

Socio-Emotional Training Promotes Positive Behavior in Preschoolers

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Abstract

This study evaluated an early childhood socio-emotional program aimed at promoting preschooler's social skills and reducing behavior problems. Peace Education Foundation's (PEF) socio-emotional development program was provided in English and Spanish to preschool teachers, parents and children in Miami, Florida. The program instructs teachers and parents how to use activities and "I-Care Rules and Language" to encourage empathy, fair play, express feelings, avoid conflict, manage anger and interact more positively with others. Teachers and parents of preschoolers participated in PEF's "Creating Caring Children" and "Peacemaking Skills for Little Kids" trainings. The Preschool and Kindergarten Behavior Scale (PKBS-2) was used to assess 246 preschooler's behavior changes over time at preschools participating in the PEF program, compared with 50 children from a matched group that did not receive the program. Children's PKBS-2 scores showed increased social cooperation, more positive interaction quality and greater social independence, plus fewer Internalizing and Externalizing problem behaviors in PEF preschools vs. controls. This study demonstrated the efficacy of the Peace Education Foundation model to promote positive socio-emotional development in children attending diverse, private preschools.

Keywords: early childhood, preschool, socio-emotional development

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Introduction

Skills gained in preschool are the foundation for children doing well in grade school (National Center for Education Statistics, 2004). School readiness is typically defined in terms of a child's cognitive skills, but also includes the child's capacity to regulate emotions and be able to show positive social interactions and cooperation in the classroom.

In the U.S., public school covers Kindergarten (age 5 years) through high school. According to the National Household Education Survey, about 58% of children below 5 years of age are enrolled in private childcare or preschool programs (NHES, 2007). Child care usually refers to center-based care for infants to 3 year old children, while "preschool" or "Pre-K" typically refers to the 4-5 year olds' last year in private care before entering "Kindergarten". This study examined whether a publically funded training program would promote young children's socio-emotional development and school readiness in diverse, privately owned preschools.

In one study, children given an extra year of Kindergarten "caught up" academically with previously enrolled preschoolers, but many still exhibited problem behaviors (Shepard, 1997). This shows that it is not simply maturation, or cumulative experience in school, that builds needed social-emotional skills. Instead, teachers and parents must promote specific skills, including anger management, behavioral self-control, expressive language capacity, and reinforce the basic rules of positive school conduct (Rimm-Kaufmann, et al., 2005). Many teachers rate less than half of preschoolers as "ready" for school in terms of "listening skills, following directions and staying on task" (Posny, 2006). Approximately 10% to 15% of preschool children exhibit moderate to severe levels of antisocial behaviors (Campbell, 1995). According to a recent review, "training adults to effectively address behavior problems in children is the weak link in the early intervention chain" (Kaiser, 2007, p. 114). Early learning teachers in private preschools may not be well trained to promote socio-emotional development, emotive language skills, or on how to deal with classroom behavior problems (Marcon, 1993). Promoting social skills such as cooperation and positive interaction with peers and teachers helps to avoid problem behaviors that interfere with children's learning (Dockett & Perry, 2003; Rimm-Kaufman et al., 2005). Most preschool curricula focus primarily on building the child's cognitive skills. However, socio-emotional skill deficits impact a student's academic performance, and remain a sometimes overlooked characteristic of young children's transition to Grade School (Child Trends, 2002; LaParo & Pianta, 2000).

Early Socio-Emotional Development

Socio-emotional development includes the emergence of emotional self-regulation, empathy, effective communication, positive social interaction, and social independence. Public school pre-K programs such as Early Head Start show a positive impact on children's behavior outcomes, especially for minority children living in poverty (see Barnett, 1995, 1998; Peterson & Zill, 1986). Such public school programs are not available for the majority of children enrolled in private preschools. Poor families receive Federal/State childcare subsidies to enroll children at private preschools where staff have limited training on how to best promote socio-emotional development, or how to work with children exhibiting behavior problems. Likewise, there are many challenges to providing quality early childhood programs in the private preschool system of diverse urban communities (Golas, Horm & Caruso, 2006). Private preschools must deal with variability in participants' language, culture, literacy and socio-economic factors. Despite how important socio-emotional development is for school readiness, the efficacy of cost-effective publically funded socio-emotional trainings for parents and staff of private preschools are not well documented (see Goodwin, Pacy & Grace, 2003).

Early development of emotional regulation buffers children against risk factors such as a child's insecure attachment to parents' harsh child-rearing practices and parenting stress, and other factors associated with later psychopathologies (Belsky & Eggebeen, 1991; Karreman et al., 2006; Thompson & Calkins, 1996; Thompson, Flood & Lundquist, 1995). Children who do not control their emotions are prone to outbursts, stress avoidance and frustration (Garber et al., 1991). When emotional self-regulation is delayed, problem behaviors emerge that are precursors to later academic and mental-health difficulties.

A child who too easily "acts out" his/her frustrations, and exhibits aggression, fighting and lack of cooperation may be classified with "Externalizing Behavior Problems." Because these children's behavior issues are external, and visible, they are typically more noticed by schools and teachers (Cohen, 1993). Other children are confused about how to handle the preschool social environment and become anxious, psychosomatic and withdrawn, and are characterized as having "Internalizing Behavior Problems." Since these children are typically withdrawn, and not disruptive, they do not receive as much attention or remediation (Fantuzzo, et al., 2003). Externalizing and internalizing behaviors are correlated with Attention Deficit, Hyperactivity and Affective Disorders (Merrell & Boelter, 2001). Socio-emotional skills include: emotional regulation; developing skills to communicate about emotions and resolve/avoid conflicts, showing empathy,

demonstrating positive interactions and classroom cooperation, and the ability to take directions and conform to behavior norms expected in the classroom. Children learn self-monitoring and deliberate inhibition of undesired behaviors (Saarni, Mumme & Campos, 1998; Sroufe, 1996). Those children who are delayed in the development of socio-emotional skills exhibit academic and behavioral problems (Denham, 2006, 1998, Bowman et al., 2006, Blair 2002, Connell & Prinz, 2002; Shonkoff & Phillips 2000; Donohue, 2005;).

The Socialization of a Child's Emotional Development

While a child's innate temperament matters, much of social behavior is learned. Children learn social behaviors and norms from interactions with parents, caregivers, siblings and peers (Emde, 1998; Harris, 1995). Some parents coach their children about emotional content in social situations (Miller and Sperry, 1987). Studies of "prosocial" behaviors in childhood show that when such behavior is modeled by adults, it is learned at an earlier age (Eisenberg & Mussen, 1989). Children as young as age 2 years can be socialized to display empathy towards others, adjust their responses to others' emotional expressions (social referencing), and try to make others feel better following a negative event (Thompson, 1998a; Zahn-Waxler, 2000; Shonkoff & Phillips, 2000). Children in preschool (4 – 5 years old) must acquire understanding of emotions, and become more capable of managing their feelings (Garber & Dodge, 1991; Thompson, 1994, 1998b; Braungart & Stifler, 1991; Buss & Goldsmith, 1998; Calkins & Johnson, 1998; Grolnick et al., 1996; Barrett et al., 1993; Lewis, 1993). Saarni (1990, 1999) refers to the child's developing capacity to see that emotions are controllable and can be appropriately expressed when necessary, as "emotional self-efficacy." For example, parents and teachers of young children play a key role in promoting this socio-emotional development (Denham, 2007). Parents who discuss emotions and emotional experiences more with their children have children with more accurate emotional understandings (Brown and Dunn, 1996; Brown et al., 1996; Denham, 1998; Denham et al., 1996, 1997; Dunn et al., 1991, 1994; Nelson, Mitchell & Yang, 2008). Thus, children in preschool are being socialized to understand and regulate emotions and social behaviors as they prepare to enter formal schooling (Denham, Zoller & Couchoud, 1994).

The capacity for self-regulation is prerequisite for the task of learning to comply with social standards of conduct in the classroom (see Zahn-Waxler & Radke-Yarrow; Zahn-Waxler et al., 1992). Academic, language and behavioral problems are closely interrelated and there is a strong correlation between children's socio-emotional maturation, and their academic and behavioral outcomes (Blair, 2002, Connell & Prinz, 2002).

Delayed development of socio-emotional regulation places a child on a negative trajectory toward future behavioral and academic problems. For that reason, it is important to assure that early childhood staff and parents of young children have the skills to model and teach children to develop healthy socio-emotional behaviors and cultural differences.

Many factors in a child's environment determine outcomes, from issues of single parenting to poverty and other risks, to issues of culture, all of which need to be understood in the context of a child's developing socio-emotional skills (see Brooks-Gunn et al., 1995; Gomby et al., 1995). Ethnic differences likewise have significant impact on the reporting of young children's emotional-behavioral problems across African American, Hispanic and Native American samples (Feil, et al., 2005). Research has shown cultural/ethnic differences in the attitudes of child care providers toward discipline and punishment (Bollin, 1989). Preschool teachers' perceptions about conflict resolution differed across U.S., Colombian, El Salvador and Taiwan groups (Killen et al., 2000). Therefore, it is important to consider cultural differences in programs that deal with discipline, punishment, and normative standards of behavior, which may differ across cultures.

Research on Socio-Emotional Training

Researchers, educators and policymakers advocate for programs to decrease aggressive behaviors and victimization that occurs even in elementary schools. Research shows 10-20% or more of kindergarten and elementary children are threatened or attacked in school, with negative outcomes for perpetrators and victims alike (Leff et al. 1999, 2001). Meta-analytic review of 34 different intervention programs aimed at "aggression prevention" shows that few received rigorous scientific study, and only 5 programs met the criteria for being "possibly efficacious" (see Leff et al, 2001). Comprehensive public school based programs, such as Early Head Start, are costly and not available within private preschools. Many such interventions place significant demands on teachers for training and class time dedicated to curricular activities. A review of preschool programs including: Kansas Kindergarten Readiness project (Posny, 2006), SWEEP Pre-K (Bryant et al.; 1999), PATHS (Kushe & Greenberg, 1995), "Second-Step" (Grossman et al, 1997), CLASS (Hops & Walker, 1988), the Anger Coping Program (Lochman, Dunn & Klimes, 1993) , and Brain Power (Hudley et al, 1998; Serna et al, 2000) all suggest that while such programs boost academic and social skills, these programs are very time and resource intensive.

Critiques of these programs included problems with: lack of consistency, program goals that are overly broad or that focus too selectively on physically aggressive behavior, failure to measure treatment integrity, failure to adopt culturally sensitive measures, adapting adolescent programs to younger age-groups, samples that do not generalize to other settings, and a lack of longitudinal measurement of developmental effects and sustained outcomes (Leff et al., 2001; Gresham, 2004; Gresham et al. 2004). Further research is thus needed to evaluate the efficacy of early childhood socio-emotional training programs delivered in private preschool systems.

The current study examined early childhood behavior outcomes in a program to foster socio-emotional development in private preschools in a diverse, multi-cultural community. It was hypothesized that preschoolers at centers participating in PEF training and programming would demonstrate more positive social behaviors and fewer behavior problems than children not exposed to socio-emotional development programs. To this end, children's behaviors were measured at the start and end of the preschool year at centers participating in the PEF program, compared with a matched sample of preschools that did not participate.

Methods

Training Curriculum:

The study measured child behavior outcomes of a locally funded "Peace Education Foundation" (PEF) socio-emotional training program for parents and teachers. The PEF curriculum models conflict resolution, anger-management and communication skills to promote children's positive interactions, cooperation and emotional self-regulation. The PEF preschool program tracks closely with NAEYC guidelines for childcare staff training to support early socio-emotional skills (NAEYC, 2006), and was recognized as a "Select" (effective) program by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2008). Prior research showed the PEF program increased positive behavior and reduced aggression with older Grade School through High School students (Barnett et al, 2001; Diekmann, 2004; Hanson, 1994; LeBlanc & Lacey, 2001; Powell, Muir-McClain & Halasyamani, 1995; Speirs, 1994). The current study evaluated the impact of PEF training on the behavior of younger children (age 4 – 5years) during their preschool year.

Sampling:

Teachers were initially recruited to county-wide trainings from a listing of over 450 private preschool in Miami, Florida, USA. Over 1500 teachers participated in two different 1-day trainings for which they received

continuing education credits (required to maintain teaching credentials) and small gifts. The 2 PEF trainings were: 1) “Creating Caring Children (CCC)” – where participants are taught about child temperament, socio-emotional development, and how to develop anger-management plans; and 2) “Peacemaking Skills for Little Kids (PSLK)” – where caregivers were taught to foster cooperation, self-regulation, pro-social behavior, expressive language skills, empathy taking, and conflict avoidance. Additional information about these curricula can be found on the Peace Education Foundation website (www.peace-ed.org; see also Carlebach & Tate, 2002; Schmidt & Friedman, 1997; Mades, 2002).

A list was created of 50 medium to large enrollment preschools with at least 3 staff who participated in both of the above trainings, and 50 preschools (matched for size/enrollment and ethnic makeup) whose staff did not participate in the trainings. Fifteen preschools (10 PEF implementation and 5 controls) were randomly selected from these lists to be contacted to participate. The preschools from the list of teachers who attended both PEF trainings were asked to implement the PEF model at their preschools including: classroom technical assistance visits, evaluations of student behavior at the start and end of the school year, and to host parent involvement workshops at their center. The comparison group was randomly selected from the list of schools where staff did not participate in trainings – and were asked to participate only in the behavioral ratings of their preschool students. If a school did not wish to participate, the next randomly selected school from the list was contacted until the sample of 10 treatment and 5 control schools was recruited. Teachers were paid \$3 for each completed set of parental consent and measurement forms collected.

Trainings were conducted by professional PEF trainers with extensive experience in teaching and implementing the programs. Participants received the workbooks and materials for each curriculum (CCC or PSLK). Each session included pre- and post-testing to assess the extent that teachers mastered curriculum topics. Following workshops, trainers conducted follow-up visits to the participating PEF implementation preschools to offer assistance and mentoring, lesson planning, and facilitate on-site parenting workshops. Parents were invited to a 3-hour parenting workshop at the preschool where their child was enrolled to train on the key topics from the CCC and PSLK teacher trainings. Childcare was provided during the parent workshops to allow parents to attend and participate.

Participant Characteristics:

Demographic characteristics for teachers, parents and children who participated are shown in Table 1. A total of 296 preschool children were evaluated (mean age 4 years at the start of the study), with 246 in the PEF treatment classrooms, and 50 evaluated from no-treatment schools. There were 21 teachers involved: 16 teachers/classrooms from 10 PEF implementation schools, and 6 teachers/classrooms with no training or exposure from 5 no-treatment schools in the comparison group. A total of 269 parents (208 Mothers, 61 Fathers) of children participating in the PEF implementation group attended parenting workshops at their child's preschool. Most parents (54.5%) were Hispanic background and listed Spanish as the primary language spoken in the home. About half of the trainings were conducted in Spanish.

As shown in Table 1, preschoolers in the control group were slightly older than children in the treatment group (4.2 vs. 3.9 years, respectively), however, this was not a statistically significant difference ($t(295) = 1.339$, $p > .01$). Also there was no significant difference in the percentage of children in each ethnic category across treatment and control groups ($p > .05$)

Instruments:

Child Behavior Ratings. The key outcome measurement in this study utilized the Preschool & Kindergarten Behavior Scales, version 2 (PKBS-2; Merrell, 2002) a 76-item questionnaire with 5 subscales (Social Cooperation, Interaction, Independence, Externalizing and Internalizing Problem Behaviors). Teachers rated students using a scale indicating frequency of behaviors ranging from 0 (never) to 3 (often). Reliability of the PKBS previously showed internal consistency coefficient of 0.94 for Social Skills; and 0.96 for Problem Behaviors, with good test-retest reliability (Merrell, 2002). PKBS-2 has good content, construct, and criterion validity. PKBS-2 Social Skills and Problem Behavior scale scores are positively correlated with those of the Social Skills Rating System (SSRS; Gresham, 2000, 2004) and Conners' Teacher Rating Scale (CTRS; Conners, 1989) that measure similar behaviors (see Merrell, 1995). PKBS forms were completed by teachers near the beginning, and again at the end of the school year. Student ID numbers were used to match children's baseline pre-tests with their follow-up PKBS-2. Test-retest reliability for control subjects, indexed as the correlation across sub-scales between Time 1 and Time 2, was $r = +0.577$. Factor analysis confirmed the

subscale structure of the PKBS-2 with factor weightings (from 0.69 to 0.79) for 5 subscales accounting for 88.5% of total variance.

Teacher and Parent Training Evaluation: Preschool teachers who attended the CCC and PSLK trainings were tested at the start and end of each 6-hour session. The CCC pre-post tests contained 10 open-ended items asking teachers about the training topics, for example: “List activities to nurture children’s socio-emotional development; List preschool developmental stages and needs; Describe parenting styles and different discipline practices; List activities that foster emotional regulation and anger management; and List ways to deal with common child behavioral problems and peer-conflicts.” Responses were scored using a 0 – 4 point scale by trained research associates, with higher scores assigned for more accurate and complete answers. Two researchers scored each question for 25% of the tests, with inter-rater reliability of 0.86 indicating good agreement.

PSLK teacher trainings were also assessed with pre- and post-tests that contained 21 open ended items including: “Give examples of activities that promote active listening; List ways you can teach children cooperation skills; How comfortable are you now that you can use and teach active listening in the classroom?; List activities you will use to teach children the ‘I Care Language’; Give 2 or more examples of I-Care Statements; How can you teach parents to develop anger management plans? List ways you can teach children to manage anger; Describe specific classroom activities that you will teach children to express their feelings.” The items were scored by trained researchers who issued higher scores for more accurate and complete answers. Two researchers scored each question for 25% of the pre-post tests, with inter-rater reliability of 0.89 indicating good agreement on scoring.

Parent’s workshops covered CCC and PSLK topics, and parents outcomes were likewise evaluated with pre- and post-tests at the start and end of the workshops. Tests contained 3 questions: “List ways that you can foster socio-emotional development; List ways you can ‘cool down’ if you get angry, and List ways (other than punishing) that you can use to discipline your child.” Questions were again scored by researchers using a 0 – 4 point scale with higher scores for more accurate/complete answers.

Implementation Fidelity: Teachers, assisted during monitoring visits by PEF trainers, completed surveys on their achievement of key PEF implementation benchmarks, including: “Teacher and students use the I-Care Language; Students can identify I-Care Rules; The I-Care Rules are posted in my classroom; Each student

can explain I-Care Rules; Students are using the I-Care Rules; I use role-play to teach anger management strategies; I observed students using anger management strategies; and Teacher and students have developed anger management plans.” These implementation benchmarks were rated by teachers on a 4-point scale: Never (0), Rarely (1), Occasionally (2), Frequently (3) and Very Frequently (4). Ratings of 3 – 4 were observed for all items in the PEF preschool classrooms, suggesting good program implementation fidelity.

Insert Table 1 about here

Results

Preliminary Analyses – Training Evaluations:

Creating Caring Children: Early learning teachers who participated in the CCC workshops showed good evidence of learning the core curriculum topics. Repeated Measures Analysis of Variance on total pre- vs. post-test scores showed a statistically significant gain from baseline to posttest ($M= 26.5$ vs. 43.5 ; $F(1, 1304) = 2500.9$, $p < .001$). Tests of individual items also showed gains from pre- to post-test ($p < .001$, all tests). For example, an item asking teachers to “List activities you can do with a young infant” was scored on the 0-4 scale, and received a score of 1.40 on pre-test compared with 2.50 on post-test, a statistically significant increase ($t(1301) = 26.05$, $p < .001$). The tests confirmed that teachers mastered CCC topics.

Peacemaking Skills for Little Kids: Teachers learning was also evaluated for those who participated in the PSLK training workshops. Repeated Measures Analysis of Variance on total pre- vs. post-test scores revealed a statistically significant gain ($M= 11.46$ vs. 22.08 ; $F(1, 1299) = 4999.3$, $p < .001$). The comparison of pre- vs. post-test scores for individual test items likewise showed statistically significant change ($p < .001$, all tests). Scoring teachers’ answers to questions such as: “List ways you can teach children cooperation skills” and “List activities to teach the I-Care Language” scored using the 0-4 scale, resulted in higher scores on post-test compared with pre-test. This suggests robust learning of PSLK topics, activities and skills.

Parent trainings: The 269 parents of preschoolers in the PEF treatment group participated in CCC/PSLK parent workshops and completed the pre - and post-tests. Repeated Measures Analysis of Variance on pre- vs. post-test scores revealed a statistically significant gain in scores ($M= 1.8$ vs. 6.6 ; $F(1,267)$

= 709.1, $p < .001$), suggesting increased knowledge/skills resulting from their participating in the CCC/PSLK parent training workshops.

Implementation Fidelity: Teachers at PEF implementation preschools each received 4 – 6 follow-up technical assistance and monitoring visits during the year. During the final visit, 15 out of 21 PEF teachers completed implementation surveys with their trainers. Mean implementation survey score was 3.16 (sd = 0.52; range: 2.1 – 3.8) out of 4 points. Select item averages were: “I-Care Rules posted” (3.07), “Students can explain at least one I-Care rule” (3.00), “Students observed using the I-Care Rules” (3.20), “Teacher uses role play to teach anger management” (3.47), “Children observed using anger management skills” (3.07), “Teacher and students developed their anger management plans” (3.53), and “Teacher and children use the I-Care Language” (3.33). These results suggest teachers in the PEF schools were, in fact, implementing key PEF benchmarks and activities in their classrooms.

Primary Hypothesis Tests

To test the primary hypothesis for this study, teachers’ PKBS-2 ratings of the students’ behaviors were subject to a Repeated Measures Mixed Analysis of Variance with both within (pre-, post-test) and between subject (treatment, control group) as factors, and with PKBS-2 subscale scores as dependent variables (see Figure 1). Analysis of the *positive behavior scales* (Social Cooperation, Social Interaction, Independence) showed a significant between-subjects main effect of treatment vs. control group ($F(1,294) = 17.52, p < .001$), a significant effect for the repeated measures factor ($F(1,294) = 7.16, p = .008$), a significant trials x group effect ($F(1,294) = 21.91, p < .001$) and no significant effect for student age entered as a covariate ($p > .05$). These effects were due to observed increases over time in PKBS-2 positive behavioral scores for children in the Peace Education Foundation intervention group, compared with no change or decreased scores in the controls.

As shown in Figure 1, Children’s *Social Cooperation* scores increased from 27.05 to 29.58 (paired- $t(245) = 3.89, p < .001$) in the PEF group compared with no gain for preschoolers in the no-treatment group (25.27 vs. 23.62). Children’s *Interaction Quality* ratings went from 20.76 to 26.24 (paired- $t(245) = 9.15, p < .001$) in PEF preschools compared with 23.0 vs. 20.77 in the control group. Ratings of children’s *Social Independence* went up from 26.10 to 28.65 (paired- $t(245) = 6.82, p < .001$) at PEF treatment centers, compared with 23.54 vs. 24.54 in the control group. The results show consistently more positive pre- to post-gains in social behavior

ratings for preschoolers at PEF implementation centers, compared with those of children at centers not implementing the PEF socio-emotional training program.

Similar analyses were conducted on *Problem Behavior Scores* (Internalizing and Externalizing Behavior Problems). This showed statistically significant main effects of treatment group ($F(1,291) = 29.381, p < .001$), and a trials X group interaction ($F(3,291) = 4.45, p = .004$), with no significant effects for trials, or age. This result was due to declines in Internalizing and Externalizing scores in the treatment group ($M_{Int} = 10.87$ vs. 7.07; $M_{Ext} = 21.93$ vs. 17.48), compared with no change for the control group preschoolers ($M_{Int} = 16.40$ vs. 15.89; $M_{Ext} = 31.89$ vs. 31.83). This showed a decline in problem behaviors for children at preschool classrooms that implemented the PEF program, compared with no-treatment controls.

Insert Figure 1 about here

Discussion

This project observed that 4-5's year old children's social behavior improved during the preschool year for schools implementing the Peace Education Foundation program, in contrast to a no-treatment group. Further, preschooler's negative behaviors (internalizing and externalizing behavior problem scores) declined in the PEF group compared with controls. This represented a very positive pattern of outcomes for the 250 children in the treatment sample, especially given the relatively brief amount of locally funded training (2 days) and technical assistance provided. The PEF model appears to have provided important skills for conducting activities and modeling behaviors by teachers and parents to foster more positive social cooperation and reduced behavior problems in the preschool classroom.

Which specific behavior changes were observed? The preschoolers from PEF implementation centers showed improved *Social Cooperation*, *Social Interaction*, and *Social Independence* scores on the PKBS-2 behavior scale, as well as fewer problem behaviors. These scores indicated that the preschoolers showed greater self control, followed rules and took turns, exhibited more independence in play and school work, and showed more positive interaction with teachers and peers. Importantly the 4-5 year-olds also displayed reduced *Internalizing and Externalizing Problem Behavior* scores, indicating less disruptive and "acting out"

behaviors, as well as lower rates of withdrawn, anxious and internalizing behaviors. These results suggest the children in the PEF classrooms displayed better school readiness in terms of their socio-emotional regulation and development, than preschoolers in the no-treatment group.

This project exposed many challenges, and creative solutions, regarding implementing and evaluating the PEF socio-emotional preschool program. Challenges included issues of diverse language, culture, and literacy – as well as limited experience in conducting evaluation of behavior outcomes. Solutions included offering training and support in both Spanish and English language, as well as working closely with teachers and parents at the preschools to develop cooperative relationships essential for good training, implementation fidelity and evaluation.

The training evaluations using pre- and post tests confirmed that the PEF trainings produced robust learning of key curriculum topics by teachers and parents. This, in turn, led to good implementation of the PEF program at the preschools that resulted in improved children's socio-emotional behavior in the classrooms. The findings show that even relatively brief community-funded trainings focused on teachers and parents of preschool children can foster greater socio-emotional development and behavioral school readiness for preschool children.

Only through careful evaluation and data collection does a program or model become "evidence based." Larger scale programs such as Early Head Start have attracted the attention of many researchers. In contrast, locally funded initiatives and smaller community based organizations find it challenging to deliver quality programs and at the same time perform careful, culturally appropriate evaluation. This issue of understanding interventions in the context of locality is important because what works in one city may not work in another. Issues of local culture, language, and literacy levels must be taken into consideration as we consider what "best practices" are for unique communities.

As with any such community-based research, a few qualifications should be noted. Future research should determine the extent to which teachers might demonstrate a bias in their ratings of children in treatment center classrooms. This does not appear to be the case, since similar rates of problem behaviors were observed in the baseline PKBS-2 ratings of children in both the treatment and control groups. However, teachers in the treatment group might have perceived that the children's scores "should" improve if they were implementing the PEF curriculum, and therefore, might have some positive bias when completing behavior

ratings of their students. There is no way for teachers to be "blind" to the condition (treatment vs. control) since they are key implementers of the programming. However, future studies might include additional observations by impartial observers, as well as include an alternative treatment in the comparison group to balance issues such as the amount of attention received by teachers from the trainers. Likewise, future efforts might include more process evaluation to better explore other contributing factors and nuances of the interactions among training providers, teachers, parents and children that contributed to the positive behavioral changes.

Community-based interventions funded by localities and administered across very broad and diverse groups of stakeholders offers an economical and effective strategy to promote school readiness for young children. Comprehensive programs, such as Early Head Start, have attracted more attention from researchers. However, such programs are also more costly and not typically available to the broadest cross-section of community-based private preschools. Locally funded training initiatives have the potential to increase professional development and behavioral teaching skills for preschool teachers and parents in the private preschool system. The current project showed that through collaboration to build trust and appropriate training and measuring strategies (often in more than one language) it is possible to implement effective programs in the diverse private preschool community. The findings from this study showed that the Peace Education Foundation model brought about effective behavior changes and fostered positive socio-emotional school readiness for our youngest learners.

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Table 1: Demographic Characteristics of Participants

Preschoolers: (N = 296; 151 Females, 145 Males)

Mean age at the start of the study: 4.0 years (0.68)

PEF Group (N = 246) 3.9 years (0.83)

Controls (N = 50) 4.2 years (0.62)

Hispanic 57%

Black 19%,

Non-Hispanic White 24%

Parents: (N = 269; 208 Mothers, 61 Fathers)

Hispanic 54.5%

Non-Hispanic White 39.0%

African American 6.5%

Married 54.5%

Single 39.0%

Divorced 6.5%

Spanish as primary language spoken at home 55.1%

English as primary language spoken at home 38.1%

Both English and Spanish as primary languages 3.0%

Other languages (most often Creole or Portuguese) 4.0%

Preschool Teachers (N = 21; 15 implementation, 6 no-treatment control)

Average Age..... 46.45 years (1.24)

Education:

Partial High School 11.7%

Finished High School 36.9%

Some College 25.8%

2 year College Degree 8.0%

4-year College degree 13.3%

Completed Child Development Associate (CDA) certification: 58.2%

Average number of preschoolers per classroom: 13.68 (6.3)

Figure 1. Children’s Positive and Negative Behavior Subscales on PKBS-2 as a function of Intervention versus Control Group

