

Final Outcome Evaluation May 2007
Report for Lucile Packard Foundation for Children's Health
Methodology

Hypotheses

Based on the research literature and prior *CF!* outcome results, the primary hypothesis of this study is that *CF!* participation will be associated with reductions in child maltreatment and its precursor risk and protective factors in child, parent, and family outcome. Hence, it was hypothesized that *CF!* would show improvements by the posttest as compared to the pretests in the following outcome objectives:

1. Improved Child Cognitive and Behavioral Outcomes.
2. Improved Parent's' Cognitive and Parenting Skills
3. Improved Family Communication, organization, cohesion, and reduced family conflict

Additional hypotheses included:

- 95% of participants will increase in knowledge of disease of CD and impact on families. Measured by Adult Cognitive and Youth Cognitive tests.

Result. By end of program 100% of clients had increased their knowledge of CD, however the amount of increase in knowledge was very small because almost 100% of the adults and teenage youth in CF already knew about the disease of CD at pretest prior to entering the program.

- 90% of participants will develop better communication and coping skills.

Result. Measured by Moos Family Communication scale, we found significant improvements in the family communication with a large effect sizes especially for House on the Hill clients (mean change = 1.71) on a 5-point Lykert scale.

- 80% of participants will increase their ability to connect with safe people, appropriately express feelings and anger, problem solve and make decisions.

Result. Measured by Gresham and Elliott Social Skills scales we found 100% of participants increased in social skills with large changes in the children averaging about a mean change of .21 for HOH and .51 for FO with effect sizes of ($d' = 1.28$).

Grant Goals and Objectives:

- Objective 5: Improve Parenting Outcomes (short-term result): Parents/caregivers (or children or families) who completed the family skills training workshops will demonstrate increased competence in all of the following areas of parenting: parenting knowledge, parenting skills, parental supervision, parenting efficacy and parenting confidence. **Measurement: The amount of change in the parents/caregivers by the end of the interventions will be measured by the effect size (d') or amount of clinical change from pre- to posttest for the total group on a composite parenting score the following five parenting scales: parenting knowledge, parenting skills, parental supervision, parenting efficacy and parenting confidence. In addition statistical significance and effect sizes will be calculated for each of these parenting competences and compared between CF and SF using Analyses of Variance (ANOVA) and also compared to national SFP norms.**

Goal Achieved for 5 of 5 Measured Outcomes with medium to small effect sizes. See summary of outcomes below.

- Objective 6a: Decreased Parent Substance Abuse (short-term result): At least 80% of all parents/caregivers completing the program who were using substances at the start of programs will reduce their substance use by the end of the program.

Goal Achieved for Measured Outcome with medium effect size

- Objective 6b: Maintain Sobriety (short-term result): Of the graduating parents/caregivers already not using substances at the pretest, at least 95% will remain in recovery by the posttest. Measurement: Pre- to post-test self report on SAMHSA GPRA 30-day use measures and court records of clean urine tests if participants are court-ordered.

Goal measured only with self-report and not urine tests.

- Objective 7: Improve Children's Developmental Risk Status (short-term result): At least 85% of the children ages 3-5 who graduate from the family skills training programs will reduce their "developmental risk status" by the end of the program as defined by standardized test scales that are age appropriate for each child participating. Measurement: Pre-to posttest changes in Parent Observation of Children's Activities (POCA), Behavioral Assessment Scale for Children (BASC), etc. on multiple scales, such as conduct disorder, aggression, hyperactivity, shyness, depression, etc.

Goal Achieved partially for reduced depression and increased social skills. However, overt aggression increased by the posttest as well as hyperactivity. Three other child outcomes were unchanged.

- Objective: 8: Improve Family Status (short-term result): At least 80% of all graduating families will have improved in all the following areas: family organization, communication, and parent/child attachment by the posttest at the end of the program. Measurement: Pre- to post test scores on Moos Family Environment Scales for bonding, communication, organization.

Goal Achieved for 5 of 5 Measured Outcomes with medium to small effect sizes. See summary of outcomes below.

- Objective 9: Improve Family Strengths and Resilience (short-term result): At least 80% of all graduating families will show improvements in overall family strengths and resilience as objectively defined and measured by the standardized Kumpfer and Dunst scale. Measurement: Kumpfer and Dunst (2000) Family Strengths and Resilience scale that measures areas of social, physical, educational, mental, spiritual and financial health.

Goal Achieved with medium effect sizes improvements by posttest. See summary of outcomes below.

- Objective 10: Decrease Child Maltreatment (short-term result): At the end of the grant period, at least 75% of all parents/caregivers who graduated from the family skills trainings will demonstrate reductions in child maltreatment (abuse and neglect). Measurement: The parent and group leaders pre-to post-test surveys scales for corporal punishment and time spent with child. If possible court computer records checks by graduate students in Social Work or evaluation staff for time to reunification in cases of open child abuse cases, and abuse reports will be documented.

Goal Not Measured because of lack of data. DSS (Dept. of Social Services) agreed in 2007 to analyze data on families and a DSS release for sharing information was created for families attending CF! Regretfully families did not feel comfortable giving DSS information. Instead each Site Coordinator kept records of cases of

reported child abuse in families attending *CF!* Out of all families attending *CF!* from 2005-2008, only one case was reported from 200 of these very high risk families.

Note: For all short-term outcome results listed above for participating families graduating from the program and completing the post-test assessments as well as having group leaders rate their progress on the outcomes, all outcomes will be also measured by within-S and between-S ANOVAS to determine: 1) which outcome results are statistically significant results (p values smaller than $p < .05$ suggesting that the results are not likely to have occurred by change, but because of the program) and 2) by clinical effect sizes (d') to determine the size of the changes from pre- to posttest in the participants. You can have 80% of all participating clients show improvements, yet have very small improvements that are not clinically significant. In past field trials in the community, SFP has very large clinical effect sizes, meaning the changes in outcomes are very large.

Outcome (long-term result): Children are raised in safer, healthier and more nurturing homes as measured by improved parenting competencies, increased parent/child attachment, and reduced family conflict and physical punishment, resulting in improved success in school and life. Child maltreatment will be reduced as manifest the decreases in physical punishment and family conflict, self-reported protective services activity as well as (if we can get access to county records) an increase in reunification of families or successful placement of the children with caring *CF!* or SFP trained caregivers/relatives or reduced substantiated cases in participating families for child abuse and neglect, resulting in decreased court and CPS costs.

We expected *CF!* to be equally effective for families regardless of gender, ethnicity or referral source.

Summary of *CF!* Outcomes

The main finding of the process evaluation is that *CF!* can be implemented with quality and fidelity in community agencies. The outcome evaluation on 62 families suggests positive medium size (Cohen's $d = .52$ to $.70$) improvements in four of the five family outcomes (cohesion, communication, family strengths and resilience and organization) measured and one small positive reduction in family conflict ($d = .15$). Likewise, four of the five parenting outcomes (parent involvement, supervision, efficacy, and positive parenting style) improved with medium effect size ($d = .50$ to $.60$), but parenting skills only had a small positive improvement ($d = .18$). These are excellent outcomes equivalent to other family skills training programs such as SFP and in some cases larger.

The children's posttest outcomes were mixed and small. There were two small positive results for improvements in children's social skills ($d = .19$) and depression ($d = .16$). However, there were also two statistically significant negative results in the children's outcomes for increased hyperactivity ($d = .38$) and overt aggression ($d = .22$). The results for the other three outcomes (improved concentration, covert aggression, and criminality were non-significant changes).

These results for *CF!* were compared to similar drug treatment sites in the national database for the proposed comparison program--the more well-known evidence-based program, Strengthening Families Program (SFP). *CF!* compared favorably except in the area of the children's outcomes. Reasons for the lack of positive improvements generally found for the children's outcomes except for reduction in depression and improvements in social skills should be explored.

Experimental Design

A major aim of the proposed project was to test the effectiveness of the *Celebrating Families!* in reducing child abuse and neglect. Due to funding limitations, the design is a non-experimental pre to posttest design. This design primarily determines whether the families improved by the posttest. It does not control for threats to internal validity, hence, it is not possible to determine if the *CF!*

intervention really caused the changes to the families, which a true experimental design will do as proposed in the research grants and L. Packard Foundation. To form another type of control group, we did a preliminary check to see if *CF!*'s outcomes are comparable to SFP on the same 18 outcome variables. We conducted ANOVA analyses of *CF!* compared to SFP national norms. Both interventions also include treatment as usual (TAU) in the drug courts and other social services. Hence the outcomes by the posttest cannot be entirely attributable to *CF!* or SFP without having any treatment control group of randomized families.

Table 1. *Non-Experimental Pre and Posttest Design with SFP Norm Comparison*

	Pre-test	Interventions	Post-test
Group #1 <i>CF!</i> (N=62)	O	<i>CF!</i> + TAU	O
Group # SFP (N=100)	O	SFP + TAU	O

O = observations or measurement points
SFP = Strengthening Families Program for addicted parents in two sites
CF! = *Celebrating Families!* (the Santa Clara County standardized existing parenting program)

TAU = Treatment as Usual
Bolded characters correspond to treatment group.

By making comparisons later with subgroups within the data set we can address additional questions about whether the program was more or less effective for different subgroups. This will create a quasi-experimental design called a post hoc statistical design (Campbell & Stanley, 1979). This is the design used for the comparison of Hispanic and non-Hispanic families in this *CF!* database this summer by Kent Colman for his master's degree at San Jose State University. See appendix for report on outcomes.

Figure 2. *Proposed True Experimental Design*

	Pre-test	Interventions	Post-test		6-month Follow-up	12-month Follow-up
Group #1 (N=288)	O	SFP + TAU	O	Booster	O	O
Group #2a (N=144)	O	<i>CF!</i> + TAU	O	Booster	O	
Group #2b (N=144)	O	Par + TAU	O	Booster	O	O

O = observations or measurement points
SFP = Strengthening Families Program
CF! – *Celebrating Families!* (The Santa Clara County standardized existing parenting program)
Booster = SFP and *CF!* Booster Sessions
 TAU = Treatment as Usual
Bolded characters correspond to treatment group.

Study Setting

To insure a high base rate of child maltreatment referral agencies were Family Drug Treatment and social services agencies in Santa Clara County, CA. In Santa Clara County, two community based organizations and one residential (women with children) drug treatment agency implemented *Celebrating Families!* and participated in the outcome evaluation process: ARH Parisi House on the Hill, Friends Outside of Santa Clara County, and EMQ – Addiction Prevention Services (APS). These agencies were trained to implement *CF!* programs with high risk, substance abusing parents in early

recovery. Program activities take place at these agency's facilities in the evenings or Saturday mornings.

These agencies serve mostly low-income families, with disproportionate percentage of Hispanic families. Each participating community site had sufficient space for all *CF!*-associated services—including at least three rooms for child care, children's skills, and parent training sessions.

Participants

For this final outcome evaluation study, there were a total of 37 adult participants in FY 2006-and 27 in FY 2007 for a total of 65. However only 62 *CF!* participants completed the retrospective pretest and posttest and had valid data for analysis by LutraGroup for this study (May 2007). Although the *CF!* Program includes multiple family members and an evaluation of parents and children, this outcome evaluation study focused upon the parents or caretakers completing the *CF!* Parent Retrospective Pre and Posttest Questionnaire. All subjects were voluntary participants in the *CF!* program for substance abusers in early recovery and their families. Some families had been referred by the courts to the program and strongly encouraged to complete it, but all were voluntary participants as they could select other programs to participate in or not participate.

Participants in the SFP National Data Comparison Study. In order to create some type of comparison group for the *CF!*, we compared *CF!* data to that of the total of 820 adults completing the Strengthening Families Program nationally. It was possible to conduct this comparison analysis using ANOVA because both programs are comparable in dosage of 15 weeks of family groups. Also the *CF!* instruments were developed by Dr. Kumpfer to include the same scales and questions on the same retrospective pre and posttest instrument or survey. The families in SFP are very similar, as SFP was designed and tested with addicted families in outpatient mental health and methadone maintenance treatment. However, some of these families are at lower risk because they are sometimes not in treatment or referred by the drug courts.

Definition of Unit of Assignment and Analysis. For this report we had outcome data on a total of 62 families although more participated in *CF!*. This included only those participants graduating who also completed both the pre and posttest. For the analysis, the unit of analysis was the family. The whole "family" is defined as all people living in the family household. The total family is encouraged to participants. Prior research suggests most families will have two or four participants in the parenting programs (1-2 parents or caretakers, foster parents, grandparents, and all children in family). However only one "target" child 3-18 years old is selected (the reported abused child) for testing program effects. Additionally, because all family members (including infants, toddlers, and adolescents) are encouraged to attend the family session, the total number of family members involved in this evaluation is higher. When more than one parent participants, both complete evaluation instruments and their participation is tracked in outcome and process evaluation.

Outcome Instrument Development

In the Spring of 2005, Dr. Kumpfer and the evaluation team, Rosemary Tisch, Pat Heller, Shirley Sparks, and Makenzie Gallegos worked with the providers in multiple meetings to develop improved testing instruments with community input. They were finalized in August 2005 for training and implementation by sites in the Fall 2005 groups. Hence, the agencies used two different types of instruments that made the evaluation more difficult. This will be easier in the future. The new *CF!* testing instruments now include:

1. New parent retrospective pre and posttest to better control for response bias

2. New child and youth instruments
3. New Group Leader report on the parents and youth.

Hence we have used these new standardized self report questionnaire forms since August 2005 with *CF!* groups implemented in three agencies, EMQ – APS, ARH Parisi House on the Hill, and Friends Outside of Santa Clara County.

Measures

The outcome measures in this evaluation included primarily standardized self-report measurement instruments or scales with proven high psychometric properties (e.g., change sensitivity, internal consistency and reliabilities above $\alpha = .60$). A challenge in the first year was to create evaluation instruments that match the goals and objective of both programs and to also include those used by both programs in the past. In prior research, SFP has primarily been evaluated using parent, child, therapist and teacher self-report measures in three major domains: the family environment, children's well-being, and parenting (see *Exhibit 3*). In our experience and that of other family researchers (Dishion & Andrews, 1996, Spoth, et al., 2004) the parent's self-report slightly underestimates the amount of parent improvement in child maltreatment compared to more objective measures, but does serve as a good proxy measure.

The parents, children over 9 years, trainers (therapists) and group leaders rated improvements in the family environment (reduced family needs, stress, conflict and increased family strengths and parent/child attachment), in child behaviors (reduced hyperactivity, aggression and conduct disorders), and parenting skills (reduced excessive punishment and reports of suspected family violence or child abuse). Because Dr. Kumpfer is also the evaluator for both programs SFP and *Celebrating Families!*, these measures are being used by both SFP and *CF!* and the collaborating agencies have already been trained to collect these data for existing services. These measures are described below, and are presented in the Appendix. The Parent Assessment was modified for use by the Group Leaders which was an extra task not anticipated, but will improve triangulation of the data to determine if validity of the child and parent self-report data.

Outcome Evaluation

Outcome Evaluation Methods. The Experimental Evaluation Design consists of quasi-experimental, repeated measures, pre- and post-test design with post-hoc subgroup comparisons as recommended by Campbell & Stanley (1967) to control for most threats to internal and external sources of validity. An "SFP Retrospective Parent Pre/posttest", using standardized CSAP and NIDA core measures, was developed and used because of the need for a short, non-research quality, practitioner-friendly evaluation instrument. Instruments were delivered by the site staff. These instruments are designed to assess child and parent mental health, substance abuse risk and resiliencies, family management and cohesiveness, and parent and child social skills and attitudes. The data will be recorded by the parents on printed questionnaires. These data on the pre and post-tests were hand-entered by LutraGroup staff and analyzed using SPSS by Dr. Keely Cofrin using standardized scales for 20 outcome variables.

Evaluation Measurement Instruments. A multi-measure, multi-informant (child, parent, and group leader) data collection strategy was used to improve triangulation of the data to approximate real changes being measured. At completion of SFP/*CF!* participating families completed a number of outcome instruments selected to measure the hypothesized change variables or outcomes for the family changes, child changes and the parent changes. The risk and protective factor precursors of substance abuse include negative or positive child behaviors, parenting stress and depression or substance

use and lack of effective discipline methods and family dysfunction. The children's change outcomes were measured by the *Parent Observation of Children's Activities* (POCA) by Dr. Shep Kellam at Johns Hopkins University. This standardized test is a modification of the *Child Behavior Checklist* (Achenbach & Edelbrock, 1988) to be more sensitive to change (has a 5-point scale vs only at 3-point scale) and less offensive or clinical wording to be more acceptable to parents. We measured 8 child outcome scales as shown below in the table. The children's social and life skills were measured by selected items from the *Gresham and Elliot Social Skills Scale* (1990). The parent's parenting efficacy and skills were measured by the 10-item *Kumpfer Parenting Skills scales* that are taken from the Alabama Parenting test. The family conflict, organization, communication and cohesion were measured by these four scales from the *Family Environment Scales*, (Moos, 1974). Most of these outcome instruments are standardized and were used by the original program developer. These instruments are discussed in greater detail below.

Parent Change Measures. The parent alcohol, and illicit drug use including age of first use and 30-day substance use rates for tobacco, alcohol, marijuana, binge drinking, and other illicit drugs will be measured using the CSAP/GPRA drug use measures from the Monitoring the Future (Johnston, O'Malley, and Bachman, 1998) and the National Household Survey (SAMHSA/OAS, 2000). Parental Depression was not measured. Reported cases of child abuse and child protective service referrals were proposed to be assessed from CPS agency records; however, agencies felt uncomfortable requesting parents' social security numbers for Dept. of Social Services review of reported cases.

Child Risk Behavior Change Measures. The risk and protective factor precursors of child abuse and neglect include negative child behaviors and lack of effective discipline methods. Child risk factors of *child overt and covert aggression, hyperactivity, attention deficit or lack of concentration, conduct disorders or criminal behavior and depression* were measured by the Kellam Parent Observation of Children's Activities (POCA) and the Teacher Observation of Children's Activities (TOCA, assessed by group facilitators). These measures are modified versions of Achenbach and Edelbrock's (1988) Child Behavior Checklist (CBCL). The POCA/TOCA has a five-point scale and is more sensitive to change than the CBCL.). For the problem behavior subscales, lower scores indicate more positive outcomes (e.g. fewer internalizing, externalizing, hyperactivity problems).

Child Protective Factor Behavior Changes. Children's problem solving and social and life skills were measured by selected items from the CDC Youth Risk Behavior Survey used for California's Healthy Kid Initiative and from Gresham and Elliot's (1990) Social Skills Scale. The parent and child version of the *Social Skills Rating System* (SSRS) (Gresham & Elliott, 1990) were used for measuring social/life skills. The SSRS measures the following dimensions: Cooperation, Assertion, Responsibility, and Self-Control. In addition, it measures problem behaviors, which are classified as internalizing behaviors, externalizing behaviors, and hyperactivity. The parents completed both parent versions of the SSRS and CBCL, and the children completed the student version of the SSRS. For the main SSRS subscales, higher scores indicate more positive outcomes (e.g. more cooperation, assertion, responsibility and self-control)

Family Environment or Functioning Measures. The Family Strengths and Resilience Assessment (12-items) is a brief 5-point checklist created by Karol Kumpfer and Carl Dunst for the American Humane Association to improve measurement of outcomes in child abuse and neglect cases (Kumpfer & Dunst, 1995). We have found these two scales to be good intake screeners for case managers to determine family strengths and resilience that should be drawn upon in the family plan. They are also very sensitive to change, and tap positive changes in the family environment.

Other family change outcomes were measured by the *Moos Family Environment Scale* (FES) (Moos & Moos, 1994) and the *Children’s Version of the Family Environment Scale* (Pino, Simons, & Slawinoski, 1983) that include scales for the level of family conflict, communication, organization, and family cohesion. See description of each scale and source below.

Psychometric Properties. These measurement instruments and scales have been found to have high reliability and validity in prior SFP studies with similar participants. To reduce testing burden, in some cases only sub-scales of selected instruments were used for evaluation. They match the hypothesized dependent variables and were used in the construction of the testing batteries. Each of the program goals and objectives as listed above are matched to the standardized testing scale or measure in the Table below.

Table 1: Hypothesized Outcomes Matched to Measures

<u>SFP Outcome Variables</u>	<u>Measures</u>
<u>Parent Immediate Change Objectives</u>	
1. increase positive parenting	1. SFP parenting skills
2. increase in parenting skills	2. SFP parenting skills
3. increase parental supervision	3. SFP parenting skills
4. increase parental efficacy	4. Alabama Parenting Scale
5. increase in parental involvement	5. Alabama Parenting Scale
6. decrease in parental substance use or misuse	6. CSAP30-day use rates
<u>Child Change Objectives</u>	
1. increase social skills (cooperation, assertion, responsibility, and self-control)	1. Social Skills Rating Scale (parent and child)
2. reduced overt aggression	3. POCA Child Rating Scale
3. reduced covert aggression	4. POCA covert aggression scale
4. reduced concentration problems (ADD)	5. POCA ADD scale
6. reduced criminal behavior	7. POCA criminal behavior scale
7. reduced hyperactivity	8. POCA hyperactivity scale
8. reduced depression	9. POCA depression scale
<u>Family Change Objectives</u>	
1. increase positive parent/child relationship or family cohesion	1. Moos FES cohesion
2. reduce family conflict	2. Moos FES family conflict
3. increase family organization and order	3. Moos FES family organization
4. increase family communication skills	4. Moos FES communication
5. increased overall family strengths and resilience	5. Kumpfer & Dunst Family Strengths and Resilience scale

Child Abuse and Neglect Measures

The evaluation was also to collect data on the ultimate goal of reducing child abuse and neglect and also decrease CPS referrals, decrease days to reunification of families where the children have been removed.

Figure 1. Hypothesized Outcomes and Measures

<u>Long Term Goal</u>	<u>Measure</u>
1. Decrease child abuse and neglect	1. SFP testing instrument, SFP/YFS staff observations/ratings, CPS and court records.
2. Decrease CPS referrals	2. CPS and court records

Dept. of Social Services (DSS) agreed in 2007 to analyze data on families and a DSS release for sharing information was created for families attending *CF!* Regretfully agencies did not feel comfortable requesting parents' social security numbers for DSS. Instead each Site Coordinator kept records of cases of reported child abuse in families attending *CF!* Out of all families attending *CF!* from 2005-2008, only one case was reported from 200 of these very high risk families.

Retrospective Pre- and Post-tests. To check for bias on the pre-test due to lack of trust in the confidentiality of the data (found more often in disenfranchised ethnic immigrant youth and families for illegal behaviors such as child and drug abuse), a short retrospective pre-test and post-test (see Appendix C) was also be administered at the posttest and compared to the pre-test. With this procedure, found effective in school-based studies of drug-abusing adolescents (Rhodes & Jason 1987) and family intervention programs (Pratt, Mcguigan, & Katzev, 2000), the parents and youth are asked about their baseline (pre-test) behavior again on the post-test. This retrospective pre-test data is then correlated with the actual pre-test data to determine the degree of potential bias. If the actual and retrospective items are not consistent, statistical adjustments will be performed in the analyses. This simple three-page parent or youth test covers over 18 outcome variables listed above. The Evaluation Director has used this testing method in other studies involving immigrant Latino, Asian, and African American parents, youth, and their teachers (Kumpfer, Alvarado, Smith, & Bellamy, 2002) because intervention staff believed subjects were more honest about sensitive questions on the post-test than the pre-test. If clients under report their negative maltreatment behaviors on the pre-test, but are more honest on the posttest, programs can appear to have negative results, when they actually had positive results.

Data Entry and Analysis

The new data had to be entered and analyzed using a new SPSS database with new computer syntax written that took more time than expected.

Preliminary Data Analysis. All outcome data was entered by research assistants and reviewed for errors. Standard data analysis procedures were used, including preliminary descriptive checks for outliers, univariate, and cross-tabular analyses to check out-of-bounds and illogical values, and analyses of missing data patterns. For most analytic procedures, moderate to highly skewed variables will be transformed to closely approximate a normal distribution.

Missing Data. For these analyses only participant's who had data for both the pre and posttest were included in the analysis. The retrospective tests assure that. However, there can still be cases with missing values (leastwise deletion) adversely affect the efficiency of our estimates and will result in invalid inferences regarding the effects of predictor variables on our outcomes unless data values are missing completely at random (King, Honaker, Joseph & Scheve 2000; Little & Rubin 1987; Schafer 1997). In the case of the *CF!* evaluation, the reader will notice that the N changes in the outcome reports by the type of outcome. This shows how many people completed that scale for

which there was sufficient data to calculate that scale variable. We did not do missing data attributions as we can do in the future using mean substitution or using Schafer's (1997) multiple imputation methodology to impute missing values.

Data Included in this Outcome Analysis

This new analysis on May 2007 includes data on 62 parents participating in *CF!* group implementations from groups at Friends Outside of Santa Clara County, EMQ – APS, and ARH Parisi House on the Hill. Two additional agencies were trained (YWCA of Silicon Valley and 3 C's in San Mateo, County.) One agency implemented the model without fidelity or completion of evaluation instruments; the other never implemented the model.

In addition Family Treatment Drug Court (FTDC), *CF!*'s original pilot site, continues to provide *CF!* groups, called Family Night. As of Fall 2007, through collaboration with First 5 of Santa Clara County, all Dependency Courts in Santa Clara County refer families to FTDC groups, providing by Dept. of Social Services. (FTDC utilizes different evaluation instruments and is not included in this report.) The Evaluation Report shows the total number of clients for which there is completed outcome data at 62 families. However, not all families graduated and completed the posttest forms.

The resulting sample size is moderate at only 62 parents with completed pre- and post-tests across the three sites on *CF!* groups or cohort, there are significant positive results with large effect sizes. This is very important because these outcome results are similar to those found for the Strengthening Families national outcome data using the same testing instruments. The positive results we find in this outcome data analysis is that by the post-test significant improvements are shown in 15 of the 18 or 83% of the outcome variables as listed below:

Table 2: Significance Levels and Effect Sizes by Outcomes

Protective Factor	Sig. Level (p=)	Effect Size (d)
1. Positive Parenting	.00	.55 (medium)
2. Parent Involvement	.00	.50 (medium)
3. Parenting Skills	.00	.18 (small)
4. Parenting Efficacy	.00	.60 (medium)
5. Parenting Supervision	.00	.59 (medium)
6. Family Organization	.00	.64 (medium)
7. Family Cohesion	.00	.52 (medium)
8. Family Communication	.00	.65 (medium)
9. Family Conflict	.01	.15 (small)

10. Family Strengths/Resilience	.00	.70 (medium)
11. Child Overt Aggression negative result)	.00	-.22 (small)
12. Hyperactivity negative change)	.00	-.38 (medium)
13. Child Depression	.00	.16 (small)
14. Social Skills	.01	.19 (small)
15. Parent Alcohol and Drug Use	.00	.51 (medium)

The outcome results were very positive for parent and family outcomes but mixed for the children's outcomes with four negative child outcomes as discussed below. Because all outcomes were hypothesized to have positive changes based on prior research, we could have used a one-tailed test of significance. This means that all p values less than .10 could be considered significant positive changes. However, there were so many very large p values that we didn't apply one-tailed tests of significance. Hence, all of the above listed outcome variables were shown to have significant positive changes even with a small sample size of only 62 pre and posttests.

Effect Sizes (Cohen's d)

In addition the effect sizes as measured by Cohen's d as well as d' in tables below and as done in the last report are mostly of small to medium size suggesting that *CF!* is resulting in positive changes in the parents and the family interaction patterns by the end of the 16 weeks.

The children's results were mixed. There were statistically significant positive changes in children's depression and social skills. For unknown reasons, there were four parent reported negative changes in the children's behaviors with two being statistically significant, namely increased *overt aggression* with a medium negative change ($m = .54$) or effect size ($d = .22$) and *hyperactivity* with a medium negative change or effect size ($d = .38$). Changes in the children take longer to modify. Negative changes in children of substance abusers has been reported by parents who enter residential treatment also. It could be considered a predictable change found in children of mothers who come to a residential treatment facility. The parent report of an increase in overt aggression in their children that resulted in the total *CF!* increase was due primarily to ARH Parisi House on the Hill parents. These parents reported a large increase in aggression that occurs when the children finally feel safe. For awhile they increase their acting out, reduce their fear and parentification or reversed parent/child roles. Within several months they settle back down. It is of interest that the other two agencies had slight reductions in aggression. Another possible interpretation is that there could be some negative contagion effect occurring of the youth in the groups.

Taken as whole, these results are very positive for suggesting positive changes in the parenting skills of the parents and family relationships that are beginning to have positive results in reducing problem behaviors in the children.

These FY 2007 results provide an indication of the effectiveness of the *Celebrating Families!* program and find that it is effective and creating significant positive changes in parents, the family environment and some positive changes in the children.

Comparison of CF! Effect Sizes to Other Interventions

Reported in the tables below are the significant level or *p*. value for pre to posttest changes as well as a more important statistical outcome called “effect size”. Similar to percent change, effect size is a more scientific way that researchers today report how much participants in an intervention have changed. The effect sizes reported are calculated in SPSS software by eta squared or Cohen’s *d* as well as *d*’. It can be seen that they are small to medium and replicate the medium effect sizes found for SFP in randomized control trials (Kumpfer & DeMarsh, 1986; Spoth, et al., 1999; 2002; 2003; Trudeau & Spoth, 2005), Gottfredson, Kumpfer, et al., 2006), except they are even larger. To put the effect sizes reported here into perspective, the average effect size of all obesity prevention programs was found to be $d = .006$ (Stice, Shaw & Marti, 2006). The overall effect size in reducing drug use of all youth-only substance abuse prevention programs is $d = .10$. The effect size of the DARE program was .08 and the best social skills training prevention programs only have a medium effect size of about .30 (Tobler & Stratton, 1997; Tobler & Kumpfer, 2000). Parenting and family interventions have larger effect sizes. See table below

Meta-analysis Study of Prevention Approaches. Dr. Nancy Tobler has conducted a number of meta-analysis studies of drug prevention approaches. Dr. Kumpfer worked with her to develop a meta-analysis of family approaches and to compare these to child-only approaches. Overall, family-focused approaches average effect sizes that are nine times larger than youth-only prevention approaches (.96 ES versus .10 ES) as shown in the Table 1 below. This meta-analysis suggests that family skills training approaches, such as Strengthening Families have a very large effect size in reducing substance abuse ($d = .82$) second only to In-home Family Support approaches which had a very large effect size of 1.62.

Table 3: Average Effect Sizes for Universal School-based and Family-based Prevention Programs (Tobler & Stratton, 1997; Tobler & Kumpfer, 2001)

Prevention Intervention Approach	Average Effect Size
Knowledge plus Affective Education	-.05
Affective Education	+.04
Life or Social Skills Training	+.30
Average Universal Child-only Approaches	+.10
Parenting Skills Training	+.31
Family Skills Training	+.82
In-home Family Support	+1.62
Average Mean Family Interventions	+.96

Based on these large effect sizes, Foxcroft and associates (2003) at Oxford University concluded that the Strengthening Families Program (Kumpfer, Molgaard & Spoth, 1996) was twice as effective as the next best prevention program—also a parenting program. These reviews were conducted using meta-analyses conducted for the World Health Organization and the international Cochrane Collaboration Reviews in Medicine and Public Health (see www.cochranereviews.org)

Effect Sizes or Amount of Individual Change. In addition, the families reported very large Effect Sizes (d') over 1.00 Effect Size in 15 of the 18 outcome variables. There is a very small difference in outcomes between 2006 and 2007: In 2006 *CF!* sites reported 15 of 18 outcomes with Effect Sizes over 1.00. Most of the parenting outcomes improved in 2007 over 2006. While family outcomes were not as large as 2006. The children's outcomes were better in 2007 in three areas as well as the reductions in alcohol and drug use by parents. Hence the results are improving with better implementation by the *CF!* group leaders. Part of this improvement could be because of the increased skill level of the practitioners with experience or because of the investment of the agency in high quality training and supervision.

Total Outcomes (Parent, Family & Child) for Pre- to Posttest Changes

***CF!* Comparisons to SFP Outcomes**

As mentioned earlier, one goal is to get *CF!* accepted as an evidence-based model like SFP. Hence, developing identical outcome surveys allowed the LutraGroup evaluation team to make preliminary comparisons in effect sizes or amount of change by the posttest in *CF!* families to SFP families in the SFP National Database. Not all parents in the SFP national database are addicted parents; hence, we attempted to pull out of the SFP database two agencies known to provide SFP for addicted parents. However, it is clear that these parents were not as dysfunctional as the PPI parents. This biased the comparison somewhat. Because there was limited funding for the evaluation, we could not continue to do more analyses to try to find better matching agencies. The two drug treatment agencies were in New Jersey and Florida, but were outpatient centers and not residential centers like the ARH Parisi House on the Hill, whose parents reported really low skills and many problems in the children at the baseline intake that reduced these pre-test scores.

Parent Positive Changes of the New *CF!* Outcome Variables

Reported below are the positive results of the pre to post test changes in the parents that are similar to those measured for the children. Most of these results are statistically significant with small to medium effect sizes indicating the parents are increasing their parenting skills. The largest change was for Parenting Efficacy and the smallest for Parenting Skills.

Table 4: Significance Levels and Effect Sizes by *CF!* Outcomes

Protective Factor	Sig. Level (p=)	Effect Size (d)
1. Positive Parenting	.00	.55 (medium)
16. Parent Involvement	.00	.50 (medium)
17. Parenting Skills	.00	.18 (small)
18. Parenting Efficacy	.00	.60 (medium)
19. Parenting Supervision	.00	.59 (medium)

Comparisons to Two SFP Drug Treatment Agencies

These results in the following table suggest that *CF!* has more positive mean improvement results than the two comparison SFP groups for four of the five parenting outcomes, but not as good as SFP for changes in Parenting Skills ($d = .18$ vs $.32$). Most of the parents in *CF!* reported lower baseline scores or more parenting deficits than the comparison parents getting SFP. For example, Parental Involvement increased more for *CF!* but possibly because the considerably lower rate at baseline pretest in *CF!* addicted parents (mean = 2.99 vs 3.96).

Table 5: Celebrating Families! Evaluation Year 2: PARENTING OUTCOMES										
Analysis of <i>CF!</i> vs. SFP Groups for Addicted Parents										
May-07										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	EF (d)	EF (d')
Positive Parenting										
SFP Sites	100	4.28	0.66	4.75	0.41	0.46	54.37	0.00	0.35	1.48
<i>CF!</i> Sites	57	3.70	1.01	4.73	0.44	1.03	67.25	0.00	0.55	2.19
Parental Involvement										
SFP Sites	99	3.96	0.77	4.53	0.53	0.57	72.54	0.00	0.43	1.72
<i>CF!</i> Sites	53	2.99	1.29	4.08	1.03	1.08	50.98	0.00	0.50	1.98
SFP Parenting Skills										
SFP Sites	100	2.59	0.54	2.90	0.49	0.31	47.60	0.00	0.32	1.39
<i>CF!</i> Sites	61	2.87	0.84	3.26	0.83	0.39	13.19	0.00	0.18	0.94
Parental Supervision										
SFP Sites	99	3.51	0.71	4.04	0.45	0.53	72.93	0.00	0.43	1.73
<i>CF!</i> Sites	59	3.31	0.93	4.17	0.51	0.85	82.25	0.00	0.59	2.38
Parenting Efficacy										
SFP Sites	99	3.74	0.77	4.38	0.57	0.64	91.31	0.00	0.48	1.93
<i>CF!</i> Sites	62	3.11	1.06	4.28	0.56	1.17	91.42	0.00	0.60	2.45

There is a much higher Alcohol and Drug Use rate reported in the *CF!* families and larger reduction in ATOD use. Effect sizes are always smaller when you work with lower risk parents as is done in SFP. Hence, a better comparison would be to compare *CF!* parents in recovery with only the recovering parents in residential treatment agencies in the SFP National Database because of the difference in base rates of problem behaviors.

Comparison of *CF!* Outcome to the SFP National Norms and a Residential Drug Treatment Agency

Selected for comparison to *CF!* were an agency in Florida treating women in residential treatment and outpatient sites with a similar sample size, as well as the SFP National norms in January 2008.

In this case, the 100% or all five of the positive changes were larger for the SFP residential drug treatment agency than for changes in the *CF!* parent's parenting skills and style or efficacy. However, with both and the SFP National Norms 100% of the five outcome variables showed significant improvements. The effect sizes are all medium for all three groups

Table 6: *CF!* Results Compared to Florida Drug Treatment Parenting Results and the SFP National Norms of 2,600 families as of January 2008 for All 18 Outcome Variables (Pre- to Posttest Means, SDs, Change Scores, Fs, p-values, and Effect Sizes for All Outcome Variables

TABLE 6: CF Comparison to SFP Evaluation Project										
CF! Sites Vs SFP Norms										
Outcome Analysis Jan 08										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	Sig	ES d	ES d'
Parental Involvement							4.43	0.04	0.00	0.08
National Sites	2598	3.49	0.94	4.22	0.72	0.73	2402.83	0.00	0.48	1.92
Florida SFP Sites	53	3.56	0.98	4.51	0.47	0.95	67.84	0.00	0.57	2.28
<i>CF!</i> Sites	53	2.99	1.29	4.08	1.03	1.08	50.98	0.00	0.50	1.98
Parental Supervision							7.31	0.01	0.00	0.10
National Sites	2641	3.14	0.74	3.81	0.60	0.67	2947.43	0.00	0.53	2.11
Florida Sites	54	3.28	0.76	4.19	0.43	0.91	111.28	0.00	0.68	2.90
<i>CF!</i> Sites	59	3.31	0.93	4.17	0.51	0.85	82.25	0.00	0.59	2.38
Parenting Efficacy							1.72	0.19	0.00	0.05
National Sites	2613	3.22	0.87	4.03	0.70	0.80	2775.42	0.00	0.52	2.06
Florida Sites	53	3.36	0.87	4.31	0.60	0.95	82.96	0.00	0.61	2.53
<i>CF!</i> Sites	62	3.11	1.06	4.28	0.56	1.17	91.42	0.00	0.60	2.45
Positive Parenting							7.39	0.01	0.00	0.11
National Sites	2613	3.74	0.92	4.51	0.59	0.77	2784.36	0.00	0.52	2.06
Florida Sites	53	3.61	0.94	4.66	0.44	1.05	92.20	0.00	0.64	2.66
<i>CF!</i> Sites	57	3.70	1.01	4.73	0.44	1.03	67.25	0.00	0.55	2.19
SFP Parenting Skills							4.49	0.03	0.00	0.08
National Sites	2610	3.34	0.71	3.78	0.66	0.44	1885.75	0.00	0.42	1.70
Florida Sites	53	3.60	0.63	4.19	0.56	0.59	69.58	0.00	0.57	2.31
<i>CF!</i> Sites	61	2.87	0.84	3.26	0.83	0.39	13.19	0.00	0.18	0.94

Family Outcomes

Most of the changes in the family environment or functioning were positive and larger than for the Parenting outcomes. The effect sizes for the family outcomes were all statistically significant and small to medium in size ranging from a low of $d = .15$ for Family Conflict to a high of $d = .70$ for Family Strengths and Resilience for *CF!* programs.

Table 7: Significance Levels and Effect Sizes by Outcomes

Protective Factor	Sig. Level (p=)	Effect Size (d)
1. Family Organization	.00	.64 (medium)
2. Family Cohesion	.00	.52 (medium)
3. Family Communication	.00	.65 (medium)
4. Family Conflict	.01	.15 (small)
5. Family Strengths/Resilience	.00	.70 (medium)

Child Outcomes

As mentioned in the summary of the *CF!* outcomes, the children's posttest outcomes were mixed small changes (two positive, two negative) with three outcomes with no significant changes. The two small positive results were for improvements in children's social skills ($d = .19$) and depression ($d = .16$). The two statistically significant negative results in the children's outcomes were for increased hyperactivity ($d = .38$) and overt aggression ($d = .22$). The results for the other three outcomes (improved concentration, covert aggression, and criminality) were non-significant changes with effect sizes close to zero ($d = .00$ to $.02$).

Because of the lack of implementation of the comparison program proposed in the Lucille Packard Foundation grant by the agencies already doing *CF!*, the results for *CF!* were compared to similar drug treatment sites in the national database for the proposed comparison program--the more well-known evidence-based program, Strengthening Families Program (SFP). *CF!* compared favorably in parenting and family outcomes, except in the area of the children's outcomes. Reasons for the lack of positive improvements generally found for the children's outcomes except for reduction in depression and improvements in social skills should be explored.

20. Child Overt Aggression (negative result)	.00	-.22 (small)
21. Hyperactivity (negative change)	.00	-.38 (medium)
22. Child Depression	.00	.16 (small)
23. Social Skills	.01	.19 (small)

Comparisons to Selected SFP Drug Treatment Sites

Family Conflict and Family Cohesion improved more for the *CF!* sites than the SFP sites, but Family Organization and Communication improved equally for both programs. Family Strengths and Resilience improved in both programs but increased more for *CF!* than SFP. The families in recovery are such as state of crisis that any support provided by the participating agencies is very helpful in improving their family resilience.

Table 8: Celebrating Families! Evaluation Year 2										
Analysis of <i>CF!</i> vs. SFP Groups for Addicted Parents										
FAMILY OUTCOMES May-07										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	EF (d)	EF (d')
Family Organization							0.52	0.47	0.00	0.12
SFP Sites	99	3.03	0.92	4.14	0.71	1.10	186.50	0.00	0.66	2.76
<i>CF!</i> Sites	59	2.62	1.01	3.83	0.89	1.20	104.02	0.00	0.64	2.68
Family Cohesion							25.18	0.00	0.14	0.81
SFP Sites	99	4.12	0.73	4.61	0.54	0.48	56.70	0.00	0.37	1.52
<i>CF!</i> Sites	56	3.46	1.16	4.67	0.52	1.21	60.21	0.00	0.52	2.09
Communication							8.11	0.00	0.05	0.45
SFP Sites	100	3.57	0.68	4.39	0.47	0.82	184.61	0.00	0.65	2.73
<i>CF!</i> Sites	61	3.01	0.87	4.16	0.70	1.15	109.35	0.00	0.65	2.70
Family Conflict							3.96	0.05	0.03	0.33
SFP Sites	99	2.67	0.41	2.73	0.43	0.06	2.11	0.15	0.02	0.29
<i>CF!</i> Sites	51	2.62	0.83	2.84	0.94	0.22	8.62	0.01	0.15	0.83
Overall Family Strengths/Resilience					23.01	0.00	0.13	0.76		
SFP Sites	98	3.78	0.76	4.52	0.50	0.74	145.97	0.00	0.60	2.45
<i>CF!</i> Sites	62	3.08	0.82	4.38	0.53	1.30	139.94	0.00	0.70	3.03

CF! Comparisons to Selected SFP Residential and Outpatient Drug Treatment Sites

100% of the five family change variables were improved significantly but the larger effect sizes were for the SFP groups. This area of change had the largest improvements in the effect sizes or amount

of change (d) ranging from Effect Sizes of .76 for Family Communication and .75 for overall Family Strengths and Resilience to a low of $d = .15$ for *CF!* and .32 for SFP Family Conflict. This also suggests that the average family improvements were larger than the parenting improvements since the effect size as measured by d was larger.

Hence, it appears that the *CF!* programs are having a dramatic impact on the overall family environment, beyond that found normally in other SFP sites nationally with non-drug users but equivalent results with drug abusers in treatment. This is a very positive effect and a tribute to the Site Coordinator and the Group Leaders.

Table 9: Family Outcomes for *CF!* Compared to SFP National Norms of 2,700 families and the Florida Residential TX sites as of January 2008 for All 6 Outcome Variables (Pre- to Posttest Means, SDs, Change Scores, Fs, p-values, and Effect Sizes for All Outcome Variables)

TABLE 9: <i>CF!</i> vs Strengthening Family Program Evaluation Project										
Florida SFP Sites 372-377										
6 Groups 59 families Jan to Dec 07										
Outcome Analysis Jan 08										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	ES d	ES d'
Family Cohesion							4.65	0.03	0.00	0.08
National Sites	2603	3.55	0.97	4.32	0.69	0.78	2395.19	0.00	0.48	1.92
Florida SFP Sites	53	3.56	1.01	4.58	0.53	1.02	63.60	0.00	0.55	2.21
<i>CF!</i> Sites	56	3.46	1.16	4.67	0.52	1.21	60.21	0.00	0.52	2.09
Family Communication							3.96	0.05	0.00	0.08
National Sites	2621	3.08	0.78	4.03	0.65	0.95	4668.94	0.00	0.64	2.67
Florida Sites	53	3.25	0.80	4.39	0.51	1.14	152.18	0.00	0.75	3.42
<i>CF!</i> Sites	61	3.01	0.87	4.16	0.70	1.15	109.35	0.00	0.65	2.70
Family Conflict							0.90	0.34	0.00	0.04
National Sites	2588	2.37	1.09	2.01	0.87	(0.36)	550.86	0.00	0.18	0.92
Florida Sites	53	2.17	1.05	1.70	0.80	(0.46)	23.99	0.00	0.32	1.36
<i>CF!</i> Sites	51	2.62	0.83	2.84	0.94	0.22	8.62	0.01	0.15	0.83
Family Organization							10.97	0.00	0.00	0.13
National Sites	2610	2.56	0.88	3.74	0.79	1.18	4797.88	0.00	0.65	2.71
Florida SFP Sites	53	2.64	1.08	4.21	0.55	1.58	141.56	0.00	0.73	3.30
<i>CF!</i> Sites	59	2.62	1.01	3.83	0.89	1.20	104.02	0.00	0.64	2.68
Family Strengths/Resilience							3.44	0.06	0.00	0.07
National Sites	2586	3.31	0.85	4.21	0.61	0.90	4073.41	0.00	0.61	2.51
Florida SFP Sites	55	3.51	0.75	4.58	0.44	1.08	151.85	0.00	0.74	3.35
<i>CF!</i> Sites	59	2.62	1.01	3.83	0.89	1.20	104.02	0.00	0.64	2.68

Family Outcomes From Child Self Report and Group Leader Report

These data were run only on Year 1 data. As can be seen in the following Table 8 below, the total outcomes for the parents, children and family relationships have all improved even by the immediate post-test for *CF!*. There was considerable missing data for the adolescent youth self-report data below with only 13 respondents. However, these responses match the outcomes from the group leader ratings of the families as well. This additional group leader rating of the family was added to this *CF!* evaluation even to improve triangulation of the data to verify better the reliability of the child reports. The alpha values for reliability of the data and factor analyses still need to be conducted on these new scales, but they are similar to the standardized testing scales from the parent's self reports.

Table 10: Child Self Report and Group Leader Report on Child Changes

Strengthening Family Program Evaluation Project									
July-06									
Analysis for Celebrating Families!									
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	Effect size (d')
Parental Support	13	3.50	0.93	3.94	0.78	0.43	7.13	0.020	1.54
Discipline	13	2.97	0.36	3.09	0.24	0.11	2.63	0.131	0.94
Parental Communication	13	2.87	0.87	3.29	0.90	0.42	9.37	0.010	1.77
Family Conflict	13	2.23	0.94	2.01	0.83	(0.22)	2.50	0.140	0.91
Parental Antisocial Behavior	13	1.38	0.69	1.10	0.28	(0.28)	2.56	0.136	0.92
Child Communication Skills (Leader Rating)	29	3.14	0.45	3.67	0.49	0.53	70.33	0.000	3.17
Child Communication Skills (Child Rating)	12	3.12	0.92	3.60	0.57	0.48	5.91	0.033	1.47
Overt Aggression (Leader Rating)	29	2.42	0.68	2.14	0.58	(0.28)	29.72	0.000	2.06
Overt Aggression (Child Rating)	13	2.33	0.73	2.06	0.51	(0.27)	2.90	0.114	0.98
Covert Aggression (Leader Rating)	18	1.13	0.27	1.08	0.26	(0.04)	1.89	0.187	0.67

Covert Aggression (Child Rating)	13	1.65	0.88	1.52	0.86	(0.12)	1.79	0.206	0.77
Child Depression (Leader Rating)	29	2.61	0.54	2.50	0.44	(0.11)	2.50	0.125	0.60
Child Depression (Child Rating)	13	2.16	0.54	2.08	0.55	(0.08)	0.83	0.381	0.52
Child Hyperactivity (Leader Rating)	28	2.75	1.01	2.54	0.80	(0.20)	13.33	0.001	1.41
Child Hyperactivity (Child Rating)	13	2.55	0.65	2.22	0.73	(0.34)	2.34	0.152	0.88
Child Social Skills (Leader Rating)	31	3.33	0.58	3.76	0.48	0.43	16.45	0.000	1.48
Child Resilience (Leader Rating)	30	3.38	0.54	3.82	0.50	0.43	17.82	0.000	1.57
Child Substance Use Knowledge (Leader Rating)	29	2.78	0.55	4.14	0.55	1.36	105.14	0.000	3.88
Child Healthy Behaviors (Leader Rating)	29	3.33	0.67	3.61	0.63	0.28	13.95	0.001	1.41

Comparison of *CF!* Child Outcomes to SFP

As mentioned earlier, there was a mixed pattern of results for the children with only two positive results and four negative results. The positive and statistically significant results were for Children's Depression and Social Skills. However, all of the SFP results were better than for the children in *CF!*. The four parent reported negative changes in the children's behaviors with two being statistically significant, namely increased *overt aggression* with a medium negative change ($m = .54$) or effect size ($d = .22$) and *hyperactivity* with a medium negative change or effect size ($d = .38$).

Changes in the children take longer to modify. Negative changes in children of substance abusers has been reported by parents who enter residential treatment also. It could be considered a predictable change found in children of mothers who come to a residential treatment facility. The parent report of an increase in overt aggression in their children that resulted in the total *CF!* increase was due primarily to ARH Parisi House on the Hill parents. These parents reported a large increase in aggression that occurs when the children finally feel safe. For awhile they increase their acting out, reduce their fear and parentification or reversed parent/child roles. Within several months they settle back down. It is of interest that the other two agencies had slight reductions in aggression. Another possible interpretation is that there could be some negative contagion effect occurring of the youth in the groups.

Note that the sample sizes do not match all 62 participants because some parents did not complete all questions.

TABLE 11: Celebrating Families! Evaluation Year 2										
Analysis of <i>CF!</i> vs. SFP Groups for Addicted Parents										
CHILDREN'S OUTCOMES May-07										
Scale Name	#	Pre-Test	SD	Post-Test	SD	Change	F	sig	EF (d)	EF (d')
Overt Aggression							28.86	0.00	0.16	0.86
SFP Sites	100	2.00	0.69	1.85	0.53	(0.15)	6.54	0.01	0.06	0.51
<i>CF!</i> Sites	58	2.33	0.98	2.87	1.08	0.54	15.79	0.00	0.22	1.05
Covert Aggression							3.29	0.07	0.02	0.32
SFP Sites	98	1.96	0.60	1.75	0.52	(0.21)	14.43	0.00	0.13	0.77
<i>CF!</i> Sites	36	2.32	0.41	2.31	0.69	(0.01)	0.02	0.90	0.00	0.04
Concentration Problems							15.94	0.00	0.10	0.65
SFP sites	100	3.09	0.76	3.64	0.69	0.55	106.89	0.00	0.52	2.08
<i>CF!</i> Sites	52	2.68	1.15	2.66	1.19	(0.02)	0.02	0.90	0.00	0.04
Criminal Behavior							1.64	0.20	0.01	0.23
SFP Sites	97	1.05	0.29	1.06	0.37	0.01	0.05	0.83	0.00	0.04
<i>CF!</i> Sites	32	2.69	0.76	2.83	0.69	0.14	1.94	0.17	0.06	0.50
Hyperactivity							14.70	0.00	0.10	0.68
SFP Sites	98	2.49	1.00	2.42	0.90	(0.07)	0.56	0.46	0.01	0.15
<i>CF!</i> Sites	31	2.84	0.89	3.45	0.78	0.61	18.05	0.00	0.38	1.55
Social Skills							0.58	0.45	0.00	0.13
SFP Sites	98	3.81	0.73	4.17	0.65	0.36	40.05	0.00	0.29	1.29
<i>CF!</i> Sites	36	3.27	0.52	3.55	0.43	0.28	8.30	0.01	0.19	0.97
Child Depression							3.32	0.07	0.02	0.29
SFP Sites	100	2.00	0.81	1.70	0.63	(0.30)	26.82	0.00	0.21	1.04
<i>CF!</i> Sites	59	2.38	1.27	1.80	1.02	(0.58)	11.10	0.00	0.16	0.88

CF! Children's Positive Change Outcomes Compared to SFP Residential Drug Treatment with Similar Sample Size

For CF! children there were four negative results and only two positive results; whereas the SFP comparison drug treatment sites five of seven or 71% of the hypothesized child outcome variables were found significantly improved by the post-test, namely decreased Overt and Covert Aggression, increased Concentration or Reduced Attention Deficit, increased Social Skills and decreased Depression. This is a very positive result that is not due to a large sample size because there were 62 families included in this analysis. However, even with a with a large sample size of 715 families in the Washington, D.C. NIDA 5 year study the researchers were not able to reach the $p = .05$ level for positive changes in Overt Aggression in the children. This result suggests that it is important to have high attendance and a strong emphasis on having the parent's practice improved discipline techniques with the children.

The positive changes in the SFP participating children had an average Child Cluster Scale mean effect size of $d = .58$ compared to a smaller positive change in the national SFP norms of $d = .40$. This suggests considerably larger positive impact on the children than achieved by most agencies implementing this family skills training program. In the Washington, D.C. randomized control trial study of 715 families we did find significant improvements in the higher risk children in Overt Aggression except in those parents who had higher attendance levels (Gottfredson, et al., 2005).

Table12 CF! Children's Results Compared Florida Residential and Outpatient Drug Treatment SFP to SFP National Norms of 2,600 families as of January 2008 for All 18 Outcome Variables (Pre- to Posttest Means, SDs, Change Scores, Fs, p-values, and Effect Sizes for All Outcome Variables

Strengthening Family Program Evaluation										
Florida Tx Sites 372-377										
6 Groups 59 families Jan to Dec 07										
Outcome Analysis 1/08										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	ES _d	ES _{d'}
Concentration							2.30	0.13	0.00	0.06
National Sites	2649	3.09	0.73	3.55	0.68	0.46	2113.21	0.00	0.44	1.79
Florida Sites	55	3.27	0.68	3.84	0.58	0.57	101.13	0.00	0.65	2.74
CF! Sites	52	2.68	1.15	2.66	1.19	(0.02)	0.02	0.90	0.00	0.04
Covert Aggression							0.01	0.91	0.00	0.00
National Sites	2593	2.04	0.64	1.83	0.55	(0.22)	430.81	0.00	0.14	0.82
Florida Sites	55	2.00	0.60	1.78	0.53	(0.22)	17.89	0.00	0.25	1.15
CF! Sites	36	2.32	0.41	2.31	0.69	(0.01)	0.02	0.90	0.00	0.04
Criminal Behavior							0.17	0.68	0.00	0.02
National Sites	2538	1.12	0.41	1.09	0.37	(0.03)	16.78	0.00	0.01	0.16
Florida Sites	55	1.02	0.13	1.01	0.07	(0.01)	1.00	0.32	0.02	0.27

Depression								0.06	0.80	0.00	0.01
National Sites	2648	2.16	0.76	1.86	0.63	(0.30)	732.22	0.00	0.22	1.05	
Florida Sites	55	1.89	0.68	1.58	0.45	(0.32)	30.66	0.00	0.36	1.51	
CF! Sites	59	2.38	1.27	1.80	1.02	(0.58)	11.10	0.00	0.16	0.88	
Hyperactivity								2.36	0.12	0.00	0.06
National Sites	2565	2.67	0.89	2.67	0.88	(0.00)	0.02	0.90	0.00	0.01	
Florida Sites	55	2.70	1.03	2.58	0.96	(0.12)	2.47	0.12	0.04	0.43	
CF! Sites	31	2.84	0.89	3.45	0.78	0.61	18.05	0.00	0.38	1.55	
Overt Aggression								0.98	0.32	0.00	0.04
National Sites	2648	2.17	0.73	1.83	0.57	(0.33)	1011.77	0.00	0.28	1.24	
Florida Sites	55	2.11	0.68	1.70	0.51	(0.41)	49.49	0.00	0.48	1.91	
CF! Sites	58	2.33	0.98	2.87	1.08	0.54	15.79	0.00	0.22	1.05	
Social Skills								0.38	0.54	0.00	0.02
National Sites	2615	3.76	0.71	4.02	0.64	0.26	1039.16	0.00	0.28	1.26	
Florida Sites	56	3.96	0.66	4.25	0.52	0.29	41.54	0.00	0.43	1.74	
CF! Sites	36	3.27	0.52	3.55	0.43	0.28	8.30	0.01	0.19	0.97	
Child Cluster Scale								1.96	0.16	0.00	0.05
National Sites	2676	3.64	0.51	3.95	0.44	0.30	1765.94	0.00	0.40	1.63	
Florida Sites	56	3.78	0.49	4.15	0.38	0.37	76.88	0.00	0.58	2.36	

The positive changes in SFP participating children in Overt Aggression, such as lying, stealing, were larger for Covert Aggression or relational violence such as name calling, gossip, exclusion, which is much more characteristic of girls. The Effect Sizes of $d' = 1.91$ and $d = .48$ is much better than the average changes in the national database of Effect Size $d' = 1.24$ or $d = .28$.

The lack of positive changes of the same magnitude in CF! and the four negative changes are concerning. The reasons should be explored since the comparison groups also involved children of drug abusers in treatment where positive results were found for SFP but not CF!

Overall Table of CF! vs SFP Florida and NJ Sites Outcomes

The following is the overall table with all the results for CF! and SFP comparison groups in NJ and Florida.

TABLE 13: Celebrating Families! Evaluation Year 2006-07										
Analysis of CF! vs. SFP Groups for Addicted Parents										
May-07										
Scale Name	Sample	Pre-Test	SD	Post-Test	SD	Change	F	sig	EF (d)	EF (d')

Positive Parenting							20.16	0.00	0.12	0.72
SFP Sites	100	4.28	0.66	4.75	0.41	0.46	54.37	0.00	0.35	1.48
CFI Sites	57	3.70	1.01	4.73	0.44	1.03	67.25	0.00	0.55	2.19
Parental Involvement							12.89	0.00	0.08	0.59
SFP Sites	99	3.96	0.77	4.53	0.53	0.57	72.54	0.00	0.43	1.72
CFI Sites	53	2.99	1.29	4.08	1.03	1.08	50.98	0.00	0.50	1.98
SFP Parenting Skills							0.58	0.45	0.00	0.12
SFP Sites	100	2.59	0.54	2.90	0.49	0.31	47.60	0.00	0.32	1.39
CFI Sites	61	2.87	0.84	3.26	0.83	0.39	13.19	0.00	0.18	0.94
Family Organization							0.52	0.47	0.00	0.12
SFP Sites	99	3.03	0.92	4.14	0.71	1.10	186.50	0.00	0.66	2.76
CFI Sites	59	2.62	1.01	3.83	0.89	1.20	104.02	0.00	0.64	2.68
Family Cohesion							25.18	0.00	0.14	0.81
SFP Sites	99	4.12	0.73	4.61	0.54	0.48	56.70	0.00	0.37	1.52
CFI Sites	56	3.46	1.16	4.67	0.52	1.21	60.21	0.00	0.52	2.09
Communication							8.11	0.00	0.05	0.45
SFP Sites	100	3.57	0.68	4.39	0.47	0.82	184.61	0.00	0.65	2.73
CFI Sites	61	3.01	0.87	4.16	0.70	1.15	109.35	0.00	0.65	2.70
Parental Supervision							9.14	0.00	0.06	0.48
SFP Sites	99	3.51	0.71	4.04	0.45	0.53	72.93	0.00	0.43	1.73
CFI Sites	59	3.31	0.93	4.17	0.51	0.85	82.25	0.00	0.59	2.38
Parenting Efficacy							17.12	0.00	0.10	0.66
SFP Sites	99	3.74	0.77	4.38	0.57	0.64	91.31	0.00	0.48	1.93
CFI Sites	62	3.11	1.06	4.28	0.56	1.17	91.42	0.00	0.60	2.45
Family Conflict							3.96	0.05	0.03	0.33

SFP Sites	99	2.67	0.41	2.73	0.43	0.06	2.11	0.15	0.02	0.29
<i>CF!</i> Sites	51	2.62	0.83	2.84	0.94	0.22	8.62	0.01	0.15	0.83
Parent Alcohol & Drug Use							12.11	0.00	0.07	0.56
SFP Sites	99	1.96	0.71	1.61	0.52	(0.35)	32.47	0.00	0.25	1.15
<i>CF!</i> Sites	60	2.53	0.83	1.80	0.79	(0.73)	61.55	0.00	0.51	2.04
Overall Family Strengths/Resilience							23.01	0.00	0.13	0.76
SFP Sites	98	3.78	0.76	4.52	0.50	0.74	145.97	0.00	0.60	2.45
<i>CF!</i> Sites	62	3.08	0.82	4.38	0.53	1.30	139.94	0.00	0.70	3.03
Overt Aggression							28.86	0.00	0.16	0.86
SFP Sites	100	2.00	0.69	1.85	0.53	(0.15)	6.54	0.01	0.06	0.51
<i>CF!</i> Sites	58	2.33	0.98	2.87	1.08	0.54	15.79	0.00	0.22	1.05
Covert Aggression							3.29	0.07	0.02	0.32
SFP Sites	98	1.96	0.60	1.75	0.52	(0.21)	14.43	0.00	0.13	0.77
<i>CF!</i> Sites	36	2.32	0.41	2.31	0.69	(0.01)	0.02	0.90	0.00	0.04
Concentration Problems							15.94	0.00	0.10	0.65
SFP Sites	100	3.09	0.76	3.64	0.69	0.55	106.89	0.00	0.52	2.08
<i>CF!</i> Sites	52	2.68	1.15	2.66	1.19	(0.02)	0.02	0.90	0.00	0.04
Criminal Behavior							1.64	0.20	0.01	0.23
SFP Sites	97	1.05	0.29	1.06	0.37	0.01	0.05	0.83	0.00	0.04
<i>CF!</i> Sites	32	2.69	0.76	2.83	0.69	0.14	1.94	0.17	0.06	0.50
Hyperactivity							14.70	0.00	0.10	0.68
SFP Sites	98	2.49	1.00	2.42	0.90	(0.07)	0.56	0.46	0.01	0.15
<i>CF!</i> Sites	31	2.84	0.89	3.45	0.78	0.61	18.05	0.00	0.38	1.55
Social Skills							0.58	0.45	0.00	0.13
SFP Sites	98	3.81	0.73	4.17	0.65	0.36	40.05	0.00	0.29	1.29
<i>CF!</i> Sites	36	3.27	0.52	3.55	0.43	0.28	8.30	0.01	0.19	0.97

Child Depression							3.32	0.07	0.02	0.29
SFP Sites	100	2.00	0.81	1.70	0.63	(0.30)	26.82	0.00	0.21	1.04
CF! Sites	59	2.38	1.27	1.80	1.02	(0.58)	11.10	0.00	0.16	0.88

Conclusion

Summary of *CF!* Outcomes

The main finding of the process evaluation is that *CF!* can be implemented with quality and fidelity in community agencies. The outcome evaluation on 62 families suggests positive medium size (Cohen's $d = .52$ to $.70$) improvements in four of the five family outcomes (cohesion, communication, family strengths and resilience and organization) measured and one small positive reduction in family conflict ($d = .15$). Likewise, four of the five parenting outcomes (parent involvement, supervision, efficacy, and positive parenting style) improved with medium effect size ($d = .50$ to $.60$), but parenting skills only had a small positive improvement ($d = .18$). These are excellent outcomes equivalent to other family skills training programs such as SFP and in some cases larger.

As mentioned in the summary of the *CF!* outcomes, the children's posttest outcomes were mixed small changes (two positive, two negative) with three outcomes with no significant changes. The two small positive results were for improvements in children's social skills ($d = .19$) and depression ($d = .16$). The two statistically significant negative results in the children's outcomes were for increased hyperactivity ($d = .38$) and overt aggression ($d = .22$). The results for the other three outcomes (improved concentration, covert aggression, and criminality) were non-significant changes with effect sizes close to zero ($d = .00$ to $.02$).

Because of the lack of implementation of the comparison program proposed in the Lucille Packard Foundation grant by the agencies already doing *CF!*, the results for *CF!* were compared to similar drug treatment sites in the national database for the proposed comparison program--the more well-known evidence-based program, Strengthening Families Program (SFP). *CF!* compared favorably in parenting and family outcomes, except in the area of the children's outcomes. The reasons for these negative changes should be explored as they are not typical of similar programs.

For a newly developed program, these results are excellent and very promising for replication of the program in other sites with similar populations of parents in early recovery to help reduce child maltreatment in the children. The lack of permission to access to the archival social services data by this Year 2 report, did not allow for any of the proposed measurement of improved child welfare status in terms of reduced days to reunification or decreased child abuse reports in these families.

Overall, the families appeared to really enjoy the program and to benefit dramatically despite their struggles with recovery. The children were very hopeful of positive changes and really encouraged their parents (step parents), caregivers and grand parents to attend the program.

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