

# Child First Evaluation **Final Report**

## Executive Summary



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## The Child First Intervention

Young children who experience chronic stress and trauma are at risk of having poor emotional, behavioral, and physical health. Many efforts to reduce the effects of stress and trauma on children have been tried with various degrees of success with improving outcomes for children and their families. Child First is one such program that involves intensive home visits for young children and their families who are experiencing adversity and are at risk of abuse and neglect. As part of Child First, families receive a comprehensive assessment, an integrated, family-driven plan, home-based guidance for parents, Child-Parent Psychotherapy, and a coordinated, hands-on connection to community resources. Along with supporting and healing the parent-child relationship, collateral parent sessions address parent trauma, multiple stressors that the families are experiencing, and social determinants of health, as well as health needs and substance abuse as indicated.

## The Child First Evaluation Study

The Children's Services Council of Palm Beach County (CSC) adopted the Child First approach to reduce child maltreatment, improve child and parent outcomes, and prevent families from entering the child welfare system. CSC selected RTI International to conduct an evaluation of the Child First Program in comparison to other clinical programs.

The evaluation followed the natural flow of families, without interfering with the clinical triage that was already in place that referred families with the highest risk to Child First. RTI used a quasi-experimental design with propensity score matching (PSM) to identify comparison cases. In-person interviews with families involved in Child First (CF), Counseling Services (C), or Triple P (TP) began at the end of 2018; however, due to COVID-19, the evaluation was put on hold in March 2020. Data collection resumed in November 2020 after shifting from in-person to telephone interviews. This change required revisions to the study design, including the research questions, measures used, and the statistical analyses performed. A total of 108 families that received services completed baseline before the pandemic, and 84 families (CF 30, C/TP 54) completed follow-up between November 2020 and February 2021. The interruption of data collection due to the pandemic resulted in a reduction in power of the study to demonstrate significant change in some main outcomes.

At the same time that the study was changing the design in response to the pandemic, psychotherapeutic services were also adapting to the pandemic and transitioning to telehealth. Child First is a dyadic treatment model which was extremely difficult to implement through a phone or tablet. Therefore, the outcomes typical of the CF model were not able to be realized.

## Describing the Sample

For this to be a meaningful comparison, the families in both programs needed to be similar. However, in comparison to other clinical programs (C/TP), children involved with CF were twice as likely to have ever been admitted to a hospital, three times as likely to have prior experience with the state Department of Children and Families (DCF), and mothers in CF were almost twice as likely to have experience major depression in the past 12 months. The groups were also different in multiple risk factors.

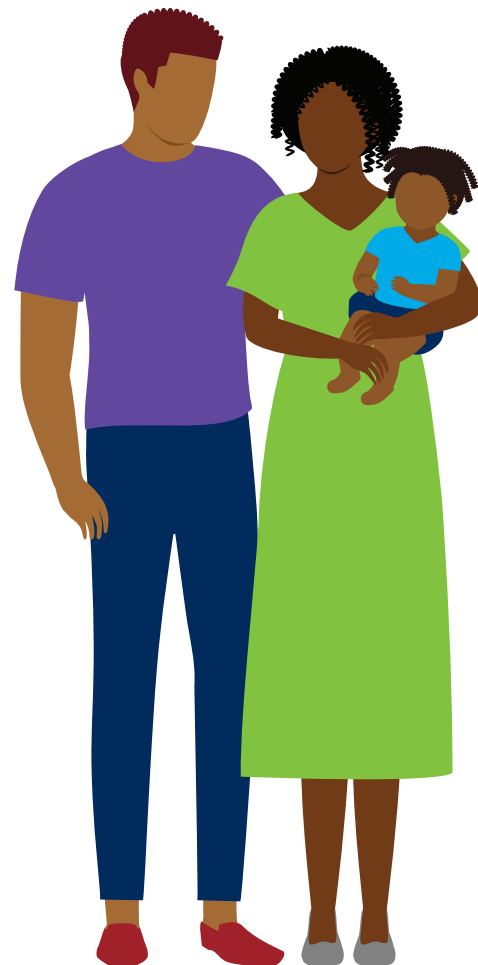
Due to the differences between the CF families and those involved with C/TP, RTI decided to compare the CF families with a subgroup from the National Survey of Child and Adolescent Well-Being (NSCAW II), a nationally representative study of families that received an investigation from child protective services. Over 200 families from NSCAW II were matched to CF families for this comparison of children who remained in their homes after a maltreatment investigation. While NSCAW II and CF families were largely similar, mothers in CF were nearly twice as likely to have major depression than those in NSCAW II. In addition, C/TP families showed significantly lower risk than NSCAW II families on most indicators.

## What We Found

### Child First Compared to Counseling/Triple P

- CF and C/TP groups had major differences in terms of risk and adversity, even after PSM. Given that CF families were a much more vulnerable population than C/TP families, it is remarkable that CF families reached similar levels of positive change as C/TP even in the face of the crisis of the COVID pandemic.
- This study was significantly underpowered. Therefore, clinically important differences in outcomes may not have reached statistical significance.

- **Services:** Both groups of families received many clinical sessions. CF ranged from 3 to 146 and C/TP ranged from 2 to 103.
- **Safety:** CF families had close to a three-fold higher risk of safety issues at baseline than C/TP families. At baseline CF families were more likely than C/TP to have had previous involvement with DCF. At follow-up, both groups were unlikely to have a report of maltreatment (less than 8%); only the CF families had a verified maltreatment report during or after treatment, though this was rare (4.9%). Given the higher risk in the area of safety of the CF families versus C/TP at baseline, achieving the same level as the C/TP comparison group is remarkable.



- **Executive Functioning (EF) and Cognitive**

**Development:** The matching of cases worked well in this area. Overall, half of children showed high levels of developmental problems at baseline (BDI-2 cognitive developmental quotient in the clinical range and were either unable to pass the EF testing phase or had a very low score). EF scores at baseline based on direct assessment of children were low indicating problems related to inhibitory control (used to master and filter thoughts and impulses, resist distractions, give a more considered response, and avoid one's first reaction). At follow-up, the groups were similar on EF based on parental report, but parents reported extensive concerns about working memory (children with working memory problems have trouble remembering things and lose track of the work they should do).

- **Emotional/Behavioral Problems:** Both groups showed improved control of aggressive behavior and externalizing symptoms (scores decrease). CF increased on withdrawn symptoms while C/TP decreased. C/TP also improved on internalizing and total measures but was not significantly different from CF in the rate of change.

- **Maternal Depression:** Overall, major depression decreased at similar levels for mothers in CF and C/TP over 12 months and within the past month. Only the change pre-post of C/TP was statistically significant. In light of the major stressors of the COVID pandemic and the much higher level of depression in CF families as opposed to C/TP families, CF appears to have major positive impact on maternal depression.

- **Maternal Resilience:** CF and C/TP were similar at follow-up for maternal resilience, with scores like other studies on resilience during the first year of the pandemic but other studies focused on mostly White and affluent participants with high educational levels.

- **COVID-19 Family Stress:** Stress related to jobs/income and COVID affected most mothers in both groups. CF mothers were more likely to report increased stress related to child care, increased anxiety, and reminders of past stressful or traumatic events. The experience of stress for CF mothers during the pandemic was highly related to the adversity in their lives and the past trauma that they experienced. Supports to mitigate stress are essential, but also intervening to help resolve the impact of trauma and heal the parent-child relationship is critical, especially for long-term resilience.



## Child First Compared to NSCAW II

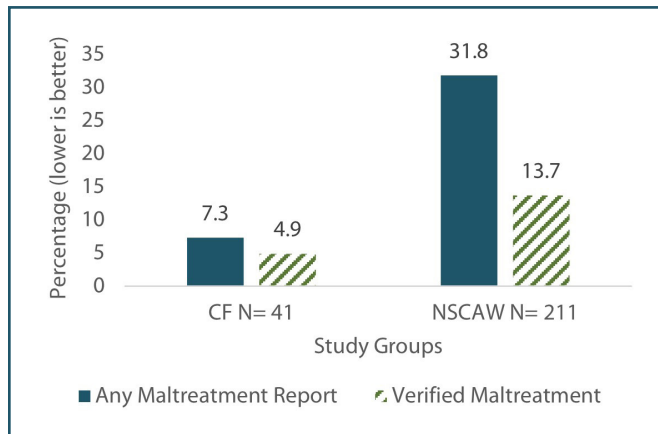
- **Safety:** Maltreatment reports between baseline and follow-up were significantly more likely among NSCAW children compared to CF. This continued to be true when adjusting for possible COVID-related effects on reporting. Analysis controlling for covariates showed that maltreatment reports were significantly lower for CF compared to NSCAW after baseline.

### Safety Results

CF had a significantly lower number of any type of maltreatment reports compared to NSCAW (CF 7.3% vs NSCAW 31.8%).

CF had marginally significant lower number of verified reports than NSCAW (CF 4.9% vs NSCAW 13.7%)

## Any Maltreatment Report and Any Verified Maltreatment by Study Group



- **Health:** Parents in NSCAW were much more likely to report that their child was in excellent health at follow-up compared to CF families (NSCAW was pre-COVID).
- **Child Care/Preschool:** Children in CF at follow-up were significantly more likely than those in NSCAW to participate in child care or preschool.
- **Early Intervention:** CF children were significantly more likely than those in NSCAW to ever have had an Individualized Family Services Plan (IFSP) or Individual Educational Plan (IEP).

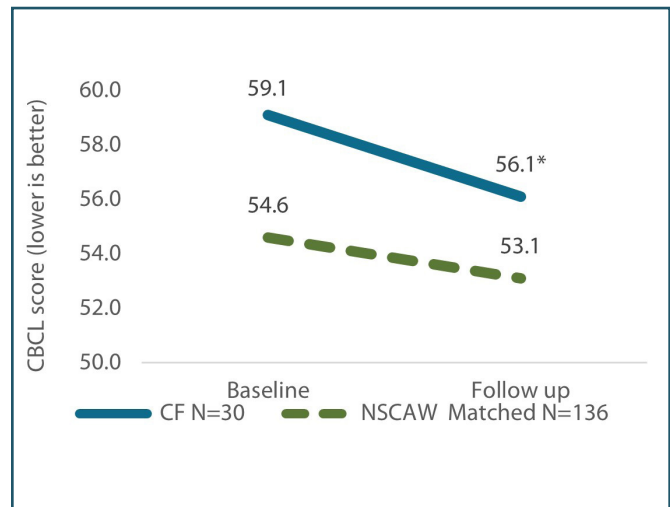
- **Cognitive Development:** NSCAW children were less likely than those in CF to show developmental problems. In comparison to NSCAW, the children in CF have high needs related to development.
- **Emotional/Behavioral Problems:** CF decreased on externalizing mean score (on the Child Behavior Checklist–CBCL) at twice the rate of the NSCAW group. For attention problems, CF decreased while NSCAW increased. There was no statistical difference in the overall rate of change between the groups. The lack of statistical significance is related to the low power of the study.

### Child Emotional/Behavioral Results

CF children improved their mean scores controlling for covariates on externalizing symptoms.

The rate of change toward improvement was twice as larger for CF children than for children in NSCAW.

## Child Behavior Check List: Externalizing Problems by Study Group



\*CF follow up compared to baseline  $p=.06$   
NSCAW results provided as context of how much change is expected among children that remain at home after a DCF investigation

- **Maternal Depression:** Major depression among CF mothers decreased at over twice the rate of the NSCAW mothers; however, when controlling for variations between the CF and NSCAW II families, there was no statistical difference in the overall rate of change between the groups.

## What It Means

- The results of comparing psychotherapeutic services showed that the highest risk families were often referred to Child First. The use of PSM to identify and select similar C/TP families balanced the groups in some indicators, however, the two groups under study were not similar. The families involved with CF were more similar to a subgroup of families in the NSCAW II study of families, which was conducted pre-COVID and included a large number of children in Florida.
- In the Child First evaluation study, services and follow-up occurred during the first year of the pandemic before vaccines were available and during economic and racial equity crises. Palm Beach County families faced challenges related to the pandemic included meeting basic needs, loss of income and employment, contracting COVID-19, suffering the loss of a loved one, food insecurity, eviction, and barriers to access public assistance and child care.
- Families in this study were mostly Latino and Black. General population surveys show that Black and Latino families face serious racism and inequity, financial problems in the areas of housing, difficulties covering monthly bills, and challenges with overall family well-being that are exacerbated during the pandemic.
- The shift to telehealth due to the pandemic compromised fidelity to CF. Thus, results are not representative of the intervention in regular times. It can be expected that there will be even larger positive differences during a non-pandemic period.
- Despite these challenges, CF improved on main outcomes and changes were in a positive direction. Even with high rates of maternal depression and other risk factors (including previous contact with DCF) among CF families, these improvements indicate not only the protective capacity of the CF program but the ability of the program to lead to positive change during a time of crisis.
- Comparisons with NSCAW showed positive safety outcomes among families that received CF. This study found that about a third of NSCAW children with similar characteristics had a maltreatment report within 18 months, while the rate was fewer than 1-in-10 for CF and C/TP. This finding shows the critical role of psychotherapeutic services for keeping vulnerable children safe and avoiding deterioration during the first year of the COVID-19 pandemic.
- Other CSC supported services may also explain positive safety outcomes and avoiding deterioration. The higher participation in child care and preschool of children that receive support from CSC compared to NSCAW could be related to its critical role as a gateway to needed services, including educational services and early intervention services.
- The pandemic had a huge effect on families in vulnerable situations in terms of housing, bills, overall well-being, and triggering past trauma. Social supports (child welfare agencies, mental health service providers) suffered unprecedented staff turnover. The role of CSC is critical to support families in vulnerable situations during periods of sustained crisis.



## Additional Data Analysis

The Children's Services Council of Palm Beach County and RTI collaborated to conduct additional analysis to better understand the findings from the CF evaluation study. First, RTI integrated the data from the families that participated in the CF evaluation study and treated them as one group to analyze change between baseline and follow-up. The goal of this analysis was to provide information about how families receiving behavioral health services during the first year of the pandemic were doing in the area of child emotional/behavioral problems and maternal depression.

Second, RTI analyzed the Healthy Beginnings Data Set (HBDS), using data collected between 2018 and 2021 regarding all families referred to CF/C/TP. The goals of this analysis were to provide information about the triage process to behavioral services and services engagement.

### Overall Outcomes Among Families That Participated in the CF Study

- **Emotional/Behavioral Problems:** Children that participated in CF/C/TP showed significantly improved control of aggressive behavior, emotionally reactive responses, internalizing, externalizing, and total symptoms. The overall percentage of children in the clinical range also decreased significantly from 31.6% at baseline to 17.7% at follow-up.
- **Maternal Depression:** Overall, major depression decreased significantly among parents that participated in CF/C/TP. Past-year major depression decreased from 31.5% to 16.1%, and past-month major depression decreased from 20.6% to 6.3%.



There was an overall significant positive impact on maternal major depression across all three groups (CF/C/TP).

This is a critical finding as maternal depression is associated with safety and child emotional/behavioral problems.

### Triage to Behavioral Health Services Based on Analysis of HBDS

- **Referral to CF of families with higher risk:** Comparisons between the HBDS variable based on an algorithm created to triage families that should be referred to CF and, the propensity score (PS) based on the Propensity Score Model created for the Child First evaluation study to identify families with higher risk, indicate that families with the highest risk are being correctly triage to CF. Among families with the lowest PS (lowest risk), only 10.3% were referred to CF, while for the two groups with higher PS (higher risk), almost all the families were referred to CF (97.8% and 100% respectively).



## Family Engagement in Behavioral Health Services

- **Enrollment in behavioral health services and completion of three or more clinical sessions among CF families:** Families with a child with behavioral problems and with a parent with medical problems were twice as likely as other families to enroll in CF. While families referred to CF were less likely to enroll if there were indicators of parental use of drugs or alcohol, if these families enrolled in CF, they were more likely to complete three or more CF sessions than families with no indicator of drugs or alcohol use. Families that reported social support were less likely to complete three or more CF sessions.
- **Enrollment in behavioral health services and completion of three or more clinical sessions among counseling families:** Families with a child with developmental problems were more likely to enroll in counseling. Hispanic parents compared to White parents, parents that reported having social support, and parents that reported adverse childhood experiences were more likely to complete three or more counseling sessions compared to other parents. Families with use of drugs or alcohol were less likely to complete three or more counseling sessions than families with no indicator of drugs or alcohol use.
- **Engagement and dropping out of services among families in Child First:** Families with a Black mother dropped almost twice as quickly from Child First as families that the mother race/ethnicity was identified as Other. Families with a female child and families with food insecurity had a slower rate of dropping out from CF (were more likely to remain for a longer time engaged) than other families.
- **Engagement and dropping out of services among families in counseling:** Families with a Haitian mother had a slower rate of dropping out from counseling compared to families that the mother race/ethnicity was identified as Other.
- **Engagement and dropping out of services among families in Triple P:** Families with a parent with a history of exposure to adverse childhood experiences dropped about twice as quickly from Triple P as families that the did not have adverse childhood experiences. Families with a parent that was employed or participating in an educational program had a slower rate of dropping out from Triple P compared to families that the parent was not employed, neither studying.

## Implications of Secondary Data Analysis

- Across all families that participated in the CF study, there was a positive significant impact on improvement of child emotional/behavioral problems and maternal major depression. This is a critical finding as maternal depression is associated with negative safety and child emotional/behavioral outcomes.
- Triage analysis found that the HBDS algorithm used to refer families to services is effective in identifying the families with the highest risk level and referring them to CF.
- Although triage was effective based on HBDS algorithm, a large percentage of families referred to CF with higher propensity scores did not enroll in CF services.
- Lower enrollment in CF of families with indicators of use of drugs and alcohol and lower likelihood of completing three or more counseling sessions among families with use of drugs and alcohol, highlight the need for strategies tailored to these parents.
- The race/ethnicity of the parent was significantly associated with treatment engagement and dropping out of services. Consider reviewing what cultural approaches are working well with Haitian families involved in counseling and working with CF clinicians and the CF purveyor on cultural approaches to improve the engagement of families with Black mothers and reduce the faster rate of dropping out for this subgroup.

