

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/346495650>

ONLINE ADAPTATION OF A FAMILY-BASED INTERVENTION 1 The Online Adaptation and Outcomes of a Family-Based Intervention Addressing Substance Use Disorders

Article in *Research on Social Work Practice* · November 2020

DOI: 10.1177/1049731520975860

CITATIONS

0

READS

28

2 authors:

 Edward Cohen
San Jose State University

44 PUBLICATIONS 268 CITATIONS

[SEE PROFILE](#)



Rosemary Tisch
Prevention Partnership International

4 PUBLICATIONS 12 CITATIONS

[SEE PROFILE](#)

**The Online Adaptation and Outcomes of a Family-Based Intervention Addressing
Substance Use Disorders**

Edward Cohen¹
Rosemary Tisch²

¹Edward Cohen
School of Social Work, San José State University

²Rosemary Tisch
Prevention Partnership International

Keywords: child welfare, child abuse, prevention, substance abuse, parent training

Author Note

Edward Cohen <https://orcid.org/0000-0001-7293-3182>

We have no conflicts of interest to declare.

Correspondence about this article should be addressed to Edward Cohen, Ph.D., Professor, San José State University #0124, San José, California 95192. Email: edward.cohen@sjsu.edu
Phone: 510-847-6407

Acknowledgements

The study was supported by a “Research, Scholarship, and Creative Activities Grant” from San José State University. The authors would like to acknowledge and thank the staff and managers of Uplift Family Services for supporting this study, and the families who participated in this study.

Citation:

Cohen, E. & Tisch, R. (2020). The online adaptation and outcomes of a family-based intervention addressing substance use disorders. *Research on Social Work Practice*, Online First. DOI: <https://doi.org/10.1177/1049731520975860>

Abstract

Purpose: This paper compares outcomes of a family-based prevention program from its original in-person mode to an online mode in response to the COVID-19 pandemic. *Celebrating Families!*TM (CF!) is designed to improve parenting skills, family functioning, and family relationships to break the cycle of substance use problems.

Method: This mixed-methods, quasi-experimental study compared outcomes of in-person and online treatment conditions, and content analysis of open-ended responses to a satisfaction survey.

Results: Both groups showed improvement in outcomes, with moderate effect sizes and high satisfaction. Average scores of the online groups were generally lower than the in-person scores. Qualitative data yielded participants' accounts of improvements in parenting behaviors, family relationships, coping skills and knowledge insights.

Conclusions: Despite the contexts of COVID-19, findings provided evidence that such relational group interventions can be feasibly administered online and can effect changes required to break the cycle of substance use problems and adverse family experiences.

The Online Adaptation and Outcomes of a Family-Based Intervention Addressing Substance Use Disorders

This paper describes the adaptation of a family-based intervention from its original in-person mode to an online (virtual) mode. The study concerns outcomes from recent cohorts of an online implementation of a family-based prevention program, *Celebrating Families!*[™] (*CF!*), and a comparison of outcomes to those from the in-person version of *CF!*. *CF!* is a family-centered practice designed to improve parenting skills, family functioning, and family relationships in the effort to break the cycle of inter-generational adverse experiences and substance use problems (Sparks & Tisch, 2018). The implementation of the online program was a direct response to the contingencies of the COVID-19 pandemic.

Social Work, COVID-19, and Online Practice

The COVID-19 pandemic has brought challenges to every field of the health and human services. From the perspective of social work, according to early reports the pandemic and the policies designed to limit the virus's spread are resulting in an increased prevalence of stress-related alcohol and drug use (Neill et al., 2020), mental health symptoms (Twenge & Joiner, 2020), and in at least one large urban hospital clinic, evidence of increased child maltreatment (Sidpra, Abomeli, Hameed, Baker, & Mankad, 2020). If anything, the pandemic has increased the need for social work services.

However, because of many regions' social-distancing requirements in place at the time of this writing, social and human service agencies are re-tooling their services for delivery in online modes due to the unpredictability of infection rates and corresponding local health policies which have resulted in the closure of many service sites. Even when in-person meetings are eventually allowed it may be infeasible to arrange group meetings without costly modifications to space and logistics. The provision of online services presents both pros and cons for social work practice. "Telesocialwork" can provide access for rural populations who live too far to travel to clinics, and can even reduce barriers to engagement resulting from shame and stigma (Bryant, Garnham, Tedmanson, & Diamandi, 2018; Kleykamp, Guille, Barth, & McClure, 2020). Although many clinical issues are similar in both in-person and online modes, there are some differences, and some drawbacks to online social work services. Among the many ethical issues for social workers brought by the pandemic, Banks et al. (2020) note that relationships are much harder to maintain with distance communication, which in turn would be detrimental to maintaining trusting and empathic relationships with clients. In addition, the limitation of services to online modes excludes those with fewer technological resources such as computers and reliable internet connectivity. Families with limited space in their homes also may have difficulty having private conversations, limiting the ability of social workers to conduct comprehensive assessments and intervene accordingly.

While telehealth has been widely adopted in medicine, its use in psychotherapeutic services is in the early stages, although there is a growing literature about its application to psychiatric services. One paper reviewed 70 studies of telemedicine applied to psychiatry, and noted its convenience, cost effectiveness, and success in outcomes (Hilty et al., 2013). Online psychological services have both benefits (convenience, cost, and accessibility) and risks (inequitable distribution of technology, difficulty perceiving subtle body cues, exposure of private health information), although some experts view telehealth as increasing its scope and spread in the human and behavioral health services even beyond the pandemic (Wilser, 2020).

One can assume the spread of telehealth will also apply to non-psychiatric social services, so there is a need for research in the implementation, processes, and outcomes of adapting these social services originally designed for in-person interaction, such as group interventions with families, to an online mode.

Outcomes of Online vs. In-Person Family-Based Programs

Given the rise of online social services, an important concern is whether the quality of online services is on par with those offered in person. There are few evaluations of online family-based programs similar to the one studied here – most parenting programs used pre-recorded, self-paced content and/or were only partially synchronous (i.e. live facilitation and family interaction). One evaluation of a similar program to *CF!* concerns Triple P (Positive Parenting Program), which was developed to help promote caring relationships and help parents respond more effectively to their child's emotional problems and common developmental issues (Sanders, Turner, & McWilliam, 2016). The intervention is delivered in one of five levels of intensity, ranging from broad community education to the most intensive family intervention. The levels also differ as to the extent to which parents participate in groups vs. individually. The more intensive levels (four and five) use a combination of group and individual family work.

A version of a level four intervention was adapted to an online teleconferencing mode in rural Kentucky and evaluated (Reese, Slone, Soares, & Sprang, 2015). Facilitators recruited parents to attend in-person meetings for the 8-week cycles at either a hospital or in public school offices, while the content was facilitated via videoconferencing which also linked parents in the sites to each other. Outcome measures included the Child Behavior Checklist, a 30-item Parenting Scale, the Parent Problem Checklist, the Relationship Quality Index, and the Depression Anxiety Stress Scale-21. Improvement scores were then compared to benchmark improvements scores from previous Triple P in-person classes. Most of the videoconferencing improvement scores showed at least medium effect size and were similar to the in-person class scores, with a few exceptions – the videoconferencing had smaller effects than in-person classes on parenting stress and relationship satisfaction. Parents reported being generally satisfied with the videoconferencing format and appreciated the convenience, but some parents missed the in-person interaction (i.e. noting the loss of subtlety for humor) and found difficulties with the functioning of the technology. Some commented, for example, that the lack of in-person interaction made it more awkward to speak freely without having the personal cues to avoid talking over each other.

A systematic review of “digital” delivery methods compared the experiences of nine parent training interventions (Breitenstein, Gross, & Christophersen, 2014). These interventions were delivered primarily as self-paced modules via CD ROM or internet content, although several interventions had some type of weekly coaching or other communication components with minimal or no group interaction between families. Of the four studies reporting outcomes, the effect sizes of improvement were generally comparable in relation to meta-analyses of in-person parenting interventions. Eight of the studies used various methods to collect dose information. The data suggested that digital methods had better completion rates of the programs compared to in-person modes.

Another study examined the real-time provision of Parent Child Interaction Therapy (PCIT), a parent training program for families with very young children (Comer et al., 2017). Although not a group intervention, the study was included in this review since it is one of the few published parent training evaluations where the intervention was fully synchronous and

delivered to the family's home rather than a clinic setting. Forty families were randomly assigned to in-person clinic visits or internet-delivered services (I-PCIT). While both conditions showed similarly moderate to large effect sizes for improvements in diagnostic outcomes, child symptoms, and impairment, the I-PCIT group showed more sustained response to treatment in follow up studies. In addition, parents in the I-PCIT group reported fewer barriers to treatment than those in the clinic group.

The *Celebrating Families!*TM Program

CF! is one of several interventions designed to improve parenting skills and family functioning, particularly for families with children of all ages and those involved with child welfare. Such interventions use group meetings with families to focus on parenting skills, family relationships, problem solving, emotional regulation, psycho-education, and future orientation, among other components (Van Ryzin & Fosco, 2016). *CF!* is unique among these interventions in its central focus on substance use disorders – families referred to *CF!* have at least one parent with identified substance use problems that are either implicated in an adjudicated child abuse or neglect incident, or are suspected to put the family at-risk for future incidents. Substance use problems are highly prevalent in families involved with child welfare (Wulczyn, 2018). When children are placed into out-of-home care as a result of abuse or neglect, those children with parents who abuse drugs stay longer in placement than those whose parents do not abuse drugs (Brook, McDonald, Gregoire, Press, & Hindman, 2010). Substance use problems are also implicated in numerous risk factors affecting family relationships, child rearing, mental health, and family violence (Lamb & O'Farrell, 2011). They are often transmitted across generations, and linked to other types of subsequent generational adverse experiences (Bailey, Hill, Oesterle, & Hawkins, 2009).

CF! was first developed in 2003 as a pilot program for the juvenile dependency court in Santa Clara County, California (National Association for Children of Addiction, 2019). The manualized curriculum of the 3-4 month intervention was written primarily by professionals in recovery from substance use disorders, distinguishing the intervention from other family-based prevention programs, and it incorporates the latest evidence in alcohol/drug dependence, adverse childhood events, trauma-informed care, improvement of resiliencies, and harm reduction approaches. *CF!* has been implemented in nearly 40 states in the U.S., at least two Indian tribal authority sites, and two sites in Canada. These sites include residential treatment, multi-service child and family agencies, outpatient behavioral health clinics, and county-run services. An evaluation of *CF!* with child welfare populations (Brook, Akin, Lloyd, & Yan, 2015) showed positive outcomes in terms of reunifying children and parents from whom custody was removed by the court due to child abuse and neglect. An evaluation of outcomes from *CF!* in a residential treatment setting (Zweben, Cohen, Chapman, & Lamb, 2015) found improvements in family protective factors and reduction of harmful substance use.

The intervention uses relational, cognitive behavioral, experiential, and role modeling methods that include all family members – parents, other caregivers, children, and youth -- in order to achieve outcomes in parenting skills and other family protective factors, by incorporating practices that have been shown to be effective in parenting training interventions, such as intensive engagement strategies, concurrent parent/child components, separate breakout groups for children and youth, family homework, parent education, and cultural adaptation, among others (Barth, 2009; Temcheff, Letarte, Boutin, & Marcil, 2018). Important curricular foci include emotional regulation, parenting skills, building family strengths, safety in the home,

healthy living, facts about alcohol and drugs, strategies for recovery, affirming individual and family worth, and other topics. There are versions of *CF!* for families with children ages 0-3, 4-7, and 8-17 (National Association for Children of Addiction, 2019), and each version contains developmentally-tailored content. The curricular material was developed to communicate content in very practical terms, specifically to be meaningful to a wide range of participants' intellectual abilities and experiences with formal treatment, making it ideal as an engagement strategy for those adults who would not otherwise engage with treatment services and those in the early stages of recovery. The curriculum has also been fully translated and implemented in Spanish. *CF!* facilitators are licensed or paraprofessional counselors who have a special interest in child and family work; some facilitators are also in recovery themselves. The required three-day training is intensive and covers the detailed week-to-week curriculum. Fidelity of implementation is measured via observation and quantitative scoring.

The adaptation of the *CF!* legacy curriculum to online classes was not planned prior to the pandemic, requiring a rapid development process. The process of re-tooling the curriculum followed a similar pattern to the early development of the program. Program developers worked closely with provider sites and trainers to discuss adaptations of the curriculum and processes, with the intention of retaining as many of the curricular topics as possible. The development process was an iterative one, in that developers and providers learned from each other as online classes were planned and implemented. There was, and continues to be, experimentation about curriculum adaptations, as well as the surfacing of unique innovations that will likely inform the curriculum moving forward. The program has developed new versions of training material specifically targeting online implementation.

Given the highly relational focus of the legacy *CF!* curriculum and the need for more research on the general adaptation of family-based interventions to online modes, the research questions for our study are: 1) How do both the in-person and online versions of *CF!* fare in achieving important outcomes? We hypothesized that the program's focus on curriculum that address the measures' dimensions of parenting skills, family strengths, and parental self-efficacy will result in improved outcomes for both the in-person and online classes. 2) How do the outcomes of the online and in-person modes of *CF!* compare? We were unsure about the comparability of the online mode to in-person outcomes, but due to the preparation in adapting the curriculum, we tentatively expected the online program to perform at least as well as the in-person mode. 3) Were parents satisfied with the online version of *CF!*, and what do participants say about *CF!* ?

Method

Research Design

This mixed-methods study utilized a quasi-experimental two-group design with a treatment group of online participants and a non-matched comparison group of in-person participants illustrated as:

$O_1 \times O_2$

$O_1 \quad O_2$

The in-person groups preceded the implementation of the online groups.

The qualitative component of the study involved analysis of responses to open-ended questions from a satisfaction survey. The purpose of the qualitative component was to provide depth of information from the voices of families, and the Satisfaction Questionnaire as described below provided an opportunity to do that. We used a descriptive approach using content analysis

as described in the Analysis Plan. We consider this a sequential mixed methods design in that we first analyzed the quantitative data and then used the qualitative data to reflect back on those findings.

Study Site and Participants

All groups were conducted by Uplift Family Services, a multi-service child and family agency in Santa Clara County, a large California county characterized by both urban and rural areas. Families were referred by the county Department of Family and Children's Services. All families in both the in-person and online groups had been either referred to, or investigated by, children's protective services for child abuse and/or neglect, and all families having at least one parent or guardian who has a substance use problem. For many of the families, completion of *CFI* was a court ordered requirement. There were 41 participants in four online cohorts between March and May, 2020. The 58 participants of the in-person groups received services in five cohorts from January 2017 through June 2018.

Since implementation of the online version was not anticipated, it was not possible to either randomly assign families to the groups, nor to match the groups in the two treatment conditions on family characteristics prior to gathering data. Table 1 shows the comparison of the groups on parent respondents' ethnicity, gender, primary language, and average age. There were no statistical differences between the two treatment conditions in any of the descriptive statistics

Table 1.
Descriptive Statistics of In Person vs. Online Treatment Conditions

Participant characteristics	In Person	Online	χ^2 or t
	Total (%)	Total (%)	
Ethnicity			7.35
African-American	1 (2%)	1 (2%)	
LatinX	37 (64%)	28 (68%)	
Caucasian	13 (22%)	8 (20%)	
Asian (Indian=1; Vietnamese=1; non-specific Asian=3; Filipino=2)	3 (5%)	4 (10%)	
Not stated	4 (7%)	0	
Gender			0.30
Male	21 (36%)	17 (41%)	
Female	35 (60%)	23 (56%)	
Not stated	2 (3%)	2 (5%)	
Primary language			0.07
English	34 (59%)	28 (68%)	
Spanish	14 (24%)	13 (32%)	
Not stated	10 (17%)	0	
Average age (SD)	34 (6.99)	41 (6.64)	-1.71

Measures

One important criterion for choosing and developing measures for the *CF!* evaluation was that to mirror the intent and spirit of the intervention, scales should not be deficit-based (such as measuring symptoms or diagnostic criteria) but instead focus on pro-social, resiliency-related goals. In addition, whenever possible survey items should also reflect the recovery-oriented and strengths-based language of *CF!* In the treatment of substance use disorders which are fraught with stigma, language matters since from the client's perspective the language used to describe the problem represents self-image and, hence, the client's attitudes about recovery (Brown, McDaniel, Johnson, & Ashford, 2020). One of the cognitive behavioral strategies in treatment is to socialize clients to use new language that encourages healing and recovery. Program developers and researchers agreed that the evaluation instruments should reflect this.

Measures for the quantitative outcomes study consisted of scales adapted from a previously developed battery for a similar parenting training program – *Strengthening Families*, a 14-session group prevention program for similar populations as *CF!* (Kumpfer, Whiteside, Greene, & Allen, 2010). The various scales in this battery, based on standardized core measures from the Center for Substance Abuse Prevention and the National Institute of Drug Abuse, were found to be valid and sensitive to positive changes in family variables.

In pilot studies with early in-person cohorts for *CF!*, the original version of this instrument proved to be too lengthy to administer considering that the intervention classes were already quite demanding of families' time. Researchers and program developers collaborated on a revision with the goal of reducing the length of the instrument while retaining the important dimensions of the original instrument, and through a process of consensus eliminated items that were redundant based on face validity. The revision of the instrument resulted in reducing the total number of items from 165 to 60. This revised instrument was used in this study.

The components of the revised battery included 1) a Parenting Scale; 2) a Family Strengths and Resiliencies Scale; 3) a Self-Assessment of Parenting Skills; 4) "Learning from *Celebrating Families!*" (a set of questions specifically addressing *CF!* curriculum); and 5) the *Celebrating Families!* Satisfaction Questionnaire.

The Parenting Scale includes 17 items covering domains of family relationships, parenting skills, child resiliencies, and parent alcohol and drug use. An example question is "I am able to speak in a calm voice when my child misbehaves." The original scale used a five-point Likert scale (Never, Almost never, Sometimes, Often, Almost always) however during the pilot study the instrument was modified to a four-point scale (Never, Almost never, Sometimes, Almost always) after an analysis of English-Spanish equivalency; the Spanish translation of "sometimes" and "often" were too close in meaning to Spanish speakers. The Parenting Scale showed good internal consistency reliability with Cronbach's alpha scores of 0.81 for the pre-test responses, and 0.86 for the post-test responses.

The Family Strengths and Resiliencies Scale asks respondents to answer the question "How much strength would you say your family had in each of these areas...?" The scale consists of 12 items addressing various indicators of family wellness, including relationships, communication, social networking, spirituality, and supportiveness. This also uses a four-point response scale (None or little strength, Some strength, Good strength, Very strong). An example item is "Positive Family Communication (clear directions, rules, praise)." The pre-test responses of the Family Strengths and Resiliencies Scale showed good internal consistency reliability with a Cronbach's alpha of 0.91, and the post-test responses showed reasonably good internal consistency reliability with a Cronbach's alpha of 0.72.

The Self-Assessment of Parenting Skills scale asks respondents to rate “How often are you good at” for 20 items, such as “Solving problems” (Never, Almost never, Sometimes, Almost always). Pre-test responses of this scale showed a Cronbach’s alpha of 0.88, and the post-test responses showed a Cronbach’s alpha of 0.81.

“Learning from *Celebrating Families!*” asks respondents to rate “How often would you say that each of these happen?” There are nine items, such as “I understand my child’s feelings and needs and respond appropriately” (Never, Almost never, Sometimes, Almost always). Pre-test responses showed a Cronbach’s alpha of 0.89, and post-test responses showed a Cronbach’s alpha of 0.78. This instrument was not yet available to the earlier in-person classes; the analysis included only data from the online classes.

Higher scores on all scales indicate positive outcomes. For each of these scales, responses were totaled for both the pre- and post-test measurements. Adjusted totals were calculated by dividing each respondent’s total scale score by the number of completed answers for each scale, since there were a small number of missing answers in responses. These responses were missing at random – there was no duplication of missing items across respondents or any discernible pattern. Total scores also had to be adjusted because seven questions of the Parenting Scale were not suitable for parents of a child under age five, such as items related to talking about issues or rewarding chores. (Parents were instructed to identify a reference child before completing the survey; if the child was younger than five, they were instructed to skip the first seven questions.)

The *Celebrating Families!* Satisfaction Questionnaire includes seven Likert scaled items written expressly for *CF!*. An example item is “Learned useful things that I can use at home.” (Strongly disagree, Disagree, Neutral, Agree, Strongly agree, Does not apply). Responses to these seven items showed good internal consistency reliability with a Cronbach’s alpha of 0.90.

In addition, the questionnaire asks five open-ended questions. The responses to the open-ended questions were analyzed for the qualitative component of the study. These questions are: 1) What are the two most important things you learned? 2) What are the two most important things your children learned? 3. What will you always remember from the parents/caregivers group? 4) What will you always remember from *Celebrating Families!*TM? 5) What would you change about *Celebrating Families!*TM?

Study Procedures

Treatment Conditions

In-person sessions, which were held at the Uplift Family Services offices in the evening, lasted up to three hours. Each of the 16 week sessions began with an agency-hosted dinner. The meal is designed to not only welcome families, but also to encourage group interaction and practice parent-child communication skills during meals. After dinner the children or youth were escorted to breakout groups while parents had instruction, guided exercises, and group discussion about the topic of the week. The child or youth groups also addressed the same topic in age-appropriate exercises or discussion. Children/youth and parents were then brought together in the large group for a structured activity designed to reinforce the weekly topic and encourage group cohesion.

Online sessions were fully synchronous classes with remote facilitators, using a fully secure and encrypted webinar product to allow interaction among all participants from their homes and also allow online breakout groups. The online sessions lasted up to 90 minutes—shortened from the length of in person classes to adapt to the online environment and its demands on participants. The structure of the classes differed from in-person classes since the

agency-hosted dinner was infeasible. In its place, the families were encouraged to have their own meal with suggested discussion questions provided by the facilitator about a weekly topic. In a recent national training webinar, another agency implementing the online program, the Sherwood Valley Band of Pomo Indians in California, described piloting a shared online meal with food delivered to the homes by the agency (Antoinette Ascencio, Personal Communication, July 9, 2020). Facilitating a breakout group at home required special logistical planning in order to maximize privacy and minimize distractions. This required orientation of families about online privacy and unique procedures to safeguard individuals, such as older children and adolescents being given a code word to indicate that they pass on discussing a sensitive topic that they do not want others at home to hear.

Evaluation Procedures

Evaluation procedures required the collection of pre- and post-test responses for all scales except the satisfaction questionnaire. All instruments were administered for self-response by one adult per family (families with two adults attending the class completed the survey together). The surveys took approximately 30 minutes to complete. During the last or next to last session of the cycle, respondents were asked to think about an answer for each item prior to *CF!* and then again for the current time. This method of “retrospective pre- and post-test” surveys was chosen since formal pre-test surveys are often infeasible with a population who, at the beginning of such court-ordered interventions, are not trusting of treatment providers nor of evaluation surveys. From a study of a similar family group intervention, *Strengthening Families*, the use of retrospective recall was found to result in more valid and honest response than the real-time pre-test, after trust with the program has been established (Kumpfer et al., 2010). However, there still exist reliability concerns with either method – effects of the aforementioned lack of trust at the beginning of the classes (and possibly social desirability bias), and potential memory bias, social desirability bias, or acquiescent response set bias with the retrospective responses. A more recent study of *Strengthening Families* comparing prospective to retrospective pre-test approaches found that although both approaches were similar in terms of statistically significant change, the effect sizes of change scores from the retrospective approach were higher (Brook, Akin, Lloyd, Bhattarai, & McDonald, 2016).

To test this with part of our sample, during the in-person groups we collected pre-test-only data in week two of one class cycle (N=15) to compare with the retrospective pre-test data gathered later at week 15. With this sample, there were no statistically significant changes in outcomes from prospective pre-test to post-test, while the retrospective method yielded both statistically significant change as well as medium to large effects sizes for the change scores. Since the retrospective method was used for all other class cycles, we used the retrospective pre-test data from both treatment conditions in this study.

The study procedures and informed consent were approved by The Institutional Review Board at San José State University.

Analysis Plan

For each scale of the battery, a repeated measures ANOVA was used to test the hypotheses of within-group improvement over time in both the in-person and online groups, and between-group similarity of the in-person and online groups’ outcomes. (Since the “Learning from Celebrating Families!” scale was not available to the earlier in-person classes, the change in this scale from pre- to post- for the online mode was analyzed using a paired-samples *t*-test.) Alpha was initially set at .05. A Bonferroni adjustment was made to the repeated measures

ANOVA confidence intervals. Effect size was calculated as partial η^2 which is similar to an R^2 in showing the variance in the dependent variable accounted for by the groups in the categorical independent variable. According to Verma (2016) a partial η^2 up to .20 is considered a small effect, .50 is considered a moderate effect, and .80 is the threshold for a large effect. We analyzed the data using IBM SPSS version 25.

For the Likert scale questions on the satisfaction scale, we reported the frequency and percentage of respondents who answered “Agree” or higher. For analyzing brief responses to the open-ended questions, we used a simplified form of summative content analysis suggested by Hsieh and Shannon (2005) which explores latent meaning in keywords. We chose this method considering that the analysis text consisted of short answer responses, rather than lengthier text such as in interview transcripts. Our analysis involved creating a spreadsheet of all responses for each survey question; we transcribed the complete statements by respondents onto the spreadsheet. We then searched for and coded shared keywords across all responses to the survey questions, and summarized the main thematic areas of the shared keyword phrases. This also involved organizing sub-themes and combining redundant codes, creating multiple tabs in the spreadsheet for each sub-theme, and moving representative quotes to their respective thematic areas. The two co-authors reviewed the draft themes to achieve consensus on the final set, which provided the sub-sections of the results section for the qualitative component. Once the main thematic areas were developed, we kept the integrity of the original short-answer quotes when using them to illustrate the main thematic areas in the Results section. We integrated quotes into our own interpretation of themes, since the quotes were quite concrete examples of the thematic areas. In the Discussion we used the qualitative themes to reflect back on the quantitative findings.

Results

The program’s measure for full program completion was to have attended at least 13 out of 16 classes. The completion rate for the in-person classes was 90%. For the online classes the completion rate was higher – all but one family (97%) completed the program.

Within-Groups Results

The means, standard deviations, and 95% confidence intervals of the pre- and post-tests for all three scales are shown in Table 2. Visual inspection shows that there were improvements over time in all scales.

Table 2.
Means, Standard Deviations, and Confidence Intervals of Scales

Scale	In-person (N = 58)				Online (N = 41)			
	Pre		Post		Pre		Post	
	<i>M</i> (SD)	95% CI	<i>M</i> (SD)	95% CI	<i>M</i> (SD)	95% CI	<i>M</i> (SD)	95% CI
Parenting Scale	3.88 (0.67)	[3.68, 4.05]	4.41 (0.38)	[4.30, 4.51]	2.96 (0.48)	[2.78, 3.55]	3.75 (0.25)	[3.65, 3.84]
Family Strengths & Resiliencies	2.71 (0.84)	[2.42, 2.94]	3.68 (0.51)	[3.48, 3.79]	2.57 (0.74)	[2.59, 2.85]	3.63 (0.47)	[3.45, 3.81]
Self - Assessment of Parenting Skills	3.10 (0.93)	[2.80, 3.40]	4.40 (0.61)	[4.22, 4.59]	2.53 (0.63)	[2.29, 2.77]	3.79 (0.23)	[3.70, 3.87]
Learning from <i>Celebrating Families!</i> ^a					2.63 (0.80)	[2.30, 2.96]	3.78 (0.30)	[3.65, 3.90]

^aThe “Learning from *Celebrating Families!* Scale” was unavailable for in-person classes. The difference in online classes between pre- and post-test means was statistically significant, $t(24) = 6.76, p < .001, 95\% \text{ CI } [0.80, 1.50], d = 1.74$.

Table 3 shows the within-groups findings (the effect of time and the interaction of time by group). Our first hypothesis, that outcomes will have improved for both in-person and online modes, was supported. The repeated measures ANOVA showed that both the in-person and online classes had improved outcomes in all three scales, i.e. the effect of time was statistically significant and showed moderate effect sizes for all three measures. The lack of an interaction of group by time for the Family Strengths and Resiliencies Scale and the Self-Assessment of Parenting Skills means that the change over time followed a similar trend for both groups. This is confirmed in Figure 1 with the plots of the pre- and post-test change over time. The interaction of group by time for the Parenting Scale just approached statistical significance, however the effect size of the interaction is trivial, indicating the two groups are more similar than different, as shown in Figure 1.

Table 3*Repeated Measures ANOVA, Within- and Between-Subjects Effects*

Scale	<i>F</i>	<i>df</i>	Partial η^2	Effect
Parenting Scale	110.87**	1	.58	T
	68.77**	1	.46	G
	3.97*	1	.05	GxT
Family Strengths & Resiliencies	97.80**	1	.58	T
	0.60	1	.01	G
	0.23	1	.003	GxT
Self -Assessment of Parenting Skills	178.46**	1	.72	T
	23.46**	1	.26	G
	0.04	1	.001	GxT

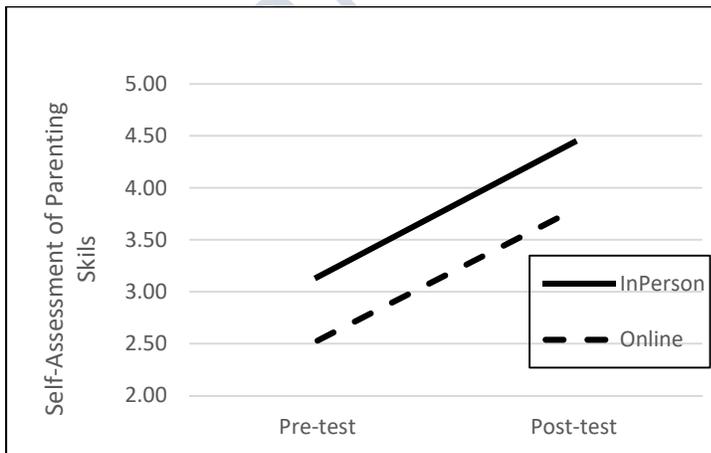
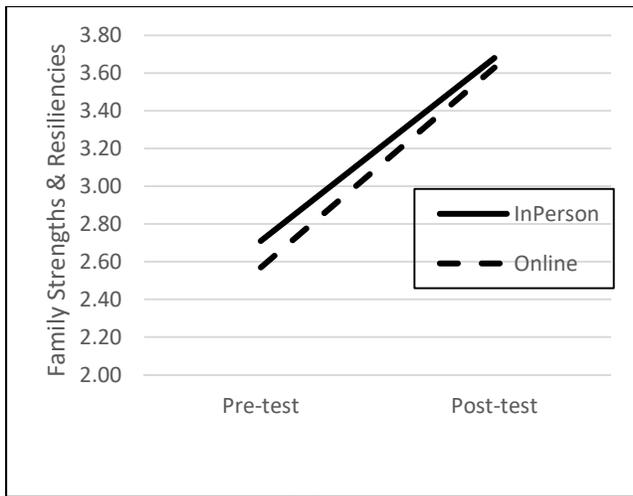
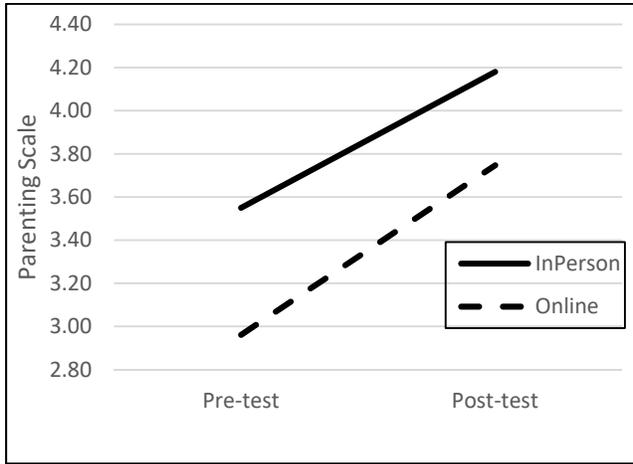
Note: *df* = degrees of freedom. T = Time. G = Group

**p* = .05

***p* < .001

Figure 1

Pre- post- change in Parenting Scale, Family Strengths and Resiliencies, and Self-Assessment of Parenting Skills



Between Groups Results

The main effect of group assignment is also shown in Table 3. Our expectation for research question #2, that the two groups' outcomes would be similar, was not supported. The two groups' average scale scores differed statistically in the Parenting Scale and Self-Assessment of Parenting Skills – the online scores were lower. For the Family Strengths and Resiliencies Scale, the plot in Figure also shows that the online scores are lower, but the difference was not statistically significant.

Parent Satisfaction and Learning from *CF!*

What do participants say about their experiences with the online version of *CF!*? Responses to the Likert scale satisfaction questions were uniformly positive in both the in-person and online groups. For each of the seven questions, 85% of respondents or more endorsed “Agree” or “Strongly Agree.” A similar pattern was seen from the in-person satisfaction surveys; there was no statistical difference between the two programs' responses.

From the open-ended questions, themes across the online and in-person responses were very similar. In general there were four major categories of what parents remember most from *CF!* –parenting behavior, family relationships, coping skills, and knowledge insights.

Parenting Behavior

This thematic category amounted to the most frequent type of response to the survey questions. “Having meals with my child,” “Showing affection, listening,” and “thinking before speaking” are illustrative. Parents noted being better able to communicate with their children, especially “how to communicate [my] feelings to [my] kids” encouraging children to “talk about what’s bothering them” and “being sure to listen.” Behaviors related to managing the family also came up, i.e. “to make a plan together [about] violence and drugs,” and finding active ways to improve the family togetherness and “spend more time together.” There were several comments about disciplining children: “My child learned that when I discipline I am not just being mean, but that I loved her.” Parents learned (and practiced) different skills about how to set limits and firmer boundaries without emotional drama. The word “boundaries” came up often.

Family Relationships

Parents reported feeling closer to their children. “Spending more quality time” and playing games with children brings closeness, they reported. Attitude changes such as “being more understandable and open” also help parents feel closer to their children and adolescents. Some learned behaviors were also named as increasing closeness, such as “eating as a family,” “staying sober,” and “having healthy boundaries.” Parents learned about “giving positive affirmations” and “[affirming] your child as much as possible,” using language from the curriculum. Improved communication, listed above as a behavioral change, also results in closer relationships. Emotional expression, i.e. “It’s ok to show emotions” was linked by parents as making it easier to communicate without conflict. “Having the tools” is important to improve relationships with family members.

Coping Skills

One of the most important tools is being able to cope with problems and stress. A number of parents listed “coping skills” in their responses. Some gave examples, such as “finding ways to calm down” and “breathing” and “expressing anger the right way.” Responses about anger were especially frequent, as an important part of the curriculum is to identify various feelings, and develop compensatory actions to especially avoid out-of-control anger. Parents learned to “think twice” and “think through consequences.” Some learned “how to talk about anger instead

of blowing up, how to find what actually made me angry.” Other coping skills include “taking a walk and talking later,” and “always be present and mindful about what is going on around you.” Many mentioned the importance of seeking help from others; for some parents, the intervention helped them “know it’s ok to ask for help. I didn’t do that very much...” “We aren’t alone and [will] make use of our support groups and resources.”

Knowledge Insights

Parents learned about the impact of substance use on the family. “[I learned] that my child has a higher chance of being an addict himself since it’s on both sides of the family. So I have to be vigilant.” Parents commented that they have learned to forgive themselves, and “that the mistakes we’ve made in the past don’t have to affect [the future].” They were impressed with the “non-judgmental approach” of facilitators and modeled their behavior on it: “I have to forgive others and myself.” There was learning associated with behavioral changes, such as “how important setting boundaries and staying consistent is the key...” The “Celebrating” part of *CF!* also came through in the comments, about learning “how to value my family” and “how important the family is and how we as parents have to hold it up” and “Family is the most important thing. It takes work to make it work right.”

Comments Related to Being Online

According to the open-ended responses, the online mode of *CF!* did not seem to limit family participation. Although the satisfaction survey had not yet been modified to ask specific questions about the online experience, a few parents did comment on appreciating the program. The relationship to facilitators still seemed to come through online – “even with Telehealth it was very informative with [name of facilitator] doing an excellent job of keeping the class focused.”

Discussion

This study provides preliminary evidence that the *CF!* intervention has the potential to improve parenting skills, family relationships, and parent self-efficacy. Both the in-person and online classes resulted in improved outcomes over time. The improvement trend with moderate effects was similar for both treatment conditions. This finding was similar to the PCIT study (Comer et al., 2017), but different than the Triple P study (Reese et al., 2015) in which the online effects were smaller than the in-person effects. It was interesting to see that the online *CF!* participants had a better completion rate than the in-person mode, as was found in the Breitenstein et al. (2014) study. This may have had to do with the constraints imposed in the early days of the shelter-in-place policies – more family members were at home during this time with fewer options to distract them away from the classes; this may also have to do with the general convenience of the online mode regardless of the pandemic issues.

In our study, the in-person and online conditions significantly differed in average pre-test and post-test scores for two of the three scales – although the online scores of all three scales were generally lower than those of the in-person classes. That the online classes were offered during the early weeks of the shelter-in-place conditions may have been a factor. The added stress of the pandemic and “lock-down” policies, and their social and economic sequelae as described by Twenge & Joiner (2020) and Neill et al. (2020), cannot be ruled out as a factor that would affect families and influence their scores in the *CF!* scales. With the onslaught of pandemic-related stressors and the uncertainty about returning to normal social and economic patterns, such stress becomes more and more chronic in nature over time, and may affect the

ability of psychotherapeutic interventions to have the same successes as could have been obtained during pre-COVID times.

Nevertheless, the study indicated that despite the unexpected nature of the COVID-19 pandemic, it was possible to adapt a highly relational interactive family group intervention originally designed as in-person to a fully synchronous online mode of administration. The similarity of responses from both the in-person and online participants to the Satisfaction Questionnaire was striking. In both treatment conditions, the open-ended questions yielded more depth of information about how participants viewed the impact of the intervention while confirming the quantitative findings. Parents utilized program language to describe what they learned, indicating the program's success in socializing them to wellness and recovery concepts. Having this occur in the online mode lends support for the use of telesocialwork (Bryant et al., 2018; Kleykamp et al., 2020) extended to the fields of prevention, substance use problems, and child welfare.

In our preliminary evaluation study, we did not explore implementation of the online classes in detail. To better understand the implementation issues for adapting interventions such as *CF!*, a more in-depth exploration of parents' experience of the online program would be needed. It should be noted that the lack of concerns in the open-ended comments may indicate high satisfaction, i.e. that the convenience and accessibility of the online classes may outweigh any "glitches" caused by the technology that were noticed in the Triple P study (Reese et al., 2015). In addition to better understanding parents' experiences, further research should also focus on implementation activities from the agency's point of view. More information about what logistical, curricular, and training issues are required to make this transition would be helpful for other similarly interactional types of interventions. In addition, fidelity of implementation, for which *CF!* has developed strategies and measures, should be studied to monitor the extent to which the online program has been implemented as intended, and how much of the legacy curriculum transferred to online.

Limitations of this study include a weak quasi-experimental research design. The circumstances did not allow for prospective matching of participants in the in-person and online groups. In the absence of randomized assignment, matching on other variables known to influence families' responsiveness to the intervention, such as involvement in outside concurrent treatment, previous child welfare involvement, and type of abuse, among others, would provide more confidence that the intervention was responsible for the improvements.

The potential measurement reliability issues of the prospective vs. retrospective pre-test approaches discussed in the methods section continue to require testing in larger samples of the congruence between the real-time and the retrospective pre-test responses in the scales. Procedures to include both sets of measures have been developed and are being implemented in new *CF!* sites. This includes suggested methods to increase trust early on for new participants to facilitate the prospective pre-test measurement.

Despite these limitations, this study provides confirmation that social work services which were originally meant to be delivered in person can be re-tooled for administration remotely. This is important – according to Scudellari (2020) the COVID-19 pandemic is projected to be with us in the long term, and with it, policies and practices designed to limit the spread of the virus which will include social distancing in both personal and professional interactions. In light of this, it is heartening to know that the thoughtful adaptation of this important intervention to improve family resiliencies – especially for the multi-problem families in the child welfare system – can be feasibly administered online and can effect changes in

family relationships, parenting behaviors, and coping skills, all of which are required to break the cycle of substance use problems and continued adverse family experiences.

References

- Bailey, J. A., Hill, K. G., Oesterle, S., & Hawkins, J. D. (2009). Parenting practices and problem behavior across three generations: Monitoring, harsh discipline, and drug use in the intergenerational transmission of externalizing behavior. *Developmental Psychology, 45*(5), 1214–1226. <https://doi.org/10.1037/a0016129>
- Banks, S., Cai, T., de Jonge, E., Shears, J., Shum, M., Sobočan, A. M., ... Weinberg, M. (2020). Practising ethically during COVID-19: Social work challenges and responses. *International Social Work, 63*, 569–583. <https://doi.org/10.1177/0020872820949614>
- Barth, R. P. (2009). Preventing child abuse and neglect with parent training: Evidence and opportunities. *Future of Children, 19*(2), 95–118. <https://doi.org/10.1353/foc.0.0031>
- Breitenstein, S. M., Gross, D., & Christophersen, R. (2014). Digital delivery methods of parenting training interventions: A systematic review. *Worldviews on Evidence-Based Nursing, 11*(3), 168–176. <https://doi.org/10.1111/wvn.12040>
- Brook, J., Akin, B. A., Lloyd, M., Bhattarai, J., & McDonald, T. P. (2016). The use of prospective versus retrospective pretests with child-welfare involved families. *Journal of Child and Family Studies, 25*(9), 2740–2752. <https://doi.org/10.1007/s10826-016-0446-1>
- Brook, J., Akin, B. A., Lloyd, M. H., & Yan, Y. (2015). Family drug court, targeted parent training and family reunification: Did this enhanced service strategy make a difference? *Juvenile and Family Court Journal, 66*(2), 35–52. <https://doi.org/10.1111/jfcj.12028>
- Brook, J., McDonald, T. P., Gregoire, T., Press, A., & Hindman, B. (2010). Parental substance abuse and family reunification. *Journal of Social Work Practice in the Addictions, 10*, 393–412. <https://doi.org/10.1080/1533256X.2010.521078>
- Brown, A. M., McDaniel, J. M., Johnson, V. H., & Ashford, R. D. (2020). Dynamic labeling discernment: Contextual importance of self-identifiers for individuals in recovery. *Alcoholism Treatment Quarterly, 38*(2), 215–230. <https://doi.org/10.1080/07347324.2019.1642170>
- Bryant, L., Garnham, B., Tedmanson, D., & Diamandi, S. (2018). Tele-social work and mental health in rural and remote communities in Australia. *International Social Work, 61*, 143–155. <https://doi.org/10.1177/0020872815606794>
- Comer, J. S., Furr, J. M., Miguel, E. M., Cooper-Vince, C. E., Carpenter, A. L., Elkins, R. M., ... Chase, R. (2017). Remotely delivering real-time parent training to the home: An initial randomized trial of Internet-delivered parent-child interaction therapy (I-PCIT). *Journal of Consulting and Clinical Psychology, 85*(9), 909–917. <https://doi.org/10.1037/ccp0000230>
- Hilty, D. M., Ferrer, D. C., Parish, M. B., Johnston, B., Callahan, E. J., & Yellowlees, P. M. (2013). The effectiveness of telemental health: A 2013 review. *Telemedicine and E-Health, 19*(6), 444–454. <https://doi.org/10.1089/tmj.2013.0075>
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>
- Kleykamp, B. A., Guille, C., Barth, K. S., & McClure, E. A. (2020). Substance use disorders and COVID-19: the role of telehealth in treatment and research. *Journal of Social Work*

- Practice in the Addictions*, 20, 248–253. <https://doi.org/10.1080/1533256X.2020.1793064>
- Kumpfer, K. L., Whiteside, H. O., Greene, J. A., & Allen, K. C. (2010). Effectiveness outcomes of four age versions of the Strengthening Families Program in statewide field sites. *Group Dynamics: Theory, Research, and Practice*, 14(3), 211–229. <https://doi.org/10.1037/a0020602>
- Lamb, W. K. K., & O'Farrell, T. J. (2011). Dynamics of substance-abusing families and implications for treatment. In S. L. A. Stassner & Fewell, C. H. (Eds.), *Children of substance-abusing parents: Dynamics and treatment* (pp. 49–76). New York: Springer.
- National Association for Children of Addiction. (2019). Celebrating Families! Retrieved July 17, 2020, from <https://www.celebratingfamilies.net/>
- Neill, E., Meyer, D., Toh, W. L., van Rheenen, T. E., Phillipou, A., Tan, E. J., & Rossell, S. L. (2020). Alcohol Use in Australia during the early days of the COVID-19 Pandemic: Initial results from the COLLATE project. *Psychiatry and Clinical Neurosciences*, 74, 542–549. <https://doi.org/10.1111/pcn.13099>
- Reese, R. J., Slone, N. C., Soares, N., & Sprang, R. (2015). Using telepsychology to provide a group parenting program: A preliminary evaluation of effectiveness. *Psychological Services*, 12(3), 274–282. <https://doi.org/10.1037/ser0000018>
- Sanders, M. R., Turner, K. M. T., & McWilliam, J. (2016). The Triple P - Positive Parenting Program: A community-wide approach to parenting and family support. In M. J. Van Ryzin, K. L. Kumpfer, G. M. Fosco, & M. T. Greenberg (Eds.), *Family-based programs for children and adolescents: Theory, research, and large-scale dissemination* (pp. 134–159). New York: Psychology Press.
- Scudellari, M. (2020). The pandemic's future. *Nature*, 584(7819), 22–25. <https://doi.org/10.1038/d41586-020-02278-5>
- Sidpra, J., Abomeli, D., Hameed, B., Baker, J., & Mankad, K. (2020). Rise in the incidence of abusive head trauma during the COVID-19 pandemic. *Archives of Disease in Childhood, Online*. <https://doi.org/10.1136/archdischild-2020-319872>
- Sparks, S. N., & Tisch, R. (2018). A family-centered program to break the cycle of addiction. *Families in Society: The Journal of Contemporary Social Services*, 99, 100–109. <https://doi.org/10.1177/1044389418767841>
- Temcheff, C. E., Letarte, M. J., Boutin, S., & Marcil, K. (2018). Common components of evidence-based parenting programs for preventing maltreatment of school-age children. *Child Abuse and Neglect*, 80, 226–237. <https://doi.org/10.1016/j.chiabu.2018.02.004>
- Twenge, J. M., & Joiner, T. E. (2020). U.S. Census Bureau-assessed prevalence of anxiety and depressive symptoms in 2019 and during the 2020 COVID-19 pandemic. *Depression and Anxiety*, 37, 954–956. <https://doi.org/10.1002/da.23077>
- Van Ryzin, M. J., & Fosco, G. M. (2016). Family based approaches to prevention. In M. J. Van Ryzin, K. L. Kumpfer, G. M. Fosco, & M. T. Greenberg (Eds.), *Family-based programs for children and adolescents: Theory, research, and large-scale dissemination* (pp. 1–60). New York: Psychology Press.
- Verma, J. P. (2016). *Repeated measures designs for empirical researchers*. Hoboken, N.J.: John Wiley & Sons.
- Wilser, J. (2020, July 9). Teletherapy, popular in the pandemic, may outlast it. *New York Times*. Retrieved from <https://www.nytimes.com/2020/07/09/well/mind/teletherapy-mental-health-coronavirus.html?searchResultPosition=10>
- Wulczyn, F. (2018). Epidemiological perspectives on maltreatment prevention. *Future of*

Children, 19(2), 39–66.

Zweben, J. E., Cohen, J. B., Chapman, W., & Lamb, J. (2015). Enhancing family protective factors in residential treatment for substance use disorders. *Child Welfare*, 94, 145–167

ACCEPTED FOR PUBLICATION