definitively answer this question.

Research Question 4

The null hypothesis stated there would not be a significant mean effect across a variety of outcomes for minority students from high poverty communities. The research hypothesis stated there would be a significant positive mean effect across a variety of outcomes for minority students from high-poverty communities. More specifically, it was hypothesized CASEL SELect programs would increase academic performance for minority students from high-poverty communities (CASEL, 2011; Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007).

There was a significant improvement in academic performance for minority students from high-poverty communities, consistent across samples and outcomes measured. As such,

the null hypothesis was rejected. Findings from the meta-analyses provided support for the research hypothesis, which stated CASEL SELect programs would increase academic performance for minority students from high-poverty communities. Results of the present study revealed no significant heterogeneity across effect sizes. The estimated effect size for academic performance was moderate to high (hedges's g = .725). Results from the analysis show that SEL programs may have a slightly higher effect on increasing reading outcomes in comparison to math outcomes, although both were shown to be effective. Taken together, these findings suggest CASEL SELect programs may be used as an effective intervention to increase the academic performance of minority students from high-poverty communities.

These findings are important given recent legislation, which has been passed to support students regardless of race, socioeconomic status, or developmental level. More specifically, the Every Student Succeeds Act (ESSA) was signed by the president of the United States in 2015 and includes provisions to ensure student success (ESSA, 2015). In particular, attention has been given in the ESSA to support the use of evidence-based interventions. In addition, the ESSA maintains an expectation that there will be accountability given to impact change in low-performing schools, where students are not making adequate progress (Russo, 2016). Thus, the findings from this analysis provide promising support that CASEL SELect programs may be used to support and improve academic performance of minority students from high poverty communities (Lemberger et al., 2015; Linares et al., 2005).

Implications

The primary purpose of this study was to investigate the effectiveness of SEL programs with minority students from high-poverty communities. The present study consolidated findings from previous research by using a meta-analytic approach. Results revealed that use of CASEL

SELect programs with minority students from high-poverty communities led to more positive prosocial behaviors. Additionally, these programs reduced conduct problems for minority students from high-poverty communities. Moreover, participants had significant increases in academic performance after participating in SEL programs. With this information, school districts may now begin to identify, select, and use high-quality and evidence-based SEL programs with minority students from high-poverty communities to increase prosocial behavior, reduce emotional distress or conduct problems, and improve academic achievement. To do so, efforts must be made to ensure school districts are aware of which programs are the most effective, have the best fit with students and staff, are culturally responsive, and are sustainable over the long term (Durlak et al. 2011). The programs identified in this study can serve as a guide for administrators, policy-makers, and school personnel when selecting interventions that work best with minority students from high-poverty communities. It is important to consider implications of SEL policy at both district and state levels.

SEL and social policy**.** Previous research provides evidence that SEL programs can support the development and well-being of children (Durlak at al., 2011). Thus, consideration should be given at the state and district level to consider integrating SEL standards into academic curricula to further support the well-being of all children. Jones and Bouffard (2012) proposed schools integrate the teaching of SEL skills not only into their missions, but also in daily interactions with students. The authors offered four strategies to successfully integrate SEL skills into educational practices. First, continuity and consistency are essential for SEL skill development. Essentially, SEL skills should be aligned, beginning in early childhood and span into middle and high school. Further, these strategies learned during early childhood should lay the foundation for future interventions. Secondly, social, emotional, and academic skills are

interdependent. That is, SEL skills are interrelated with academic outcomes and should not be segregated. Thus, efforts should be made to promote both academic and SEL skills together in classrooms. The third strategy is for SEL skills to be developed in social contexts. The authors found that students who are more connected with their teachers have better relationships, are more compliant, and have less instances of conflict. This means that the teacher-student relationship is an important factor in the development and well-being of children. The fourth and final strategy addresses school climate and culture, which sets the tone of relationships and interactions between staff and students. Further, school-wide SEL approaches are recommended so that the whole of the school is greater than the sum of its parts (individual classrooms). Taken together, these strategies can be used to integrate SEL into daily practice. Additionally, classrooms and schools should incorporate routines that promote SEL skills. Routines help establish order, communicate expectations, and lay the framework of how daily operations of the school should flow. Routines that promote SEL skills should also be used by schools and include strategies to resolve conflict, restorative justice practices, and routines for resolving issues within the classroom. Routines are the most effective when used throughout the day and across the building. Adult training and support for developing the SEL skills of students should be on-going and consistent. SEL coaches and team leaders may improve how administrators, teachers, and support staff build students' SEL skills.

SEL standards**.** According to Zinsser and colleagues SEL standards “are important because they influence all aspects of the process of education to support SEL from curriculum development and selection to professional development, assessments, and evaluation" (Zinsser et al., 2013., p. 3). SEL standards provide a way to clearly define goals and expectations for SEL in each state or district. These standards are also necessary because they help to define and

outline social and emotional expectations at every grade level (Jones & Bouffard, 2012). Additionally, these standards can be used to integrate SEL skills into daily practice and measure core competencies such as self-awareness, self-management, social-awareness, relationship skills, and responsible decision-making skills. They also provide a set of benchmarks, which can be linked with measures to help districts measure and track progress. SEL standards are emerging across states such as Alaska, Texas, Illinois, and Georgia. Importantly, these standards provide support for districts in measuring SEL skill development and acquisition. Further, SEL standards provide guidance how to align SEL goals with academic curricula and how to integrate SEL into a school's mission. Dusenbury and colleagues (2014) identified key elements of high-quality SEL standards that have been identified in research:

- Free-standing standards that are linked to SEL outcomes and core competencies (self-awareness, self-management, social awareness, relationship skills, and responsible decision-making).
- Are integrated with academic curricula and standards
- Provide guidance of how staff can support students through teaching practices
- Provide guidance on creating a safe and supportive school climate conducive to social and emotional development
- Guidance on how to make instruction culturally relevant and sensitive
- Provides tools to support high-quality implementation.

According to Dusenbury and colleagues, at the K-12 level, only three states have SEL standards with developmental benchmarks. Kansas and Pennsylvania are the most recent to have adopted standards for SEL in 2012 and Illinois was the first to do so in 2004. The authors recommend that to make SEL a priority, free-standing standards for SEL should be established

with developmental benchmarks across every grade level. Realistically, it may be challenging to integrate SEL approaches and standards to SEL at the school level alone. Therefore, public policies must provide adequate support to enforce these changes.

Policy-makers, state commissioners, district school boards, and state representatives should be encouraged to support SEL policies. These policies should establish adequate and flexible funding. This means that funding should be prioritized and allocated to support SEL efforts. Flexibility should be given to accommodate schools' respective needs. Funding should be allocated for SEL-based professional developments, coaching resources, or for materials to help improve school climate. Policy supports should integrate SEL development into staff trainings. This can be accomplished by providing explicit expectations for SEL skills in staff competency frameworks, requiring teacher coursework to address SEL, and allotting the resources needed to routinely monitor school culture and climate. Additionally, policy supports should identify valid and reliable measures to assess SEL skills and fidelity of program implementation. School districts or policy-makers can embed SEL into larger education reform by linking it to academic achievement, integrating SEL into academic goals and benchmarks, and allocating funding to promote the integration of SEL into standards.

Limitations

One of the study's major limitations is that it was restricted to only select studies with populations of elementary and middle schools. Programs were excluded if they were not identified in the 2013 CASEL Guide. It is possible that programs may be effective for minority-students from high-poverty communities that have not been designated as a CASEL SELect program (Farahmand et al. 2011). These programs were excluded from the current study because they may not have targeted all five areas of social and emotional competence, they may not have been classroom-based or designed for use with a universal population of students, they may not have been well-designed, and they may not have offered high-quality training and other implementation supports. Additionally, some programs may have been excluded if they did not have a control group, did not use pretest or post-test measures, or if they did not teach explicit SEL skills. Consequently, this study, in evaluating CASEL SELect programs identified in the 2013 CASEL Guide, sought to examine the extent to which well-designed and evidence-based SEL programming met the needs and improved both behavioral and social-emotional outcomes for minority students from high-poverty communities.

A second limitation of the study was that moderators could not be examined. While there were some identified moderators to be tested (e.g., intervention type, population density, grade level, etc.); however, moderation analyses could not be conducted due to insufficient obtained effect sizes across various levels. A third limitation of this study was due to the function of meta-analysis, which is generalization. As such, individual differences may not have been taken into account. A potential solution could be to conduct sub-group analyses to potentially determine if certain participant characteristics such as ethnicity, developmental level, sex, or geographical region could potentially influence who benefits more from intervention. However,

the data needed to conduct sub-group analyses are often unavailable or left out of studies (Farahmand et al., 2011).

Lastly, a limitation of this study is that most SEL programs solely focus on what occurs in the classroom. According to Jones and Bouffard (2013), SEL skills are needed across multiple settings such as in the cafeteria, on the playground at recess, during transitions into hallways, between classes, and even outside the school setting. Therefore, a limitation of SEL programs is that students receive limited support to effectively navigate spaces outside of the classroom setting.

Recommendations for Future Research

The CASEL State scan has developed a plan to promote high-quality standards for SEL across every state, beginning in pre-k and spanning through high school. This plan includes four primary goals: Develop voluntary model standards for SEL, disseminate model standards for SEL, support states developing standards for SEL on a broad scale, and assess the impact of model standards and support efforts (Dusenbury et al. 2014). CASEL is in the process of completing a draft model of standards to assist states who are interested in developing SEL standards. This model would span from preschool through high school. Upon completion of the model standards, CASEL will create a website along with a strategic marketing plan to disseminate to all 50 states. CASEL will continue to provide ongoing support to states who are developing high-quality SEL standards. This support may consists of webinars, workshops, or professional developments aimed at developing SEL standards. These efforts will continuously be monitored to measure the effect of CASEL's efforts to support the implementation of SEL standards.

A primary goal of this dissertation was to investigate the effectiveness of CASEL SELect programs with minority students from high-poverty communities. Findings from the meta-analysis revealed several programs increased prosocial behavior, and decreased conduct behaviors as well emotional distress (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Domitrovich et al., 2013). Given these findings, it is imperative more research is done investigating SEL programs with minority students from high-poverty communities. Further, future research will want to focus on the impact of SEL programs with minority students from high-poverty communities at the secondary level (middle school and high school). More specifically, researchers should examine if these programs increase prosocial behaviors, improve academic achievement, reduce emotional distress, and decrease conduct problems for minority students from high-poverty communities at the secondary level. In addition, future research efforts should consider using a larger number of studies, which may result in significant findings. To do so, future researchers may consider using a broader inclusion criteria, which may allow for more programs to be evaluated. This may allow future researchers to determine if interventions other than CASEL SELect programs are beneficial for use with minority students from high-poverty communities.

An important next step will be to help spread awareness of the interventions that had positive effectiveness ratings. The findings of this study should be shared with policy-makers, administrators, and other key-decision makers so they are aware that CASEL SELect programs may be effective with minority students from high poverty communities. In particular, it is recommended that school districts use CASEL SELect programs with fidelity or discontinue if they are unsuccessful during pilot or demonstration periods.

Concerted, strategic efforts must be made to successfully implement CASEL SELect programs into schools. Durlak and colleagues (2011) offered several suggestions to begin implementing SEL programs. First, information about available programs needs to be disseminated to key-decision makers and administrators. Next, programs and systems that fit best within local and ecological settings should be adopted or even re-evaluated, including school-wide systems. PBIS is one such school-wide system that should be evaluated on a consistent basis. PBIS is an approach used to establish the social culture and provide behavioral supports for schools to be effective learning environments. Evidence-based features of PBIS include prevention, teaching school-wide rules and expectations, recognizing positive behavior, having consistent consequences for problem behavior, collecting discipline data, and having systems that support effective practices. When these features of PBIS are implemented with high-fidelity, students reportedly have better outcomes such as improved academic performance, increased family involvement, higher engagement in learning, and less disciplinary infractions (Horner et. al, 2005). Moreover, successful implementation of PBIS has been shown to decrease ODRs, suspensions, and expulsions. However, a closer examination of the literature suggests that African-American students are still disciplined at a disproportionate rate in comparison to their peers even when PBIS is implemented (Skiba et al., 2005). Further, African-American students are punished more severely, suspended and expelled more frequently, and are twice as likely to receive an ODR when compared to Caucasian students (Skiba et al., 2005; Skiba et al., 2011). This may lead to lower graduation rates and higher drop-out rates for African-American students in high school (Stillwell, 2009). Emerging literature is beginning to indicate that PBIS does not change disproportionate discipline practices (Boneshefski & Runge, 2014; Skiba et al., 2011). Thus, future research and attention should be given to the potential causes of

disproportionality. One possible reason for disproportionality may be the result of a culture gap between staff and students' standards of acceptable behavior. It may be possible that a culture gap exists between staff and students. If indeed a culture gap exist, staff members must assess their personal level of competency to work with students that are different from them in terms of culture, ethnicity, sex, etc. Further, it is recommended that educators strive to understand the experiences and cultures of all students and use that to develop self-awareness. Additionally, educators must respect and value the cultural differences of students, families, and communities. This can be achieved by learning the cultures of students in the school community, finding out what social norms (handshakes or hugs, close proximity, eye contact, definition of respect) are important, and reading various resources in order to learn more about different cultural groups. Moreover, school-wide systems must be re-evaluated if PBIS teams lack training and on-going support in culturally responsive behavior management strategies. This lack of training may lead to negative behavior outcomes for minority students such as an increase in office discipline referrals, higher referrals for special education services, or higher rates of suspension and expulsion (Skiba et al., 2011). Anderson and Davis (2012) recommended that teachers use culturally responsive behavior management strategies such as:

- Being aware of your levels of discomfort with any given student or student group
- Establish a classroom of respect. Declare your classroom a culturally considerate classroom. Let students know that name-calling, inappropriate behavior, etc. will not be tolerated.
- Meet students where they are. Understand each student comes to class with different cultures, abilities, and degrees of motivation

- Provide each individual student with appropriate support to achieve success with each assigned project
- Work with students outside of the classroom, one-on-one. This shows students, that as a teacher, you truly care about them.
- Offer a classroom where students experience success – nothing motivates like success.
- Share incidents of concern with your students. Use these as teachable moments!

It is imperative for PBIS and administrative teams to examine instructional techniques and resources used to teach the behavioral expectations and reinforcement systems. These systems must be culturally relevant to students. Policies should be culturally responsive and focused on prevention. Further, investment in developing appropriate social behaviors should be made before resorting to exclusionary practices. This may be accomplished by providing and implementing early intervention SEL programs that promote well-being, health, cognitive, and SEL skill development. These programs must then be evaluated to measure progress toward intended goals. Lastly, methods to sustain interventions over the long-term must be adopted and continuously evaluated to monitor growth, implementation, fidelity, and maintenance of programs.

It is important for administrators and district personnel to consider the costs and financial benefits of SEL. Perhaps equally important, is for administrators and district personnel to consider that minority children and youth from high-poverty communities often encounter significant challenges in their school, home, and community settings, including language barriers, limited family support, substantial academic and behavioral problems, financial hardships, medical and mental-health issues, and myriad other concerns. The concerns that

minority and high-poverty students encounter is significantly high and has been for decades (Durlak et al., 2011; Merrell et al., 2008; Nakayama, 2008; Wagner et al., 2005; Whitcomb, 2009). However, with adequate funding and support, SEL is an evidence-based way to increase prosocial behaviors, improve academic achievement, reduce conduct problems, and decrease emotional distress. Therefore, administrators or decision makers can build capacity through policy supports, professional developments, SEL coaching, and general support to staff for the most appropriate and effective ways to identify, select, implement, assess, and maintain effective SEL interventions (Durlak et al., 2011).

School districts interested in implementing SEL programs may receive the support of CASEL, who provides guidance about receiving funding and similar opportunities. CASEL (2011) suggests districts consider use of discretionary funds for prevention, safety, mental health supports, and health promotion. Another potential resource may be a school's Parent Teacher Organization (PTO). Further, the PTO may be able to provide resources or funds for parent or family education, for resources (books or curricular materials), and even for parent support programs. Community foundations and organizations such as hospitals, non-profits, even community health agencies may be able to offer support towards wellness and prevention programs. Lastly, CASEL is the gold standard in the field of SEL and provides a wide array of resources to support SEL practice, policy, and research. The CASEL website may be used to obtain videos, instructional tools, publications and guides, and the latest updates in the field of SEL.

Conclusions

The purpose of this study was to investigate the effectiveness of CASEL SELect programs when used with minority students from high-poverty communities. Based on a review of the literature, prior evidence provided support for the efficacy of these programs (Conduct Problems Research Group, 1999; Domitrovich, Cortes, & Greenberg, 2007; Reid et al., 2007). The Hedges and Olkin meta-analytic approach was used for the current study (Johnson, Mullen, & Salas, 1995). Findings from the meta-analysis were in support of three of the four research hypothesis. In particular, SEL programs yielded significant positive effects on targeted outcomes when used with minority students from high-poverty communities.

These findings suggest that SEL programs tend to have positive impacts on minority student outcomes with regard to prosocial behaviors, conduct problems, and academic performance. The results of this study built on prior results from the Durlak et al. (2011) meta-analysis. With this information, school districts may begin to identify, select, and use high-quality and evidence-based SEL programs with minority students from high-poverty communities. One of the study's major limitations was that it was restricted to only select studies from elementary and middle schools. An important next step will be to spread awareness of CASEL SELect programs that had positive effectiveness ratings with minority students from high-poverty communities.

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Appendix A

Coding Manual

Apply to All Codes:
If a study does not provide sufficient information about a specific code below, code as 95.

SECTION ONE: GENERAL CHARACTERISTICS

1. Authors of study

2. Year of report (enter four digits, e.g. 2005)

3. Source of report
1 = Published article or book 2 = Unpublished (dissertation, thesis, conference paper, etc.)

SECTION TWO: PARTICIPANT INFORMATION

4. General locale for intervention
1 = Inside the United States 2 = Outside the United States (specify country)

5. More specific locale of intervention (U.S. Census Bureau, 2000)
1 = Urban area (defined as an area that includes a central city and the surrounding densely settled territory that together have a population of 100,000 or more) 2 = Suburban area (defined as an area outside a principal city and inside an urban area with a density of 500 people per square mile) 3 = Rural area (defined as an area outside an urban area with a population density of less than 500 residents per square mile) 4 = Other/ Not Reported 99 = Combination of areas

5. Did the INTERVENTION take place at more than one site (e.g. across schools, communities)? Code only if intervention was at multiple sites, not if controls drawn from another site.
1 = Yes (specify) 2 = No

6. Education Level of Participants
1= Elementary (K-5th or ages 5-10) 2= Middle School (6th-8th or ages 11-13)
3= High School (9th-12th or ages 14-17)

7. Mean age of participants

8. Sex = report the percentage that is female.

9. Race/Ethnicity: Does the sample in the study include 51% minority. The term minority refers to anyone who is not single-race white; examples include African Americans, Hispanics, and Asians.
1 = Yes (if yes, then provide percentages) 2 = No (if no, then do not review the study) 3 = Unknown

10. SES Status: Indicate if >40% or more of the sample are described as low SES (at or <poverty line. The term low SES describes populations in which 40% or more of the sample is considered "low-income." Their status is determined by such measures as eligibility for free or reduced school lunches or attendance at a school designated as Title I.
1 = Yes (if yes, then provide percentages) 2 = No (if no, then do not review the study)

11. Main Presenting Problem: Indicate which are the pre-existing or the primary problems the target population possesses. If participants do not display any presenting problems, mark None.
1. None 2. Problems/Negative outcomes in Child or Youth
3. Family relationships 4. Peer relationships 5. School functioning 6. Physical Health
7. Drug use/misuse 8. Other 9. Multiple Problems Across above categories

SECTION THREE: INTERVENTION CODES

12. Identify all major components of the intervention
(Check all that apply)
1 = school 2 = parents 3 = community

13. Number of sessions involved in the intervention

14. Average length of each session (in minutes)

15. Total length of the intervention (in hours)

16. Duration/course of the intervention from beginning to end (in weeks)

Note. Consider a school semester to be 18 weeks. A school year is 36 weeks

17. Timing/intensity of the intervention delivery
1 = daily (at least 4 days a week in school, or 5 outside of school setting)
2 = more than once a week 3 = usually once a week 4 = a periodic or less than once a week

SECTION FOUR: METHODOLOGICAL FEATURES

18. Reliability: does author provide data in current report or cite previous research about measure's reliability.

1 = yes 2 = no

Measure possesses acceptable reliability if correlations are $\geq$.70; kappa's are $\geq$ .50, or levels of rater or inter-judge agreement are $\geq$ .70.

19. Validity: does author provide data in current report and/or cite previous research about measure's validity.

1 = yes 2 = no

20. How did authors handle attrition? This refers to participants lost in either the intervention of control condition between the time of pre and post assessment. Do NOT count differences in terms of recruitment. If 100 students were eligible but only 30 participated, that is NOT attrition.
1 = There was no apparent attrition 2 = Attrition was between 0 and 10%
3 = Attrition was between 11 and 29% 4 = Attrition was more than 30%

21. Type of experimental design
1 = randomized experiment design (true experimental designs only)
2 = nonrandomized design (quasi experimental and matched control group design)

Section Five: School Universal Intervention Format

Studies are to be categorized according to the primary change agent, and the primary setting for the intervention.

22. Primary change agent who delivered the intervention

1 = Classroom teacher (count if delivered in health or other special class as long as this teacher is the one usually in the classroom)
2 = Researcher and/or research staff (consider graduate student doing their dissertation as researcher)
3 = School counselor, psychologist or social worker
4 = Multiple school personnel – applies to those interventions in which several members of the regular school staff participate.
5 = Other

Note. For this code, a researcher may serve (and usually does) as a consultant or trainer, but we want to code who directly delivered the intervention to the children.

Categorize formats as being administered by a teacher or researcher and conducted in the classroom or in a pull-out group format. Studies were then described by two levels of intervention efforts: (1) Explicit Skills Development and (2) Outside the Classroom/School Level Components.

23. Assign to one of the following categories
1. Class by teacher
2. Group by researcher
3. Group by teacher
4. Class plus school, parent, or community components
5. Schoolwide format
6. None of the above (e.g., class by school counselor/school psychologist, class plus by researcher, group by teacher, etc)

Here are the descriptions.

1. Class by teacher: Studies in this format approach included teacher-led explicit skills development (i.e. a 20-session curriculum designed to teach students' communication, goal-setting, and relationship skills or a semester long curriculum focused on improving students' problem solving skills) or integrated instructional approaches (i.e. teachers adopted morning meetings, incorporated new classroom management strategies, and established new classroom norms). The important distinction of studies in this format approach is that all programming occurred within the classroom by the regular classroom teacher (while researchers might have provided training and/or observed teachers throughout the study, the students receive all instruction from their usual classroom teacher).

2. Class by researcher: Studies in this format approach used researcher or researcher-trained and supervised personnel (i.e., graduate or undergraduate students) to deliver classroom level skills instruction (i.e. a 27 session social cognitive-behavioral curriculum or a 10-session curriculum designed to teach anger management techniques). The important distinction of studies in this format approach is that all programming occurred within the classroom and was delivered by a researcher or his/her trained staff (i.e. an experienced trainer of a prevention program or a community member that the research team trained) who came into the classroom and did not have an pre-existing relationship with the students.

3. Group by researcher: Studies in this format approach used researcher led skills instruction (i.e a 10 session curriculum focused on teaching students' stress management skills or a 12-week assertiveness training program) outside of the classroom. The important distinction of studies in this format approach is that students participated in this programming outside of their regular classroom; either several students volunteered to participate in this program instead of an elective such as health, gym, or music class (i.e. all students watched a video about learning stress management and then students who were interested signed up) or this type of skills instruction occurred after school on-site. Rarely, researchers pulled students out of class and met with them during a period where teachers were giving academic instruction. Most of the time a researcher met with groups of students from several different classrooms and researchers met with small groups of students at a time. Rarely, a researcher also provided individualized instruction to each student in the group in some way as a supplement to the group intervention.

4. Class plus or multi-component interventions. Studies in this format approach included the same teacher-led skills development (i.e. a 20-session curriculum designed to teach students communication, goal-setting, and relationship skills or a semester long curriculum focused on improving students' conflict resolution skills) or integrated instructional approaches (i.e teachers adopted morning meetings, incorporated new classroom management strategies, and established new classroom norms) as the studies in the class by teacher format. However, the important distinction of studies in this format is that they also included additional components involving the school, family, or community. For example, studies may include classroom skills instruction which is reinforced at the school level (i.e. students received conflict resolution training in the classroom and then became peer mediators in the cafeteria and playground or students received classroom instruction to promote positive behavior which was reinforced by schoolwide programming to improve school culture). Or …studies can seek to develop collaboration with parents in some way. (i.e. students received classroom social skill training which was reinforced

by exercises they had to complete at home with parents; or parents might participate in discussion or training sessions that are connected to the school-based intervention in some way. Or…one component might take place in the community in some way---(students received classroom social problem solving instruction, completed four hours of community service a week, and engaged in a mentoring relationship with an elderly community member).

5. School-wide format: Studies in this format approach involved teachers and other school personnel in school-wide programming. This may take the form of : (a) a school planning team to strategize how to better meet the needs of at-risk students and provide the appropriate services, (b) new school-wide discipline policies and procedures around school violence that were reinforced by school personnel in and outside of the classroom, (c) reorganized schools so that students took all of their core academic classes with the same set of students and were assigned a homeroom teacher as their administrative/advisory link to the school. Studies in this group might contain some classroom activities connected to the school wide effort, school wide activities and changes are the primary element.

24. Explicit Classroom Level Skills Development
Indicate if either of the following strategies were used to develop social and emotional competencies in the classroom. Check all that apply.
1= Single curriculum for SEL skill development. The intervention uses a single classroom-based approach which addresses social and emotional development (i.e. a problem solving curriculum).
2= Integrated curriculum for SEL skill development. The intervention infuses social and emotional development into the regular school curriculum or classroom activities (i.e. The Child Development Project includes a language arts program that incorporates SEL. Responsive Classroom provides instructional strategies for teachers to use throughout the day).

25. Outside the Classroom/School Level Components
Mark any of the following categories that reflect different ways to extend the learning environment outside the classroom. Check all that apply.
1 = School level skill reinforcement outside of classroom such as school assemblies, playground practices, and school-wide discipline approach supported by cafeteria rules. It should also be specified here whether this ties into a curriculum or stands alone.
2 = School systems/structural change which restructures the school format or policies in order to enhance students' social and emotional development (i.e. restructuring the school so that a group of students take all academic classes together or creating a School Planning and Management Board which changes school policies and rules)
3= Parent involvement including any attempt to increase parental skills or change the home environment through parental education, structures for parents to become involved with the school such as increased parent-teacher communication, and structures for parents to become involved with their child such as take-home worksheets for parent and child to do together
4= School-community partnerships such as increased school involvement with a local community center, increased volunteer/internship opportunities for students at local organizations, or mentoring relationships with community members

Use of Evidence-Based Training Procedures: SAFE

26. Will judge this in terms of two features related to the content and two features related to the process of programs.

Program Content:
1. Focused: does the program have at least one component focused on developing personal or social skills?

Ask yourself: Does the program devote some time and activities specifically or primarily to promoting personal or social skills?

Score: 1 = yes 2 = no
2. Explicit: does the program target specific personal or social skills?

Ask yourself: Can you tell what specific personal or social skill youth are expected to acquire in the program?

Look for instances where the personal or social skills in our coding manual are identified. Self-esteem, self-concept, racial or cultural identity, interpersonal problem solving, refusal skills, coping strategies, and so on.

Score:
1 = yes 2 = no

Program Process

27. Sequenced: Does the program use a sequenced set of activities to achieve their objectives relative to skill development?

Score: Yes or No.

Note. The presence of a program manual, or set of lesson plans signals Yes for this item. Several reports describe the use of "structured" skill activities. If so, also score Yes. If the report only mentions the name of a program or set of activities with which you are not familiar, write the term down and we will discuss it.
Note. For programs attempting to promote self-esteem or cultural identity, the "skill" involved is a bit different. Are there any indications or explanations in the report of how the program activities are connected and build on each other to achieve their desired goal? Do youth reflect on their actions or performance, are they asked to consider how it pertains to who they are and what positive features they possess?

If the report only speaks generally about activities, e.g., recreational, youth development, field trips, etc., then code No.

28. Active: does the program use active forms of learning to help youth learn new skills?

What qualifies as active forms of learning?

In general, youth must act on the material, try new behaviors, participate in role-plays, or do behavioral rehearsal when practicing new skills. Hands-on forms of learning are used. Youth learn by doing. They practice doing new things as opposed to passive forms of learning that emphasizes didactic instruction, lectures, or general discussions in which children primarily talk, but do not practice new behaviors.

Also look for indications of live or media modeling of the desired behaviors

Note. Do **not** score yes if most activities are lecture-oriented (didactic) or discussion-oriented.

Score:
1 = yes 2 = no

Outcome Level Codes

These codes are used to describe individual outcomes within interventions by categorizing each outcome as a skill, attitude, behavior, or measure of school performance.

Classify each outcome as one of the two outcome categories below or code as 3 (none of the above).
1 = Positive Social Behavior includes outcomes such as getting along with others, good social skills, and social adjustment taken from child, teacher, and independent observer. These outcomes reflect *daily behavior* rather than performance on hypothetical situations.
2 = Conduct Problems includes child, teacher, or independent observer ratings of disruptive school behavior such as teacher reports of acting out in the classroom, outcomes that reflect behavior problems and misconduct that occur outside of the school setting such as parent reports of problem behavior, and measures of violence, aggression, and bullying which reflect naturalistic behaviors such as self reports of violent acts. School record data of suspension and expulsion incidents are all included. Role play behaviors, behavioral intentions or attitudes towards violence should be placed in other categories.
3 = Emotional distress includes outcomes such as depression, anxiety, school stress, and social withdrawal. These measures can be taken from child, teacher, or independent observer ratings.
4 = None of the above

SECTION EIGHT: CALCULATION OF EFFECT SIZES

Record the following information for each outcome:

- Number in the experimental group at pre test
- Number in the control group at pre test
- Effect Size (comparing control and experimental groups) at pre test (if possible)
- Number in the experimental group at post test
- Number in the control group at post test
- Effect Size (comparing control and experimental groups) at post test
- Adjusted effect size: post effect minus pre effect. Watch the signs!

SECTION NINE: MEASUREMENT FEATURES

29. Source of outcome data
1 = Child/adolescent 2 = Parent/care giver 3 = Teacher
4 = Independent observers or raters (includes interviewers or role play coding/rating)
5 = Community personnel, staff 6 = Peers
7 = Grades, test scores or other objective record (e.g. police records)
8 = Report from those involved in intervention (e.g., group leader. Interviewers)