Social Programs That Work Review

Evidence Summary for Child FIRST

HIGHLIGHTS:

- **PROGRAM:** A home visitation program for low-income families with young children at high risk of emotional, behavioral, or developmental problems, or child maltreatment.
- **EVALUATION METHODS:** A well-conducted randomized controlled trial (RCT) with a sample of 157 low-income families.
- **KEY FINDINGS:** At the three-year follow-up, a 42% reduction in families' involvement with child protective services (CPS) for possible child maltreatment. At the one-year follow-up, 40-70% reductions in serious levels of (i) child conduct and language development problems, and (ii) mothers' psychological distress.
- **OTHER:** A study limitation is that its sample was geographically concentrated in Bridgeport, Connecticut. Replication of these findings in a second trial, in another setting, would be desirable to confirm the initial results and establish that they generalize to other settings where the program might be implemented.

I. Evidence rating: NEAR TOP TIER

The standard for Near Top Tier is:

Programs shown to meet almost all elements of the Top Tier standard, and which only need one additional step to qualify. This category primarily includes programs that meet all elements of the Top Tier standard in a single study site, but need a replication RCT to confirm the initial findings and establish that they generalize to other sites. This is best viewed as tentative evidence that the program would produce important effects if implemented faithfully in settings and populations similar to those in the original study.

II. Description of the Program:

Child FIRST (Child and Family Interagency Resource, Support, and Training) is a home visitation program for low-income families with children ages 6-36 months at high risk of emotional, behavioral, or developmental problems, or child maltreatment, based on child screening and/or family characteristics

such as maternal depression.[1] Families are visited in their homes by a trained clinical team consisting of (i) a master's level developmental/mental health clinician, and (ii) a bachelor's level care coordinator. In the study described below, the team provided an average of 12 home visits over 22 weeks, each lasting 45-90 minutes.

The clinical team first partners with the parents to assess child and family strengths and needs, and develops a plan, tailored to all family members, to provide support and services. Based on this plan, the clinician provides parent-child psychotherapy and parent guidance designed to (i) help parents understand the reasons for and meaning of their child's negative behavior, and develop effective responses; and (ii) encourage positive maternal and child behaviors through parent-child play, reading, and family routines. The care coordinator, meanwhile, facilitates family utilization of appropriate community services (e.g., early education, housing, substance abuse treatment).

The program's cost is approximately $7,285 per family, in 2017 dollars.[2]

Click here for Child FIRST's website.

III. Evidence of Effectiveness:

This summary of the evidence is based on a systematic search of the literature, and correspondence with leading researchers, to identify all well-conducted randomized controlled trials of Child FIRST. Our search identified one such trial. What follows is a summary of the study design and the program's effects on the main outcomes measured in the study, including any such outcomes for which no or adverse effects were found. All effects shown are statistically significant at the 0.05 level unless stated otherwise.

Overview of the Study Design: Randomized controlled trial of Child FIRST in a sample of 157 families in Bridgeport, Connecticut, conducted 2003-2005.

This trial was conducted in a sample of 157 low-income Bridgeport families with a child age 6-36 months, that had agreed to participate in the study and were identified as being at risk based on (i) the child's exhibiting social-emotional or behavioral problems, and/or (ii) the parents' having psychosocial risk factors such as depression, domestic violence, substance abuse, or teen parenthood. The families were randomly assigned to either (i) a group that received Child FIRST, or (ii) a control group that received usual community services.

59% of sample mothers were Latino, 30% were African American, 67% were single, and 93% received public assistance. Their average age was 27. 34% of families had previous involvement with child protective services (CPS) for possible child maltreatment; 24% had a history of

[1] Child FIRST serves families with children *in utero* through age five, but the study described here only evaluated its effectiveness in families with children ages 6-36 months.

[2] This does not include the cost of any additional community services that the family received as a result of Child FIRST efforts to connect families to such services.

homelessness; 44% had a history of substance abuse; and 54% of mothers had clinically-concerning depressive symptoms.

Effects of Child FIRST one year after random assignment:

Compared to the control group, *children* in the Child FIRST group were –

- 68% less likely to have clinically-concerning language development problems, as measured by a trained assessor (10.5% of Child FIRST children had such problems versus 33.3% of control group children).
- 42% less likely to have clinically-concerning externalizing behaviors, such as aggression or impulsiveness, as reported by their mothers (17.0% of Child FIRST children versus 29.1% of control group children).

Compared to the control group, *mothers* in the Child FIRST group were –

- 64% less likely to have clinically-concerning levels of psychological distress, based on self-reports (14.0% of Child FIRST mothers versus 39.0% of the control group mothers).

The study did not find statistically-significant effects on (i) the percent of children with clinically-concerning internalizing behaviors (e.g., depression or anxiety); (ii) the percent of children with clinically-concerning dysregulation (e.g., sleep or eating problems); (iii) the percent of mothers with clinically-concerning parenting stress; or (iv) the percent of mothers with clinically-concerning depression.[3]

Effects of Child FIRST three years after random assignment:

- Child FIRST families were 42% less likely than control group families to be involved with CPS for possible child maltreatment during the three years (26% of Child FIRST families had CPS involvement versus 45% of control group families).

Discussion of Study Quality:

- For one of the most important outcomes – CPS involvement for possible child maltreatment – the study had no sample attrition and a reasonably long-term follow-up: state CPS data were obtained for all sample members over a three-year follow-up period.
- The study had moderate sample attrition, and a shorter follow-up period, for the other main outcome measures (child language and behavior, maternal mental health, and parenting stress): data on these outcomes were obtained for 74% of the Child FIRST group and 75% of the control group, at the one-year follow-up.

[3] The study found suggestive positive effects on parenting stress and maternal depression, but they did not reach statistical significance in most analyses and therefore could be due to chance.

- Child FIRST and control group families in the original randomized sample, as well as the follow-up sample, were highly similar in their observable pre-program characteristics (e.g., demographics, child language and behavior, and maternal mental health).[4]

- The study appropriately sought outcome data for all families assigned to the Child FIRST group, regardless of whether or how long they actually participated in the program (i.e., the study used an "intention-to-treat" analysis).

- The study measured CPS involvement for possible child maltreatment using state CPS records supplemented by maternal interviews. The other main outcomes – child behavior and language, maternal mental health, and parenting stress – were all measured with standardized assessments (interviews, questionnaires, and/or tests) whose reliability and validity are well-established. The assessments were administered by trained assessors.[5]

- The study evaluated Child FIRST as it is typically delivered in Bridgeport, Connecticut (a high-poverty urban setting), thus providing evidence of its effectiveness under real-world implementation conditions.

- Study limitations:

  - The study sample was geographically concentrated in Bridgeport, Connecticut. The Top Tier initiative's Expert Panel believes that replication of the above findings in a second trial, conducted in another setting, would be desirable to confirm the initial findings and establish that they generalize to other settings where the program might normally be implemented.

  - Child behavior, maternal mental health, and parenting stress outcomes were measured exclusively through parents' reports, which could be biased as a result of their participation in the program. (This limitation does not apply to the CPS involvement and child language outcomes, which were based primarily on independent measures.)

  - For outcomes other than CPS involvement, the study only measured Child FIRST's short-term effects – i.e. through one year after random assignment. Longer-term follow-up is needed to determine whether these effects are sustained over time.

[4] Of more than 20 pre-program characteristic measured, there were two modest, but not statistically-significant, differences between the Child FIRST and control groups – consistent with what one would expect by chance. Specifically, the Child FIRST mothers had lower educational attainment and lower previous CPS involvement than control group mothers (the educational difference came close to statistical significance). The study appropriately controlled for these differences in its statistical analysis of the program's effects.

[5] Efforts were made to keep the assessors unaware ("blind") as to which families were in the Child FIRST versus control group; however, families often divulged their involvement with Child FIRST in response to interview questions about services received.

IV. Summary of the Program's Benefits and Costs:

If taxpayers fund implementation, what benefits to society can they expect to result, and what would be their net cost? The following table provides a summary.

Benefits To Society
• At the three year follow-up, a 42% reduction in families' CPS involvement for possible child maltreatment. • One year after random assignment, 40-70% reductions in serious levels of (i) child conduct and language development problems, and (ii) mothers' psychological distress.
Net Cost To Taxpayers
• Approximately $7,285 per family in 2017 dollars, to deliver program services.*

***** This does not include the cost of any additional community services that the family received as a result of Child FIRST efforts to connect families to such services.

V. References:

Lowell, Darcy I., Alice S. Carter, Leandra Godoy, Belinda Paulicin, and Margaret J. Briggs-Gowan. "A Randomized Controlled Trial of Child FIRST: A Comprehensive Home-Based Intervention Translating Research Into Early Childhood Practice." Child Development, January/February 2011, vol. 82, no. 1, pp. 193–208.