

# The Family Intensive Treatment (FIT) Evaluation: Phase Two Quantitative Report

John Robst, Ph.D.  
Mary Armstrong, Ph.D.  
Svetlana Yampolskaya, Ph.D.  
Cathy Sowell, MSW, LCSW  
Areana Cruz, M.S. Ed.

May 2019



**Members of Evaluation Project Team:**

**Casey Family Programs**

Peter J. Pecora  
Linda Jewell Morgan

**Florida Department of Children and Families**

Celeste Putnam  
Laurie Blades  
Chuck McGillen  
Monique McCaskill

**University of South Florida**

John Robst  
Cathy Sowell  
Mary Armstrong  
Areana Cruz

**Project Advisory Committee Members:**

Amanda Moore-Krummerick  
Beverly Belli  
Debra Bass  
Dusty Pye  
Elizabeth O'Brien  
Elizabeth Wynter  
Evelyn Lynam  
Guy Parker  
Jan Widmer  
Jess Sternthal  
Judy Laing  
Karen Yatchum  
Kellie Sweat Darnell  
Linda Mandizha  
Lynne Higgins  
Lynnea Maystrick  
Maureen Coble  
Melissa Worthen  
Monique Myers  
Nathan Scott  
Nicole Allen  
Rodney Smith  
Sarah Smith  
Shanta Sapp  
Stephanie Weiss  
Theresa Rulien  
Toni Latortue  
Valerie Ray  
Bill Delaney  
Julie Harmon  
Neiko Shea

## Executive Summary

The Family Intensive Treatment (FIT) team model is designed to provide intensive team-based, family-focused, comprehensive services to families in the child welfare system with parental substance use disorders. First implemented in Florida in 2014, FIT includes components of family engagement, routine screening and assessment, individualized treatment and case plans, support of parents in treatment and recovery, joint planning and case management, wraparound and comprehensive community services, and flexible financing strategies. In addition, the FIT model includes cross-system collaboration between child welfare, judicial, and behavioral health systems. This report provides results from the second phase of the outcomes analysis conducted as a part of the FIT evaluation conducted by the University of South Florida and Casey Family Programs.

The second phase of the outcomes analysis compared child welfare outcomes for parents and children enrolled in the FIT program with parents and children in the child welfare system not enrolled in the FIT program. While the FIT model targets parents with substance abuse problems, the development of a quality intensive program that effectively treats the family as a whole with a special emphasis on parental substance abuse is expected to have substantial benefits for children involved in the child welfare system. This report examines the following hypotheses:

- 1 – Parents enrolled in FIT have greater improvements in Caregiver Protective Capacities (CPC).
- 2 – There are fewer new child maltreatment referrals for FIT enrolled families.
- 3 – Even when there is a new investigation, there will be fewer instances of verified child maltreatment referrals.
- 4 - FIT enrolled families will have greater rates of reunification and lower rates of permanency through adoption or permanent guardianship.
- 5 – FIT enrolled families will have lower re-entry into out-of-home care.

The study also examined additional research questions that do not have *a priori* hypotheses:

- 1 – Children in the FIT program will experience greater placement stability, and thus have fewer out-of-home placements.
- 2 – Among children entering out-of-home child welfare treatment, placement in kinship care will be more common for families enrolled in FIT.

A quasi-experimental approach was used to match families in the FIT program with similar families in the Florida child welfare system that did not participate in FIT. FIT does not have the capacity to serve all potentially eligible families and thus propensity score matching can be used to create a comparison sample of families with similar characteristics. Families in the FIT program were matched with families that did not participate in FIT based on parent demographics, the type of maltreatment, baseline CPC scores, parental substance abuse and mental health diagnosis. A one year follow-up period from the time of enrollment in FIT (intervention group) or initial CPS report (comparison group) was used.

The findings indicate support for most of the hypotheses. FIT was associated with greater increases in Caregiver Protective Capacities. Parents enrolled in FIT had improvements in all CPCs. Parents in the comparison group had increases in most CPCs, but had declines in four. Parents in FIT had a larger increase in 15 of the 17 CPCs. The FIT program also had a positive effect on limiting future investigations and new cases of verified maltreatment. Among children enrolled in FIT, 19.7% (263/1,336) of children had additional investigations. A larger percentage, 28.5% (359/1,261) of children in the comparison group had additional investigations. Twenty-eight percent of the allegations involving FIT children were verified, compared to 53.2% of the investigations involving children in the comparison group.

The FIT program was also associated with a lower likelihood of permanency with most of the difference due to a lower rate of adoptions. Fifty-one percent of children in FIT in out-of-home placements achieved permanency, compared to 62% of children in the comparison group. However, FIT providers often indicated that families were at times referred to FIT as a last ditch effort prior to terminating parental rights. Such families were expected to have relatively poor outcomes. Thus, we divided the FIT families into two groups; one enrolled in the first six months of out-of-home care services (n=475) and one enrolled more than six months after the start of out-of-home services (n=255). Permanency rates were higher for the group enrolled shortly after out-of-home services began (63.6% versus 29.1%) and were equivalent to the comparison group. Reunification rates were higher for families more quickly enrolled (44.6% versus 20.8%) and were higher for those families than the comparison group (44.6% versus 37.8%).

Re-entry into care could not be examined adequately due to a lack of follow-up data. All families received FIT services in SFY 2016-17 and many continued to receive child welfare services into SFY 2017-18. This left an inadequate amount of follow-up time to examine re-entry into care.

Among the other research questions, the FIT program also improved placement stability among children. Sixty-four percent of children in the comparison group had more than two placements while 48% of children in FIT had more than two placements. On average, children in the comparison group had 4.2 placements compared to 3.2 among children in FIT. However, FIT was not associated with an increased use of kinship care. There were 660 children in FIT in kinship care in the year following enrollment, which represents 64% of youth in FIT that received out-of-home services. There were 649 youth in the comparison group in kinship care during the observation year, representing 68% of youth receiving out-of-home services.

Overall, there is support for hypotheses #1, 2, and 3, and mixed support for hypothesis #4, and hypothesis #5 could not be tested due to data limitations. The results indicating improved Caregiver Protective Capacities, few new investigations and fewer new instances of verified maltreatment, and increased reunification rates (among families more promptly enrolled in FIT) are all positive outcomes consistent with improved child safety. The results of Phase Two of the evaluation along with the results of Phase One of the evaluation provide support for continued use and expansion of the Family Intensive Treatment model.

A number of questions remain for future analysis. First, while the results are generally positive, additional research is needed on child placements when enrolled in the FIT program. For example, are there cases when kinship care could have been used more? Does the fact that many parents enroll in FIT after a child has been removed from the home affect treatment outcomes and the comparability to other parents who are child welfare involved? Second, one of the primary goals of the FIT program is to reduce re-entry into the child welfare system. Because many of the families that received FIT services had not been discharged from the child welfare system by the end of the study period, there was a lack of sufficient follow-up data to perform a reasonable analysis of re-entry in the current evaluation. Future work should address this question. Third, the evaluation of the FIT program has not considered costs. A careful analysis of costs is needed to determine whether FIT is a cost effective program. Such an analysis has not yet been performed because we lack certain follow-up information. For example, while the difference in outcomes in many areas should result in cost savings, if FIT is associated with a reduction in re-entry, then this may be an important additional mechanism for cost savings.

**Table of Contents**

Executive Summary .....2  
Introduction .....6  
    FIT Program Model.....6  
    Phase Two Quantitative Evaluation .....6  
Methods .....8  
    Data.....8  
    Analysis Methods .....10  
Findings .....11  
    Descriptive Statistics .....11  
    Hypothesis #1 .....14  
    Hypothesis #2.....16  
    Hypothesis #3.....16  
    Hypothesis #4.....17  
    Research Question #1 .....19  
    Research Question #2.....20  
Discussion .....21  
References .....23

**List of Tables**

Table 1: Descriptive Statistics for FIT and Comparison Samples at Baseline ..... 12  
Table 2: Change in Caregiver Protective Capacities ..... 15  
Table 3: New Investigations among FIT and Comparison Group Children ..... 16  
Table 4: Verified Allegations of Maltreatment for FIT and Comparison Group Children ..... 17  
Table 5: Permanency Rates for FIT and Comparison Group Children with Out-of-Home Placements ..... 17  
Table 6: Permanency Rates for FIT Children with Out-of-home Placements: Enrollment within 6 months versus enrollment after 6 months..... 18  
Table 7: Placements among Children receiving Out-of-Home Child Welfare Services ..... 19  
Table 8: Number of Children Receiving In-home and Subsequent Out-of-Home Child Welfare Services ..... 20  
Table 9: Number of Children in Kinship Care..... 21

## **Introduction**

### **FIT Program Model**

The Family Intensive Treatment (FIT) team model has been designed to provide intensive team-based, family-focused, comprehensive services to families in the child welfare system with parental substance use disorders. Another component of the FIT services includes cross-system collaboration between child welfare, judicial, and behavioral health systems. The program goal is to help parents get timely treatment, retain parents in treatment, improve parenting skills, help children achieve legal permanency, and prevent foster care re-entry. There are unique aspects of the FIT Team treatment process which include the administration of specific assessments (a biopsychosocial assessment, the Functional Assessment of Mental Health and Addiction [FAMHA] from the American Society of Addiction Medicine, the Adult Adolescent Parenting Inventory [AAPI], and the Adverse Childhood Experiences [ACE]) as a minimum. FIT clients also receive treatment services from a clinician within two business days of completing the initial assessments. The FIT Team model includes a comprehensive family care plan within 30 calendar days of enrollment. The family care plan is meant to guide the provision of FIT services and includes:

- The family's participation,
- The alignment of clinical services received by children with clinical services received by parent(s),
- Identification of how support will be provided to parent(s) to address the child's needs,
- A review every three months or as needed, and
- Alignment of treatment plan for enrolled parent(s) to the child welfare case plan.

The FIT Team treatment model also mandates the provision of process updates to child welfare case management, and the conduction of a multidisciplinary team (MDT) meeting prior to discharge from the treatment. Among the many goals of the FIT model are to promote safety of children in the child welfare system whose parents have a substance use disorder; to develop a safe, nurturing and stable living situation for these children; and to reduce out-of-home placements (Florida DCF, 2016).

### **Phase Two Quantitative Evaluation**

The FIT model was first implemented in Florida in September of 2014. The Department of Children and Families (DCF/ the Department) issued a report on the status of FIT implementation in 2015. Information from the 2015 FIT Evaluation Report indicated that since

implementation of FIT services in Florida, the FIT providers had begun to identify and address family service barriers across systems, identify screening and assessment tools to be utilized by all FIT providers, develop an expanded data set to provide a comprehensive understanding of the entire family, began use and refinement of a SharePoint FIT data system, established collaborative processes for analyzing the implementation of the FIT model, and began identifying and addressing data reporting issues (FIT Evaluation Report, 2015). The report also indicated that as of December 2014, 201 of the 208 individuals served, remained in treatment. The 2015 evaluation report was unable to determine efficacy related to the FIT program because the FIT teams had been operating for only a short amount of time.

Phase One of the current evaluation reported on a series of outcomes for parents in the FIT program. Overall, the results were positive and indicated increases in functioning similar to evaluations of similar interventions in other areas of the country. In addition, 90-day client retention rates were over 80%, and treatment completion rates were superior to national rates for substance abuse treatment with child welfare involved parents. The Phase One report also used latent class analysis to create groups of parents who were enrolled in FIT that had similar characteristics. Parents in the group that had the most serious parenting deficits saw the greatest increases in AAPI-2 scores, while parents that had the greatest deficits in functioning saw the greatest increases in FAMHA scores. Thus, services appear to be effective at addressing the most serious parental needs (Robst, Sowell, Armstrong, & Cruz, 2018).

This Phase Two report includes results from a quasi-experimental approach that compares child welfare outcomes for FIT enrolled parents with similar parents in child welfare who did not receive FIT services. The report tests the following hypotheses:

- 1 – Parents enrolled in FIT have greater improvements in Caregiver Protective Capacities.
- 2 – There are fewer new child maltreatment referrals for FIT enrolled families.
- 3 – Even when there is a new investigation, FIT enrolled families have fewer instances of verified child maltreatment referrals.
- 4 - FIT enrolled families have greater rates of reunification and lower rates of permanency through adoption or permanent guardianship.
- 5 – FIT enrolled families will experience lower re-entry into out-of-home care.

In addition, two research questions were examined that did not generate *apriori* hypotheses:

- 1 – Children in the FIT program experience greater placement stability, and have fewer out-of-home placements.

2 – Among children entering out-of-home child welfare treatment, placement in kinship care is more common for families enrolled in FIT.

## Methods

### Data

The three primary sources of data were the Family Intensive Treatment (FIT) database, the Florida Safe Families Network (FSFN), and the Florida Substance Abuse and Mental Health Information System (SAMHIS). The FIT database contains records for each parent that received FIT services during SFY 2016-17. Key variables include:

- *Demographics – parent’s date of birth, race, gender, ethnicity.* Race was coded as White or Other because the majority of the sample was White, and there were too few parents who were American Indian, African American, Asian, or Native Hawaiian to analyze separately. Ethnicity was coded as Hispanic or Not Hispanic. While Hispanic ethnicity is reported in greater detail (e.g., Cuban, Haitian, Mexican, Puerto Rican, Spanish) there were not enough parents in each detailed ethnic category to analyze separately.
- *Substance abuse diagnosis – the primary ICD-10 substance abuse diagnosis at intake.*
- *Mental health diagnosis – the ICD-10 diagnosis if the parent has a mental health condition.*
- *Enrollment date – the date of enrollment in the FIT program.*

The FSFN database contains records for each child in the child welfare system. Data were extracted for all families, including families served by FIT in SFY 16-17 and families served by the child welfare system in SFY 15-16 who were not served by FIT.<sup>1</sup> Key variables include:

- *Demographics – parent’s date of birth, race, gender, ethnicity.*
- *Caregiver Protective Capacities – This scale was developed as part of the Safety Decision Making Methodology developed by Florida DCF in consultation with the National Resource Center for Child Protective Services (NRCCPS), ACTION for Child Protection, and the Children’s Research Center. It has not been validated in terms of its sub-scale structure and predictive criterion validity. Caregiver protective capacities are*

---

<sup>1</sup> We created the comparison sample from the prior year due to several reasons. Most importantly, the FIT program was not as widely available in SFY 2015-16, thus providing a larger sample of parents that are similar to parents enrolled in FIT.

determined during the initial investigation and then updated during the course of case management.

- Controls impulses
- Takes action
- Set aside own needs for child
- Demonstrates adequate skills
- Adaptive
- History of protecting
- Is self-aware
- Is intellectually able
- Recognizes threats
- Recognizes child needs
- Understands protective role
- Plans and articulates plans for protection
- Meets own emotional needs
- Is resilient
- Is tolerant
- Is stable
- Expresses love, empathy ,sensitivity to the child
- Is positively attached with child
- Is aligned and supports the child

Case managers report each CPC for a parent using an A, B, C, or D scale. The scale anchors are as follows – A: CPC functioning, does not affect child safety, B: CPC functioning but may have affect conditions in the home, limitation does not affect child safety, C: CPC diminished, at times affects child safety, D: CPC diminished, pervasively affects child safety. Each CPC item rating is converted into a dichotomous variable, with the parent considered to have that capacity if the case manager reports an A or B. In contrast, the parent does not have that capacity if the case manager reports a C or D.

- *Investigation History* – For each child, the data include the date (the investigation was received/the date the investigation ended), the alleged type(s) of maltreatment for each investigation, and the outcome of the investigation (verified, not substantiated, no indications). For each parent, a series of yes/no variables denote the parent was the perpetrator responsible for the type of maltreatment.
- *Child placement and permanency outcomes* - For each child placed in out-of-home care, FSN includes data on each placement, including the type of placement (e.g., non-relative foster care, relative, residential treatment), the dates of the placement, and the reason the placement ended. In addition, FSN contains information on whether the child achieved permanency, as well as the date and type of permanency (reunification, permanent guardianship, or adoption). For each child receiving in-home child welfare

services, FSN includes data on the beginning and ending dates for each episode of in-home services.

The SAMHIS database contains service records for all individuals receiving state funded mental health and substance abuse services. Key variables include:

- *Substance abuse diagnosis* – the primary ICD-10 substance abuse diagnosis.
- *Mental health diagnosis* – the ICD-10 diagnosis if the parent has a mental health condition.
- *Service date* – the date of the service was provided.

SFY 2015-16 SAMHIS data was the source of substance abuse and mental health diagnoses for parents not enrolled in FIT. Substance abuse and mental health diagnoses for parents in FIT are from the FIT database.

## Analysis Methods

The appropriate analytical method for the analysis depends on the comparability of the samples. Parents enrolled in FIT have histories of substance abuse, have young children, and many have mental health problems and domestic violence in the household. As a result, a random sample of parents involved in child welfare, but not enrolled in FIT may not be a good comparison sample. Thus, the primary statistical analysis used propensity score matching to account for differences between parents enrolled in FIT and parents not enrolled in FIT. Propensity score matching approximates a random experiment by matching individuals in the two groups based on observed characteristics. The propensity score was the estimated probability of being enrolled in FIT based on observed characteristics:

$$FIT\ enrollment_i = X_i \cdot \beta + u_i \quad (1)$$

where *FIT enrollment* denotes the parent was enrolled in the FIT program, *i* denoted individuals, and *u<sub>i</sub>* was the error term. The variables in *X* included demographic characteristics (age, gender, the youngest child's age), whether the parent has a diagnosed mental health condition, substance abuse diagnosis (alcohol, opioids, stimulants, cocaine, cannabis, other), a vector of baseline CPC variables, and a vector of maltreatment types for which the parent was listed as a person responsible (environmental hazards, family violence threatens child, inadequate supervision, substance misuse, substance misuse alcohol, substance misuse illicit drugs, substance misuse prescription drugs, or threatened harm).<sup>2</sup>

---

<sup>2</sup> This is not an exhaustive list of reasons. We examined the prevalence of all reasons and only included the reasons that were reported for at least 5% of families.

There are several methods available that use the logistic regression results to match parents served in FIT with similar parents not served by FIT (see Smith and Todd 2005 for a more complete discussion of the various methods). The different methods tend to produce similar results (Gibson-Davis Foster, 2006; Smith Todd, 2005). However, Coca-Perraillon (2007) noted that the typical methods (e.g., nearest neighbor and Mahalanobis metric matching) used to match individuals were local matching methods that may not minimize the overall distance between individuals in the comparison groups. Thus, we used the global optimal matching methods described in Coca-Perraillon (2007) to match parents in FIT with similar parents that did not receive FIT services.

Rosenbaum and Rubin (1983) showed that propensity score matching is appropriate if: (1) matched individuals had similar propensity scores and (2) had similar baseline characteristics. Following Agodini and Dynarski (2004), equation (1) was reestimated for the matched sample to determine whether individual characteristics differed between the matched observations.

Once a comparison group was established, outcomes were compared for the FIT and comparison samples. As is typical in evaluation research, the analysis uses an intent-to-treat approach. Thus, the analysis uses all available data, regardless of whether the parent completes treatment or disengages from treatment. Preliminary analysis found that data were not sufficient to examine hypothesis #5. Available data did not allow sufficient time to examine child re-entry into care. Thus, despite being an important outcome, the findings do not include hypothesis #5.

## Findings

### Descriptive Statistics

There were 766 records in FSFN for parents that received FIT services in SFY 2016-17<sup>3</sup>, and 1,978 parents with substance abuse diagnoses that did not receive FIT services. The first step was to estimate equation #1 to examine whether there are significant differences between

---

<sup>3</sup> The matching process between the FIT database and FSFN presented challenges. FSFN is designed to extract data based on the child, not parent. Thus, identifiers for each child in the FIT database were used to pull data from FSFN. Identifiers for most parents are provided in a module within FSFN. It was then determined how many parents enrolled in FIT were found in FSFN. There were 1,130 parents in the FIT database; 213 parents in the FIT database could not be identified in FSFN, and another 151 were lost due to incomplete data in FSFN (primarily a lack of baseline Caregiver Protective Capacities) Thus, this process resulted in the loss of 364 parents from the analysis.

parents enrolled in FIT and parents not enrolled in FIT. A lack of significant differences would indicate that propensity score matching is unnecessary. Parents enrolled in FIT have younger children, more family violence, and more mental health problems. Among the protective capacity areas (CPCs), parents in FIT were less likely to recognize safety threats or meet their own emotional needs. Overall, the comparison suggests that parents enrolled in FIT differ from parents not enrolled in FIT, and thus propensity score matching is necessary to create comparable samples. Global matching methods are applied to the logistic regression results to match FIT enrollees with similar parents not enrolled in FIT. The final sample contained 760 parents enrolled in FIT and 760 parents not enrolled in FIT. As noted above, Agodini and Dynarski (2004) suggest re-estimating equation #1 using the matched sample to determine whether all baseline characteristics are similar across the treatment and comparison groups. Indeed, re-estimation of equation #1 showed no significant differences between parents enrolled in FIT and comparison parents not enrolled in FIT.

Table 1 contains descriptive statistics for the FIT and comparison samples after propensity score matching. Noteworthy characteristics common to parents in the FIT and comparison samples are: over 30% of parents have opioids as the primary substance of abuse, over 40% of the parents have diagnosed mental health problems, and very small percentages of parents control impulses, set aside their own needs for their child, or recognize threats to the child. Not surprisingly, substance misuse is frequently the reason for child welfare involvement.

**Table 1. Descriptive Statistics for FIT and Comparison Samples at Baseline (After Propensity Score Matching)**

	FIT		Comparison	
	N	Mean/%	N	Mean/%
Age (in years)	760	30.67	760	30.39
Female	673	88.6	676	89.0
Youngest Child's Age (in years)	760	2.71	760	2.86
<b>Substance Abuse</b>				
Alcohol	154	20.3	134	17.6
Opioid	241	31.7	233	30.7
Cocaine	101	13.3	106	13.9
Stimulants	100	13.2	110	14.5
Cannabis	121	15.9	125	16.5
Other Substance	43	5.7	52	6.8
Mental Health Diagnosis	324	42.6	313	41.2

	FIT		Comparison	
	N	Mean/%	N	Mean/%
<b>Caregiver Protective Capacities</b>				
Demonstrates Adequate Skills	467	61.5	467	61.5
Is aligned and supports child	585	77.0	568	74.7
Articulates Plans for Protection	295	38.8	306	40.3
Controls Impulses	83	10.9	81	10.7
Expresses Love and Empathy	705	92.8	702	92.4
Is Intellectually Able	681	89.6	676	89.0
Is Resilient	453	59.6	438	57.6
Is Stable	268	35.3	254	33.4
Is Tolerant	534	70.3	510	67.1
Meets Own Emotional Needs	276	36.3	273	35.9
Sets Aside Own Needs for Child	188	24.7	183	24.1
Positively Attached with Child	662	87.1	656	86.3
Recognizes Child's Needs	493	64.9	494	65.0
Recognizes Threats	191	25.1	185	24.3
Is Self-Aware	395	52.0	386	50.8
Takes Action	311	40.9	304	40.0
Understands Protective Role	343	45.1	336	44.2
<b>Motivation for change</b>				
Pre-contemplation	223	29.3	226	29.7
Contemplation	205	27.0	212	27.9
Preparation	157	20.7	159	20.9
Action	124	16.3	117	15.4
Maintenance	14	1.8	14	1.8
Relapse	10	1.3	9	1.2
<b>Type of Child Maltreatment</b>				
Environmental Hazards	93	12.2	104	13.7
Family Violence Threatens Child	104	13.7	107	14.1
Inadequate Supervision	178	23.4	184	24.2
Substance Misuse	61	8.0	67	8.8
Substance Misuse Alcohol	104	13.7	87	11.5
Substance Misuse Illicit Drugs	383	50.4	387	50.9
Substance Misuse Prescription Drugs	112	14.7	102	13.4
Threatened Harm	91	12.0	94	12.4

We test each of the hypotheses comparing results for the FIT enrollees and comparison enrollees. For each hypothesis, the methods differ somewhat depending on data availability and limitations. Thus, for each hypothesis, a brief description of the method is provided, along with the results.

### **Hypothesis #1: Parents enrolled in FIT had greater improvements in Caregiver Protective Capacities**

For FIT parents, the CPCs are from ongoing Family Functioning Assessments (FFA). The CPCs from the FFA Ongoing assessment that was closest to the FIT enrollment date were used as the baseline measure, while the FFA Ongoing assessment closest to the discharge date was used as the ending measure. For those parents still enrolled on June 30, 2017 (the end of the FIT data which was the source of discharge information), we used the FFA ongoing assessment closest to June 30, 2017. On average, there were 180 days between the enrollment date and discharge date (or June 30, 2017 for continued enrollees). For parents in the comparison group, the first FFA Ongoing was used as the baseline while the FFA Ongoing closest to 180 days later was used as the ending measure. The 180-day timeframe provides similar exposure periods for the FIT and comparison groups. Using this approach, there were baseline and ending CPC measures for 617 parents in FIT and 649 parents in the comparison group.

Table 2 contains the changes in Caregiver Protective Capacities (CPC). Parents enrolled in FIT had improvements in all CPCs, averaging a six-percentage point improvement across all CPCs. Parents not enrolled in FIT had increases in most CPCs, but had declines in four. Overall, parents in the comparison group had almost a four-percentage point increase in CPCs. Most important, parents in FIT had a larger increase in 15 of the 17 CPCs. Thus, consistent with Hypothesis #1, participation in FIT helped parents improve their caregiver protective capacities.

**Table 2. Change in Caregiver Protective Capacities**

Variable	FIT (n=617)			Comparison (n=649)			FIT>Comparison
	Baseline	Discharge	Change	Baseline	180 days later	Change	
Demonstrates Adequate Skills	62%	67%	5.2%	61%	61%	-0.3%	x
Is aligned and supports child	76%	78%	1.6%	76%	74%	-1.7%	x
Articulates Plans for Protection	41%	49%	8.1%	37%	42%	5.2%	x
Controls Impulses	13%	28%	14.4%	13%	28%	14.9%	
Expresses Love and Empathy	93%	94%	1.0%	92%	90%	-2.0%	x
Is Intellectually Able	90%	91%	1.0%	89%	89%	0.8%	x
Is Resilient	61%	65%	4.2%	57%	61%	3.5%	x
Is Stable	36%	44%	8.8%	35%	44%	8.5%	x
Is Tolerant	72%	76%	4.5%	67%	68%	1.4%	x
Meets Own Emotional Needs	37%	46%	8.3%	36%	43%	7.8%	x
Sets Aside Own Needs for Child	26%	38%	11.3%	24%	35%	10.7%	x
Positively Attached with Child	88%	88%	0.5%	85%	83%	-2.2%	x
Recognizes Child's Needs	65%	68%	2.8%	63%	63%	0.0%	x
Recognizes Threats	28%	40%	12.0%	27%	35%	8.6%	x
Is Self-Aware	52%	59%	6.3%	51%	56%	5.0%	x
Takes Action	44%	52%	7.6%	39%	47%	8.0%	
Understands Protective Role	46%	54%	8.3%	44%	48%	4.1%	x
Average change			6.0%			3.9%	x

**Hypothesis #2: There are fewer new child maltreatment referrals for FIT enrolled families.**

One of the primary goals of FIT is to promote safety of children in the child welfare system whose parents have a substance use disorder. One way to assess whether safety is enhanced is to examine whether there are new allegations of child maltreatment. The number of new investigations was examined for children for the FIT and comparison samples. For the FIT sample, a one-year period was used starting with the enrollment date. A one-year period is used regardless of the discharge date because optimally participation in FIT has positive effects on families during and after treatment. For the comparison sample, a one-year period was examined after the investigation that occurred closest to July 1, 2015. There were 1,336 children in the data among the 760 parents in FIT, and 1,261 children among parents in the comparison group.

Among children enrolled in FIT, there were 362 new investigations involving 263 children. Thus, 19.7% (263/1,336) of children in FIT had additional investigations. In the comparison group, there were 526 additional investigations involving 359 children in the comparison group. A significantly larger percentage, 28.5% (359/1,261) of children in the comparison group had additional investigations ( $\chi^2 < .0001$ ).

**Table 3. New Investigations among FIT and Comparison Group Children**

# New Investigations	FIT (n=1,336)		Comparison (n=1,261)	
	Children	%	Children	%
1	190	14.2	229	18.1
2	55	4.1	102	8.1
3+	18	1.3	28	2.2
Number of additional investigations	362		526	
Children with additional investigations	263	19.7	359	28.5

**Hypothesis #3: When a new investigation occurs, there are fewer instances of verified child maltreatment among families in FIT.**

Just as important as whether there are additional investigations is whether those investigations resulted in verified allegations. Thus, Table 4 contains the proportion of new investigations with verified allegations of maltreatment. Twenty-eight percent of the allegations involving FIT children were verified, compared to 53.2% of the investigations involving children in the comparison group ( $\chi^2 < .0001$ ). Thus, FIT enrolled children were significantly less likely to

have subsequent investigations, and most new allegations of maltreatment among children in FIT were not verified.

**Table 4. Verified Allegations of Maltreatment for FIT and Comparison Group Children**

	FIT (n=362)		Comparison (n=526)	
	Children	%	Children	%
Verified maltreatment	101	27.9	280	53.2
Not verified	261	72.1	246	46.8

**Hypothesis #4: FIT enrolled families have greater rates of reunification and lower rates of permanency through adoption or permanent guardianship.**

Children of parents with substance use problems are more likely to remain in out-of-home care longer (Barth, Gibbons, & Guo, 2006; USDHHS, 2017). Thus, low rates of permanency are expected in both the FIT and comparison samples because all parents in the study have diagnosed substance abuse problems. As reported in Table 5, 32.1% of children in FIT achieved permanency by June 30, 2018. In contrast, 26.9% of children in the comparison group had achieved permanency by June 30, 2017 (the year difference reflects the different years the data are drawn from). In addition, the difference is the result of higher reunification rates for children in FIT. Eight percent of children in FIT were reunified and 2.3% of children in the comparison group were reunified. Rates of adoption are slightly lower for children in the FIT program, while rates of permanent guardianship were slightly higher. Odds ratios from the logistic regression analyses confirmed that all differences between the FIT and comparison groups are statistically significant.

**Table 5. Permanency Rates for FIT and Comparison Group Children with Out-of-home Placements**

	FIT (n=775)		Comparison (n=711)		OR	95% CI	
	N	%	N	%			
<b>Permanency</b>							
No	383	49.4%	381	38.5%			
Yes	392	50.6%	291	61.5%	0.64	0.52	0.79
<b>Adoption</b>							
No	767	99.0%	787	92.0%			
Yes	8	1.0%	82	8.0%	0.12	0.06	0.25

	FIT (n=775)		Comparison (n=711)		OR	95% CI	
	N	%	N	%			
<b>Guardianship</b>							
No	665	85.8%	737	84.4%			
Yes	110	14.2%	132	15.6%	0.89	0.67	1.19
<b>Reunification</b>							
No	501	64.6%	849	62.2%			
Yes	274	35.4%	20	37.8%	0.89	0.73	1.11

Table 6 examines FIT enrollees divided into two groups based on the amount of time between the child entering out-of-home care and FIT enrollment. Some families are promptly enrolled in FIT, while other receive out-of-home services for many months before enrollment. Families receiving out-of-home services for many months are likely not on a trajectory towards reunification. As such, families that are enrolled nearly a year after out-of-home services begin are unlikely to achieve reunification. Thus, we divided the FIT sample into two groups; those enrolled in the first six months of out-of-home care and those enrolled 6-12 months after the start of out-of-home care. As expected those parents enrolled later have poor outcomes, with only 29% achieving permanency. In contrast, 63.6% of those enrolled in the first six months achieve permanency and 44.6% are reunified (compared to 37.8% of the comparison families). A Chi square test indicates that better permanency outcomes were achieved for families enrolled in FIT during the first six months of out-of-home care.

**Table 6. Permanency Rates for FIT Children with Out-of-home Placements: Enrollment within 6 months versus enrollment after 6 months**

	Enrolled within 6 months (N=475)		Enrolled after 6 months (N=265)		OR	95% CI	
	N	%	N	%			
<b>Permanency</b>							
No	173	36.4%	188	70.9%			
Yes	302	63.6%	77	29.1%	4.26	3.08	5.90
<b>Adoption</b>							
No	468	98.5%	264	99.6%			
Yes	7	1.5%	1	0.4%	3.95	0.48	32.27
<b>Guardianship</b>							
No	392	82.5%	244	92.1%			
Yes	83	17.5%	21	7.9%	2.46	1.49	4.08
<b>Reunification</b>							

	Enrolled within 6 months (N=475)		Enrolled after 6 months (N=265)		OR	95% CI	
	N	%	N	%			
No	263	55.4%	210	79.2%			
Yes	212	44.6%	55	20.8%	3.08	2.17	4.36

**Research question #1: Children in FIT have fewer out-of-home placements, and when removed from the home have greater placement stability.**

Another primary goal of the FIT program is to develop a safe, nurturing and stable living situation for these children as rapidly and responsibly as possible. Indicators of this goal include avoiding child removal when safe to do so and placement stability. While many of the FIT services are targeted towards parents, FIT providers are also responsible for coordinating clinical services received by children (Florida DCF, 2016). Services provided to children are crucial to minimizing placement instability, as child behavioral problems are one of the most important predictors of placement instability (NCTA, 2008).

Placement stability is assessed by examining the number of placements among children receiving out-of-home services. The number of placements in relative foster care, non-relative foster care, residential, residential treatment, and juvenile corrections are counted. For FIT enrolled families, the count includes all placements for one year after the FIT enrollment date. Many children are already in out-of-home placements when the family enrolls in FIT, and in such cases, the placement was included in the count. For comparison families, the count includes placements for one year following the end of the investigation that occurred closest to July 1, 2015.

Out of the 1,336 children enrolled in FIT, 1,029 (77%) received out-of-home services during the year. Out of 1,261 children in the comparison group, 930 (74%) received out-of-home services during the year. Most children entering out-of-home care have more than one placement. However, 64% of children in the comparison group have more than two placements while 48% of children in FIT have more than two placements ( $\chi^2 < .0001$ ). On average, children in the comparison group had 4.2 placements compared to 3.2 among children in FIT ( $t < .0001$ ).

**Table 7. Placements among Children Receiving Out-of-home Child Welfare Services**

Placements	FIT (n=1,029)		Comparison (n=952)	
	N	%	N	%
1	137	13.3	108	11.3

Placements	FIT (n=1,029)		Comparison (n=952)	
	N	%	N	%
2	400	38.9	234	24.6
≥3	492	47.8	610	64.1

There are several challenges to examining whether FIT reduces the number of out-of-home placements. One challenge is that many children are already in an out-of-home placement when the parent enrolls the family in FIT. Indeed, if the analysis is limited to out-of-home placements with a start date after FIT enrollment, only 452 children in FIT had a *new* out-of-home placement in the year following enrollment. Thus, over half of the children in FIT with an out-of-home placement had started that placement before the parent enrolled in FIT. An equivalent test does not exist for the comparison group because the assigned start date for the year was based on the end of an investigation.

Thus, we examined the proportion of youth who remained in the home at the start of child welfare services that did and did not have subsequent out-of-home care episodes. The results in Table 8 do not show a difference in the likelihood of children in FIT being able to remain in the home compared to children in the comparison group. Of those children that started receiving in-home services, 30% of children in FIT had a subsequent out-of-home placement compared to 32% of children in the comparison group ( $\chi^2 = .4265$ ).

**Table 8. Number of Children Receiving In-home and Subsequent Out-of-home Child Welfare Services**

	FIT (n=384)		Comparison (n=337)	
	N	%	N	%
In-home only	269	70.1	220	68.2
Subsequent out-of-home care	115	29.9	107	31.8

Overall, the findings indicate that youth enrolled in FIT have greater placement stability. The results for out-of-home placements indicate that most out-of-home placements for FIT enrolled families began prior to enrollment in the program. FIT participation did not have a significant effect on the likelihood of children being able to remain in the home.

**Research question #2: Among children entering out-of-home care, placement in kinship care is more common for children in FIT.**

For each child, we examined whether there was a placement with relatives. There were 660 children in FIT in kinship care in the year following enrollment, which represents 64% of youth in FIT that received out-of-home services (Table 9). On average, children spent 183 days in kinship care out of 315 days spent in out-of-home placements (or 58% of days in out-of-home care). There were 649 youth in the comparison group in kinship care during the observation year, representing 68% of youth receiving out-of-home services. On average, children were in kinship care for 163 days out of the 270 days in out-of-home placements (or 60% of days in out-of-home care). Thus, we do not find support for the hypothesis that FIT enrolled families utilize kinship care to a greater extent than comparison families. Kinship care appears to be a priority throughout DCF services. However note that children in FIT were slightly more likely to achieve permanency through Guardianship than children in the comparison group. In a very high proportion of cases, the guardian is a relative of the child.

**Table 9. Number of Children in Kinship Care**

	FIT (n=1,029)		Comparison (n=952)	
	N	% of OOH	N	%
Kinship care	660	64.1	649	68.2
No kinship care	369	35.9	302	31.8

## Discussion

The results of the Phase Two report are mostly supportive of the FIT program. When compared to a group of similar families receiving child welfare services, families in FIT had greater gains in protective capacities, fewer new allegations of maltreatment, and fewer new cases of verified maltreatment. In addition, the average number of placements was lower, and reunification and permanency rates were higher for children in FIT when FIT enrollment occurred early in out-of-home care.

The results of the Phase One report indicated that the FIT program has positive effects on parental outcomes (Robst, Armstrong, Sowell, & Cruz, 2018). AAPI scores increased by 6.6%, which is comparable to an evaluation of a Nurturing Parenting program for parents involved in the child welfare system in Louisiana (Hodnett, Faulk, Dellinger, & Maher, 2009). FAMHA scores increased by 6.8% with scores increasing for 78% of parents. The FIT program also has greater treatment completion rates than other programs for child welfare involved parents. Overall, the combined results of Phase One and Phase Two provide support for the

FIT program as an intervention for child welfare involved parents with substance abuse problems.

A number of questions remain for future analysis. First, while the results are generally positive, additional research is needed on child placements when enrolled in the FIT program. For example, are there cases when kinship care could have been used more? Does the fact that many parents enroll in FIT after a child has been removed from the home affect treatment outcomes and the comparability to other parents who are child welfare involved? Second, one of the primary goals of the FIT program is to reduce re-entry into the child welfare system. Because many of the families that received FIT services had not been discharged from the child welfare system by the end of the study period, there was a lack of sufficient follow-up data to perform a reasonable analysis of re-entry in the current evaluation. Future work should address this question.

Third, the evaluation of the FIT program has not considered costs in relation to monetized benefits. A careful analysis of costs is needed to determine whether FIT is a cost effective program. Such an analysis has not yet been performed because we lack certain follow-up information. For example, while the difference in outcomes in many areas should result in cost savings, if FIT is associated with a reduction in foster care re-entry, then this may be an important additional mechanism for cost savings.

Finally, the quasi-experimental approach used in this evaluation used the enrollment data as the baseline for parents in FIT, and the end of an investigation as the baseline for the comparison group. While this is a useful and plausible comparison, given that many parents are already child welfare involved before enrolling in FIT, it might be useful to explore alternative 'start' dates for the comparison group that more closely mimic FIT families' experience of the child welfare system.

As with any study, there are limitations to this analysis. The most important issue is the amount of missing data. A large number of parents did not have data on Caregiver Protective Capacities. Missing data likely resulted from the rolling implementation (over several years) of the FFA-Ongoing assessment form in Florida's practice model, which began in November 2013. Thus, there is a high probability that some families in the sample were assessed prior to the local implementation of the FFA-Ongoing. In addition, identifying information in the FIT database did not always match to a record in FSFN. Data on placements can also be challenging to interpret. Dates are not always accurate, and several placements for a child may overlap. Challenges associated with identifying unique placements may have affected the analysis of placements and more specifically, the receipt of out-of-home child welfare services.

Finally, there was a limited follow-up period for examining permanency and re-entry. While the available data was sufficient to provide preliminary results on permanency, there was inadequate data to examine re-entry. Despite these limitations, the differences in improvement of parental protective capacity in key areas, fewer new CPS investigations and fewer verified CPS reports help establish the value of the FIT treatment model in Florida families.

## References

- Agodini, R., & Dynarski, M. (2004). Are experiments the only option? A look at dropout prevention programs. *Review of Economics and Statistics*, 86, 180–194.
- Barth R.P., Gibbons C., Guo S. (2006). Substance abuse treatment and recurrence of maltreatment among caregivers with children living at home: A propensity score analysis. *Journal of Substance Abuse Treatment*, 30, 93–104.
- Coca-Perraillon, M. (2007). Local and global optimal propensity score matching. *SUGI Global Forum 2007*. Paper 185-2007.
- Florida Department of Children and Families, Office of Substance Abuse and Mental Health Services. (2015). *Family Intensive Treatment (FIT) Evaluation Report*. [http://www.dcf.state.fl.us/programs/samh/publications/FIT%20Report%202015%20Final%20\\_013015.pdf](http://www.dcf.state.fl.us/programs/samh/publications/FIT%20Report%202015%20Final%20_013015.pdf)
- Florida Department of Children and Families, Office of Substance Abuse and Mental Health Services. (2016). *Guidance 18: Family Intensive Treatment (FIT) Model Guidelines and Requirements*.
- Gibson-Davis, C. M., & Foster, E. M. (2006). A cautionary tale: Using propensity scores to estimate the effect of food stamps on food insecurity. *Social Science Review*, 80, 94–126.
- Northern California Training Academy (2008). *A Literature Review of Placement Stability in Child Welfare Service: Issues, Concerns, Outcomes, and Future Directions*. The Center for Human Services, UC – Davis: Davis, CA.
- Robst, J., Armstrong, M., Sowell, C., & Cruz, A. (2018). *The Family Intensive Treatment (FIT) Evaluation Phase One Report*. Louis de la Parte Florida Mental Health Institute, University of South Florida: Tampa, FL.
- Smith, J., & Todd, P. E. (2005). Does matching overcome Lalonde’s critique of nonexperimental estimators? *Journal of Econometrics*, 125, 305–353.
- U.S. Department of Health & Human Service, Administration for Children and Families, Administration on Children, Youth and Families, Children’s Bureau. (2017). *Child Maltreatment 2015*. Available from: <https://www.acf.hhs.gov/cb/resource/child-maltreatment>
- U.S. General Accounting Office. (1998). *Foster care: Agencies face challenges securing stable homes for children of substance abusers* (GAO/HEHS-98-182). Washington, DC: Author.