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Social emotional learning in a Guatemalan preschool sample: Does socioeconomic status moderate the effects of a school-based prevention program?

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Abstract

Researchers evaluated the effectiveness of a universal social skills program and compared social emotional knowledge on individual skills interviews with 100 Guatemalan preschool children from resource rich ($N=47$) and resource poor ($N=53$) backgrounds. Participant ages ranged from 3- to 6-years-old. SEL was evaluated prior and subsequent to receiving a school-based social emotional educational program. Results were analysed in terms of effectiveness of SEL by error type. Data show that preschool children from both poor and wealthy families made significant gains in social-emotional knowledge as a result of SEL instruction. In order to better understand where SEL might be improved, analyses of incorrect responses provided by children from each SES group were analysed. Findings demonstrated no significant differences between the two groups in terms of incorrect or socially unacceptable responses although, overall, the groups differed in depth of social emotional knowledge. Implications for ‘closing the gap’

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between children's social emotional development in high and low SES groups are discussed.

Keywords

Guatemala, preschool, socioeconomic status, social-emotional knowledge

The global crisis of youth violence has become widely recognized with mounting international research documenting its extent. Representing the first review of violence prevalence worldwide, the World Report on Violence and Health (WHO, 2002) presented estimates of 9.2 deaths per 100,000 as a result of violence among youth, with the highest rates in Latin America and Africa. Twenty to 40 injuries requiring treatment occur for every youth homicide. At school, youth violence is expressed through bullying, physical aggression, and weapon-carrying. Cross-sectional research reveals rates of reported bullying victimization from 5% to 70% across as many as 66 different countries and regions of varying culture and geography (Due et al., 2005; Due, Merlo, Harel-Fisch, & Damsgaard, 2009). Although bullying rates have declined over the prior decade, surveys of 13-year-old boys collected by the World Health Organization in 2009–2010 continue to show occasional bullying of peers with the highest rate of 35% for Romanian youth, 10% for those in the United States, and the smallest rates in Sweden and Wales (4%; Currie et al., 2012).

Support for social emotional learning (SEL)

A public health crisis of this magnitude requires a comprehensive model that incorporates the knowledge base from a broad range of fields, such as child development, developmental psychopathology, prevention science, public and mental health, and educational psychology. Toward this end, Osher and colleagues (2012, p. 27) have proposed a 'safe and effective school framework' that addresses the risk and protective factors for social and behavioral problems, as well as academic problems, within a larger model spanning multiple levels (individual, classroom, school, community). Social, behavioral, and academic outcomes are viewed as interdependent, based on the growing research showing significant relationships among these domains (Greenberg et al., 2003).

Within the framework, Osher and colleagues conceptualize support for students as entailing four dimensions: School connection, social and emotional learning, positive behavioral support, and engagement in learning. The dimensions are viewed as overlapping and interdependent, with intervention in one dimension having impacts on the other dimensions. The current study focus falls primarily in the dimension of social and emotional learning. This area deals with the development of social and emotional skills needed for competently adapting to environmental demands and profiting from the available

opportunities (Waters & Sroufe, 1983). The Collaborative for Academic, Social, and Emotional Learning (2005) describes the goal of SEL programs as the promotion of the following interrelated skills and abilities: Self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

Social emotional learning (SEL) programming offers an important means of fostering these five critical competencies in children and youth, validated by a growing evidence base demonstrating its effectiveness. Research syntheses and meta-analytic research have found primary prevention to lead to better interpersonal skills (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002; Durlak & Wells, 1997), higher quality relationships with adults and peers (Catalano et al., 2002), and improved life skills such as communication, assertiveness, and coping (Tobler, Roona, Ochshorn, Marshall, Streke, & Stackpole, 2000). Moreover, programming has been effective in reducing a host of negative outcomes including truancy from school, substance use, and risky sexual behavior (Catalano et al., 2002; Wilson, Gottfredson, & Najaka, 2001), and both internalizing and externalizing problems such as anxiety and aggression, respectively (Durlak & Wells, 1997).

Although educators have long known of the associations between learning and social-emotional competencies (Wang, Haertel, & Walberg, 1997), clear evidence of improvement in academic achievement as a result of prevention programming has only been available more recently. In a review of the knowledge base relating SEL instruction to achievement, Zins and his colleagues found that better social and emotional competencies promote higher academic performance through enhancement of self-awareness, motivation, and coping (Zins, Weissberg, Wang, & Walberg, 2004). In addition, interpersonal and problem solving skills enable students to more effectively resolve problems interfering with achievement and make better decisions as learners. Further, a meta-analysis of 213 studies of SEL programs by Durlak and his colleagues revealed a gain in academic achievement of 11 percentile points for students participating in SEL programming (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

SEL programming at the preschool level

Young childhood is arguably an optimal stage of development to foster social and emotional competence and bolster protection from the progressive use of aggression (Tremblay, Séguin, Zoccolillo, Zelazo, Boivin, Pérusse, & Japel, 2004). Since social behaviors are best taught and practiced within a group setting, the classroom offers a logical setting for application of SEL curriculum (Barkley et al., 2000). Preschool teachers have been shown to be powerful socialization agents for their students both formally and informally (Denham & Burton, 2003; Pianta & Stuhlman, 2004). Indeed, an extensive review of positive youth development programs evinced the strongest effects for children at the preschool level (Durlak et al., 2007). Furthermore, preschool programs tend to involve parents in classroom activities and skill-building to a greater degree than elementary and secondary

levels. As a result, parents may be better equipped to support their preschool children's practice and generalization of skills.

A number of published school-based SEL curricula are designed for use with very young children, including 'Second Step' (Committee for Children, 2002), 'Promoting Alternative Thinking Strategies' (PATHS; Kusche & Greenberg, 1994), 'The Incredible Years' (Webster-Stratton, 1992) and 'Strong Kids' (Merrell, 2007). These SEL programs provide structured, manualized lessons that help children learn how to recognize and cope with their own emotions, experience empathy for others, adequately manage frustration and, ultimately, develop understanding for others in order to arrive at productive solutions to socially-based conflicts. School-based universal prevention programs target both children at risk for developing emotional or behavioral problems as well as the general population of students with the goal of teaching foundational SEL skills and competencies.

Although a growing empirical base supports the use of universal programming for elementary-aged students, much less is known about school-based SEL instruction at the preschool level. A 2003 review by Joseph and Strain (2003) revealed only eight published studies documenting the effectiveness of comprehensive SEL curricula designed for young children, seven of which involved classroom-based lesson instruction. The relatively new commercially published Strong Start Pre-K curriculum uses brief lessons, children's literature, and scenarios to teach social and emotional competence. In a quasi-experimental design with 84 preschool students, researchers found improved student-teacher relationships and fewer internalizing problems (e.g. fearfulness, problems making friends) for experimental students per teacher ratings following the six-week program (Gunter, Caldarella, Korth, & Young, 2012). Most recently, the Values Education Programme for preschool children demonstrated a significant impact on social problem solving, psycho-social development, and social interaction skills (Esra, 2014).

Domitrovich, Cortes, and Greenberg (2007) conducted a larger study investigating the effectiveness of the Promoting Alternative Thinking Strategies curriculum (PATHS) with 246 economically disadvantaged children enrolled in Head Start classrooms. The classroom-wide program focuses on improving social and emotional competence and decreasing problem behaviors through 30 weekly lessons designed to increase emotional awareness and regulation, teach problem solving skills, and foster positive peer relationships and classroom atmosphere. The study results evinced higher emotion knowledge skills and greater teacher- and parent-rated social competence in intervention children.

The effectiveness of Aprender a Convivir program, the Spanish version of The Incredible Years (Webster-Stratton, 1992), was evaluated with a preschool sample in Granada, Spain (Benítez, Fernández, Jusitica, Fernández, & Justicia, 2011). The four-module program that teaches rules and rule-following, emotions and feelings, communication skills, and helping and cooperation skills was implemented with a sample of 4-year-olds over the course of a school year. Findings indicated

significant improvements in social skills and reductions in antisocial behaviors in the experimental group as compared to control subjects.

Preliminary effectiveness research is available for the program under investigation in the current study, the commercially published Second Step preschool-kindergarten program. The preschool-kindergarten Second Step curriculum is similar to the versions for school-aged children in its use of a cognitive behavioral approach to promote social and emotional skills and, in turn, inhibit aggressive behavior. The Second Step program for elementary school students has undergone three rigorous studies. In a study of almost 800 second- and third-grade children from six matched school pairs, Grossman and his colleagues found more positive social behavior and less aggression for intervention students after the program within the subset of students for whom playground observations were collected (Grossman et al., 1997). In addition, reduced physical aggression at the six-month follow-up was observed for students who received the program.

In a study of 15 schools with partial random assignment, Frey and colleagues followed second- and fourth-grade students over two years (Frey, Nolen, Van Schoiack-Edstrom, & Hirschstein, 2005). After the first year of program implementation, those who had received Second Step were rated more socially competent and less aggressive by their teachers than were comparison students. After participating in two years of Second Step, intervention students showed a greater preference for prosocial goals and were less aggressive during a contrived conflict task with peers. A randomized trial of the German-translated program *Faustlos* with 718 primary students found less anxiety, depressive symptoms, and withdrawal per parent ratings for children receiving the program (Schick & Cierpka, 2005).

To date, McMahon and her colleagues (2000) have conducted one of a small number of published study of preschool and kindergarten students, implementing the Second Step preschool/kindergarten program with an inner-city, lower income sample. Using a pre- post-test design no control group, the researchers found significant gains in social and emotional knowledge during individual interviews. In an unpublished experimental study, McCabe (personal communication, 1999) demonstrated reduced peer conflict and use of antisocial solutions for the most aggressive children who received the preschool/kindergarten program in their childcare or Head Start classroom compared to the aggressive children in the control group.

The need for cross cultural research

Although more than several decades of research in the United States and other first-world countries have been carried out, evidence of the effects of SEL programming in developing countries is scarce. Cross-cultural research is critically needed to explore the transferability and effectiveness of SEL programs with a record of empirical support. In one of the few published studies conducted in Latin America, Amesty and Clinton (2009) investigated the effectiveness of *Segundo Paso* (Spanish version of Second Step) with young Venezuelan children.

The researchers conducted extensive training with preschool teachers that covered information about the program and its implementation, child development, and risk and protective factors related to maladaptive behavior. Segundo Paso was subsequently implemented in six classrooms of preschool students ($N = 141$) over a period of 3 months, with program fidelity supported by the first author who conducted frequent lesson observations and consulted weekly with program teachers about implementation and cultural adaptation. The Second Step Interview (developed by the curriculum publishers) was administered to each child in the experimental classrooms as well as the six classrooms in the control group ($N = 139$) before and after program implementation. The interview measure describes hypothetical scenarios and queries children about the characters' feelings and possible ways to solve the social problems represented (see Method section below for more detail). Significant gains in social and emotional knowledge were found for the children receiving the program whereas no improvement was evident for the control students.

Current research questions

The foremost question we sought to answer with the present study was whether the Spanish version of Second Step for preschool/kindergarten – Segundo Paso – was effective in teaching young Guatemalan children social and emotional concepts and skills. Given preliminary findings of social-emotional knowledge and behavioral improvements in US students and the success of the cultural adaptation of the program in Spanish for Venezuelan children, we anticipated the program would promote development of social and emotional knowledge in Guatemalan preschool students.

The second purpose of this research was to study the potential differential impact of Segundo Paso in two preschool settings, a private school and a publicly funded preschool program. The two settings represented quite different student populations with the private school students hailing from wealthy families and those attending the public school coming from economically disadvantaged families, largely mirroring the extremes of the socioeconomic strata in Guatemala. In addition to differences in student populations, the school settings were characterized by dissimilarities in resources, such as supplies and furniture. Hence, the second research question was whether students' social and emotional knowledge following program implementation varied by settings comprised of students from differing family and school resources.

Poverty is widely recognized as a significant contextual factor in behavior in addition to individual factors (Dodge & Pettit, 2003). Children and youth from low socioeconomic backgrounds are at risk for more problems in mental and physical health and less life satisfaction (Bradley & Corwyn, 2002). Moreover, socioeconomic status has been associated with lower social competence (Iversen & Holsen, 2008), a more negative view of self, less optimism (Finkelstein et al., 2007), and lower academic achievement (Evans & Rosenbaum, 2008). Although mixed results

have been found in general prevention research (largely focused on health outcomes; Frohlich & Potvin, 2008), a meta-analytic study by Wilson and Lipsey (2007) demonstrated greater treatment effects on aggressive and disruptive behavior for universal prevention programming with students from lower income backgrounds. In fact, in a study of the Norwegian translation of Second Step (Steg for Steg) with fifth- through seventh-grade students, Holsen, Iversen, and Smith (2009) found better results for those from low SES backgrounds in social competence and perceived academic achievement. Thus, despite the fewer resources in the public program, we predicted Segundo Paso would yield greater benefits for the public preschool students who presumably came to school with less developed social and emotional competence.

Method

Participants

Preschool programs. Public preschools in Guatemala City identified as high risk (i.e. located in communities with high rates of antisocial behavior) by the Executive Secretary for the Commission Against Addiction and Illicit Drug Trafficking, or SECCATID, were approached for participation in the program. The schools were offered financial support on behalf of the US Embassy Department of State's Demand Reduction Programs for teacher training and subsequent implementation of an SEL curriculum. In Guatemala, public schools serve the general population in a country where the average monthly household income is estimated at \$594 (<http://databank.worldbank.org/data/views/reports/tableview.aspx>) and thus represent a low socioeconomic or SES group. Although no tuition is charged to attend public educational programs, the requirement of families to cover costs of uniforms, books, other materials, and transportation preclude enrollment of many children (Gorman & Pollitt, 1992). Moreover, public schools tend to have high teacher to student ratios and very limited resources, possessing extremely few items such as posters, manipulatives, and toys.

In addition to the public schools in high-poverty, high-crime areas of Guatemala City, two private school programs in the city were invited to participate in program implementation. The private schools were provided with the same free teacher training as the public programs but received limited support for purchase of the curriculum materials. Tuition at the private school eventually selected for this study is \$285 per month, much more than the average worker's monthly income and ensuring exclusivity of the school to those from high SES backgrounds. In contrast to the public schools, the private schools had many more resources, such as individual desks, colorful displays on the walls, and items such as clay, paper, and markers. In many ways, they looked similar to classrooms in the United States. One public school and one private school were then selected for the study based on the schools' interest and willingness to commit to the study procedures.

Explicit permission was subsequently obtained from the two school principals and the school district authorities. Following school selection, teachers were approached about potential study participation with the opportunity of ongoing support for teaching the program. The teachers first expressing their interest and agreement in the study were selected as participants. Parents of children in the study classrooms received informational brochures about SEL and a consent form allowing their child to participate.

Participants. An overall consent rate of 99% was obtained. Parent consent was received for all children to participate with the exception of one child in the public school. The child whose parent denied permission joined a different pre-school class during Segundo Paso lessons in his classroom.

The private school sample consisted of two classrooms comprised of 47 children (36.2% female) ranging in age from 4 years, 0 months to 6 years, 1 month with an average age of 4 years, 7 months ($SD = 0.579$). The age range for the public school group varied from 3 years, 8 months to 6 years, 2 months with an average of 4 years, 4 months of age ($SD = 1.0$). The public school sample included 53 preschoolers (62.3% female) from two classrooms. All children were native Guatemalans and Spanish-speakers and received the program in Spanish.

One teacher from each school was involved in program implementation. In this study, both teachers were female. Each teacher taught two half-day preschool classrooms. The private school teacher had earned a bachelor's degree in education; the public school teacher held her government-issued teaching certificate, which entailed specific post-secondary training in pedagogy.

Social-emotional learning curriculum

The program, Segundo Paso, the Spanish translation and adaptation of Second Step: A Violence Prevention Program (Committee for Children, 2003), was selected for this study since research exists demonstrating its effectiveness with Latin American preschool children (Amesty & Clinton, 2009). As noted in the Amesty and Clinton paper, cultural adaptations required for adaptation of Segundo Paso were relatively minor and included additions such as attention to specific linguistic terms and incorporation of contextually meaningful examples and stories.

The Segundo Paso preschool program is comprised of three units: Empathy, emotion management, and problem resolution. The preschool program consists of a total of 25 lessons. The first unit – Empathy – includes nine lessons, each of which focuses on teaching very young children to identify common feelings using facial expressions and incorporating verbal labels. The Emotion Management Unit, consisting of seven lessons, follows. The lessons in this second unit focus on teaching preschoolers skills to help them calm down when they are upset. This is done with the ultimate intention of assisting them in avoiding impulsive responses, which tend to be ineffective or counter-productive. The third and final unit, Problem Resolution, consists of nine lessons. This unit logically follows

previous lessons that taught emotion recognition and emotion management since, upon identifying one's own and others' feelings and calming down, the preschool child can now consider options for addressing the situation that caused their distress. Three steps for solving problems are taught, with specific encouragement to seek options when the first solution does not work. The problem solving technique is limited in terms of complexity in order to ensure developmentally appropriate instruction (Committee for Children, 2003). Typical problems for very young children that are addressed include sharing toys and taking turns.

The preschool version of Segundo Paso includes age-appropriate materials such as puppets, music and movement, posters, photographs representing relevant situations, and a reward system. Additionally, suggestions for integration of social-emotional learning into regular classroom activities are included to assist in generalization of skills beyond the 20-minutes weekly or bi-weekly sessions presented by teachers.

Procedure

Teacher training. Prior to administration of the Segundo Paso lessons in the classroom, teachers participated in a week-long Spanish language training and orientation presented by a trained professional with expertise in child psychology, education, and universal prevention. The 7-hour sessions over the course of 5 days addressed key themes in prevention, child development, and social emotional learning, as well as application of lessons and materials in the Segundo Paso program and treatment fidelity. As part of the orientation, each participating teacher presented a particular lesson from the curriculum to his or her peers. This allowed trainers and colleagues the opportunity to review teaching techniques and provide constructive feedback to help ensure fidelity. These teaching demonstrations proved a key component of the training exercise since Segundo Paso relies upon scripted lessons, a method that was relatively new to some teachers who had become adept at developing their own materials and were accustomed to significant improvisation. The teachers selected for participation in the present study demonstrated clear understanding of SEL concepts, the Segundo Paso curriculum and lesson application during training.

Program implementation. Program lessons were taught weekly as recommended by the curriculum publishers. Instruction was provided in Spanish-only in the public school setting. In the private school, teachers were fully bilingual and Segundo Paso lessons were offered in Spanish, though the teacher frequently taught significant vocabulary in English and Spanish, as well. This was consistent with the multilingual nature of instruction throughout the preschool program. (Segundo Paso curriculum kits include both English and Spanish materials.) Thus, at times, students were presented with simultaneous instruction in both languages; at other times, instruction was conducted only in Spanish.

Program concepts and skills were reinforced through the use of extension and generalization activities per the curriculum recommendations and contextually relevant adaptations. For example, art activities involved drawings of various emotions and literacy activities included reading or telling stories aloud and highlighting vocabulary from the curriculum. Moreover, teachers supported children's use of Segundo Paso language and skills to help children manage daily frustrations and peer conflict.

Implementation fidelity was supported through regular consultation with program trainers and classroom observation by program trainers, who also provided suggestions to teachers for program. In general, classroom observations during Segundo Paso lessons indicated implementation integrity by the teachers and consistent use of the lesson scripting and indicated activities. Regular use of extension exercises and support of children's generalization of skills was also observed. Each of the classrooms received all the lessons within the program. Student attendance during program implementation was consistent in both schools; the few students with poor attendance were not included in analyses.

The effectiveness of the Segundo Paso program was evaluated using a semi-structured individual interview titled the *Entrevista Segundo Paso* [Second Step Interview], a measure formulated by the curriculum developers (Committee for Children, 2002). The interview consists of a series of photographs similar to those utilized in the Segundo Paso curriculum and questions related to them. Items include emotion identification (i.e. happy, sad, scared) and common social challenges, such as being rejected or having no access to their toy of preference. Versions of the *Entrevista Segundo Paso* are available specific to boys and girls. In this way, preschoolers do not become too focused on gender differences in social situations and retain focus on the content of the question.

The 20-question interview was administered by trained prevention specialists to all participating children; the same research team conducted the interviews at each school. The first data collection point occurred at the beginning of the school year in Guatemala, which is in February. The post-test was administered at the end of the Segundo Paso implementation between the months of August and October. Each interview required approximately 30 minutes. With the exception of one item, each question on the *Entrevista Segundo Paso* permitted a query and, as such, a total of 2 points could be earned. In the instance in which a child provided a single answer, 1 point would be received. In the case of no response or an incorrect reply, no points were assigned.

An overall accuracy score was computed for children's responses on the *Entrevista Segundo Paso*. There is no 'passing' score on the measure; the accuracy score was treated as continuous variable. Additionally, incorrect responses were categorized by type. Five types of errors were defined: No response/don't know; repetition (i.e. the same answer for consecutive items); antisocial (e.g. grabbing a toy from a peer); unrelated (i.e. no relationship to the test item); or generalization (i.e. a vague response such as 'good' or 'bad').

Prevention specialists were trained by the lead author to score the interviews, each of which was scored twice. In the rare case of disagreement on a given score, the lead author reconciled the discrepancy with the scorers.

Psychometric data are not available for this instrument. However, the curriculum developers used the Second Step interview to study preschool and kindergarten children's social and emotional knowledge and skills following program implementation (Moore & Beland, personal communication, 1992). The nonequivalent-control group design resulted in higher skills shown by program students (both preschoolers and kindergarteners) at post-test compared to those who did not receive the curriculum. Follow-up analyses using stepwise multiple regression indicated that whereas group (experimental versus control) was a significant predictor of change in social-emotional knowledge and skill, grade and class were unrelated. These results suggest that for the control group, a degree of consistency was apparent for the measure from the first to second administration. The interview measure has been used in two previous published studies demonstrating effectiveness of the *Second Step* program, one with a control group (Amesty & Clinton, 2009) and one without (McMahon et al, 2000).

Results

The primary focus of this study was to examine differences between pretest and posttest SEL knowledge and misconceptions in preschool children from high socioeconomic backgrounds and low socioeconomic backgrounds. For the initial analyses, the total number of items correct on the *Entrevista Segunda Paso* was calculated and compared within and between groups. These findings are discussed in the upcoming section titled, 'SEL Overall Comparisons'. Subsequently, comparisons between type of error responses by SES are presented in the section titled 'SEL Response Quality Comparisons'.

Homogeneity

Homogeneity of variance of the two groups of preschoolers at the pretest condition was assessed using Levene's test. Results from this analysis did not reach significance ($p = 0.265$), indicating no difference in the variances of the two samples.

SEL overall comparisons

A mixed between-within subjects Analysis of Variance (ANOVA) was utilized in order to assess within-subjects SEL change for children from high and low SES conditions before and after receiving *Segundo Paso*, as well as to analyse between-groups differences comparing preschoolers from the two conditions. Although these analyses could be calculated separately, greater efficiency is obtained by combining both ANOVA types into a single analytical procedure which allows for identification of interactions (Moore & McCabe, 2003). There was a main

effect for time (pretest/posttest) on within-subjects comparisons, $F(1, 94) = 67.86$, $p < 0.000$ and a significant interaction, $F(1, 94) = 77.74$, $p < 0.000$. Both high and low SES samples, then, demonstrated significant improvements in SEL following implementation of the Segundo Paso lessons. However, a significant difference between overall SEL existed for each group.

SEL response quality comparisons

A series of analyses were conducted in order to better understand distinctions in SEL knowledge and application for children from low SES conditions and those from high SES conditions. Responses from children from each group— were categorized according to previously described criteria and compared at posttest.

Comparisons based on one-way ANOVA calculated for frequency of responses for each of the five error types on the Entrevista Segundo Paso indicated no significant differences between groups for any category (no response/don't know, repetition, antisocial, unrelated, generalization). The only trend that could be observed was the 'unrelated' category where preschoolers from the high SES school showed a greater inclination toward sharing tangential experiences when looking at test items than did the low SES participants, $F(1, 54) = 3.43$, $p = 0.070$. (See Table 1 for response quality comparisons.)

Table 1. Comparisons of error type by category.

Error category	df	F	η	P
a) No response/don't know – Child answers, 'I don't know' or sits in silence in response to an item	1, 38	0.33	15.3	0.567
b) Repetition – Child offers same answer as on immediately previous inquiry	1, 76	0.55	2.66	0.459
c) Antisocial – Child offers aggressive response (i.e. hitting, pushing, forceful removal of toy)	1, 20	1.11	0.33	0.305
d) Unrelated – Child's response has no apparent relation to item	1, 53	3.4	2.67	0.07*
e) Generalization – Response vague, does not incorporate specific information taught (i.e. Feelings identified only as 'fine' or 'good')	1, 41	0.80	1.7	0.377
Incorrect answers	1, 95	15.70	9.99	0.00**

*Indicates a trend nearing the $p < 0.05$ level of significance.

**Indicates statistically significant difference at $p < 0.001$.

Conclusions

Numerous studies support the teaching of SEL in school-based settings beginning in the preschool years. Research indicates that SEL programs can improve a child's peer relationships, investment in his or her academics, general resilience in the face of challenges and, ultimately, professional opportunities. In sum, SEL offers one means of supporting positive and healthy living for children into adulthood. SEL can be most effective if lessons are provided from the time a child initiates his or her education, notably as a preschooler.

While the idea of 'the earlier the better' is generally accepted in the prevention literature (Brotman et al., 2005; Herbert-Myers, Guttentag, Swank, Smith, & Landry, 2006), the very young children most in need of skills that can improve their social and academic well-being may not have the same opportunities to receive prevention programs. Given the nature of challenges youngsters from impoverished backgrounds face, providing SEL instruction represents a potential key area. The present study aimed to explore preschool SEL within the context of SES while paying particular attention not only to overall knowledge, but to specific types of errors in an effort to better understand discrepancies between high and low SES preschoolers and their SEL.

Results of the current project suggest that preschool children from both high and low SES families can make significant gains in their overall social-emotional knowledge and skills. The current data further show that, although high and low SES preschoolers receive the same program in their home classrooms with their teachers (all of whom were trained similarly in terms of curriculum application) significant differences in knowledge gain were found for the two groups. That is, high SES children demonstrated significantly greater SEL gain following the program compared to children in the low SES setting. The children from high-risk, low-resource backgrounds, then, improved in their social-emotional problem-solving, though not to the level of their higher SES peers. Given the significant barriers that Guatemalan children from families with limited resources must overcome in order to achieve positive long-term outcomes, more intensive SEL programming may be needed for children living in high poverty environments. Replication of the current study is indicated to determine if differential program outcomes persist under more rigorous study and across other Latin American populations.

In terms of specific types of response errors, no significant differences were found. That is, in regards to the overall quality of incorrect responses, low SES children were not necessarily more aggressive in their social problem-solving, nor did they offer the same solution repeatedly with greater frequency than high SES preschoolers. Indeed, the singular trend in terms of types of errors suggested that preschool children from economically well-off families tended to offer more tangential explanations than those from resource poor families. It may be that preschoolers from high SES families have a broader range of experiences and memories of them are provoked by photos in the *Entrevista Segundo Paso*.

Or, it may also be likely that these children possess broader vocabularies, better oral expression skills and even more practice engaging adults in conversation, for which reason they are more inclined to tell detailed stories than their low SES peers.

Although further research is required to completely understand distinctions in quality of responses and error patterns, this study offers a promising beginning. It suggests that current SEL programs may not need alter content *per se*, since all preschoolers appear to learn from them. However, young children hailing from particularly fragile social and familial contexts may benefit from additional generalization activities or extensive booster sessions in order to help ‘close the gap’ between very high-risk preschoolers and their peers. These sessions may be particularly meaningful if parents are included in them so that caregivers learn more effective coping and social skills alongside their children, thus fostering change on a systems level. Incorporating community leaders into programs as booster session facilitators could further strengthen these enrichment efforts. Given the extremely limited resources developing countries generally have for educating their youth, the need for efficiently incorporating both academic and social instruction to fully achieve the mission of the educational system becomes even more vital.

Limitations

This study is preliminary in nature and, as such, has several limitations. Optimally, this study could be repeated using a randomized, experimental design where participants are selected randomly and assigned to non-intervention and control group conditions. Teacher characteristics such as level of teacher training should be balanced by group. The use of multiple methods and measures would further our understanding of the broad scope of social skills and competencies of young children. Additionally, although the Entrevista Segundo Paso was developed specific to the Segundo Paso Curriculum and has been utilized in prior research, further information about its psychometric characteristics would increase confidence in the present findings.

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