



Published in final edited form as:

Psychiatry Res. 2022 November ; 317: 114804. doi:10.1016/j.psychres.2022.114804.

Pilot Development and Feasibility of Telehealth Community Reinforcement and Family Training (CRAFT) for Early Psychosis and Substance Use

Julie M. McCarthy^{a,b,*}, Andrea J. Wood^a, M. Grace Shinnars^a, Hadley Heinrich^a, Roger D. Weiss^{b,c}, Kim T. Mueser^d, Robert J. Meyers^e, Emily E. Carol^{a,b}, James I. Hudson^{a,b}, Dost Öngür^{a,b}

^aDivision of Psychotic Disorders, McLean Hospital, Belmont, MA, USA

^bDepartment of Psychiatry, Harvard Medical School, Boston, MA, USA

^cDivision of Alcohol, Drugs, and Addiction, McLean Hospital, Belmont, MA, USA

^dCenter for Psychiatric Rehabilitation, Departments of Occupational Therapy and Psychological and Brain Sciences, Boston University, Boston, MA, USA

^eCenter on Alcoholism, Substance Abuse and Addiction, University of New, Albuquerque, NM, USA

Abstract

Substance use is associated with poor outcomes for individuals with early psychosis. Community Reinforcement and Family Training (CRAFT) is an evidence-based approach that helps families to reduce substance use, engage in treatment, and improve family wellbeing, but it has not yet been studied for psychosis and substance use. The present study aimed to develop and evaluate a telehealth intervention utilizing CRAFT for families experiencing early psychosis and substance use. Twenty family members completed six to eight telehealth sessions of CRAFT adapted for early psychosis (CRAFT-EP). Participants completed an assessment battery at baseline, mid-

* Corresponding author: Julie M. McCarthy, McLean Hospital, 115 Mill St., Belmont, MA 02478, USA, jmccarthy@mclean.harvard.edu.

Conflict of Interest

RJM developed CRAFT and provided paid CRAFT training and certification through Robert J. Meyers, PhD & Associates for the current project. RDW has consulted to Analgesic Solutions and Alkermes. DÖ has given a paid presentation to Neumora. JIH has received consulting fees from Idorsia and Otsuka, and he has received research grant support from Boehringer-Ingelheim and Idorsia. The remaining authors declare no known financial or personal conflicts of interest regarding this publication.

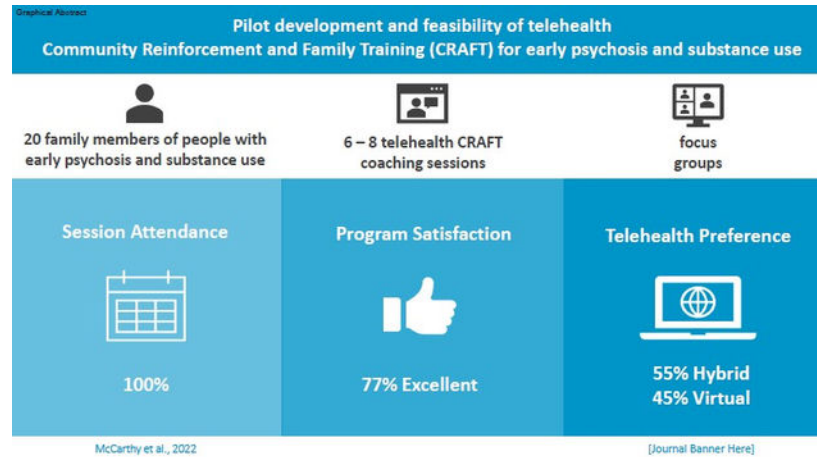
Author Statement

Julie M. McCarthy: Conceptualization, Funding acquisition, Methodology, Investigation, Project administration, Formal analysis, Supervision, Writing - Original draft preparation. **Andrea J. Wood:** Methodology, Investigation, Project administration, Data curation, Formal analysis, Writing - Original draft preparation. **M. Grace Shinnars:** Investigation, Project administration, Data curation, Formal analysis, Visualization, Writing - Review & Editing. **Hadley Heinrich:** Data curation, Writing - Review & Editing. **Roger D. Weiss:** Conceptualization, Methodology, Supervision, Writing - Review & Editing. **Kim T. Mueser:** Methodology, Supervision, Writing - Review & Editing. **Robert J. Meyers:** Methodology, Resources, Writing - Review & Editing. **Emily E. Carol:** Methodology, Investigation, Writing - Review & Editing. **James I. Hudson:** Formal analysis, Writing - Review & Editing. **Dost Öngür:** Conceptualization, Methodology, Resources, Supervision, Writing - Review & Editing

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

and post-intervention, a three-month follow-up, surveys after each session, and a focus group to measure mean percentage of sessions completed, mean program satisfaction ratings, telehealth preference, and qualitative feedback. Participants had 100% session attendance, and program satisfaction was at or near excellent for 99% of sessions. Half of participants preferred a primarily virtual hybrid program, whereas 45% preferred exclusively virtual visits. Communication was the most helpful topic, and participants requested additional written examples and resources. CRAFT-EP is feasible and acceptable to serve as the active intervention in a pilot randomized controlled trial comparing treatment as usual plus CRAFT-EP to treatment as usual.

Graphical abstract



Keywords

intervention; cannabis; alcohol; addiction; schizophrenia; bipolar disorder; telehealth

1. Introduction

Establishing and maintaining treatment engagement is essential for people with early psychosis. However, having substance use problems significantly reduces the likelihood of successful treatment engagement (Conus, et al., 2010; Doyle et al., 2014; Oluwoye et al., 2019), and is associated with more severe psychiatric symptoms, and lower quality of life (Oluwoye et al., 2019). This is a critical concern, since approximately 50–75% of people with early psychosis have a lifetime history of problematic substance use (Cather et al., 2018; Shinn et al., 2017; Wade et al., 2006), primarily cannabis, alcohol, and nicotine (Oluwoye et al., 2019). Evidence-based treatments are available to address early psychosis and substance use, such as multidisciplinary coordinated specialty care integrating psychosis and substance use treatment (e.g., Heinssen et al., 2014; Kane et al., 2016). However, care cannot be effective if clients are not engaged in treatment, or if they are not ready to consider and work towards change during their treatment. Additionally, despite its positive impact on quality of life, general coordinated specialty care (not enhanced for substance use disorders) has not been found to significantly reduce substance use (Cather et al., 2018). Other targeted efforts to treat substance use (e.g., cannabis use disorder) in early psychosis populations

have also not been found to be effective in reducing substance use (e.g., Barrowclough et al., 2014; Madigan et al., 2013). These results highlight a significant unmet need. Increasing readiness to change substance use is a candidate target with the potential to reduce substance use and improve recovery outcomes for people with substance use and early psychosis (Petersen et al., 2007).

Community Reinforcement Approach and Family Training (CRAFT) is an evidence-based intervention designed to increase engagement in substance use treatment (Meyers et al., 1999). CRAFT recognizes that individuals with problematic substance use are often not ready to engage in treatment and capitalizes on the motivation of concerned significant others (hereafter referred to as family members), who often experience elevated distress and seek strategies to support and engage the identified patient relative (hereafter referred to as client) in treatment. CRAFT is an individual intervention that works directly with family members to improve their wellbeing (e.g., to reduce depression and anxiety) and increase the client's readiness to begin treatment for substance use (74%; Meyers et al., 1999), which can occur in as few as four to six sessions (Kirby et al., 2017). CRAFT is based on operant conditioning theory, which uses systematic modification of behavioral consequences including use of rewards to increase desired behavior and negative outcomes to decrease less desired behavior. Specifically, family members learn how to change their interactions with the client through positive communication, problem-solving, and positively reinforcing healthy non-using behaviors, while withdrawing protection against negative natural consequences of using substances to reduce ongoing use.

CRAFT has the potential to improve treatment engagement for people with co-occurring conditions. Though clients with substance use problems frequently have co-occurring disorders such as depression, anxiety, trauma, and externalizing disorders (Godley et al., 2014), versions of CRAFT have not been adapted for dual disorders. CRAFT has also not been studied with family members of individuals with substance use and early psychosis, as research studies have often excluded people with a family history of psychosis (e.g., Meyers et al., 1999; Waldron et al., 2007). CRAFT has promise for filling this gap and determining how to adapt CRAFT to this population is an important next step.

Engaging family members of people with early psychosis with CRAFT is a viable option given that most individuals with early psychosis receiving treatment live with a family member (Drapalski et al., 2018) and many have family member contact with their treatment team (Jones et al., 2021). Families are often motivated to participate in treatment to support the client but encounter barriers to involvement such as time, transportation, finances, and childcare. Utilizing telehealth, such as video conferencing, can mitigate these barriers. Telehealth tools can achieve positive results similar to those of in-person therapy (Hulsbosch et al., 2017; Tse et al., 2015). Testing an intervention that capitalizes on technology may result in a more sustainable service delivery of evidence-based practices for clients and their families.

CRAFT for early psychosis (CRAFT-EP) is the first adaptation of CRAFT for families of people with substance use and early psychosis, which was developed as a synchronous telehealth intervention. Traditionally, many family interventions focus on substance use,

or they focus on psychosis broadly but not necessarily substance use (Kline et al., 2021). Other integrated approaches with both clients and family members (Kane et al., 2016; Mueser, 2013) are not always possible if clients do not consent to family contact. CRAFT-EP works with individual family members rather than requiring client or whole family involvement, though both families and the client may experience benefits from the intervention. The present pilot study aimed to assess the preliminary feasibility and acceptability of CRAFT-EP for family members of people with substance use and early psychosis. As an exploratory aim, we also assessed preliminary outcomes of changes in family member wellbeing (depression, anxiety, stress, happiness, relationship happiness) from baseline to post-intervention.

2. Methods

2.1. Participants

Eligibility criteria for family members included: 1) being 18–70 years of age, 2) self-reporting having a relative with EP (schizophrenia, schizoaffective disorder, schizophreniform, psychosis NOS, delusional disorder, brief psychotic disorder, major depression with psychosis, bipolar disorder with psychosis) with onset in the past six years, 3) who has also used cannabis, alcohol, or nicotine in the past 90 days or had used one of those substances prior to the past 90 days and had no immediate interest in abstinence, 4) being the person(s) who could best describe the client with psychosis per family member self-report (e.g., mother, father, sister, etc.), 5) having at least one contact/day on four days over the past month (in-person or electronic) with the client, 6) access to a computer with internet or mobile phone with video conferencing capabilities, and 7) the ability to speak and read English. Exclusion criteria for family members included 1) DSM-5 moderate or severe substance use disorder in the past year, 2) lifetime psychotic disorder, 3) history of domestic violence with the client, and 4) psychiatric, cognitive, or medical impairments that would interfere with the ability to follow through with the treatment plan.

Family members ($n=21$) were recruited through clinician referral, family groups, flyers, and clinicaltrials.gov between 2020 and 2021; see Figure 1 for the CONSORT diagram. One participant declined to participate following the baseline visit and before any coaching sessions due to having an extensive background in CRAFT training and an interest in becoming a parent CRAFT coach elsewhere. Fifteen participants completed focus groups (group #1: $n=4$; group #2: $n=4$; group #3 $n=4$; group #4 $n=3$) to provide additional feedback about adapted program changes and service needs. Two participants completed an individual debriefing due to scheduling conflicts; however, recorded audio data was only available for one of these participants due to a technical error. We were unable to schedule focus groups or individual debriefings with three participants. The data from all participants with audio data ($n=16$) were transcribed and analyzed as part of the focus group data.

2.2. Intervention Development

We first aimed to modify CRAFT for CRAFT-EP Version 1 in ways that were especially important for family members of people experiencing psychosis; see Figure 2. We moved family member self-care to the first session, because caregiver burden often impacts

people caring for a loved one with psychosis (McCann et al., 2011), and alcohol and cannabis use may exacerbate this burden (Yerriah et al., 2020). Additionally, we shifted the communication topic up to the second session, as families living with psychosis may be particularly vulnerable to maladaptive communication (e.g., expressed emotion) associated with increased risk for psychosis relapse (Butzlaff & Hooley, 1998). Greater priority to establish self-care and communication skills as early as possible was important to proceed with subsequent program topics and apply them to psychosis (e.g., taking psychiatric medications or psychosis relapse), as our families presented with needs spanning psychosis and substance use. We also emphasized enhancing client engagement in existing treatment in addition to treatment entry/re-entry, because reducing substance use remains an unmet need even for those in general coordinated specialty care (Cather et al., 2018).

The remaining modifications were not diagnostic specific and reflected updates based on past literature on the course of CRAFT and current trends in technology. We reduced the number of sessions from 12 to six plus two optional sessions. We chose this program length because CRAFT topics can be reviewed in six sessions, and CRAFT has been effective in as few as four to six sessions (Kirby et al., 2017). We provided additional optional sessions since participants may benefit from further practice applying the skills to situations involving psychosis in addition to substance use. Prior to the COVID-19 pandemic, we also planned to conduct part or all of the program virtually to increase access, as telehealth can mitigate barriers to psychosis services such as transportation (Chaudhry et al, 2021). Due to COVID-19 restrictions, the intervention became exclusively virtual by the start of data collection. Further adaptations were made following feedback from each set of 10 family members.

Participants completed weekly coaching sessions for approximately an hour with one of two licensed psychologists (hereafter referred to as coaches). CRAFT has three primary aims: 1) assist family members to help the client to address their substance use in treatment, 2) reduce client substance use, and 3) increase family member wellbeing regardless of client substance use. Core components of every session include: 1) reviewing goal setting, 2) discussing session topic, and 3) role-playing target skills (except in session 1). Eight topics are covered during the CRAFT-EP intervention. Topic 1, *building motivation and self-care*, includes introducing the family member to CRAFT rationale, psychoeducation, and establishing self-care goals. Topic 2, *communication*, includes general positive communication strategies and role plays. Topic 3, *functional analysis of client substance use*, includes identifying the client's typical substance use behavior, internal and external triggers, short-term positive consequences, and long-term negative consequences. Topic 4, *positive reinforcement*, includes reinforcement of recovery-oriented non-substance use behaviors. Topic 5, *natural consequences*, provides guidelines for allowing for natural consequences of substance use to occur. Topic 6, *discussing treatment engagement*, includes "windows of opportunity" and "motivational hooks" for engaging a loved one in treatment. Topic 7, *problem-solving*, includes practice of problem-solving procedures. Finally, Topic 8, *program review and next steps*, includes a summary and review of program topics, planning to maintain progress and skill work, and providing additional resources.

2.3. Program Adaptations

Based on feedback collected throughout the course of the CRAFT-EP program development, we created Version 2 after the first 10 families, and Version 3 after the second 10 families (Figure 2). For instance, in Version 2, we increased the program from six to eight sessions to a standard eight sessions by adding a problem-solving and review session, because all but one participant chose to complete the eight sessions. We also introduced a Milestone Conversation framework to guide progress through the program by encouraging each family member to discuss the following topics with their loved one if they have not recently done so: 1) What is most important to their relative? 2) What is the status of their relative's current treatment or feelings about treatment? 3) What are their relative's substance use patterns and what functions do they serve? 4) Would their relative be willing to talk about [substance use or other concern] in treatment? These questions helped to gather information that family members needed to better apply skills such as positive reinforcement and treatment engagement. For instance, several participants expressed not knowing what was rewarding to their loved one, and instead of guessing families could practice asking their relative directly. Similarly, asking about their loved one's view of treatment and substance use would provide more accurate information rather than assumptions so that family members would be more prepared to have the treatment engagement conversation about addressing substance use or other concerns in treatment.

2.4 Measures

2.4.1. Demographics and clinical characteristics—At the baseline visit, demographic information was collected, and participants completed the Structured Clinical Interview for DSM-5 Research Version (SCID-5-RV; First et al., 2015) to confirm diagnostic family member eligibility and characterize the sample.

2.4.2. Feasibility—To measure preliminary feasibility, we used several study-specific assessments of program satisfaction. Participants completed a Session Survey (Supplementary File 1) after each coaching session to assess satisfaction as measured by an average of the following questions “How helpful would you rate the session?” and “How would you rate the convenience?” rated from 1=Poor to 5=Excellent to capture both the helpfulness of the topic content and convenience of the telehealth sessions. Participants also rated “Did you experience any technical challenges?” as Yes or No. Participants provided overall program feedback in a Satisfaction Interview (Supplementary File 2) at the end of the program on topics such as the most/least helpful sessions, preferences for service delivery method (virtual/in-person), ideal program length, suggested changes for the program, preferences about additional family members completing the program, and whether they would recommend the program to others. Focus group questions provided an additional opportunity for feedback around proposed program modifications and general service needs (Supplementary File 3).

2.4.3. Family member wellbeing—We assessed depression with the Beck Depression Inventory – II (BDI-II; Beck et al., 1996), anxiety with the State Trait Anxiety Inventory-Short Form (STAI-SF; Marteau and Bekker, 1992), stress with the Perceived Stress Scale (PSS; Cohen, Kamarck & Mermelstein, 1994), personal happiness with the Happiness Scale

(Meyers & Smith, 1995), and relationship satisfaction between the family member and client relative with the General Happiness item from the Relationship Happiness Scale (Meyers et al., 1999). The BDI-II has 21 items and a total score range of 0 (least depression) to 63 (most depression), and the STAI-SF has 6 items and a total score range of 6 (least anxiety) to 24 (most anxiety). The PSS has 10 items and a total score range of 0–40, with higher scores indicating more stress. The Happiness Scale has 10 items and total scores ranging from 10–100, with higher scores indicating greater happiness. The Relationship Happiness general item scores range from 1 to 10 with higher scores indicating better relationship happiness.

2.5. Procedures

All procedures were approved by the Mass General Brigham Institutional Review Board ([ClinicalTrials.gov #NCT04284813](https://clinicaltrials.gov/ct2/show/study/NCT04284813)). Participants completed phone screens, provided informed consent, completed six to eight coaching sessions of the adapted CRAFT program, and completed assessments at four separate time points: baseline, mid-, post-intervention, and three months following the last session. A HIPAA-compliant Zoom platform was used to conduct and record all study visits and treatment sessions with participant permission. The first session was scheduled within one week of completing the baseline assessment. Mid-intervention assessments were scheduled between sessions three and four for the first 10 families when the program was six sessions with an optional additional two sessions, and between sessions four and five for the second 10 families when the program was eight sessions. The post-intervention assessments were scheduled within one week following the last session. Participants also completed a focus group after the post-intervention assessment to provide additional feedback on their experience with the program and service needs. Participants were scheduled to receive \$165 after completion of all assessments, with proration for assessments actually completed.

2.6. Data Analysis

The primary outcome was the percentage of sessions completed. Secondary outcomes were satisfaction ratings, percentage preference for in-person, telehealth, or hybrid formats, and program feedback (e.g., most/least helpful topics, program delivery logistics, preferences for others to complete the program). Qualitative feedback was analyzed using thematic analysis (Braun & Clark, 2006) by JM for the Satisfaction Interview responses and by MS, AW, and JM (to resolve discrepancies) for the focus group transcripts to further inform the feasibility and acceptability of the intervention.

Exploratory analyses of family member wellbeing included preliminary outcomes of self-reported depression, anxiety, perceived stress, happiness, and relationship happiness. We calculated the mean change from baseline to post-intervention with 95% confidence intervals (CI), and standardized effect sizes (Cohen's *d*). We provide descriptive statistics at each time point and effect sizes of change for all time points relative to baseline for context.

3. Results

3.1. Sample Characteristics

Demographic and clinical characteristics are presented in Table 1. Family members were primarily mothers who identified as being white. Most participants had a bachelor's degree, were married, lived with the client, and worked full- or part-time. Per family member report, clients were predominantly male, with half of the clients experiencing bipolar disorder I with psychotic features and half experiencing schizophrenia-spectrum disorders. Family members most frequently reported that cannabis was the most problematic substance that their relative used. Other most problematic substances included alcohol and nicotine; however, neither of these substances were the sole substance of concern for any family member.

3.2. Program Completion

All participants completed 100% of the required program sessions. Of the first 10 participants offered the six to eight sessions program, nine participants completed eight sessions, and one completed six sessions. Program completion was defined as participating in the six-session program, as the two additional sessions were offered for optional skills practice. Given the support for the eight-session program, the second 10 participants were offered a standard eight session program, and all of these participants completed the eight sessions. Across the entire sample, participants completed the program in an average of nine weeks with the longest duration being 12 weeks. The high completion rate indicates that the intervention was feasible.

3.3. Program Satisfaction

All participants provided feedback after every coaching session. Participants rated 77% of sessions as excellent in terms of program satisfaction (5 on the 1–5 scale), and 22% rated the sessions as near excellent (4 on the scale). Program satisfaction was high when examined separately by overall helpfulness (mean=4.8 (SD=.4)) and convenience (mean=4.9 (SD=.5)), and when averaging helpfulness and convenience scores (mean=4.9 (SD=.3)). When asked, “Did you think today’s topic and what we talked about was helpful?” participants rated 99.4% of session to be helpful. Overall, the program was rated as highly acceptable and valuable to participants. For example, one person shared, “This is the single most helpful thing I’ve done.”

3.4. Telehealth Preferences

Half of the participants (50%) indicated a preference for a hybrid program that is primarily virtual with the option for an in-person session, whereas 45% would opt for only virtual visits, and one person preferred an in-person program. Participants were interested in the hybrid option for reasons including having the convenience of virtual visits while valuing the sense of in-person connection and having additional context (e.g., body language, environment) when working with the coach. Some people who preferred exclusively virtual visits noted that they would not have been able to participate in the program if it were delivered in person due to time and travel constraints, despite needing the service. Participants endorsed strong support for telehealth giving high ratings for sound/video

quality (mean=4.8 (SD=0.6)) and ease of use (mean=4.9 (SD=0.3)) despite experiencing technical challenges, such as video/audio freezing, in 20.9% of sessions.

3.5. Program Feedback

The feedback below is summarized across all ($n=20$) participant responses on the Satisfaction Interview from their final coaching session, representing feedback for CRAFT-EP Versions 1 and 2 that informed Version 3.

3.5.1. Most/least helpful topics—Participants found communication to be the most helpful topic (55%) followed by problem-solving (20%), whereas they rated functional analysis (50%) and self-care (30%) topics as being less helpful, though they wanted to keep the content in the program. Some people who rated communication skills as the most helpful topic did so because they felt that they had “been doing it wrong for so long,” and reported that they learned they could “make very small changes” and see “immediate results.” Many people also noted that communication was the “foundation” for the other CRAFT skills, and they could apply communication tools to different situations with their loved one (e.g., substance use, therapy, medications, schoolwork, household responsibilities), as well as with other people (e.g., siblings, spouses, parents, coworkers).

3.5.2. Program delivery—When asking about the timing of program delivery, most participants (80%) thought that the program should be made available as soon as possible to concerned families preceding or during the initial crisis (for example, during psychiatric hospitalization or acute symptom exacerbation) or upon discharge to start immediately following the hospitalization. Families who began the program several months or years after a first episode of psychosis indicated that they wanted the one-on-one support and opportunity to learn CRAFT-EP skills sooner. Families interested in the program being offered early noted that it has the potential to be “preventative” or “change the course,” and it would help people to be “more prepared.” However, participants acknowledged that the optimal timing for starting CRAFT-EP is highly individualized for each family. For instance, 40% noted preference for or the utility of offering the program “after the dust settles” a month or more following the initial hospitalization. Of note, several people (20%) highlighted potential benefits for both early and delayed engagement in the program. Concerns for beginning the program during an acute onset of psychosis included feeling bombarded and the potential difficulty of having meaningful conversations if their loved one is still experiencing hallucinations and/or delusions.

3.5.3. Recommending the program—When asked if they would recommend the program to others, all participants said “yes.” Furthermore, all participants stated that they thought other family members, such as fathers and adult siblings, would benefit from the program. Reasons to have other family members learn the CRAFT-EP skills ranged from “each parent has a different relationship, style, issues with the [client]” to “everyone would be on the same page” and “it would boost the success.” However, multiple participants expressed that they would want to have individual coaches for each family member rather than having the family meet with one coach, though this would require greater resources to accommodate the need.

3.6. Focus Groups

Focus group themes highlighted the distress that families experience when they have a loved one living with early psychosis and substance use, protective factors, reasons for participation, program elements that were helpful, suggestions for improvement, the impact of COVID-19, program access considerations, and other topics (Table 2).

3.7. Preliminary Outcomes of Family Member Wellbeing

Descriptive statistics and effect sizes from all time points relative to baseline are presented in Table 3. Participants reported improvements in their wellbeing from baseline to post-intervention. Depression scores decreased the most (estimated mean change -5.9 [95% CI $-8.9, -2.7$]; $d=0.9$) and perceived stress (-4.0 [$-7.3, -0.6$]; $d=0.6$). Family members demonstrated smaller decreases in anxiety (-1.1 [$-2.2, 0.0$]; $d=0.5$) and smaller increases in relationship happiness (1.3 [$0.05, 2.5$]; $d=0.5$) and the family members' personal happiness (3.4 [$0.8, 7.5$]; $d=0.4$). Gains were largely maintained at 3-month follow-up for depression, perceived stress, and relationship happiness.

4. Discussion

The results indicated that CRAFT-EP has high feasibility and acceptability. All participants successfully completed the program. Having participants complete 100% of coaching sessions is unusually high compared to other CRAFT studies (46–89% of session completed; (Eék et al., 2020; Miller et al., 1999). Though the present eight session synchronous telehealth (video conferencing) program had high rates of engagement and retention, additional online or digital resources may be useful to promote skills maintenance, scalability, and to share resources with multiple concerned significant others, as all participants endorsed interest in having additional family members learn the CRAFT-EP skills.

The composition of our sample may have contributed to the high rate of program completion. All but one of our family members were parents of an adult child client, whereas most CRAFT studies have worked with a minority of family members with adult children clients (see Archer et al., 2020 for review). Parents who are concerned about problems related to substance use and psychosis may have greater or different motivations to seek help to support their children than family members who have a different relationship with the client, though many types of participants find CRAFT to be a valuable approach. The high socioeconomic status of our sample is another potential factor contributing to the higher program completion rate. Families with greater resources may have more time and private physical space to successfully participate in research.

In the present sample, participants were highly satisfied with the program given their excellent or near excellent ratings of helpfulness and convenience across sessions, although they experienced technical difficulties in approximately a fifth of sessions. Participants also largely supported having virtual visits. Almost all participants preferred either an exclusively or primarily telehealth program with an optional in-person session to establish a further connection with the coach. Our results align with recent outpatient samples that

share a positive view of telehealth care for substance use concerns, with 90% of clients reporting being “very satisfied” with individual sessions (Sugarman et al., 2021). Notably, all participants agreed to participate in the program with the understanding that it would be offered virtually; therefore, there is the potential for selection bias and future studies are needed better understand acceptability.

Feedback about the content and delivery of the program highlighted several strengths of the program, as well as areas for improvement that either led to changes in the current study or are under consideration for future research. Of all the sessions, participants expressed that communication was the most helpful topic, and functional analysis was relatively the least helpful. Having the ability to individualize the program was also a key strength. However, areas of improvement included adding additional examples and resources to the program materials and considering how to create easy access to the program beyond the research context, such as offering it early at no cost or having the service be covered by insurance through individual therapy that incorporates CRAFT-EP skills.

Participants demonstrated a clear need for mental health services, as 75% met the criteria for lifetime major depressive disorder or another mental health diagnosis, such as an anxiety disorder or mild alcohol use disorder. CRAFT-EP includes components related to cognitive behavioral therapy, such as activity scheduling through goal setting to improve self-care, that have been shown to be beneficial to people with depression (e.g., Ciharova et al., 2021) and may have contributed to alleviating mood and anxiety symptoms in the study sample.

We also found preliminary evidence of improved family member wellbeing. Participants reported the greatest improvements in depression and stress, followed by anxiety, relationship happiness, and personal happiness at post-intervention with most gains maintained at 3-month follow-up. Our results are consistent with prior CRAFT-based studies that reported reductions in depression and anxiety (Bischof et al., 2016; Dutcher et al., 2009, Kirby et al., 1999, 2017, Meyers et al., 1999, Waldron et al., 2007), as well as increases in personal happiness (Carpenter et al., 2021, Eék et al., 2020) and relationship happiness (Bischof et al., 2016, Dutcher et al., 2009, Kirby et al., 1999, 2017, Meyers et al., 1999, Waldron et al., 2007). However, our results are inconsistent with other CRAFT studies that found minimal or no changes in depression (Manuel et al., 2011, Meyers et al., 2002, Osilla et al., 2018), anxiety (Manuel et al., 2011, Meyers et al., 2002), personal happiness (Bischof et al., 2016, Kirby et al., 1999, Meyers et al., 1999) and relationship happiness (Meyers et al., 2002, Osilla et al., 2018). It is possible that differences in initial levels of these variables exist across samples that may contribute to the discrepant findings. Future research is needed to evaluate the effects of CRAFT-EP on family members with depressive and anxiety disorders who may have greater needs than those without such diagnoses and whether additional adaptations might be useful in targeting specific symptoms.

4.1. Limitations

The current study has several limitations. The present sample had limited gender, racial, and ethnic diversity, as almost all family members were women, predominately white, and non-Hispanic. Enhancing the diversity of future samples will be important since variables

such as age, race, and ethnicity are associated with differences in engagement in substance use interventions (Cimarolli et al., 2021).

Access to and familiarity with technology and healthcare systems may also limit generalizability to the general population. For instance, the present study required having access to internet/cellular services and a device with video conferencing capabilities, and also having familiarity with technology. In addition, participants received coaching at no cost, and program feasibility may differ if participants were required to engage in the coaching through an insurance-based or private pay service. For instance, limited healthcare insurance or the ability to pay for substance use treatment are reasons for not engaging in care even in the event of perceived need (SAMHSA, 2020).

4.2. Conclusions

We conducted this pilot study to develop and assess the feasibility, acceptability, and preliminary family member wellbeing outcomes of CRAFT-EP, and we used participant feedback to adapt CRAFT to an early psychosis population. Given that CRAFT-EP is feasible and acceptable, the next phase of this study will include a randomized controlled trial to assess the preliminary outcomes of treatment as usual plus CRAFT-EP compared to treatment as usual alone. We plan to assess readiness to change substance use, rates of substance use, treatment session attendance, and family member wellbeing ideally from both client and family member reports. Further investigation of CRAFT-EP has the potential to shift the course of recovery for families experiencing early psychosis and substance use.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements

We thank the participants who made this study possible and the McLean Hospital Division of Psychotic Disorders Research Stakeholder Advisory Board for improving the quality of our research.

Funding

This work was supported by the National Institutes of Health K23DA050808, P50MH115846. The funders had no role in study design, data collection, analysis and interpretation, manuscript preparation, or decision to publish the manuscript.

References

- Archer M, Harwood H, Stevelink S, Rafferty L, & Greenberg N 2020. Community reinforcement and family training and rates of treatment entry: a systematic review. *Addiction*. 115, 1024–1037. 10.1111/add.14901 [PubMed: 31770469]
- Barrowclough C, Marshall M, Gregg L, Fitzsimmons M, Tomenson B, Warburton J, & Lobban F 2014. A phase-specific psychological therapy for people with problematic cannabis use following a first episode of psychosis: a randomized controlled trial. *Psychol. Med.* 44, 2749–2761. 10.1017/S0033291714000208 [PubMed: 25065535]
- Beck AT, Steer RA, & Brown GK 1996. Beck Depression Inventory (BDI-II). Psychological Corporation, San Antonio.
- Bischof G, Iwen J, Freyer-Adam J, & Rumpf H-J 2016. Efficacy of the Community Reinforcement and Family Training for concerned significant others of treatment-refusing individuals with

- alcohol dependence: A randomized controlled trial. *Drug Alcohol Depend.* 163, 179–185. 10.1016/j.drugalcdep.2016.04.015 [PubMed: 27141840]
- Braun V, & Clark V 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. 10.1191/1478088706qp0630a
- Brigham GS, Slesnick N, Winhusen TM, Lewis DF, Guo X, & Somoza E 2014. A randomized pilot clinical trial to evaluate the efficacy of Community Reinforcement and Family Training for Treatment Retention (CRAFT-T) for improving outcomes for patients completing opioid detoxification. *Drug Alcohol Depend.* 138, 240–243. 10.1016/j.drugalcdep.2014.02.013 [PubMed: 24656054]
- Butzlaff RL & Hooley JM 1998. Expressed emotion and psychiatric relapse: a meta-analysis. *Arch. Gen. Psychiatry.* 55, 547–552. doi: 10.1001/archpsyc.55.6.547 [PubMed: 9633674]
- Carpenter KM, Foote J, Hedrick T, Collins K, & Clarkin S 2020. Building on shared experiences: The evaluation of a phone-based parent-to-parent support program for helping parents with their child's substance misuse. *Addict. Behav.* 100, 106103. 10.1016/j.addbeh.2019.106103 [PubMed: 31622945]
- Cather C, Brunette MF, Mueser KT, Babbin SF, Rosenheck R, Correll CU, & Kalos-Meyer P 2018. Impact of comprehensive treatment for first episode psychosis on substance use outcomes: a randomized controlled trial. *Psychiatry Res.* 268, 303–311. 10.1016/j.psychres.2018.06.055 [PubMed: 30086471]
- Chaudhry S, Weiss A, Dillon G, O'Shea A, & Hansel TC 2021. Psychosis, telehealth, and COVID-19: Successes and lessons learned from the first wave of the pandemic. *Disaster Med. Public Health Prep.* 1–4. doi: 10.1017/dmp.2021.42.
- Ciharova M, Furukawa TA, Efthimiou O, Karyotaki E, Miguel C, Noma H, Cipriani A, Riper H, & Cuijpers P 2021. Cognitive restructuring, behavioral activation and cognitive-behavioral therapy in the treatment of adult depression: A network meta-analysis. *J. Consult. Clin. Psychol.* 89, 563–574. doi: 10.1037/ccp0000654 [PubMed: 34264703]
- Cimarolli VR, Burack O, Minahan JM, Falzarano F, Reinhardt JP, & Shi X 2021. A substance misuse intervention program in postacute care: Who declines participation? *Am. J. Geriatr. Psychiatry.* 29, 15–23. 10.1016/j.jagp.2020.08.004 [PubMed: 32912805]
- Cohen S, Kamarck T, & Mermelstein R 1983. A global measure of perceived stress. *J. Health. Soc. Behav.* 24, 385–396. 10.2307/2136404 [PubMed: 6668417]
- Conus P, Lambert M, Cotton S, Bonsack C, McGorry PD, & Schimmelmann BG 2010. Rate and predictors of service disengagement in an epidemiological first-episode psychosis cohort. *Schizophr. Res.* 118, 256–263. 10.1016/j.schres.2010.01.032 [PubMed: 20206475]
- Doyle R, Turner N, Fanning F, Brennan D, Renwick L, Lawlor E, & Clarke M 2014. First-episode psychosis and disengagement from treatment: a systematic review. *Psychiatr. Serv.* 65, 603–611. 10.1176/appi.ps.201200570 [PubMed: 24535333]
- Drapalski AL, Piscitelli S, Lee RJ, Medoff D, & Dixon LB 2018. Family involvement in the clinical care of clients with first-episode psychosis in the RAISE connection program. *Psychiatr. Serv.* 69, 358–361. 10.1176/appi.ps.201700080 [PubMed: 29089013]
- Dutcher, Anderson, Moore M, Luna-Anderson C, Meyers RJ, Delaney HD, & Smith JE. 2009. Community Reinforcement and Family Training (CRAFT): An effectiveness study. *J Behav. Anal. Health Sports Fit. Med.* 2, 80–90. 10.1037/h0100376
- Eék, Romberg K, Siljeholm O, Johansson M, Andreasson S, Lundgren T, Fahlke C, Ingesson S, Bäckman L, & Hammarberg A. 2020. Efficacy of an internet-based Community Reinforcement and Family Training Program to increase treatment engagement for AUD and to improve psychiatric health for CSOs: A randomized controlled trial. *Alcohol Alcohol.* 55, 187–195. 10.1093/alcalc/agg095 [PubMed: 31912156]
- First MB, Williams JB, Karg RS, & Spitzer RL 2015. Structured clinical interview for DSM-5—Research version (SCID-5 for DSM-5, research version: SCID-5-RV). Arlington, VA: American Psychiatric Association, 1–94.
- Godley SH, Hunter BD, Fernández-Artamendi S, Smith JE, Meyers RJ, & Godley MD 2014. A comparison of treatment outcomes for adolescent community reinforcement approach

participants with and without co-occurring problems. *J. Subst. Abuse Treat.* 46, 463–471. 10.1016/j.jsat.2013.10.013 [PubMed: 24462478]

- Heinssen RK, Goldstein AB, & Azrin ST 2014. Evidence-Based Treatments for First Episode Psychosis: Components of Coordinated Specialty Care [White paper]. National Institute of Mental Health. <https://www.nimh.nih.gov/health/topics/schizophrenia/raise/evidence-based-treatments-for-first-episode-psychosis-components-of-coordinated-specialty-care>.
- Hulsbosch AM, Nugter MA, Tamis P, & Kroon H 2017. Videoconferencing in a mental health service in the Netherlands: a randomized controlled trial on patient satisfaction and clinical outcomes for outpatients with severe mental illness. *J. Telemed.Telecare.* 23, 513–520. 10.1177/1357633X16650096 [PubMed: 27236703]
- Jones N, Basaraba C, Piscitelli S, Jewell T, Nossel I, Bello I, Mascayano F, Scodes J, Marino L, Wall M, & Dixon LB 2021. Clients' Preferences for Family Involvement and Subsequent Family Contact Patterns Within OnTrackNY Early Psychosis Services. *Psychiatr. Serv.* 72, 399–407. 10.1176/appi.ps.202000241 [PubMed: 33530730]
- Kane JM, Robinson DG, Schooler NR, Mueser KT, Penn DL, Rosenheck RA, Addington J, Brunette MF, Correll CU, & Estroff SE 2016. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *Am. J. Psychiatry.* 173, 362–372. 10.1176/appi.ajp.2015.15050632 [PubMed: 26481174]
- Kirby KC, Benishek LA, Kerwin ME, Dugosh KL, Carpenedo CM, Bresani E, Haugh JA, Washio Y, & Meyers RJ 2017. Analyzing components of Community Reinforcement and Family Training (CRAFT): Is treatment entry training sufficient? *Psychol. Addict. Behav.* 31, 818. 10.1176/appi.ajp.2015.15050632
- Kirby KC, Marlowe DB, Festinger DS, Garvey KA, & LaMonaca V 1999. Community reinforcement training for family and significant others of drug abusers: A unilateral intervention to increase treatment entry of drug users. *Drug Alcohol. Depend.* 56, 85–96. 10.1016/S0376-8716(99)00022-8 [PubMed: 10462097]
- Kline ER, Thibeau H, Sanders AS, English K, Davis BJ, Fenley AR, Keshavan MS 2021. Motivational Interviewing for Loved Ones in Early Psychosis: Development and Pilot Feasibility Trial of a Brief Psychoeducational Intervention for Caregivers. *Front. Psychiatry.* 12:659568. 10.3389/fpsy.2021.659568 [PubMed: 33868061]
- Lawrence, Parkinson M, Jasper B, Creswell C, & Halligan SL. 2021. Supporting the parents of children and young people with anxiety and depressive disorders is an opportunity not to be missed: a scoping review. *Lancet. Psychiatry.* 8, 909–918. 10.1016/S2215-0366(20)30315-1 [PubMed: 34537101]
- Madigan K, Brennan D, Lawlor E, Turner N, Kinsella A, O'Connor JJ, Russel V, Waddington JL, & O'Callaghan E 2013. A multicenter, randomized controlled trial of a group psychological intervention for psychosis with comorbid cannabis dependence over the early course of illness. *Schizophr. Res.* 143, 138–142. 10.1016/j.schres.2012.10.018 [PubMed: 23187069]
- Manuel JK, Austin JL, Miller WR, McCrady BS, Tonigan JS, Meyers RJ, ... & Bogenschutz MP 2012. Community reinforcement and family training: a pilot comparison of group and self-directed delivery. *J Subst. Abuse Treat.* 43, 129–136. 10.1016/j.jsat.2011.10.020 [PubMed: 22154038]
- Marteau TM, & Bekker H 1992. The development of a six- item short- form of the state scale of the Spielberger State—Trait Anxiety Inventory (STAI). *Br. J Clin. Psychol.* 31, 301–306. 10.1111/j.2044-8260.1992.tb00997.x [PubMed: 1393159]
- McCann TV, Lubman DI, Clark E 2009. First-time primary caregivers' experience of caring for young adults with first-episode psychosis. *Schizophr. Bull.* 37, 381–388. doi: 10.1093/schbul/sbp085 [PubMed: 19679716]
- Meyers RJ, Miller WR, Hill DE, & Tonigan JS 1999. Community reinforcement and family training (CRAFT): Engaging unmotivated drug users in treatment. *J Subst. Abuse Treat.* 10, 291–308. 10.1016/S0899-3289(99)00003-6
- Meyers RJ, Miller WR, Smith JE, & Tonigan JS 2002. A randomized trial of two methods for engaging treatment-refusing drug users through concerned significant others. *J Consult. Clin. Psychol.* 70, 1182–1185. 10.1037/0022-006X.70.5.1182 [PubMed: 12362968]
- Meyers RJ, & Smith JE 1995. *Clinical guide to alcohol treatment: The community reinforcement approach.* Guilford Press, New York.

- Miller WR, Meyers RJ, & Tonigan JS 1999. Engaging the unmotivated in treatment for alcohol problems: a comparison of three strategies for intervention through family members. *J Consult. Clin. Psychol*, 67, 688–697. 10.1037/0022-006X.67.5.688 [PubMed: 10535235]
- Mueser KT, Glynn SM, Cather C, Xie H, Zarate R, Smith LF, Clark RE, Gottlieb JD, Wolfe R, & Feldman J 2013. A randomized controlled trial of family intervention for co-occurring substance use and severe psychiatric disorders. *Schizophr. Bull.* 39, 658–672. 10.1093/schbul/sbr203 [PubMed: 22282453]
- Oluwoye O, Monroe- DeVita M, Burduli E, Chwastiak L, McPherson S, McClellan JM, & McDonell MG 2019. Impact of tobacco, alcohol and cannabis use on treatment outcomes among patients experiencing first episode psychosis: Data from the national RAISE ETP study. *Early Interv. Psychiatry*. 13, 142–146. 10.1111/eip.12542 [PubMed: 29356438]
- Osilla KC, Trail TE, Pedersen ER, Gore KL, Tolpadi A, & Rodriguez LM 2018. Efficacy of a web-based intervention for concerned spouses of service members and veterans with alcohol misuse. *J. Marital Fam. Ther.* 44, 292–306. 10.1111/jmft.12279 [PubMed: 28972265]
- Petersen L, Jeppesen P, Thorup A, Øhlenschläger J, Krarup G, Østergård T, Jørgensen P, & Nordentoft M 2007. Substance abuse and first- episode schizophrenia- spectrum disorders. The Danish OPUS trial. *Early Interv. Psychiatry*. 1, 88–96. 10.1111/j.1751-7893.2007.00015.x [PubMed: 21352112]
- Shinn AK, Bolton KW, Karmacharya R, Lewandowski KE, Yuksel C, Baker JT, Chouinard VA, Pingali SM, Bye H, & Cederbaum K 2017. McLean On Track: a transdiagnostic program for early intervention in first- episode psychosis. *Early Interv. Psychiatry*. 11, 83–90. 10.1111/eip.12299 [PubMed: 26616380]
- Substance Abuse and Mental Health Services Administration (SAMHSA). 2020. Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health. Rockville, MD: Center for Behavioral Health Statistics and Quality.
- Sugarman DE, Busch AB, McHugh RK, Bogunovic OJ, Trinh CD, Weiss RD, & Greenfield SF 2021. Patients' perceptions of telehealth services for outpatient treatment of substance use disorders during the COVID- 19 pandemic. *Am. J. Addict.* 30, 445–452. 10.1111/ajad.13207 [PubMed: 34405475]
- Tse YJ, McCarty CA, Stoep AV, & Myers KM 2015. Teletherapy delivery of caregiver behavior training for children with attention-deficit hyperactivity disorder. *Telemed. e-Health*. 21, 451–458. 10.1089/tmj.2014.0132
- Wade, Harrigan S, Edwards J, Burgess PM, Whelan G, & McGorry PD. 2006. Course of substance misuse and daily tobacco use in first-episode psychosis. *Schizophr. Res.* 81, 145–150. 10.1016/j.schres.2005.09.010 [PubMed: 16298107]
- Waldron HB, Kern-Jones S, Turner CW, Peterson TR, & Ozechowski TJ 2007. Engaging resistant adolescents in drug abuse treatment. *J. Subst. Abuse Treat.* 32, 133–142. 10.1016/j.jsat.2006.07.007 [PubMed: 17306722]
- Yerriah J, Tomita A, & Paruk S 2022. Surviving but not thriving: Burden of care and quality of life for caregivers of patients with schizophrenia spectrum disorders and comorbid substance use in South Africa. *Early Interv. Psychiatry*. 16, 153–161. doi: 10.1111/eip.13141 [PubMed: 33733599]

Highlights

- Substance use is problematic and not well-treated among people with early psychosis
- Community Reinforcement and Family Training (CRAFT) for substance use may help
- We adapted CRAFT for early psychosis (CRAFT-EP) and substance use
- All family members completed 100% of sessions with high satisfaction ratings
- Communication skills were key; people prefer hybrid (50%) or virtual (45%) sessions

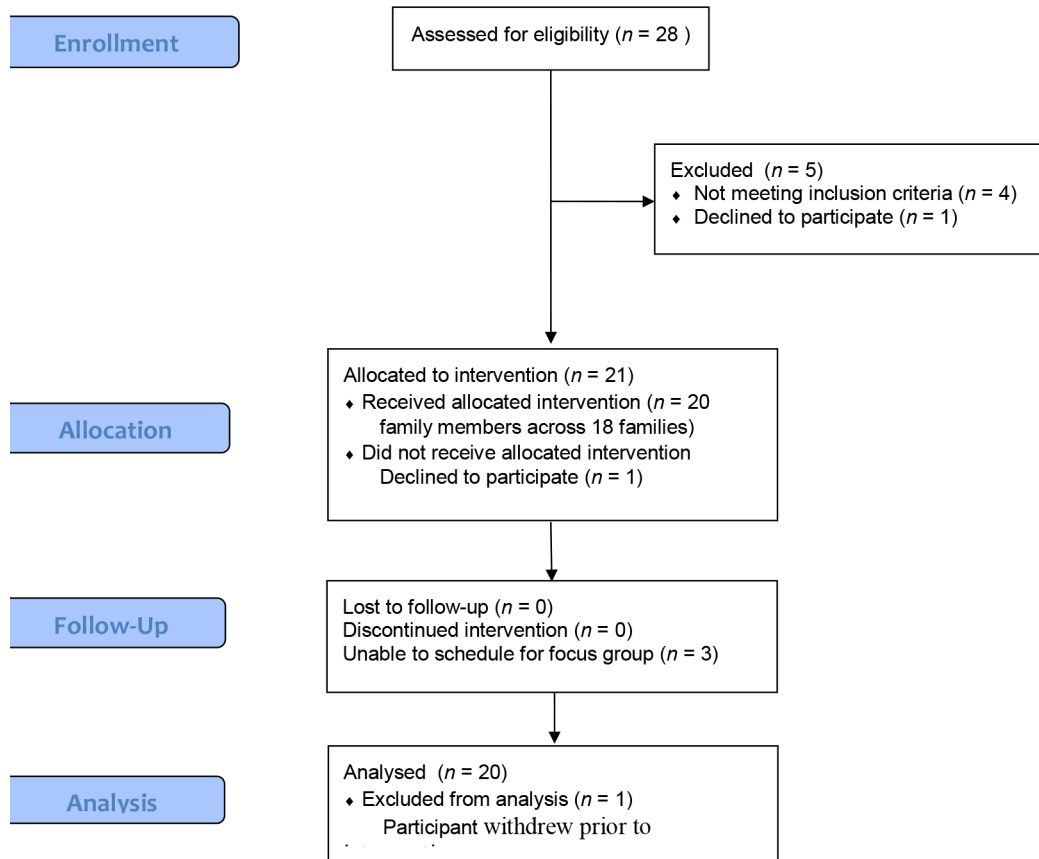


Figure 1.
CONSORT flow diagram.

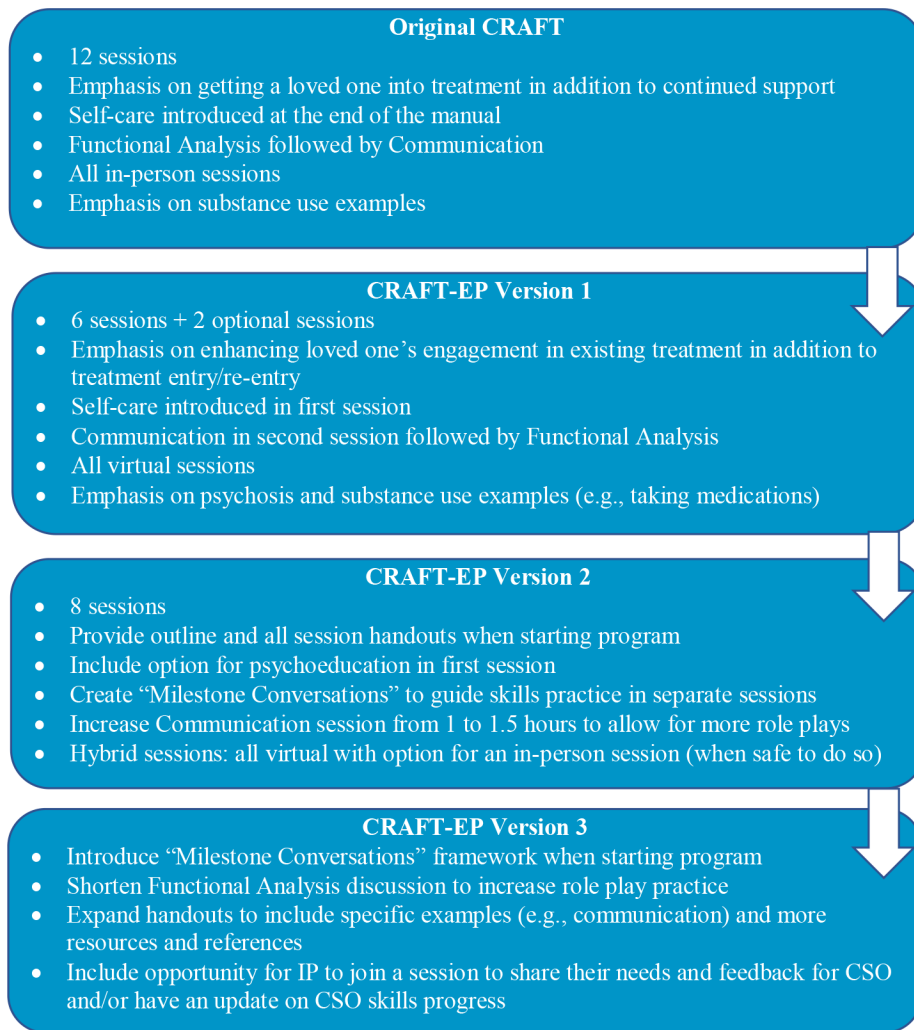


Figure 2.
CRAFT-EP Adaptations

Table 1.

Family Member and Client Demographic and Clinical Characteristics

Family Member Characteristics	<i>n</i> =20	
Age (years), mean (SD)	54.3	(8.65)
Sex # (%)		
Female	19	(95)
Male	1	(5)
Race and ethnicity, # (%)		
White	18	(90)
Asian	1	(5)
More than one race	1	(5)
Non-Hispanic	20	(100)
Education (years), mean (SD)	17.5	(2.12)
Marital status, # (%)		
Married	17	(85)
Divorced	2	(10)
Never married	1	(5)
Children, mean (SD)	2.55	(0.94)
Living with identified patient, # (%)	14	(70)
Work status, # (%)		
Full-time	8	(40)
Part-time	10	(50)
Unemployed	2	(10)
SCID-5 ^a lifetime diagnoses, # (%)		
Major depressive disorder	10	(50)
Persistent depressive disorder	2	(10)
Mild alcohol use disorder	9	(45)
Mild cannabis use disorder	6	(30)
Eating disorder	3	(15)
Anxiety disorder (social, generalized, phobia)	5	(25)
Endorsed trauma	16	(80)
Cigarette smoker	0	0
Client Characteristics ^{b c}	<i>n</i> =18	
Gender identity		
Male	14	(78)
Female	3	(17)
Non-binary	1	(5)
Most problematic substance		
Marijuana	14	(78)

Alcohol	3	(17)
Nicotine	1	(5)
Diagnosis		
Bipolar disorder I with psychosis	10	(56)
Schizophrenia	3	(17)
Psychosis not otherwise specified	3	(17)
Schizoaffective disorder	1	(5)
Major depressive disorder with psychosis	1	(5)
Time since first episode (months), mean (SD) ^d	1	(5)
Time since first episode (years), mean (SD) ^d	1.85	(1.67)
Past 30 day most problematic substance used (days), mean (SD) ^e	10.85	(11.16)
Past 30 day treatment attendance %, mean (SD) ^e	94	(15)
Known, # (%)	11	(55)
Unknown, # (%)	7	(35)
Not in treatment, # (%)	2	(20)
Psychiatric hospitalization in past year, # (%) ^f	11	(55)

^a SCID-5 = Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition

^b Data reported by family member participant

^c Two clients each had two family members participate in the study; only unique data are reported

^d Time from first psychotic episode to family member study enrollment

^e Percentage of known scheduled appointments attended

^f One client had no history of psychiatric hospitalization

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 2.

Focus Group Themes

Themes	#(%)	Quotes
<p>Family distress</p> <ul style="list-style-type: none"> • Feeling overwhelmed and stressed 12(75%) • Not knowing what to do to help client 11(69%) • Fear, worry, and concern about client’s wellbeing 9(56%) • Difficulty navigating mental health system 8(50%) • Lack of information about client (e.g., substance use, symptoms, treatment, interests) 6(38%) • Concern about family member’s actions that were unhelpful or harmful to client 5(31%) <p>Protective factors</p> <ul style="list-style-type: none"> • Financial resources 6(38%) • Family member’s personal mental health supports (e.g., individual, family therapy, groups) 6(38%) • Self-care (coming into the program, not what they learned or found helpful) 1(6%) <p>Reasons for Participation</p> <ul style="list-style-type: none"> • Wanting to improve communication and interactions with client 12(75%) • Seeking knowledge about substance use and/or psychosis 7(44%) • Help others 3(19%) • Clinician asked them to do it 2(12%) <p>What was helpful?</p> <ul style="list-style-type: none"> • Problem solving how to communicate with client 11(69%) • Flexibility and individualizing the program content 9(56%) • Letting go of control and allowing for natural consequences 9(56%) • Preparing for the future (wellness planning, managing expectations) 6(38%) • Improving family member self-care and wellbeing 6(38%) • Supportive, safe, hopeful environment 5(31%) • Accountability 4(25%) • Transferrable skills 4(25%) • Importance of coach integration with treatment team 4(25%) • Incremental steps toward change 3(19%) • Role plays 8(16%) • Building empathy and insight 2(13%) 		<ul style="list-style-type: none"> • “His world exploded. Our world exploded. I don’t think there was anything anybody could have done for us. You’re trying not to drown.” • “I would definitely pay for it. And fortunately, I’m in a position where the cost wouldn’t be a burden.” • “I really needed help learning how to communicate better with my son. I was really at a loss, and I felt like I was taking any help I could get. So, I thought I had nothing to lose.” • “I’ve used the worksheets, the communication and the problem-solving worksheets to think through other difficult conversations. And we talked about some other difficult conversations, not necessarily having to do with substance abuse, that was really helpful for us.”
<p>Program Improvements</p> <ul style="list-style-type: none"> • Support for more detailed program outline 12(75%) • Wanting more and vetted psychoeducation CRAFT resources 11(69%) • Desire for continued flexibility and individualization of the program timeline, content, and delivery format 9(56%) • Interest in ongoing CRAFT support groups 8(50%) • Interest in including client in CRAFT program* 8(50%) • Concern about client’s willingness to participate in CRAFT program 7(44%) • Interest in additional or booster sessions 4(25%) • Wanting to reduce time spent on functional analysis* 4(25%) • Neutral about reducing time spent on functional analysis* 2(13%) • Having client living with family member would be helpful 1(6%) <p>Impact of COVID-19</p> <ul style="list-style-type: none"> • Increased accessibility to services by offering virtual visits 5(31%) • Decreased accessibility to treatment due to lack of in-person services 5(31%) • Increased client symptom severity 4(25%) • Difficulty finding privacy for virtual visits 3(19%) • Social isolation for family member and client 3(19%) <p>Program Access</p> <ul style="list-style-type: none"> • Support for hybrid virtual and in-person option 13(8,%) • Importance of equitable access (sliding scale, free service) 10(63%) • In-person visits limiting/prohibiting program access 10(63%) • Interest in insurance coverage 8(50%) • Openness to self-pay sessions 5(31%) <p>Miscellaneous</p> <ul style="list-style-type: none"> • Other 16(100%) • Burden of assessments 7(44%) • Concern about recording 1(6%) • Client increased treatment engagement 1(6%) • Client reduced substance use 1(6%) 		<ul style="list-style-type: none"> • “...I think it would have been helpful to have that out of the gate, ‘In general, this is what it’s all about, and here’s some information and let’s talk about this, and do you have any questions now? Let’s dive in a little more to exactly what we’re trying to glean from this program.’” • “Well, for us, it’s made it more accessible. My daughter lives [far away], and so she can participate in OnTrack. So that has been huge for us. Otherwise, I’m not sure what she would have done.” • “I think it’s a great idea to offer it. For me, it’s more convenient to do it virtual because of where I live and the way my job works. But I can certainly see where people would find a benefit of meeting in person.” • “think without the surveys it would be even better. You’re right about that. Honestly, I forgot at some point that we were even being recorded at all, and it just became like a class that I was taking.”

Topics discussed only in gimps 3 and 4

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 3.Family Member Wellbeing^a

	Baseline <i>n</i> =20	Mid-intervention <i>n</i> =20		Post-intervention <i>n</i> =20		3-month follow-up <i>n</i> =19 ^b	
	M (SD)	M (SD)	<i>d</i>	M (SD)	<i>d</i>	M (SD)	<i>d</i>
Beck Depression Inventory-II	12.6 (8.2)	9.7 (1.9)	-0.5	6.8 (5.8)	-0.9	6.9 (6.3)	-0.9
Perceived Stress Scale ^c	24.7 (1.8)	-	-	20.75 (1.2)	-0.6	20.9 (8.7)	-0.5
State Trait Anxiety Inventory-Short Form	14.9 (0.5)	14.1 (0.4)	-0.4	13.8 (0.3)	-0.5	14.3 (1.5)	-0.2
Relationship Happiness Scale	5.6 (2.7)	6.5 (2.4)	0.2	7.0 (2.0)	0.5	6.8 (2.6)	0.5
Happiness Scale	76.9 (2.5)	75.5 (2.6)	-0.1	80.3 (2.5)	0.4	78.9 (15.8)	0.2

^a Family member wellbeing variables are presented as means and standard deviations at each time point; effect sizes (Cohen's *d*) are presented as change from baseline

^b One family member was lost to follow-up

^c Perceived stress was not assessed at mid-intervention