

# **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<sup>1</sup>

**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<sup>2</sup> 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 who needed therapy were offered the following services<sup>3</sup> by Lotus House trained child and family therapists:

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

<sup>2</sup> 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).

<sup>3</sup> 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

- 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.<sup>4</sup> Of 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

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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.

<sup>4</sup> 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 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.

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.**<sup>5</sup> 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 (43% & 74%), negative mood/cognition (42% & 63%), and arousal (65% & 73%). Percentages listed in parentheses are from caregiver and youth reports respectively.

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<sup>5</sup> 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.

- 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<sup>th</sup> 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 ethnic 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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