Early Childhood Community Research Results Summit  
November 4, 2021

The seven projects listed below successfully competed for and received funding in May 2017 to create community-based participatory research partnerships responsible for implementing or expanding high-quality programs with an early childhood focus. Additionally, they engaged in rigorous program evaluation and/or research with the intent to determine the effectiveness of their programming specifically within Miami-Dade County’s neighborhoods, children, families, caregivers, and early learning workforce.

Funding for these projects continued through July 2021 when they completed their fourth and final year of intervention and evaluation. During the funding cycle, The Children’s Trust periodically convened the partnerships as a learning community to share highlights of their work, seek assistance as needed and learn from each other.

<table>
<thead>
<tr>
<th>Lead Agency</th>
<th>Community-Based Organizations</th>
<th>Research Organizations</th>
<th>Program and Evaluation Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida International University</td>
<td>Miami-Dade County Head Start programs</td>
<td>Florida International University, Department of Teaching &amp; Learning</td>
<td>Implement the RULER approach in combination with Visible Thinking and Global Thinking Routines in VPK/Head Start classrooms to develop higher levels of emotional intelligence in pre-K students. This project evaluated the effects of teacher training and professional development on students’ school readiness outcomes and teachers’ outcomes.</td>
</tr>
<tr>
<td>University of Miami Department of Psychology</td>
<td>Miami-Dade County Public Schools Office of Early Childhood Programs Miami Children’s Initiative</td>
<td>University of Miami Department of Psychology</td>
<td>Implement the Pyramid Model in Liberty City early learning programs to promote pre-K students’ social-emotional skills and prepare them for kindergarten. The Pyramid Model is a positive behavioral intervention and support framework that builds skills of teachers and parents to provide nurturing caregiving and address children’s challenging behaviors. This project evaluated the effects of different approaches to teacher professional development and parent training on pre-k students’ kindergarten readiness outcomes.</td>
</tr>
<tr>
<td>Miami Lighthouse for the Blind and Visually Impaired, Inc.</td>
<td>Miami Lighthouse Learning Center for Children</td>
<td>University of Miami Department of Psychology</td>
<td>Implement the Lighthouse Learning Center inclusive school readiness model to assess short term (school year) and long term (four years) outcomes for children and families. This project evaluated the effects of teacher training and professional development on students’ kindergarten readiness outcomes. outcomes and teachers’ outcomes.</td>
</tr>
<tr>
<td>Lead Agency</td>
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<td>Research Organizations</td>
<td>Program and Evaluation Description</td>
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</tbody>
</table>
| Reading and Math, Inc. | YWCA of Miami-Dade  
Miami-Dade County Public Schools Office of Early Childhood | NORC at University of Chicago and Center for Applied Research  
Serve Minnesota | Implement the Florida Reading Corps model to provide pre-literacy and literacy support for all VPK students, and to offer individualized tutoring for indicated students.  
This project evaluated children’s outcomes related to literacy and school readiness. |
| Citrus Health Network | Local early learning programs | Behavioral Science Research Institute | Implement Teacher-Child Interaction Training (TCIT) in early learning programs to promote school readiness and social-emotional development among young children.  
This project evaluated the effects of teacher training and professional development on students’ social-emotional outcomes and teachers’ outcomes. |
| University of Miami Miller School of Medicine  
University of Miami | ARC of So Florida  
Easter Seals  
UM Debbie School  
Linda Ray Intervention Center | University of California at Santa Barbara | Implement Teacher-Child Interaction Training (TCIT) in inclusive early learning programs to promote school readiness and social-emotional development among young children with developmental disabilities. TCIT is a universal prevention program to provide teachers with the knowledge and skills to build strong relationships with children and effective strategies to address challenging behaviors.  
This project evaluated the effects of teacher training and professional development on students’ social-emotional and language development outcomes and teachers’ sense of efficacy. |
| Sundari Foundation, Inc., dba Lotus House | Sundari Foundation, Inc., dba Lotus House | Dr. Emily Arcia  
Dr. Paulo Graziano, Florida International University | Launch a pilot project comparing the effectiveness of two trauma-informed therapies – child-parent psychotherapy (CPP) and parent-child interaction therapy (PCIT) – for homeless mothers and their young children.  
This project evaluated the effectiveness of two different dyadic interventions for mothers and children with respect to their social-emotional development. |
Summary of Results: RULER Approach, FIU

a. Study Purpose

The purpose of this study was to examine the impact of the RULER, in combination with visible thinking and global thinking routines and yoga/meditation on school readiness and classroom interactions of young children who are at-risk.

b. Program and Intervention description

The foundation of our emotional intelligence curriculum is the RULER approach, which breaks down the learning of emotions and emotional awareness into 5 critical components that are being explicitly taught to students age 3-5. Teachers use carefully selected books and purposeful activities to target student’s development in each of these areas. The RULER focuses on student’s recognizing emotions in themselves and others through facial expressions, nonverbal cues, and actions, understanding the cause and consequences of their own emotions and emotions in others, labeling emotions appropriately using the mood meter, expressing their emotions appropriately, and lastly, effectively regulating their emotions. Another component of this emotional intelligence curriculum is the implementation of Visible Thinking (VT) and Global Thinking (GT) Routines. VT routines are mini strategies used in the classroom to foster a culture of thinking. An example of a VT routine is the “What makes you say that?”, which requires children to provide justification for their answers.

c. Research Question(s)

1. Does implementing the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in VPK classrooms funded by Head Start, School Readiness and/or VPK impact at-risk four-year-olds’ early learning skills as measured by the VPK Assessment tool when compared with their peers?
2. How has the implementation of the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK impacted at-risk students early learning skills as measured by the teacher and parent interviews?
3. Does implementing the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK serving at-risk students impact the quality of teacher-child interactions as measured by the CLASS Pre-k?
4. How has the implementation of the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK impacted at-risk students social-emotional development as measured by the teacher and parent interviews?

d. Hypothesis(es) (if applicable)

N/A

e. Sources of Data

We collected both VPK assessment and CLASS assessment data, which was analyzed for significance in change over time. Our teacher and parents interview data were coded and analyzed using systematic grounded theory coding. Classroom implementation videos were analyzed for fidelity and student impact using a checklist.

f. Participating children and adults’ (parents, families, teachers, teachers’ assistants) demographic characteristics, inclusive of but not limited to the following where applicable: age, gender, race, ethnicity, primary language, language(s) spoken other than English, ZIP code, years as a teacher, highest level of education attained, born in the US, etc.

Students' Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years old</td>
<td>20%</td>
</tr>
<tr>
<td>4 years old</td>
<td>28%</td>
</tr>
<tr>
<td>5 years old</td>
<td>52%</td>
</tr>
</tbody>
</table>

Figure 1: Students’ Age as of 4/15/2021

Students' Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>51%</td>
</tr>
<tr>
<td>Male</td>
<td>49%</td>
</tr>
</tbody>
</table>

Figure 2: Students’ Gender

Students' Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHITE</td>
<td>584</td>
</tr>
<tr>
<td>BLACK</td>
<td></td>
</tr>
<tr>
<td>MULTRA</td>
<td></td>
</tr>
<tr>
<td>ASIAN</td>
<td></td>
</tr>
<tr>
<td>BIRACIAL</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3: Students’ Race
Results per research question and/or hypothesis with relevant statistical analyses. Use appropriate visuals to communicate results. Describe the difference in results for treatment and control group where relevant. Disaggregate results by relevant subgroups where appropriate.

RQ1: Does implementing the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in VPK classrooms funded by Head Start, School Readiness and/or VPK impact at-risk four-year-olds’ early learning skills as measured by the VPK Assessment tool when compared with their peers?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PK</td>
<td>4.67</td>
<td>4.77</td>
<td>4.55</td>
<td>4.59</td>
</tr>
<tr>
<td>PA</td>
<td>6.38</td>
<td>6.31</td>
<td>6.05</td>
<td>6.05</td>
</tr>
<tr>
<td>MA</td>
<td>5.38</td>
<td>7.18</td>
<td>6.8</td>
<td>4.78</td>
</tr>
<tr>
<td>OL</td>
<td>7.52</td>
<td>7.68</td>
<td>7.45</td>
<td>5.37</td>
</tr>
</tbody>
</table>

*PK: Print Knowledge; PA: Phonological Awareness; MA: Math skills; OL: Oral Language

Above you can find our VPK data for all four years. Our VPK data was analyzed through the comparison of means between the RULER intervention group and a comparison group of students. Although the comparison group scored higher on their VPK assessments in AP1 and AP3, you will notice that the mean difference for the intervention group is on-track to be indicate higher gains in AP3. Unfortunately, we were unable to collect AP1 for at least half of the students in 2020-2021 scores due to COVID-19; the VPK assessment was normed for a face-to-face administration and conducting the assessment virtually would threaten the integrity of the test and the reliability of results. You can see that our students made more gains for PK (Print knowledge) when compared to the control group; however, the gains for Phonological Awareness, Mathematics, and Oral Language indicated less gains when compared to the control group. As our intervention group has consistently made higher gains across the board for year 2 and year 3, we explain this drastic change to only conducting the VPK AP1 assessment on the students who were being served face-to-face. In the middle of the school year, schools began to serve all students in the classroom.

RQ3: Does implementing the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK serving at-risk students impact the quality of teacher-child interactions as measured by the CLASS Pre-k?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean Difference 2018-2019</th>
<th>Mean Difference 2019-2020</th>
<th>Mean Difference 2020-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Climate</td>
<td>.22 (3.7%)</td>
<td>.5 (8.5%)</td>
<td>.06 (9%)</td>
</tr>
<tr>
<td>Negative Climate</td>
<td>.02 (1.9%)</td>
<td>.01 (.9%)</td>
<td>0 %</td>
</tr>
<tr>
<td>Teacher Sensitivity</td>
<td>.42 (7.9%)</td>
<td>.47 (8.6%)</td>
<td>.3 (5%)</td>
</tr>
<tr>
<td>Regard for Student Perspectives</td>
<td>.3 (5.5%)</td>
<td>.43 (8%)</td>
<td>.27 (4.8%)</td>
</tr>
<tr>
<td>Behavior Management</td>
<td>.2 (3.5%)</td>
<td>.61 (11%)</td>
<td>.19 (3%)</td>
</tr>
<tr>
<td>Productivity</td>
<td>.24 (4.4%)</td>
<td>.52 (9.4%)</td>
<td>.3 (5%)</td>
</tr>
<tr>
<td>Instructional Learning Formats</td>
<td>.39 (7.9%)</td>
<td>1.16 (23.5%)</td>
<td>.23 (4.2%)</td>
</tr>
<tr>
<td>Concept Development</td>
<td>.14 (4%)</td>
<td>1.16 (29.8%)</td>
<td>.47 (11.6%)</td>
</tr>
<tr>
<td>Quality of Feedback</td>
<td>.24 (6.8%)</td>
<td>1.14 (30%)</td>
<td>.45 (10.8%)</td>
</tr>
</tbody>
</table>
Above you can find our CLASS data for all three years of administration. The CLASS data (2020-2021) indicated gains in each area with significant gains noted in: 1) quality of feedback, 2) concept development, 3) language modeling, and 4) classroom organization. The CLASS scores were also drastically different than the trends we found in year 2 and year 3. We attribute these differences to COVID-19; many classrooms did not conduct the CLASS and were also only serving half of the students until the beginning of the year. The uprooting of service delivery due to COVID-19 has a major impact on the administration and analysis of classroom assessments.

As indicated by the comparison of CLASS scores from the current year (Year 4) and our previous year (Years 2 and 3), there are significant differences in mean change and percentage of change. This might be explained by a few variables. First, our CLASS sample this year was from 26 classrooms and last year was 28 classrooms and the previous year that was 38 classrooms; this year we had more incomplete data due to COVID-19. Further, the classrooms that still had students were only serving half of the students compared to the previous year. Having less students could certainly impact the classroom interactions. Regardless of these possible reasons for questioning the reliability of the data, this year’s CLASS scores indicated far higher mean change when compared to last year.

RQ2: How has the implementation of the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK impacted at-risk students early learning skills as measured by the teacher and parent interviews?

RQ4: How has the implementation of the RULER approach in combination with Visible Thinking Routines and Global Thinking Routines in three to four-year-old classrooms funded by Head Start, School Readiness and/or VPK impacted at-risk students social-emotional development as measured by the teacher and parent interview.
### Teacher Application of Children’s Literature

| Children’s Literature | 42 |

### Children Application of Yoga and Meditation

| Yoga       | 15 |
| Meditation | 37 |

### Classroom Implementation Videos 2019-2020

**Total Videos: 66**

#### Children’s Knowledge and Application of the RULER

<table>
<thead>
<tr>
<th>Recognizing Emotions</th>
<th>Knowledge</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding the Consequences of Emotions</td>
<td>149</td>
<td>159</td>
</tr>
<tr>
<td>Labeling Emotions</td>
<td>69</td>
<td>133</td>
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<tr>
<td>Expressing Emotions</td>
<td>43</td>
<td>36</td>
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<tr>
<td>Regulating Emotions</td>
<td>71</td>
<td>85</td>
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<tr>
<td>Perspective Taking</td>
<td>68</td>
<td>15</td>
</tr>
<tr>
<td>Empathy</td>
<td>49</td>
<td>28</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>15</td>
<td>2</td>
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#### Teacher Application of the RULER

<table>
<thead>
<tr>
<th>Recognizing Emotions</th>
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<tbody>
<tr>
<td>Understanding the Consequences of Emotions</td>
<td>458</td>
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<tr>
<td>Labeling Emotions</td>
<td>201</td>
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<tr>
<td>Expressing Emotions</td>
<td>62</td>
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<tr>
<td>Regulating Emotions</td>
<td>189</td>
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</table>

#### Teacher Application of the VT and/or GT Routines

<table>
<thead>
<tr>
<th>STW</th>
<th>8</th>
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<tbody>
<tr>
<td>Step Inside</td>
<td>4</td>
</tr>
<tr>
<td>What makes you say that?</td>
<td>12</td>
</tr>
<tr>
<td>Other activities</td>
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</table>

#### Teacher Application of Children’s Literature

| Children’s Literature | 45 |

#### Children Application of Yoga and Meditation

| Yoga       | 83 |
| Meditation | 235 |
### Children’s Knowledge and Application of the RULER (2018-2019)

<table>
<thead>
<tr>
<th></th>
<th>Knowledge</th>
<th>Application</th>
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</thead>
<tbody>
<tr>
<td>Recognizing Emotions</td>
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<td>97</td>
</tr>
<tr>
<td>Understanding the Consequences of Emotions</td>
<td>212</td>
<td>72</td>
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<tr>
<td>Labeling Emotions</td>
<td>335</td>
<td>72</td>
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<tr>
<td>Expressing Emotions</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Regulating Emotions</td>
<td>50</td>
<td>19</td>
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<tr>
<td>Perspective Taking</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Empathy</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>37</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Teacher Application of the RULER

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Recognizing Emotions</td>
<td>457</td>
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<tr>
<td>Understanding the Consequences of Emotions</td>
<td>271</td>
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<tr>
<td>Labeling Emotions</td>
<td>470</td>
</tr>
<tr>
<td>Expressing Emotions</td>
<td>29</td>
</tr>
<tr>
<td>Regulating Emotions</td>
<td>88</td>
</tr>
</tbody>
</table>

#### Teacher Application of the VT and/or GT Routines

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>See Think Wonder</td>
<td>3</td>
</tr>
<tr>
<td>Step Inside</td>
<td>21</td>
</tr>
<tr>
<td>What makes you say that?</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Teacher Application of Children’s Literature

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Literature</td>
<td>45</td>
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</tbody>
</table>

#### Children Application of Yoga and Meditation

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoga</td>
<td>9</td>
</tr>
<tr>
<td>Meditation</td>
<td>53</td>
</tr>
</tbody>
</table>

#### Video evidence indicated:

- Emotional identification, Emotional awareness of self and others,
- Understanding the cause of their own and others’ emotions, Appropriate emotional expression, Empathy, Self-regulation techniques, Yoga and mediation

#### Increase in student knowledge, skill, and application in the following areas:

- Emotional identification, Emotional awareness of self and others,
- Understanding the cause of their own and others’ emotions, Appropriate emotional expression, Empathy, Self-regulation techniques, Yoga and mediation

#### Increase in teacher knowledge, skill, and application in the following areas:

- Emotional identification, Emotional awareness of self and others,
- Understanding the cause of their own and others’ emotions, Appropriate emotional expression, Empathy, Self-regulation techniques, Yoga and mediation

#### Teacher and Parent Focus Group Data indicated Increase in student knowledge, skill, and application in the following areas:

- Emotional identification, Emotional awareness of self and others,
- Understanding the cause of their own and others’ emotions, Appropriate emotional expression, Emotional self-regulation, Initiating discussion of emotions, initiating assistance to regulate the emotions of others, Empathy, Thinking dispositions (asking questions, reflective, managing impulsivity, thinking interdependently, etc…)

#### Teacher interview data indicated: Implementing the EI curriculum:

- Assisted in developing their own emotional awareness, Increased emotional knowledge, Increased self-regulation, Increased focus and attention, Changes noticed in both professional and personal lives, The value of providing time for thinking

#### Parent interview data indicated:

- Increased discussion of emotion at home, Increase in eliciting responses concerning emotion, Increased concern about family’s emotional state, Increase in offering strategies to eliminate negative emotions, Increase in
Discussion and Interpretation of Results

Our VPK data was analyzed through the comparison of means between the RULER intervention group and a comparison group of students.

Our VPK data was analyzed through the comparison of means between the RULER intervention group and a comparison group of students. Although the comparison group scored higher on their VPK assessments in AP1 and AP3, you will notice that the mean difference for the intervention group is on-track to indicate higher gains in AP3. Unfortunately, we were unable to collect AP1 for at least half of the students in 2020-2021 scores due to COVID-19; the VPK assessment was normed for a face-to-face administration and conducting the assessment virtually would threaten the integrity of the test and the reliability of results. You can see that our students made more gains for PK (Print knowledge) when compared to the control group; however, the gains for Phonological Awareness, Mathematics, and Oral Language indicated less gains when compared to the control group. As our intervention group has consistently made higher gains across the board for year 2 and year 3, we explain this drastic change to only conducting the VPK AP1 assessment on the students who were being served face-to-face. In the middle of the school year, schools began to serve all students in the classroom. It must be noted that due to COVID-19 and the change in service delivery/assessment administration practices, we have moderate concerns of the reliability of AP2 results; this will be considered a limitation throughout our design this year.

The analysis of our CLASS data indicated significant gains in four areas: 1) quality of feedback, 2) concept development, 3) language modeling, and 4) classroom organization. Quality of feedback addresses the content and method of teacher’s feedback to students, including scaffolding, prompting, and feedback loops. Concept development focuses on analysis and reasoning, connections to the real world, creating concepts, and connecting to previous knowledge. Language modeling addresses the nature of conversations, open-ended questions, and advanced language. Our analysis indicated that these areas all had significant change over time, which suggests high correlation with the implementation of the emotional intelligence curriculum.

After completing the coding and analysis, our qualitative data suggests several changes in students. Our classroom implementation videos showed evidence of an increase in knowledge, skill, and application of students having more emotional awareness, being able to label emotions in themselves and others, understanding what triggers or actions cause their emotions, and appropriate emotional expression. Our teacher and parent focus group data suggested a positive change in knowledge, skill, and application of all of the components of the RULER, in addition to an increase in empathy and thinking dispositions. This year our data suggested that students in the classroom as well as at home were exhibiting a more complex understanding of emotional awareness and self-regulation, in addition to an increase of initialing conversations about emotions and providing unprompted assistance to regulate the emotions of others.

Teachers and parents both discussed noticing positive changes in not only the students, but also in themselves. Teachers discussed a positive increase in their own emotional awareness and self-regulation, many discussed how they would think about the emotions they were feeling before immediately reacting to them. Several teachers noticed these changes in their personal lives as well. Some of our parents noticed an increase in the conversation of emotions at home, many times initiated by their children. Parents discussed how many of their children would inquire about their emotional state and even offer suggestions for emotional regulation, which we will see examples of in some of the following quotes. Ultimately, the qualitative data suggests positive changes overall and also indicates that these changes have also been carried over into the home and community.

Video analysis revealed positive findings for both teachers and students. The number of times teachers invited students to share their emotions, the emotions of others, and to provide justifications for their emotions increased. Furthermore, teachers demonstrated to frequently invite students to share how characters could regulate their emotions, or how the students could regulate their own emotions when feeling unpleasant emotions. These provided the students with valuable tools to self-regulate while in the classroom or outside the learning environment. Lastly, the application of yoga, meditation and breathing exercises increased dramatically. Teachers felt much more comfortable using these strategies since students seem to enjoy them due to the fact that they help them relax and feel better.

Students demonstrated knowledge and application of identifying their own emotions and the emotions of others in the classroom and in characters in the books read by the teachers. Additionally, students provided evidence of what triggered specific emotions without being probed by the teacher. This revealed that this disposition has been internalized by many students due to the daily and consistent application of this approach by the teachers. Video analysis also revealed that students understand the function of the Mood Meter and are able to plot and monitor their emotions and the emotions of others. Next, students exhibited knowledge and application of perspective taking and emotion regulation. To illustrate, while reading one of the children’s books, *When Sofie Gets Angry, Really, Really Angry*, a student shared that, because Sofie left her house alone, “They should put her in her car seat and in the car.” Lastly, yoga and meditation has been implemented habitually, and students repeatedly demonstrated and shared the purpose of implementing yoga and meditation and how it makes them feel.

Discussion and Interpretation of Results

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Our VPK data was analyzed through the comparison of means between the RULER intervention group and a comparison group of students. Although the comparison group scored higher on their VPK assessments in AP1 and AP3, you will notice that the mean difference for the intervention group is on-track to indicate higher gains in AP3. Unfortunately, we were unable to collect AP1 for at least half of the students in 2020-2021 scores due to COVID-19; the VPK assessment was normed for a face-to-face administration and conducting the assessment virtually would threaten the integrity of the test and the reliability of results. You can see that our students made more gains for PK (Print knowledge) when compared to the control group; however, the gains for Phonological Awareness, Mathematics, and Oral Language indicated less gains when compared to the control group. As our intervention group has consistently made higher gains across the board for year 2 and year 3, we explain this drastic change to only conducting the VPK AP1 assessment on the students who were being served face-to-face. In the middle of the school year, schools began to serve all students in the classroom. It must be noted that due to COVID-19 and the change in service delivery/assessment administration practices, we have moderate concerns of the reliability of AP2 results; this will be considered a limitation throughout our design this year.

The analysis of our CLASS data indicated significant gains in four areas: 1) quality of feedback, 2) concept development, 3) language modeling, and 4) classroom organization. Quality of feedback addresses the content and method of teacher’s feedback to students, including scaffolding, prompting, and feedback loops. Concept development focuses on analysis and reasoning, connections to the real world, creating concepts, and connecting to previous knowledge. Language modeling addresses the nature of conversations, open-ended questions, and advanced language. Our analysis indicated that these areas all had significant change over time, which suggests high correlation with the implementation of the emotional intelligence curriculum.

After completing the coding and analysis, our qualitative data suggests several changes in students. Our classroom implementation videos showed evidence of an increase in knowledge, skill, and application of students having more emotional awareness, being able to label emotions in themselves and others, understanding what triggers or actions cause their emotions, and appropriate emotional expression. Our teacher and parent focus group data suggested a positive change in knowledge, skill, and application of all of the components of the RULER, in addition to an increase in empathy and thinking dispositions. This year our data suggested that students in the classroom as well as at home were exhibiting a more complex understanding of emotional awareness and self-regulation, in addition to an increase of initialing conversations about emotions and providing unprompted assistance to regulate the emotions of others.

Teachers and parents both discussed noticing positive changes in not only the students, but also in themselves. Teachers discussed a positive increase in their own emotional awareness and self-regulation, many discussed how they would think about the emotions they were feeling before immediately reacting to them. Several teachers noticed these changes in their personal lives as well. Some of our parents noticed an increase in the conversation of emotions at home, many times initiated by their children. Parents discussed how many of their children would inquire about their emotional state and even offer suggestions for emotional regulation, which we will see examples of in some of the following quotes. Ultimately, the qualitative data suggests positive changes overall and also indicates that these changes have also been carried over into the home and community.

Video analysis revealed positive findings for both teachers and students. The number of times teachers invited students to share their emotions, the emotions of others, and to provide justifications for their emotions increased. Furthermore, teachers demonstrated to frequently invite students to share how characters could regulate their emotions, or how the students could regulate their own emotions when feeling unpleasant emotions. These provided the students with valuable tools to self-regulate while in the classroom or outside the learning environment. Lastly, the application of yoga, meditation and breathing exercising increased dramatically. Teachers felt much more comfortable using these strategies since students seem to enjoy them due to the fact that they help them relax and feel better.

Students demonstrated knowledge and application of identifying their own emotions and the emotions of others in the classroom and in characters in the books read by the teachers. Additionally, students provided evidence of what triggered specific emotions without being probed by the teacher. This revealed that this disposition has been internalized by many students due to the daily and consistent application of this approach by the teachers. Video analysis also revealed that students understand the function of the Mood Meter and are able to plot and monitor their emotions and the emotions of others. Next, students exhibited knowledge and application of perspective taking and emotion regulation. To illustrate, while reading one of the children’s books, *When Sofie Gets Angry, Really, Really Angry*, a student shared that, because Sofie left her house alone, “They should put her in her car seat and in the car.” Lastly, yoga and meditation has been implemented habitually, and students repeatedly demonstrated and shared the purpose of implementing yoga and meditation and how it makes them feel.
I. Conclusions and Action-oriented Practice and Policy Recommendations

The overarching conclusion that can be made from our fourth year of implementation and analysis is that the adapted RULER in combination with the visible and global thinking routines, and yoga and meditation has made a measurable positive impact on several at-risk, low-income communities across Miami-Dade County, despite the interruption of in-person service delivery due to COVID-19. The quantitative data indicated significant results in the VPK assessment measuring student outcomes, as well as the CLASS assessment measuring classroom climate, teacher practices, and teacher interactions; this suggests a positive impact in student and teacher indicators. Our first aim was to examine this impact on students; however, now it is evident that we have wider scope of impact to also include teachers, families, and the community in which our students interact. Our qualitative parent data suggests that students are generalizing these skills into the home and community, which provides us the opportunity to expand the impact of the project even further.

Prior to this project, the RULER implementation in prekindergarten had little to no research backing. Further, the RULER adapted for children ages three through five has never been implemented (or documented yet) in an at-risk low-income community. The Children’s Trust took a risk in investing in our RULER project, when it was not even considered a promising practice supported by published research. It is clear through our results that this investment has both enabled us to positively impact professionals, students, and families in areas of high-need, but also to start adding to the RULER research agenda with the population of at-risk prekindergarten students.

As indicated by our findings, the RULER approach in combination with the visible and global thinking routines, and yoga and meditation have a positive impact on students, professionals, and families in low-income and high-need areas across Miami-Dade County. Based on these results, we would push for a ramp-up and expansion of this program into other prekindergarten programs across Miami-Dade to examine if similar results can be found with a larger sample size. Further, we would pilot the RULER approach in infant/toddler programs to see if these concepts can be grasped by this age range and exhibit measurable outcomes. Even if RULER approach, along with the other three components, as a specific intervention is not considered, we would urge center directors and principals to seriously contemplate implementing a social-emotional learning curriculum with research backing in their early childhood centers. At the very minimum, our intent is to raise students with higher emotional awareness and emotional intelligence at a young age, so they can deal with day-to-day issues and conflicts with better preparedness. Ultimately in the macro level, we want to start emotional learning at the earliest age possible so these skills can continue to develop in preparation for potential failure, rejection, and criticism that they will undoubtedly face in their adult future. As our research has suggested a positive impact on student outcomes, teacher behavior and outcomes, and family interactions, at the very least we would urge centers to continue using the RULER approach in their classrooms and contemplate widening the scope into younger age ranges.
From 2017-2021, this project made three program activities possible in nine schools across Liberty City in Miami in order to promote children's social-emotional learning: (a) practice-based coaching, (b) teacher community of practice (COP) meetings, and (c) family workshops (in-person and virtual).

The evidence-based Pyramid Model is grounded in the understanding that all children learn best in a classroom where social emotional competence is supported. Teachers received support to implement evidence-based strategies to address challenging behaviors and support social-emotional skills. Families received similar strategies, tips, and resources to use with their children at home.

Social-Emotional Practice-Based Coaching
Practice-based coaching to teachers through in-person visits, phone calls, & virtual support. Implemented two or more teacher-directed action plans with each teacher within each intervention year. Developed collaborative partnerships with teachers and problem solved barriers related to families' involvement at school and at home.

Average number of teacher participants trained each year:

= 41

Teacher COP Attendance (Average)

- Year 1: 16
- Year 2: 16
- Year 3: 23
- Year 4: 20
**Coaching Reflections**

"Weekly coaching meetings, embedded training, and resources have helped me become a master content and social-emotional curriculum support."

"I am better prepared to serve early childhood educators."

"Working with other professionals has helped contribute to my expert knowledge base in Pyramid Model support."

"This was non-evaluative and that really helped me connect with teachers and meet the needs of their kids."

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**Teacher Reflections**

“My Pyramid coaches helped me the most by showing me different ways to help me with challenging behavior in the classroom.”

“Pyramid Model has helped the children understand their social skills, allow them to express their feelings, and understanding what they're going through.”

"By using the strategies, stories, and activities my students have adopted behaviors that help them solve problems on their own."

"I love the collaboration and learning that I have received from my peers within this project. They have provided me with different strategies they have used, which, I incorporated in my classroom and were successful."

---

**Family Engagement: Teacher Feedback**

"Being flexible, not just having a set time/day that parents can come in. Get parent feedback of what times would be best for them. Doing 2-3 things that all parents can get involved in – some parents do work so during the day may not be good, so let’s do early morning or after school. Let parents guide what I do in terms of parent involvement, so they feel a part of it. Host several things in case parents couldn't come in."
Intervention Teachers Improved Key Social-Emotional Practices

"Red flags" are observable practices that are not supportive of children's social-emotional skills.

With coaching and teacher support fewer red flags are observed and more positive/intentional teacher practices are observed.

"Red flags" demonstrate reactive vs. proactive strategies used in the classroom

Examples of some items include:

15. The majority of the day spent in teacher directed activities
16. Transitions are more often disorganized.
23. Emotions are never discussed in the classroom

Notes: The figure above displays increases in intervention and control schools use of this indicator at different timepoints.

- **Social skills** refers to skills needed for interactions with peers and adults, and **emotional competencies** refers to skills related to expression, emotion understanding, and emotional regulation.

- This indicator looks at opportunities where the teacher routinely and naturally teaches social skills or emotional competencies.

Notes: The figure above demonstrates different timepoints where intervention and control schools displayed decreases in red flags within their classrooms.
## Family Engagement

- For Years 1-3 of the project, Miami Children's Initiative (MCI) and UM facilitated monthly family workshops.
- For Year 4, Miami Children's Initiative (MCI) and UM collaborated to co-create videos based on the Teaching Pyramid Model family workshops to facilitate virtual engagement.
- 6 parent workshops, separated into 7 YouTube videos, were shared with parents.
- Family workshops provided strategies to support social emotional skills at home.

### The Workshops

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<tr>
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<th>Making a Connection</th>
<th>Making it Happen</th>
<th>Why Children do what They do</th>
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<tbody>
<tr>
<td>1</td>
<td>Caregivers learned about the importance of developing connections with their children and skills to foster positive relationships.</td>
<td>Caregivers learned strategies for promoting positive behaviors.</td>
<td>Caregivers learned about some reasons children engage in challenging behaviors.</td>
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<tr>
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<th>Problem Solving for Challenging Behaviors</th>
<th>Facing the Challenge: Part 1</th>
<th>Facing the Challenge: Part 2</th>
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<tbody>
<tr>
<td>4</td>
<td>Caregivers learned helpful responses to challenging behaviors.</td>
<td>Caregivers learned about setting developmentally appropriate expectations and consequences for their children.</td>
<td>Caregivers reviewed skills from previous sessions and examples for using these skills in various home and family contexts.</td>
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Throughout Years 1-3, 163 caregivers attended in-person Family Engagement Workshops. For Year 4, the videos received 293 views during the 2020-2021 school year and 124 caregivers submitted responses to the related surveys. Reported satisfaction and helpfulness of the videos was high with 94% of caregivers responding that they were either Very Satisfied or Extremely Satisfied with the videos, and 93% of caregivers reporting that they found the videos to Very Helpful or Extremely Helpful.
University of Miami, Dept of Psychology
Project Leads:
Dr. Rebecca Bulotsky-Shearer, rshearer@miami.edu, Dr. Jill Ehrenreich-May, j.ehrenreich@miami.edu, and Dr. Chelsea T. Morris, cmorris@westga.edu

Project Coordinator:
Ms. Angie Gonzalez, acg184@miami.edu

Video Montage - Exemplary Teacher Practices

Family Workshop YouTube Videos

Sustainability Resources

Family Resources/Handouts

M-DCPS Department of Early Childhood Programs
Ms. Judy Palenzuela, Director of Community Outreach
Ms. Patty Ortega, District Supervisor
(305) 995-1472 or (305) 995-1271
EXECUTIVE SUMMARY

2017-2021


PROJECT OVERVIEW

From 2017-2021, this project evaluated the inclusive early learning program for children with and without visual impairment at Miami Lighthouse Academy, LLC. Four key elements of an inclusive early learning model were evaluated: (1) fidelity of implementation, (2) teachers' professional development and classroom quality, (3) children's social-emotional skills and kindergarten readiness, and (4) parents' knowledge of inclusion and home-school engagement.

PROJECT SUCCESSES

University of Miami's collaboration with Miami Lighthouse Academy, LLC provided novel insight to early inclusion programs, and findings from the four-year project are highlighted on the following pages.
FIDELITY & IMPLEMENTATION

Classroom teachers and teachers of students with visual impairments (TVI) collaborated and consistently implemented 100% of the classroom practices and adaptations, such as braille, visual stimuli, large print books, tactile materials, and many more.

INCLUSIVE CLASSROOM PROFILE (ICP)

The ICP assessed inclusive practices in the classroom, including support for communication, adaptations for group activities, and feedback. Teachers and TVI facilitated communication through modeling and prompting, imitating, and incorporating alternative means of communication. Teachers and TVI provided opportunities for peer interaction in whole and small group activities, and adapted activities to support children’s engagement and accommodate individual needs. Teachers and TVI frequently recognized children’s efforts and their process of learning, rather than their products. They also used verbal and nonverbal feedback contingent to the child’s developmental level.
TEACHER REFLECTIONS & CLASSROOM QUALITY

TEACHERS HOPED TO GROW PROFESSIONALLY, DEVELOP EFFECTIVE ADAPTATIONS FOR CHILDREN, AND EQUIP FAMILIES WITH TOOLS & STRATEGIES TO REINFORCE CONCEPTS LEARNED IN SCHOOL.

"[PARENTS] REALLY TRUST US NOW. AT FIRST, THEY WERE HESITANT, BUT NOW THERE IS DEFINITELY TRUST."

Toddler classroom quality was consistent across the 4-year project. Teachers provided high levels of emotional and behavioral support through creating a positive climate and effectively guiding children’s behaviors. Teachers provided mid-range levels of support for children’s learning through effective language modeling.

Over 4 years, preschool classroom quality met or exceeded national averages for the majority of observations in all domains. Teachers consistently provided high quality emotional support and classroom organization. Levels of classroom instructional support increased across the 4-year project.

*NOTE: Observational data (CLASS) was not collected in the spring of 2020 due to the COVID-19 pandemic. -- National Averages (Aikens et al., 2016; Bandel et al., 2014). No averages available for Engaged Support for Learning domain.*
CHILD SOCIAL-EMOTIONAL SKILLS & KINDERGARTEN READINESS

peer play & empathy*

Children’s interactive peer play skills increased from fall to spring in each school year and teachers consistently reported average levels of interactive peer play skills ($M = 50$).

Children exhibited gains in empathy skills from fall to spring in years 1-3, as reported by teachers. Examples of empathy include empathetic helping behavior when a peer is in distress or empathetic concern for a character in a story.

teacher & peer engagement*

Children’s engagement with their teacher was similar for children with and without visual impairment. Teacher engagement includes the child using the teacher as a secure base, shared positive affect, and communication.

Children’s engagement with their peers increased from years 1-3. The gap in peer engagement between children with and without visual impairment narrowed. Peer engagement includes sociability, communication, and leadership.

*NOTE: Year 4 data may look different than years 1-3 due to challenges stemming from COVID-19, such as frequent absences, classrooms quarantining, etc. Observational data (inCLASS) was not collected in the spring of 2020 due to the COVID-19 pandemic.
Parents consistently reported above average home-school conferencing across the 4-year project, indicating that parents feel involved with school personnel about their child’s academic & school progress.

"I want my children to understand that our differences do not define who we are."

“My daughter does not see visually impaired or sighted children. She just sees her friends in the classroom. She treats all her classmates equally and loves to play with them.”
Impact Evaluation of the Florida Reading Corps PreK Program

Reading & Math, Inc. planned to demonstrate through a partnership with Miami Dade County Public Schools and The University of Chicago NORC that when replicated, the highly successful Reading Corps program can achieve the same impact in Miami as in Minnesota.

How Reading Corps Works

Science
- Data-Driven Decision Making
- Empirical Research
- Implementation Fidelity
- Culturally Relevant

Service
The Power of AmeriCorps

REAL POSITIVE IMPACT

Impact Evaluation: 2018

This study took place in the first year of the grant and was followed by program modifications in the following years to ensure maximum support of students based on the findings of the study.

Florida Reading Corps students outperformed their peers on

45

out of 5

key measures of early literacy

- Rhyming
- Alliteration
- Letter Sounds
- Letter Names
- Picture Names*

*No statistically significant difference

Reading Corps in PreK Settings:
- Tutors are embedded in classroom and collaborate with teaching team
- Spend their days helping children talk, read, write, sing and play in order to develop early literacy skills and get ready for Kindergarten

This research made possible by:

AmeriCorps

THE CHILDREN'S TRUST
Lessons Learned

**DELIVERY CHANGES**
Prioritized Letter Sound practice over Letter Names to avoid duplication

**COACHING STRUCTURE ENHANCEMENTS**
Coaching Specialist position became full time
Added Lead Tutor position to provide additional mentoring for new tutors

**EXPANDED INSTRUCTION**
Added PreK Math in Year 3

Impact Assessment: 2019

489 students across 35 sites received Reading Corps compared to peers who did not.

Florida Voluntary PreK Assessment (VPK)
- Print Knowledge
- Phonological Awareness
- Oral Language/Vocabulary

FL RC PreK Alliteration Fluency Results

- Effect Size 0.22

FL RC PreK Letter Sound Fluency Results

- Effect Size 0.11
Of all the efforts happening to improve public education, Reading Corps stands out as a promising example of how focused collaboration can be a catalyst for education reform.

OUTCOMES: 2018–2019*

- Early learning centers, including district and community-based sites: 28
- Trained AmeriCorps tutors: 51
- PreK students served: 929
- Of 4- and 5-year-olds ready for Kindergarten (demonstrated growth on 3+ measures): 93%

*Outcome data was not reported in 2019–20 or 2020–21 due to COVID-19

Prepared and Presented by:
Lindsay Dolce, ServeMinnesota
Shevrin Jones, Florida Reading Corps
Britney Matthews, Florida Reading Corps
The Children’s Trust Early Childhood Community Research Demonstration Project
Citrus Health Network’s Teacher-Child Interaction Training—Universal
Executive Summary

Background: To create the essential foundations necessary in our community to enable children to achieve their full potential, Citrus Health Network implemented Teacher-Child Interaction Training (TCIT) in child care settings in Miami-Dade County. Teacher-Child Interaction Training (TCIT) is a promising research-based intervention for young children in the child care setting that increases teachers’ knowledge of social emotional development, relationship and behavior management skills and provides support via real-time coaching on effectively responding to the needs of children with challenging behaviors. TCIT-U, the “Universal” implementation of TCIT, refers to the early childhood intervention design when it is delivered within a typical classroom (not targeting any particular child) that supports school readiness and healthy social emotional development of all young children in the class, increasing protective factors and decreasing challenging behaviors.

Understanding that caregivers in child care settings represent a significant relationship/attachment figure in a young child’s life, TCIT provides teachers training and individualized, live support in order to (1) develop their skills in positive attention and consistent discipline, (2) facilitate their management of children with challenging behaviors in their classrooms, (3) increase children’s social emotional health, and (4) support their future behavioral and academic success (Lyon et al., 2009).

Citrus Health Network’s TCIT Program included coaches who were early childhood mental health and child development specialists and Certified PCIT Trainers; a CHN Coordinator and Administrator; LearnVentures – researchers and authors of TCIT-U, and training partner for TCIT Coaches; and Behavioral Science Research Institute, the research and evaluation partner.

Design and Implementation

- Experimental design with random assignment of early learning programs to either an intervention (treatment) group or delayed intervention (control) group. After randomization, both groups (experimental and control) had nearly equivalent demographic characteristics for child and teacher at baseline.
- All classrooms of children ages 3-5 years in each program participated.
- Data collection included observational measures of teacher skill, teacher-reported measures of children social-emotional learning, and teacher report of their own sense of efficacy.
- Participants included 118 teachers (84% Hispanic, 100% female) and 1,690 children (51% female, 3.9 years old on average).
Results
Teacher’s sense of efficacy increased significantly as a result of the TCIT intervention with the greatest differences seen for the Classroom Management domain. Positive effects continued through the follow-up period. No change and sometimes negative effects were found for teachers in the control group.

1 In year 3, Spring 2020 evaluation could not occur due to COVID-19.

Child Outcomes
- TCIT increased children’s positive social emotional skills and reduced behavioral concerns.
- Participating in TCIT significantly predicted increases in children’s Protective Factors (TPF) scores and decreases in Behavioral Concerns scores compared with classrooms in the treatment as usual (TAU) group.
- Effects remained significant after controlling for covariates including Cohort (spring/fall) and cohort year; teacher’s higher degrees and years at current site; children’s age and gender; classroom size.

Teacher Outcomes
- TCIT improved teachers’ positive teaching skills and reduced negative child interactions.
- For the experimental condition group of teachers (TCIT), significant positive differences were found from baseline to post for all teacher skill scales compared with control group/Treatment as Usual teachers (TAU). All effects were significant at p<.001 and all were in the desired direction, meaning that positive behaviors increased, and negative behaviors decreased.
- There was a slight non-significant decrease from post to follow-up for positive skills.
Discussion
These results indicate that TCIT-U, and the skills it teaches early childhood teachers to use or avoid, is an effective way of helping them feel more effective as teachers, as well as positively impacting children in early learning classrooms. We expect that this data from this 4-year research program will add to the research base on TCIT and help shift its status from a promising program to an evidence-based program.

The child-level outcomes showed that TCIT-U impacted young children positively in two distinct ways—by increasing children’s positive social emotional skills (evidenced by higher Total Protective Factors scores on the DECA-P2) and reducing their concerning or problem behaviors (evidenced by lower Behavioral Concerns scores on the DECA-P2). Increasing positive social emotional skills relates to children’s ability to take initiative, to self-regulate, and to form close, secure bonds with the important adults in their lives (in this context, their teachers), while reducing behavioral concerns involves reducing aggression, uncontrollable outbursts, and inappropriate behaviors. These are both important ways that a child can develop better social skills for use with both adults and peers well into the future, as well as build stronger mental and emotional health that will support them lifelong. This four-year intervention study shows that the TCIT-U intervention positively impacts the social emotional skills and wellbeing of young children in early learning classrooms—even amidst a global pandemic. If this intervention could become part of a standard teacher education or training program, the potential impact on our community’s children could be substantial.

The teacher-level outcomes showed that TCIT-U improved teachers’ positive teaching skills and reduced negative interactions with children in their classroom. Positive teaching skills include offering children intentional praise, asking questions to indicate interest and extend learning, and making positive reflective statements about what the child is doing, which means after TCIT intervention, teachers used these positive, effective teaching skills in the classroom more often. Just as important as increasing positive skills are reducing or eliminating negative interactions with the children. Those negative interactions that were reduced included statements like, “No, don’t ___ stop ___” (to the extent possible and reasonable), supporting the development and maintenance of secure relationships with teachers and overall classroom quality. In fact, once teachers had experienced the TCIT intervention, they improved on all the positive skills and reduced negative interactions, compared to the teachers who received no intervention. TCIT also was found to increase teachers’ sense of efficacy, which can also increase job satisfaction and reduce feelings of burnout. Participating in the TCIT intervention helped teachers feel more able to effectively engage students and keep their interest, better able to teach them, and
most significantly, better able to manage their behavior in the classroom context. These findings are especially important, because the more capable a teacher feels they are at managing and engaging children in their classroom, the less often children may be suspended or expelled from their early learning sites.

**Reflection and Next Steps**
What has made Citrus Health Network’s early childhood community research project unique is that this intervention was implemented in community early learning programs, with teachers who were representative of the communities which they serve and of the larger population of early learning practitioners in Miami-Dade County. And, even in the middle of a pandemic, providers wanted to participate and were grateful for the support that TCIT training and coaching provided them. The positive results found for both teachers and children in intervention classrooms demonstrated that teaching early learning teachers a few concrete skills to use more (positive skills) or avoid (negative interactions) is a concise, effective way of supporting their overall efficacy and development as a professional, as well as supporting the positive social and emotional development of young children. The evidence also supports the methodology of training plus live, embedded coaching in their actual classroom contexts is effective way of changing teacher behavior and impacting children’s skill development.

Overall, recommendations include supporting TCIT intervention in more classrooms across Miami-Dade. TCIT skills could be taught in preservice early education coursework at local colleges and universities, as well as in the basic 40-hour training offered by the Florida Department of Children & Families. Because this study used an experimental design, the results demonstrate the positive impact of TCIT on teachers and children is robust and strong. It is our hope that TCIT be included in The Children’s Trust’s list of approved evidence-based programs so that more agencies can be funded to provide this support and offer this classroom intervention across communities. We see value in having a local, community-based organization offering this type of support to child care providers, based on our experience with the early learning programs that participated in our 4-year project, and hope that The Children’s Trust sees the value of local commitment, as well. Citrus Health Network is grateful to have had the opportunity to contribute to the advancement of this positive intervention program, and thanks The Children’s Trust for making this opportunity possible with this specialized Community Research Demonstration Project funding.
PURPOSE

Our team’s 2017-2021 Early Childhood Community Research Demonstration Project implemented and evaluated Universal Teacher Child Interaction Therapy (TCIT-U), a universal prevention program that teaches educators to use positive interaction and effective child behavior management skills to promote child behavioral and social-emotional success. Our project aimed to 1) implement TCIT with fidelity, 2) have TCIT be embraced with a high level of teacher satisfaction, 3) improve teacher self-efficacy and behavior management skills, and 4) positively impact trajectories of student behavior and social-emotional development.

POPULATION

Children (N = 404): Children were ages 18 months to 5 years, many with a documented disability and/or meeting eligibility criteria for IDEA Part B/C services

Teachers (N = 109 teachers, 14 coaches): Lead teachers and teaching assistants were trained in TCIT. Many of the teachers have less than a college education and limited English proficiency, thus materials were translated to Spanish allowing for implementation in both English and Spanish. Staff from each school were trained as TCIT coaches through train-the-trainer model.

Schools (N = 38 classrooms, 9 schools): Birth-to-2 program schools in Miami-Dade County include Arc of South Florida (Kendall, Florida City), Debbie School, Easterseals (Civic, Ophelia Brown), Linda Ray Intervention Center, and United Community Options (Civic, North Shore, Diamond Minds)

RESEARCH DESIGN

IMPLEMENTATION TIMELINE

Year 1
- Implementation Planning Focus Groups (PRE & POST)
- Pilot RCT (3 schools, 12 classrooms, 36 teachers)

Years 2 & 3
- Full RCT (9 schools, 26 classrooms, 73 teachers)
- Train-the-trainer pilot at 3 schools

Year 4
- Train-the-trainer extended to all schools
- TCIT with allied health professionals
RESEARCH AIMS AND HYPOTHESES

Aim 1: Examine the fit, feasibility, and acceptability of TCIT-U within Miami-Dade County B-2 Early Education and Special Education preschool programs where teachers from diverse cultural and linguistic backgrounds serve students ages birth to 5 years, many with developmental disabilities.

Hypothesis 1: Community-partnered implementation and evaluation of TCIT will ensure program fit, feasibility, and acceptability.

Aim 2: Examine the effects of TCIT-U on teachers’ use of effective teacher-child interaction skills shown to promote children’s social/emotional development, reduce disruptive behaviors, and increase school readiness.

Hypothesis 2a: Teachers who receive TCIT-U will use CDI and TDI skills, as measured with the Teacher-Child Interaction Coding System (TCICS), with proficiency and at a higher rate than teachers in the control group.

Hypothesis 2b: Teachers who receive TCIT-U will report less job-related stress/burnout and greater teaching-related self-efficacy than teachers in the control group.

Aim 3: Examine the effects of TCIT-U on children’s behavior and social-emotional functioning.

Hypothesis 3a: Children in classrooms of teachers trained in TCIT-U will demonstrate higher levels of social/emotional functioning than children in the control classrooms.

Hypothesis 3b: Children in classrooms of teachers trained in TCIT-U will demonstrate lower levels of disruptive behaviors than children in the control classrooms.

Hypothesis 3c: Children in classrooms of teachers trained in TCIT-U will demonstrate decreases in teacher-reported disruptive behaviors, as measured with the Sutter-Eyberg Student Behavior Inventory (SESBI), and increases in teacher-reported social-emotional functioning, as measured with the Devereux Early Childhood Assessment (DECA) as compared to children in control classrooms.

Aim 4: Develop and pilot a train-the-trainer program to promote TCIT sustainability at B-2 program schools and scalability to other early childhood special education settings.

Hypothesis 4: The train-the-trainer model will support sustainability of TCIT-U by creating an internal infrastructure for training new staff in TCIT and for supporting ongoing teacher skill development/maintenance and skilled application of TCIT with all children within and across school years. Specifically, the initial pilot will indicate that this model is: (1) acceptable to teachers/staff who are trained as trainers and (2) feasible for training teachers to high levels of proficiency.

SUMMARY OF FINDINGS AND CONCLUSIONS

Results of this large-scale, randomized controlled trial show promising results in support of the effectiveness of TCIT-U as a universal prevention model targeting behavior and social-emotional development in young children with and without developmental disabilities. Specifically, teachers achieved a moderate level of proficiency in the use of positive attention skills, although their ability to show increases in the use of reflections may have been impeded by few opportunities to reflect in this population of children with reduced expressive language skills (Table 1). Teachers also showed decreases in the use of directive and/or critical statements and increases in consistent responding after questions and commands. These findings are clinically meaningful because they represent an overall positive shift in the way that teachers interact and provide attention to students. From a
behavioral perspective, the combination of an increase in positive attention and a reduction in overly directive interactions and negative attention is **optimal to promote learning and support social emotional development**, particularly in young children, and our findings suggest that teachers achieved this balance after participating in TCIT.

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<th>Category</th>
<th>Time</th>
<th>TCIT-U</th>
<th>Waitlist</th>
<th>t</th>
<th>p</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Do Skills” Total</td>
<td>Pre</td>
<td>3.96(3.27)</td>
<td>4.83(3.84)</td>
<td>0.99</td>
<td>.33</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>15.32(8.39)</td>
<td>5.93(3.97)</td>
<td>5.51**</td>
<td>&lt;.01</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>13.17(6.21)</td>
<td>5.23(2.98)</td>
<td>6.14**</td>
<td>&lt;.01</td>
<td>1.61</td>
</tr>
<tr>
<td>Labeled Praises</td>
<td>Pre</td>
<td>1.38(2.13)</td>
<td>1.08(1.09)</td>
<td>0.70</td>
<td>.49</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>6.30(4.71)</td>
<td>2.02(1.36)</td>
<td>4.84**</td>
<td>&lt;.01</td>
<td>1.23</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>4.91(3.30)</td>
<td>1.77(1.65)</td>
<td>4.53**</td>
<td>&lt;.01</td>
<td>1.19</td>
</tr>
<tr>
<td>Behavior Descriptions</td>
<td>Pre</td>
<td>1.15(1.56)</td>
<td>1.99(2.97)</td>
<td>1.46</td>
<td>.15</td>
<td>.36</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>6.30(4.94)</td>
<td>2.19(2.31)</td>
<td>4.11**</td>
<td>&lt;.01</td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>5.98(4.98)</td>
<td>1.75(1.51)</td>
<td>4.31**</td>
<td>&lt;.01</td>
<td>1.13</td>
</tr>
<tr>
<td>Reflections</td>
<td>Pre</td>
<td>1.43(1.84)</td>
<td>1.76(2.37)</td>
<td>0.63</td>
<td>.53</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>2.72(2.60)</td>
<td>1.72(2.26)</td>
<td>1.60</td>
<td>.12</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>2.26(2.65)</td>
<td>1.71(1.84)</td>
<td>0.96</td>
<td>.34</td>
<td>.25</td>
</tr>
<tr>
<td>Questions</td>
<td>Pre</td>
<td>10.48(7.08)</td>
<td>11.50(6.63)</td>
<td>0.60</td>
<td>.55</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>7.36(5.48)</td>
<td>12.08(5.92)</td>
<td>3.26**</td>
<td>&lt;.01</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>9.04(6.49)</td>
<td>12.45(7.92)</td>
<td>1.80</td>
<td>.08</td>
<td>.47</td>
</tr>
<tr>
<td>Commands</td>
<td>Pre</td>
<td>13.53(9.51)</td>
<td>12.57(6.90)</td>
<td>0.46</td>
<td>.65</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>9.94(6.81)</td>
<td>16.96(7.71)</td>
<td>3.81**</td>
<td>&lt;.01</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>13.28(10.73)</td>
<td>17.11(9.31)</td>
<td>1.79</td>
<td>.08</td>
<td>.47</td>
</tr>
<tr>
<td>Negative Talk</td>
<td>Pre</td>
<td>2.48(2.87)</td>
<td>1.55(1.62)</td>
<td>1.58</td>
<td>.12</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>1.09(1.58)</td>
<td>1.54(1.47)</td>
<td>1.16</td>
<td>.25</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>1.12(1.09)</td>
<td>1.83(1.63)</td>
<td>1.97*</td>
<td>.05</td>
<td>.52</td>
</tr>
<tr>
<td>% Follow-up of Questions</td>
<td>Pre</td>
<td>11.52(13.02)</td>
<td>11.19(12.89)</td>
<td>.10</td>
<td>.92</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>22.07(17.55)</td>
<td>14.03(12.91)</td>
<td>2.03*</td>
<td>.05</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>24.70(19.11)</td>
<td>13.14(9.74)</td>
<td>2.87**</td>
<td>&lt;.01</td>
<td>.75</td>
</tr>
<tr>
<td>% Follow-up of Commands</td>
<td>Pre</td>
<td>11.99(12.26)</td>
<td>13.01(12.83)</td>
<td>.33</td>
<td>.74</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>30.03(23.68)</td>
<td>15.44(11.52)</td>
<td>3.02**</td>
<td>&lt;.01</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>28.18(20.73)</td>
<td>15.93(12.04)</td>
<td>2.73**</td>
<td>&lt;.01</td>
<td>.79</td>
</tr>
</tbody>
</table>

In addition to teacher skill acquisition, TCIT teachers also reported significantly increased self-efficacy related to classroom management as compared to teachers in the waitlist group from pre to post, but these differences were not maintained at follow-up (Table 2). These findings suggest that teachers feel increased confidence in their ability to address behavior in the classroom while they are participating in TCIT and receiving weekly coaching, but that confidence may decrease after four weeks without coaching support. Overall, findings indicate that teachers achieve sufficient level of proficiency in the use of CDI skills to maintain these skills over time, but their level of proficiency in the use of TDI skills, and their self-efficacy for managing behavior in the classroom may not be sufficient to support long-term maintenance after only 12 coaching sessions. This suggests the need for additional supports (e.g., coaching to proficiency, supplemental training materials such as workshops, web modules, skills demonstrations) to support skill proficiency, maintenance, and confidence in the use of TCIT skills.
Table 2. Teacher Self-Efficacy

<table>
<thead>
<tr>
<th>Category</th>
<th>Time</th>
<th>TCIT-U</th>
<th>Waitlist</th>
<th>t</th>
<th>p</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Teacher Self-Efficacy</td>
<td>Pre</td>
<td>7.16(1.06)</td>
<td>6.97(1.25)</td>
<td>.69</td>
<td>.49</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>7.75(0.85)</td>
<td>7.02(1.22)</td>
<td>2.73**</td>
<td>&lt;.01</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>7.39(1.07)</td>
<td>7.13(1.23)</td>
<td>.84</td>
<td>.40</td>
<td>.73</td>
</tr>
<tr>
<td>Teacher Efficacy in Student Engagement</td>
<td>Pre</td>
<td>7.21(1.04)</td>
<td>7.05(1.36)</td>
<td>.55</td>
<td>.58</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>7.72(0.90)</td>
<td>7.07(1.18)</td>
<td>2.47*</td>
<td>.02</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>7.38(1.13)</td>
<td>7.16(1.19)</td>
<td>.70</td>
<td>.49</td>
<td>.19</td>
</tr>
<tr>
<td>Teacher Efficacy in Instructional Strategies</td>
<td>Pre</td>
<td>7.05(1.16)</td>
<td>6.95(1.33)</td>
<td>.33</td>
<td>.74</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>7.71(0.94)</td>
<td>7.00(1.42)</td>
<td>2.36*</td>
<td>.02</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>7.31(1.16)</td>
<td>7.11(1.44)</td>
<td>.57</td>
<td>.57</td>
<td>.15</td>
</tr>
<tr>
<td>Teacher Efficacy in Classroom Management</td>
<td>Pre</td>
<td>7.22(1.10)</td>
<td>6.90(1.17)</td>
<td>1.16</td>
<td>.25</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>7.80(0.83)</td>
<td>7.00(1.26)</td>
<td>2.97**</td>
<td>&lt;.01</td>
<td>.76</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>7.49(1.07)</td>
<td>7.12(1.25)</td>
<td>1.17</td>
<td>.25</td>
<td>.31</td>
</tr>
</tbody>
</table>

With regards to child outcomes, **TCIT-U appears to have an immediate impact on the prevention of worsening behavior problems**, as children in the TCIT-U group do not show the increase in behavior problems seen in the waitlist group. However, children’s developmental outcomes, as measured with the DECA, were not significantly impacted by TCIT. It is notable that the session-limited model implemented for this project established that all teachers received a set number (12) of coaching sessions instead of receiving continued coaching until they achieved advanced proficiency. Consequently, there was significant variability in the quality of TCIT implementation across teachers, and thus variability in the dose of TCIT received by each child. It is possible that the dose of TCIT received by children was not sufficient to move the needle on their developmental functioning sufficiently to capture group differences. Moreover, TCIT-U at the universal prevention level may not be sufficient to address the needs of children with higher levels of challenging behavior, as evidenced by findings that children with clinically elevated scores on the SESBI did not differ between groups. Nonetheless, the TCIT-U strategies, which are very similar to the strategies used in PCIT for families of children with significant behavioral problems, can be applied using a more targeted approach (i.e., with emphasis on specific target behavior and by incorporating monitoring of response to intervention) for children needing higher levels of support. Furthermore, the behavioral coaching model employed by TCIT supports teacher skill use in the classroom to impact the behavioral and social-emotional functioning of each individual child.

Table 3. Child Outcomes

<table>
<thead>
<tr>
<th>Measure</th>
<th>Time</th>
<th>TCIT-U</th>
<th>Waitlist</th>
<th>t</th>
<th>p</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECA Total</td>
<td>Pre</td>
<td>41.75 (10.53)</td>
<td>40.16 (10.67)</td>
<td>1.20</td>
<td>.23</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>46.87 (11.42)</td>
<td>44.23 (11.70)</td>
<td>1.70</td>
<td>.09</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>44.61 (12.42)</td>
<td>41.65 (11.33)</td>
<td>1.78</td>
<td>.07</td>
<td>.25</td>
</tr>
<tr>
<td>SESBI-R Intensity</td>
<td>Pre</td>
<td>49.77 (7.33)</td>
<td>50.16 (6.41)</td>
<td>.45</td>
<td>.65</td>
<td>.06</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>49.96 (7.33)</td>
<td>52.91 (7.13)</td>
<td>3.04</td>
<td>&lt;.01**</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>51.24 (8.03)</td>
<td>53.04 (7.39)</td>
<td>1.65</td>
<td>.10</td>
<td>.23</td>
</tr>
<tr>
<td>SESBI-R Problem</td>
<td>Pre</td>
<td>50.64 (8.96)</td>
<td>47.11 (5.41)</td>
<td>-3.77</td>
<td>&lt;.01**</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>46.02 (5.78)</td>
<td>48.18 (6.15)</td>
<td>2.71</td>
<td>&lt;.01**</td>
<td>.36</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>46.12 (6.00)</td>
<td>47.25 (6.55)</td>
<td>1.26</td>
<td>.21</td>
<td>.18</td>
</tr>
</tbody>
</table>
NEXT STEPS

Existing data collected over four years will be examined further to better understand 1) possible mediators (e.g., teacher skill proficiency) and moderators of child and teacher outcomes, and 2) therapist and child outcomes related to implementation of TCIT with allied health professionals.

Furthermore, **TCIT-U will be implemented and evaluated within the context of a multi-tiered system of supports (MTSS) framework** (Figure 1), wherein all children receive Tier 1 universal prevention via implementation of high-quality TCIT-U at the classroom level. For children with higher levels of disruptive behavior, higher-level supports (Tier 2) will include focused implementation of TCIT-U strategies aimed at specific target behaviors while monitoring response to intervention (RTI) throughout the intervention period. For children who show insufficient response to this level of support, Tier 3 targeted intervention will include a functional behavioral assessment that informs a comprehensive behavioral intervention plan and integrates TCIT and other evidence-based strategies.

Given the importance of collaboration between families and schools to maximize the developmental outcomes for young children, a parallel system of supports for families of children in the B-2 program schools will be developed, implemented, and evaluated. Supports will include workshops and on-demand webinars with video demonstrations (tier 1), small group parenting groups with live coaching (tier 2), and linkage to individual parenting programs (tier 3). A system for identifying and moving children between tiers will also be developed and implemented. This model will be implemented by school staff trained via train-the-trainer to support sustainment.

**Figure 1. TCIT + Parenting MTSS for Children in Early Childhood Special Education**

- **Tier 1**
  - Live workshops, web-based modules, with video demonstrations, & enhanced teacher-family communication available for families

- **Tier 2**
  - Brief (4-session) parenting groups with live coaching (based on PC-PCIT model)

- **Tier 3**
  - Formal Behavioral Intervention Plan based on Functional Behavioral Assessment

**TCIT-U**

**Parenting**

**Tier 1**

- TCIT-U implementation by all teachers, assistants, and allied health professionals with all students
LOTUS HOUSE
SERVICE DRIVEN CHILDRENS RESEARCH PROJECT
EXECUTIVE SUMMARY

Introduction

Sheltering up to 500 women, youth and children on a nightly basis from across Miami-Dade County, the Lotus House Women’s Shelter (Lotus House) is the largest women’s homeless shelter in the nation. On any given night, the number of children sheltered at Lotus House is likely to exceed adults. Most are between the tender ages of birth to 5 but with no upper age limit, many are teenagers. Homelessness is traumatic for everyone, but especially so for children facing the loss of home, a bed of their own, the stability of family and social networks and support systems, possessions, including precious toys, and food insecurity. Homelessness layered atop poverty, disabilities, medical and/or mental health issues, and other complex needs in addition to the traumatic events leading up to homelessness compounds the challenges faced by vulnerable children. Recognizing their special needs, Lotus House utilizes “children first” principles in its trauma informed operations, programming and support services, welcoming children and families with enriched resources and supportive services, a special intake sanctuary, residential rooms tailored to meet their needs, pint size furnishings and play spaces throughout, an arts and activities lab, children’s play room, children’s science lab in the hydroponic Farm (a TCT Innovations Project), creative arts programming in the Lotus Village Voices recording studio (another TCT Innovations Project), the Lotus Learning Pod educational programming, among many other program features designed to heal and strengthen children and families. Most importantly, thanks to The Children’s Trust and other key supporters, Lotus Village includes a model Children’s Wellness Center, providing trauma informed, evidence based early assessments for all children and the deep therapeutic supports which were the subject of this service driven research project for children and families (ECR Project).

Research Project - Leveraged, Service Driven, Community Based

Facing a dearth of research on a national level in regard to the needs and effective therapeutic supports for children and families experiencing homelessness, Lotus House took the lead in developing and proposing the ECR Project four years ago. Our goal was to better understand the developmental, mental health and trauma related needs of children experiencing homelessness and provide effective therapeutic interventions to heal and strengthen children and improve mother-child relationships. At the same time, we hoped to better inform public and social policies affecting marginalized children and families and to set a new standard on a national level for shelters (both homeless and domestic violence) across the nation for universal screening and enriched supportive services. Of special note and to ensure the project put the needs of sheltered children and families first, Lotus House not only took the lead in identifying the issues to be studied based on more than a decade of sheltering children and families, but the technological and methodological support required, oversaw staff's day-to-day delivery of services, owned and managed the data, emphasized continuous quality improvement, utilized racial, ethnic, diversity, inclusivity and social/economic sensitivity in its work, and continues to be integrally involved in the publication and dissemination of results. This unique community based, service driven research study was an academic collaboration with Dr. Paulo Graziano of Florida International University, whose team provided invaluable support with great humility and deference to the practical realities and needs of the shelter.
Of further note, Lotus House utilized the same rigorous focus, research standards, methods and IRB Protocol, thereby leveraging the ECR Project, for its older sheltered children and youth ages 5-18 to better assess their needs and evaluate the effectiveness of evidence based therapeutic services in its TCT Family Strengthening program. Combining the ECR Project with its TCT Family Strengthening program resulted in high quality, enriched services for all Lotus House children and offered a more comprehensive picture of the high level of needs of our sheltered children and families and the effectiveness of the therapeutic supports offered. This combined study (Research Project), with combined results presented more fully below, is the largest study to our knowledge ever done of the developmental, mental health and trauma related needs of sheltered children and youth utilizing evidence based assessments and evaluating the effectiveness of therapeutic interventions in the context of a homeless shelter. There is still more work to be done, which our Phase 2 ECR research study, “Children First” is designed to address.

Aims and Objectives

The Research Project aims and objectives were specifically to:
1) Develop a portrayal of the developmental, mental health and trauma related needs of children and mother-child interactions utilizing standardized, normed, assessment tools to: a) inform and guide the supportive services that we provide children and their mothers, and b) generate empirically-based information to inform social and public policy;
2) Evaluate and compare the effectiveness of time-limited, evidence-based, therapeutic supports with children and mothers experiencing homelessness;
3) Tailor the delivery of these supportive interventions to the specific needs of sheltered children and their mothers; and
4) Disseminate our results to shelters nationwide and other relevant stakeholders, including via our website, national conferences and published academic articles.

Research Activities

A. Pre-Assessment and Instruments: The developmental status, social and emotional wellbeing (mental health) and trauma related histories of children entering Lotus House were promptly assessed upon intake at the shelter by trained Lotus House clinicians, utilizing tools normed to the general population, together with a standard Lotus House child clinical assessment and interview. Mothers who agreed to participate in one of the service modalities and agreed for their results to be available for research purposes signed informed consent forms that had been cleared by the Florida International University IRB.

B. Services: Services were tailored to meet the needs of children and families based on the outcome of the assessments. Children with developmental issues and concerns identified during assessments were linked to third party services, such as psychiatric, neurological, speech, ABA, and further evaluation through Early Steps, and FDLRS. Children and mothers

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1 For more detail, see Lotus House Therapeutic Mother-Child Year IV Report (Evaluation Report) accompanying this Executive Summary.

2 Battelle Developmental Screener (v2) (6"-8') (Glascoe, F., 2007) (Battelle Screener); Child and Adolescent Trauma Screener (3'-8', maternal report; 8-18yrs, child report) (Sachser, C. 2016) (CATS); Eyberg Child Behavior Inventory (6"-13') (Eyberg, S., Nelson, M., Duke, M., & Boggs, S., 2004) (ECBI); Dyadic Parent-Child Coding System (Eyberg, S., Nelson, M., Duke, M., & Boggs, S., 2004) (DPICS); Parenting Relationship Questionnaire (PRQ); Parenting Stress Index IV SF (birth-13yrs) and Stress Index for Parents of Adolescents (13-21 yrs) (collectively, PSI).
who needed therapy were offered the following services\(^3\) by Lotus House trained child and family therapists:

1) For children under age 2, twelve sessions of Child-Parent Psychotherapy (CPP_10+), aimed to help young children and their families recover from stressful and traumatic events.

2) For children ages 2 to 5'11", at random, either CPP_10+ or twelve sessions of Parent Child Interaction Therapy (PCIT), aimed to address the needs of families with children ages 2-7 with disruptive behavior problems. Mothers and children in this group who consented were part of a randomized control study.

3) For children ages 6 to 6'11", either PCIT or Trauma Focused Cognitive Behavior Therapy (TF-CBT), depending on clinical need, with TF-CBT aimed at helping children and adolescents recover from trauma.

4) For youth ages 7 and above, TF-CBT.

**C. Post-Assessment:** Re-assessments were undertaken 4 months after the first assessment, earlier if at least 12 sessions had been completed, or after completing 10 sessions if the clinician deemed that the participants had attained treatment goals. Mothers who required additional support were offered additional therapy after the re-assessment. The post intervention assessment protocol was the same as the pre-intervention assessment with the exclusion of demographic questions and the Battelle Screener. It also included questions on perceived improvements on child behavior, child trauma symptoms, parenting relationship as well as program satisfaction. The satisfaction surveys helped to inform how the services were delivered for continuous improvement. Focus groups at the end of the study informed the development of Lotus House’s proposal for Phase 2, Children First, of this important research.

**D. COVID-19 Pandemic:** The pandemic broke out eight months into the third year of services and a series of adaptations were made to continue to serve program participants. A procedural manual was developed and revised multiple times as understanding increased on how to prevent transmission. Social distancing was practiced as much as possible, masks were used, and when necessary, sessions moved from in-person to a virtual delivery mode although most services were delivered in person. A decision was made by the research team, given sufficient numbers of participants, to end the randomized control study (which had sufficient numbers for comparison) to avoid speculation as to the pandemic’s impacts.

**Service Delivery Outcomes**

A total of 1,551 children and their mothers (n=887) were assessed over four years, making this the largest study of its kind ever done in the United States. 11,195 sessions were provided.\(^4\) Of

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\(^3\) Initially, families with more than one child with clinical need were assigned to the age category (0 to 2, 2 to 6, 6 to 13, and 13 up) of the child with the most pressing need. Starting in Year II, families with multiple children had two children assigned at a time as appropriate, both to the same modality, or to the TF-CBT and one of the other two modalities except that mothers were not assigned to CPP_10+ and PCIT concurrently. In some cases, two different modalities were provided consecutively and in a few cases, dyads were re-assigned if new needs or previously unperceived needs emerged. Therapeutic services were scheduled weekly for 45 to 60 minutes for the CPP_10+, 60 minutes for the PCIT, and 45 to 60 minutes for the TF-CBT. To ensure fidelity to the treatment protocols, each modality included supervision and recorded checks on fidelity.

\(^4\) CPP_10+ sessions were provided most frequently (39%) followed by PCIT (26%) and by TF-CBT (35%). The highest rate of completion to 10 sessions was obtained by the TF-CBT (63%) followed by the CPP_10+ (57%) and followed by the PCIT (50%). Post assessments were completed for 669 children. Of these, only 40 had completed fewer than 10 sessions. Hence, not all children who had completed 10 or more sessions received post-assessments because they left the Lotus House before these could be carried out. Notably, the completion rate for those who
the 11,195 sessions, 1,775 were multiple sibling sessions for a total of 10,297 unique sessions. Of 1,552 children assessed, 1,187 (76%) attended at least one session and 667 (57%) completed 10 or more sessions. A key indicator of adequate service coverage is the total percentage of participants who completed treatment. Of 834 children who entered prior to Year IV and attended at least one therapy session, 64% completed at least 10 sessions.

Findings

The Research Project assessed and served a population of children and mothers impacted by racial and ethnic disparities, gender based violence, and health, education and social/economic inequities, further marginalized by homelessness. Mirroring trends for homeless children across the nation, 53% of the children of the 1,552 children assessed were under the tender age of 4 years old. Approximately 73% of children were Black; 27% White/mixed; 29% of mothers were Hispanic/Latinx. Children were 48% female and 52% male.

A. Children’s Status at Entry: A Portrayal of High Special Needs

The results of the assessments revealed behavior problems, trauma, and developmental delays in the sheltered children at Lotus House that were significantly higher than the national population. Major findings include:

- **Developmental Challenges.** 63% of all children, from 6 months to 8 years of age, scored in the referral range in one or more categories of Adaptive, Personal Social, Communication, Motor or Cognitive domains of development on the Battelle Screener. With increase in age, the need for referral increased. Whereas 26% of children under 3 scored in the referral range, referrals were indicated for 50% of children above 3. There was also a higher percentage of children with at least one developmental area at risk: 56% of children under 3 and 76% of children from 3 to 8 years of age. With increase in age, the domains most at risk also changed. Communication was the domain most frequently at risk among children under 3 at 36%, whereas the Personal Social domain was most at risk at 53% for children 3 and above.

- **Trauma-Related Histories.** Almost all children had experienced one or more traumatic events, in addition to homelessness. Children reported considerably more traumatic events and symptomatology than mothers did on their behalf. Like developmental referral rates, exposure to trauma also increased with age. Assessments showed children experienced high rates of traumatic events and of PTSD symptoms and that children tended to be affected in one or more functional areas. Specifically:
  1) Children tended to experience multiple traumatic events. The average number of traumatic events were 2.3 \( (n = 834) \) reported by the mothers and 3.8 \( (n = 347) \) reported by children.
  2) As reported by mothers and children respectively, the average PTSD scores were at or above the threshold that indicates the possibility of PTSD, i.e., scores of 16 or above \( (n = 347) \).
  3) From caregiver and youth report, from 42% to 72% of children met one or more DSM 5 criteria associated with PTSD: re-experiencing (57% & 75%), avoidance

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attended at least one therapy session is in line with many academic norms, despite the challenges of service delivery in a shelter and the transient nature of homelessness.

5 Results of the Battelle Screener identify children who need a full developmental evaluation, at least 1.5 standard deviation below the average score for their ages (6 months-8 years of age). The screener does not apply to older children.
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(43% & 74%), negative mood/cognition (42% & 63%), and arousal (65% & 73%). Percentages listed in parentheses are from caregiver and youth reports respectively.

4) Impairment in one or more areas of children’s functioning was reported by 52% of mothers and by 64% of youths.

• **Concerning Behaviors.** Over 33% of mothers reported their children’s behavior to be of concern to them and rated 29% in the clinical range on the intensity of their behavior, roughly twice as many children in the clinical range than the general population (ECBI).

**B. Mother-Child Relationship At Entry.** Nearly all mothers had histories of domestic/intimate partner violence and/or other forms of gender based violence and victimization prior to entering Lotus House, with nearly 1 in 2 having been sexually molested in their childhoods and over 65% reporting some kind of childhood abuse or neglect.

• **Positive Maternal Interactions.** Parenting interactions for dyads with children under age 13 were measured by the sum of positive parental statements expressed by mothers during the DPICS-IV five-minute observational protocol, i.e., the sum of labeled praises, reflections, and behavioral descriptions. 56% of mothers made 0 or 1 positive statement to their children during the five-minute interaction \((n = 1,211)\). Thus, half the mothers offered no positive verbal communication to their children during the five-minute interaction. The average was fewer than 3 statements in five minutes. For dyads with children ages 13 and above, the parenting relationship was measured with the PRQ-CA. Respondents were included if their F, D, Consistency Index, or Response Pattern Index were “acceptable.” T score averages of the seven scales ranged from a low of 44 for Satisfaction with School to a high of 57 for Involvement. In the clinical range was Parenting Confidence (26%) and Involvement (44%).

• **Parenting Stress.** 14% of mothers reported parental distress above the 85\(^{th}\) percentile threshold (PSI S4), comparable to the general population. The research team posited a number of explanations for what it believed to be under-reporting of maternal stress, including the hypothesis that the instrument was sensitive to situational stress but did not capture chronic stress and concerns about protective services.

**C. Treatment Results.** Treatment results are presented below by therapeutic modality for comparison purposes.

• **Reduced Trauma Symptoms.** In regard to children who had pre-intervention scores above the clinical threshold (15), reductions of 20% or more on scores measuring trauma symptoms derived from maternal report were evident in: 68% of CPP_10+, 96% of PCIT, and 78% of TF-CBT completers. Meaningful improvement was also observed in youth self-report by 80% of TF-CBT completers.

• **Child Behavior.** Ratings derived from maternal report, both PCIT and TF-CBT completers (87% and 86%, respectively) met the meaningful improvement criteria. CPP_10+ completers, at 74% were only one percent short of the 75% criteria.

• **Parenting Stress.** Completers of all modalities met the outcome criteria of scores in the non-clinical range: 97%, 94% and 94% among mothers of children who participated in CPP_10+, PCIT, and TF-CBT respectively. For mothers of adolescents, 83% of TF-CBT completers scored in the non-clinical range.

• **Positive Maternal Interactions.** The program target was to increase positive maternal interactions by a count of 10 positive interactions from pre-treatment levels. This target
was met by 2%, 45%, and 2% of CPP_10+, PCIT, and TF-CBT completers, respectively. PCIT completers had substantially lower rates of no/almost no positive statements (12%) than CPP_10+ (47%) or TF-CBT completers at post-interventions. We note that PCIT is designed to teach the positive maternal interactions that the measurement tool, DPICS captures. In Phase 2, Children First, we will be utilizing a broader measure, Keys to Interactive Parenting Scale (KIPS) which examines the quality of parent-child relationships more broadly.

- **Parenting Relationship With Adolescents.** 74% of parents of adolescent completers in TF-CBT improved or stayed in the non-clinical range in at least five of seven scales (PRQ).
- **Randomized Control Study.** In Year III enough dyads randomized to the CPP_10+ and PCIT modalities completed interventions to allow analyses of results. The findings from the randomized group were consistent with the non-randomized group described above.
- **Maternal Satisfaction.** Mothers expressed high levels of satisfaction with the therapeutic modality in which they participated at 92%, 86%, and 89% for CPP_10+, PCIT and TF-CBT respectively, and their likelihood of recommending the modality at 93%, 87%, and 94% for CPP_10+, PCIT and TF-CBT respectively. Focus groups of mothers in Year IV guided the design of our Phase 2, Children First, study.

**Publication and Dissemination of Results**

Lotus House has been and continues to disseminate the findings from this Research Project to our local community and nationally, via multiple distribution outlets, including posting on our website, its annual report to the philanthropic community and stakeholders, two national conferences, and two academic papers submitted for publication. Additional papers, field reports, conferences and means of distribution, including via a national women’s shelter network are planned.

- Lotus House co-authored *Early Assessment and Intervention for Families Experiencing Homelessness: A randomized trial comparing two parenting programs*, submitted to the *Journal of Consulting and Clinical Psychology*, currently under peer review. This paper was accepted for presentation by Dr. Paulo Graziano at the June 2021 29th Annual Meeting Addressing Racism and Disparities, of the Society for Prevention Research in Child Development.

- Lotus House co-authored *Addressing mental health and trauma-related needs of sheltered children and families with Trauma Focused Cognitive Behavioral Therapy (TF-CBT)*, submitted to the *Journal of Administration and Policy in Mental Health and Mental Health Services Research*, currently under peer review.

- Lotus House’s poster presentation, *Lotus House Women’s Shelter as the Lead Agency in a Service Driven Research Project*, was selected for presentation and awarded “Best Reflects Policy Research” by the Society for Research in Child Development at its April 2021 Biennial Meeting.

**Conclusions and Interpretations**

A substantial number of families were served in the four years of implementation. Most of the children were quite young, infants and preschoolers at a time when their neural development is at its fastest. Our sheltered children’s histories indicated very high rates of potentially traumatic events and elevated symptomatology indicative of PTSD. Standardized assessments of children
at shelter in-take provided a portrayal of a population that was fragile and at high risk of developing developmental delays, particularly in social-emotional development. Findings indicated that children’s risk of developmental delay and potential PTSD increased with age. These findings are consistent with the fact that development is cumulative. Long known to Lotus House, nearly all sheltered mothers had high levels of domestic/intimate partner violence and/or other forms of gender based violence and victimization, many having experienced sexual victimization, abuse and neglect in their own childhoods.

At the start of this project, Lotus House had more than a decade of experience in serving sheltered children and families disproportionately impacted by racial and ethic discrimination, gender based violence, and health, education and social/economic inequality, further marginalized by homelessness. Our experiences drove us to propose the ECR Project and leverage those research tools to our Family Strengthening program for the broadest picture possible. For the first time, this Research Project allowed us to understand more deeply and document the magnitude of needs of our sheltered children and families; provide them with therapeutic services, supports, and referrals tailored to their needs; assess the effectiveness of evidence based therapies and use empirical evidence to improve service delivery; and deepen our child-centered service delivery model. Notwithstanding difficulties in procuring regular attendance in a transient environment, a major program attainment was that 64% of mothers who had commenced services in Years I through III had completed at least 10 sessions and a post-assessment by the end of Year IV, an impressive outcome in any setting which we attribute to the passion and commitment of our Children’s Services research team and mothers alike.

With respect to the mother-child dyads served, there are three major areas that the Research Project addressed for healing and strengthening children and families. First, children who needed deeper developmental assessments and supports were provided linkages to invaluable community services. Second, significant reductions in childhood trauma symptoms were demonstrated at post-assessment with CPP_10+, PCIT and TF-CBT. Parenting strategies to increase positive mother-child interactions were addressed successfully by PCIT. The measurement tools in Phase 2 of this expanded and important research are designed to capture changes in parent-child attachments, a critical element in healthy childhood development and relationships. Phase 2, Children First, will also add an additional evidence based supportive intervention, namely Video-feedback Intervention for Positive Parenting (VIPP), include expecting mothers, and widen the breadth of tools focused on both parent-child behavior and attachment, so that we may better understand the effectiveness of all modalities. Our focus groups with mothers and clinicians following the first Research Project have informed Phase 2 to enrich this next service driven research project.

Over 2 million children experience homelessness each year—invisible casualties of a nationwide homeless epidemic. Despite the fact that gender based violence and complex trauma are the leading causes of homelessness for sheltered women and children, prior to this Research Project, there was a dearth of research on how to advance the wellbeing of sheltered children. Thanks to the invaluable support of The Children’s Trust, this Research Project and its planned Phase 2, are the largest research study of their kind ever done in the United States to advance and deepen our understanding of the enormous needs of sheltered children and the effectiveness of supportive interventions to help children and families build the foundation for safer, healthier lives. The results of this study will have broad implications for the standard of care that should be afforded to sheltered children nationally and ways to better serve and support all marginalized children and families across our country. Lotus House will continue to be at the forefront of putting children first in America’s homeless systems and aims to transform the trauma of homelessness into a window of opportunity, so that children and families may
heal, grow and blossom into who they are meant to be. We are deeply indebted to The Children's Trust for making our children's dreams come true.

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