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### Developing Community Reinforcement and Family Training (CRAFT) for Parents of Treatment-Resistant Adolescents.

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## Developing Community Reinforcement and Family Training (CRAFT) for Parents of Treatment-Resistant Adolescents

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### Abstract

We describe a project focused on training parents to facilitate their treatment-resistant adolescent's treatment entry and to manage their child after entry into community-based treatment. Controlled studies show that Community Reinforcement and Family Training (CRAFT) is a unilateral treatment that fosters treatment entry of adults; however, there are no controlled trials for parents with a substance-abusing child. We examined the behavioral parent training literature to guide us in tailoring CRAFT for parents of adolescents. We discuss adaptations to CRAFT, outcomes and experiences gained from a brief pilot of the revised CRAFT program, and the future directions of this work.

### Keywords

Parents; adolescent substance use; CRAFT; treatment

### Introduction

The third project in the Parents Translational Research Center (See Arria & Kirby, this issue) focuses on training parents to facilitate treatment entry of their treatment-resistant adolescent and to continue to manage their behavior after treatment entry. More than 3.4 million adolescents in the U.S. meet criteria for a substance use disorder (SUD) and less than 10% enter treatment each year (SAMHSA, 2010). Even when treatment entry occurs, parents must deal with significant problems. Rates of premature treatment termination are reported to be high (Hser et al., 2001) and relapse during and after treatment are common (Kaminer, Burleson, & Goldberger, 2002; Winters, Fawkes, Fahnhorst, Botzet, & August, 2007), with about 50% of adolescents relapsing within six months of discharge (McLellan &

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Dr. Kirby oversaw the literature review, interpreted review results, designed the research and intervention, and created the first manuscript draft. Mr. Versek helped plan the manuscript, conducted the review of the parent training literature, and drafted parts of the manuscript. Drs. K. Meyers, Benishek, and Kerwin helped develop the research (K. Meyers) and intervention (Benishek & Kerwin) procedures and manuals and contributed to revising and finalizing the manuscript. Also, Dr. Kerwin contributed substantially to the parent training literature review and helped interpret pilot study results and Dr. K. Meyers initiated and oversaw study recruitment and implementation. Ms. Bresani, and Drs. Washio, Arria, and R. Meyers contributed to manuscript revisions.

Meyers, 2004; Winters, et al., 2007). This is consistent with the conceptualization of drug addiction as a chronic, relapsing condition requiring monitoring, continuing aftercare, and multiple treatment entries (Godley & White, 2005; Leshner, 1997; McLellan, O'Brien, Lewis, & Kleber, 2000; McLellan, McKay, Forman, Cacciola, & Kemp, 2005; Scott, Dennis, & Foss, 2005). Continuing care may be especially needed by those who develop significant drug use problems during adolescence (Dennis, Scott, Funk, & Foss, 2005).

### Currently Available Help for Parents

On a practical level, few resources are available to support parents whose adolescent have substance use problems before, during, or after their child's treatment entry.

**Help for parents before and after treatment**—Data have suggested that only about 20 – 33% of the parents who are aware and concerned about their adolescent's substance use are able to get them into treatment without outside assistance (Foote, Szapocznik, Kurtines, Perez-Vidal, & Hervis, 1985; Szapocznik et al., 1988). Addiction treatment providers often receive phone calls from parents who are seeking treatment for their child, but provide few options to parents if their child is resistant to treatment (Garrett et al., 1999). Probably the most common options offered are an "Intervention" where family members are prepared by a specialist to confront the teen and persuade them to enter treatment (Johnson, 1986) or 12-Step family support (i.e., Alanon/Naranon). While Interventions can be effective in helping the parent to get their adolescent into treatment, most of the families that attempt one do not complete it (Miller, Meyers, & Tonigan, 1999; Stanton, 2004). Twelve-Step family support groups are freely available in the community and parents are welcome to join them. While these groups often include parents of older children, few are specifically for parents of adolescents and these parents may be uncomfortable with the groups since their issues differ somewhat from spouses, parents, or other loved ones of an adult with an addiction. Unfortunately, these 12-step self-help groups are also typically the only thing that is readily available to support parents before and after the adolescent receives treatment. Although addictive disorders are increasingly accepted as a chronic, relapsing conditions, few treatment programs include continuing care for the adolescents or parents. Even among highly regarded programs, just over one third (38.9%) provide good quality continuing care (Brannigan, Schackman, Falco, & Millman, 2004).

**Parental involvement during adolescent treatment**—After an adolescent enters a community treatment program, the extent to which parents are involved in their child's therapy during treatment varies widely from program to program. Sometimes parents are excluded most notably during the early days of their child's residential treatment with enforced periods where contact with the child is forbidden. Even though confidentiality laws vary by state and exceptions can be made in cases where the patient's life or health is in jeopardy, most professionals advocate for protecting adolescents' privacy and many programs will not provide parents with information regarding their child's progress, even when the parent is paying directly for the services (e.g., Fortunati & Zonana, 2003; Robinson, 2010; Weddle & Kokotailo, 2002).

Research strongly supports family-based and multi-systems approaches to adolescent substance abuse treatment (Waldron & Turner, 2008), and in a meta-analytic review of adolescent substance abuse treatments five of the six treatments identified as being effective with promising to excellent empirical support were family-based interventions (Waldron & Turner, 2008): Multidimensional Family Therapy; Functional Family Therapy; Multisystemic Therapy; Behavioral Strategic Family Therapy; and Behavioral Family Therapy. Group Cognitive Behavioral Therapy was the only non-family-based intervention with good empirical support. The five empirically-supported family-based treatments work with concerned family members to engage the entire family in treatment. Unfortunately, in one study that focused on highly-regarded adolescent treatment programs, only about one third (34%) reported that family involvement was a component of their program (Brannigan et al., 2004). While other studies of adolescent treatment programs have reported higher rates (e.g., 91% based on NSSATS 2000 data; Olmstead & Sindelar, 2004), in general, community-based treatment programs rarely implement empirically-supported approaches (Benishek, Kirby, Dugosh, & Padovano, 2010; McGovern, Fox, Xie, & Drake, 2004; National Academy of Sciences Institute of Medicine, 2005; Santisteban, Suarez-Morales, Robbins, & Szapocznik, 2006). For example, Brannigan et al. (2004) reported that even among the most highly regarded adolescent treatment programs, only 32.0% employed empirically-supported family-based approaches and the majority of programs (66.0%) used an approach consistent with the 12-step model (Brannigan et al., 2004), which has unclear efficacy (e.g., Benishek et al., 2010). Robbins et al. (2011) reported that adolescent substance abuse treatment-as-usual varied across the community agencies in their study and although most included family services, no agency utilized an empirically-supported, manual-driven parent or family program.

The failure to involve parents meaningfully into their child's treatment is unfortunate for several reasons. In addition to family-based models having good empirical support and being more likely to benefit the adolescents, research suggests that providing parents with guidance on managing their child may have direct benefits to the parents (e.g., Serketich & Dumas, 1996; also see Kirby, Marlowe, Festinger, Garvey, & LaMonaca, 1999; Meyers, Miller, Smith, & Tonigan, 2002; Miller et al., 1999, which included parents of adult children). Furthermore, parents may provide an active role in encouraging treatment retention, involvement in aftercare, and treatment re-entry after relapse; activities that have been found to predict better long-term outcomes. In a study that followed 315 youth for up to 5.5 years, Winters et al. (2007) found that greater involvement in any of wide variety of aftercare activities (e.g., offered via the treatment program, AA/NA, individual and family counseling, or via treatment re-entry) was significantly and positively related to the trajectory of improvement over 1, 4, and 5.5 years post-treatment. Continuing care or aftercare is generally recognized as a key element of effective adolescent treatment (Brannigan et al., 2004; Olmstead & Sindelar, 2004); however most community-based treatment programs have difficulty providing this. Parents, however, often can more easily monitor their child and probably will receive greater benefits for doing so. They also are usually available to their child for decades into the future.

Unfortunately, programs may be restricted in what they can offer due to limitations regarding the national addiction treatment system itself. Programs suffer from limited

funding and resources, program stability is threatened by program closures and changes in ownership and administration (McLellan & Meyers, 2004), staff turnover in community-based adolescent programs has been found to be as high as 25% (Robbins et al., 2011), there is little professional support from medical personnel, social workers, or psychologists, and few programs have computer facilities for clinical operations or decisional support (McLellan & Meyers, 2004). No state requires or provides certification specific to adolescent drug abuse treatment, none require programs to use empirically-based approaches, and only five states require some specialized knowledge of adolescents (McLellan & Meyers, 2004).

To summarize, involving parents in their adolescent's treatment via one of the empirically-supported family-based interventions would be ideal and although efforts are being made to disseminate these interventions (Henggeler, 1999; Henggeler, Schoenwald, Liao, Letourneau, & Edwards, 2002; Henggeler, Schoenwald, & Pickrel, 1995; Schoenwald et al., 2008), translation of empirically-supported treatments into community treatment settings is a slow and difficult process. In the meantime, parents desperately need skills to manage their child before, during, and after treatment and they are not receiving these skills through family-based interventions or family support programs in the adolescent treatment system. The lack of practical resources for parents led us to consider interventions that could be delivered directly to parents, independent of community-based substance abuse treatment programs and independent of the adolescent's involvement.

### **Parent and Family Treatments That Can Be Implemented Unilaterally**

Unlike many family treatments for substance abuse, unilateral treatments can be directly delivered to one concerned family member and do not require participation of the substance-using person they are concerned about. Although additional family members are welcome to participate, their participation is not always considered necessary unless they appear to be hindering progress. This is important because additional family members frequently are reluctant to participate in the adolescent's treatment (Cunningham & Henggeler, 1999; Slesnick, Meyers, Meade, & Segelken, 2000; Szapocznik, et al., 1988). Providing help for parents who want it, regardless of participation of other family members, and independently from the adolescent's treatment could reduce barriers to involvement, decrease parent stress, improve the parent-child relationship, and help parents to more effectively address problem behavior (Meyers, Dominguez, & Smith, 1996; Thomas & Santa, 1982; Thomas & Yoshioka, 1989).

### **Why Select CRAFT?**

We identified eight unilateral treatment programs for the family members of substance users (Stanton, 2004 cf. Fernandez, Begley, & Marlatt, 2006), and while there is very little research with parents of adolescents, five of the programs have been examined in at least one randomized trial with adults. These five programs use one or more of the following three strategies: (1) confronting the substance user to catalyze treatment entry (e.g., the Johnson Intervention; Johnson, 1986); (2) acknowledging loss of control over the substance user and focusing on improving the family member's life (i.e., 12-Step Al-Anon/Nar-Anon Family Groups), and (3) training the family member to influence the substance user (e.g.,

Community Reinforcement and Family Training; Unilateral Family Therapy; and Pressures to Change).

Studies have supported the efficacy of the first approach in promoting treatment entry of the substance user (Liepman, Nirenberg, & Begin, 1989; Loneck, Garrett, & Banks, 1996a), but about 70% of the families do not actually follow through and implement the confrontation (Miller et al., 1999; Stanton, 2004). Also, one study (Loneck, Garrett, & Banks, 1996b) reported that clients who had entered treatment as the result of a confrontation were more likely to relapse than those who entered via other methods of referral. The second strategy has been used in several trials as a standard treatment comparison group using Al-Anon/Nar-Anon or Al-Anon/Nar-Anon Facilitation (ANF), which involves about 10–12 individually-delivered sessions that provide an introduction to Al-Anon/Nar-Anon concepts and active and consistent encouragement to engage in these widely available support groups. Results indicate that both Al-Anon/Nar-Anon and AFT lead to improvements in the family member's functioning, but little change in the drug abuser's behavior (Dittrich & Trapold, 1984; Kirby et al., 1999; Meyers, Apodaca, Flicker, & Slesnick, 2002; Miller et al., 1999; Sisson & Azrin, 1986). Studies of the third strategy have established its efficacy in initiating treatment entry of the substance using person and in improving family member functioning. Community Reinforcement and Family Training (CRAFT) is probably the best known example of this approach.

### Empirical Support for CRAFT

The CRAFT approach was derived directly from laboratory-established behavioral principles (Meyers et al., 1996; Meyers, Miller, & Smith, 2001; Meyers et al., 2002; Meyers & Smith, 1997; Meyers, Smith, & Waldorf, 1999; Sisson & Azrin, 1986). A family member or concerned significant other (CSO) is helped to identify antecedents and consequences that likely support the substance use of the person they are concerned about (i.e., the person of concern or PC). The CSO is then trained to provide more positive consequences for abstinence, avoid unintentionally delivering positive consequences for substance use, and identify opportunities where the PC may be more receptive to suggestions to consider treatment entry. In controlled studies conducted primarily with parents and spouses of adults with problematic substance use, CRAFT has consistently produced higher rates of treatment entry for the PCs and similar improvements in the CSO's psychological and social functioning relative to comparison conditions such as the Johnson Intervention (JI) and ANF. In an initial study (Sisson & Azrin, 1986) CRAFT was also superior in reducing drinking, and the reductions were noted even before the PC entered treatment; however, in subsequent studies changes in the PC's substance use have been similar to those in comparison conditions.

**Comparison of approaches**—Miller et al. (1999) randomly assigned 130 CSOs of problem drinkers to receive JI, ANF, or CRAFT. Results indicated that more CSOs who received CRAFT and ANF were retained in the study in comparison to their JI counterparts. Consistent with previous studies, participants tended to drop out of JI, avoiding the confrontation with the drinker. CRAFT participants also engaged substantially more drinkers into treatment (64%) than did JI (23%) or ANF (13%) participants. Two additional

clinical trials (Kirby et al., 1999; Meyers et al., 2002) randomly assigned CSOs of individuals using illicit drugs to receive CRAFT or ANF. Results were similar to those of Miller et al. (1999), with Kirby et al. (1999) and Meyers et al. (2002), respectively reporting 64% and 68% of the illicit substance users entering treatment in the group receiving CRAFT versus 17% and 29% in the ANF group.

**Unilateral Interventions for Parents of Adolescents**—Although all of the three unilateral strategies mentioned above have been adapted and used with the parents of adolescents, our review of the literature revealed only one published study using a unilateral intervention with parents for the purpose of increasing treatment entry of adolescent drug abusers (Waldron, Kern-Jones, Turner, Peterson, & Ozechowski, 2007). Parents of 42 treatment-resistant adolescents were offered 12 sessions of an intervention similar to CRAFT to facilitate treatment entry, support subsequent behavior change, and improve parent and family functioning. Thirty (71%) of the adolescents were successfully engaged into treatment and significant reductions in their marijuana use and the parents' depression and anxiety were observed at six month follow-ups. Furthermore, the improvements occurred regardless of adolescent treatment entry. Unfortunately, the study did not include a comparison group of parents who did not receive the intervention, so it is impossible to know if the improvements were due to the CRAFT-style treatment. However, because the adolescent treatment entry rates were comparable to those achieved in adult CRAFT studies, we decided to adapt the CRAFT intervention in developing a unilateral treatment for parents of substance-using adolescents.

### Description of CRAFT Components

CRAFT begins with 1) an *introductory orientation session*, which provides an overview of the intervention and builds motivation for CSO's compliance with the intervention by emphasizing the benefits to be gained. Next, the CSO is trained in eight basic behavior management strategies: 2) *functional analysis*, where the CSO is taught to identify the triggers for substance use as well as the consequences; 3) *positive reinforcement*, which teaches the CSO to reinforce non-use and other positive and pro-social behaviors; 4) *competing reinforcing activities* which trains the CSO to interfere with drug use; 5) *planned ignoring*, to encourage the CSO to extinguish drug use; 6) *natural consequences*, which trains the CSO to avoid interfering with the natural negative consequences of drug use; 7) *communication skills training*, which assists the CSO in ceasing ineffective negative communication while simultaneously facilitating the delivery of appropriate consequences; 8) *treatment entry training*, which trains the CSO to recognize appropriate times to suggest treatment, ways to suggest it that are more likely to succeed and to have treatment options available for the drug user at the time the decision is made to enter a program; and 9) *life enrichment*, which focuses on helping the CSO increase their own reinforcing activities and decrease their focus on the PC. In addition to training the CSO to implement these behavior management strategies, CRAFT therapists use behavioral training strategies during sessions including 10) *role playing with feedback* and 11) *problem solving* techniques to address any barriers to the CSO's implementation of the strategies. The therapist also evaluates family relationships to determine if 12) *critical family members* need to be included in some treatment sessions to ensure consistency with the behavioral strategies being used. CRAFT

also provides 13) *safety training*, which teaches CSOs how to recognize and address situations with potential for physical violence. Finally, the CRAFT therapist conducts a 14) *treatment termination* session that summarizes critical skills learned and helps prepare the CSO to maintain the behaviors learned after treatment is completed.

### **Adapting CRAFT to Better Address Parent Needs**

In order to adapt CRAFT for application with parents of substance-using adolescents, we sought to identify related behavioral treatment components that could be combined with CRAFT components to make the intervention developmentally appropriate and to better meet parent needs. Because there was no research in parent-focused unilateral interventions for treating adolescent substance use disorders other than the single CRAFT study, we expanded our literature search to include those interventions that were shown to be effective in treating externalizing behavioral disorders, such as oppositional behavior and conduct-disorder in younger children. We believed this literature to be relevant because externalizing behavior problems in children have been shown to be a consistent predictor of substance-abuse disorders later in adolescence (Disney, Elkins, McGue, & Iacono, 1999).

**Behavioral Parent Training**—Behavioral Parent Training (BPT) defines a broad class of parent-oriented training interventions that are based on behavioral principles, similar to the foundation of CRAFT. BPT has been shown in multiple studies to be effective in helping parents effectively manage the behavior of children and adolescents with a variety of disorders (Maughan, Christiansen, Jenson, Olympia, & Clark, 2005) and in improving psychological adjustment for the parent (Serketich & Dumas, 1996). Considering its vast body of empirical support stretching over multiple decades (Duman, 1989; Forehand & Long, 1988; Kazdin, 1985; Miller & Prinz, 1990; Moreland, Schwebel, Beck, & Well, 1982), BPT represents one of the best established and well-developed evidence-based treatments for children and adolescents in existence (Kazdin, 2005). A number of well-supported manual-driven BPTs are implemented unilaterally with parents, for example: Parent Management Training Oregon Model (Patterson, 1975); Parent Management Training (Kazdin, 2005); The Incredible Years Parent Training (Webster-Stratton, 2010), and the Triple-P Standard Individual Treatment (Sanders, 2003). Although these parent training interventions vary in terms of methods of delivery and emphasis of particular components for the age and population of children they focus upon, they derive from and share the same foundation of behavioral principles and core components. According to Kazdin (2005) the term “Parent Management Training” (PMT) depicts the common core components of these unilateral BPT interventions.

PMT for children and adolescents has been shown to be effective for parents of children ages 2–18 years old; however, relatively fewer studies have focused on parents of adolescents. A meta-analysis of PMT included only one trial with parents of children aged 10–17 (Woolfenden, 2001). At least one study suggests that the effects of PMT are not as robust when used to treat adolescents: parents of older children (ages 6.5 – 22.5) have higher treatment drop-out rates than parents of younger children (aged 2.5 – 6.5; (Dishion & Patterson, 1992). However, a randomized controlled trial involving adolescents who were delinquent found a reduction in time spent in detention facilities for males (mean age = 14

years) whose parents received PMT (Bank, Marlowe, Reid, & Patterson, 1991) and another found immediate effects on behavioral problems in school, with trends suggesting reduction in cigarette-smoking (Dishion & Andrews, 1995). Given the lack of rigorously-supported unilateral parent interventions focused on substance-using problems of adolescents (Waldron & Turner, 2008), PMT is a logical and desirable starting point in identifying the behavioral components that could be most effective in adapting CRAFT for parents of substance-using adolescents. Indeed, as a behaviorally-based program, CRAFT shares many of the strategies inherent in PMT interventions.

**Comparison of PMT and CRAFT components**—Table 1 indicates the components of each intervention and the overlap between them. The 14 CRAFT components and implementation strategies are listed in rows and the core 12 common components of PMT (Kazdin, 2005) in the columns. Table 1 indicates that CRAFT contains two components not found in PMT: life enrichment and safety training. The purpose of the life enrichment component is to discourage the individual from completely focusing their attention on the family member's substance use and to enrich the life of the CSO. This component is probably not necessary in PMT because the primary focus of the intervention is to change the behavior of the child. Similarly, the safety training component is probably not necessary in PMT as it is most often used with parents of young children; therefore, the potential for physical violence is minimized. In CRAFT, some of the behavioral strategies CSOs learn and implement could produce increased conflict. For example, when implementing *natural consequences*, a parent may choose not to make excuses for his or her adult son's absence from work because the absence is related to drug use. As a result, the son may lose his job, producing conflict with the parent and increasing the potential for physical violence. Conversely, the original CRAFT intervention includes most of the components found in PMT with the exception of: a) defining, observing, and recording behavior; b) timeout from reinforcement; c) low-rate behaviors; and d) reprimands. While these strategies are contraindicated for use with spouses, parents of adult children, and other adult relationships, they appear appropriate to add to a CRAFT intervention designed for parents of adolescents who use substances.

**Modifications for parents of adolescents**—After considering the content of the four PMT components that were not included in CRAFT for CSOs of adults, we decided to add and adapt two new behavioral strategy components to the original eight CRAFT components. The first strategy was titled ***Behavior Monitoring*** and was designed to have the parent define, observe, and record their adolescent's substance use and other problematic behavior. The second strategy was entitled ***Behavior-Reducing Consequences*** that addressed appropriate discipline (i.e., reprimands, negative consequences) for behaviors such as rule-breaking and drug use. This component was to be implemented only when positive reinforcement, planned ignoring, scheduling competing activities, and natural consequences were being used but still were not sufficient to reduce dangerous behaviors.

We did not incorporate the PMT components of low-rates of behavior or time-out. Reinforcement of low-rates of behavior is used to reduce behaviors that are unacceptable at high rates, but acceptable at lower rates (e.g., TV watching). Because most of the

undesirable adolescent behaviors that parents wish to address (e.g., rule-breaking, substance use) are not acceptable, safe, and/or legal, inclusion of this strategy was not considered necessary. The PMT component of time-out was not included because the basic principle behind time-out is to remove potentially reinforcing consequences for undesirable behavior and this seemed impractical for parents to use with adolescents because adolescents usually have at least two sources of reinforcement for their substance-using behavior that parents cannot consistently control: (1) peer attention, which is typically a powerful reinforcer for adolescents, and (2) the biological consequences of substance use itself (i.e., the effects of the drug). After completing our revisions, we pilot tested the modified CRAFT intervention for parents of adolescents.

## Pilot Study

### Participants

Participants were recruited primarily through contacts with community adolescent treatment programs or through advertisements on local radio stations and in newspapers inviting parents concerned about their adolescent child's substance use to participate in a research study. They were eligible to participate if they were the parent, guardian, or other legal caretaker of a child 12 – 20 years old (consistent with the NIH definition of adolescent) and had face-to-face contact with the child for at least 15 of 30 days. The adolescent had to have a primary drug abuse problem involving alcohol or a psychoactive drug other than tobacco or caffeine, could not be receiving treatment, and could not have a significant cognitive impairment (e.g., severe psychiatric disorder). Parents were excluded if they had a substance use disorder themselves during past two years (determined via DSM-IV-TR criteria), significant cognitive impairment, a recent history of severe violence initiated by the adolescent, or were currently receiving treatment addressing the adolescent's substance use. Ineligible parents were offered referrals to more appropriate services. All procedures were approved by the Treatment Research Institute and Philadelphia Department of Public Health Institutional Review Boards prior to initiating study recruitment activities.

Parents who telephoned the clinic were screened for initial eligibility and then scheduled for in-person screening to verify and finalize eligibility. Ten participants were assigned to one of two family specialists after providing informed consent. One participant became ineligible shortly after enrollment because her daughter was sent to a residential school precluding regular parent-child contact and one parent self-terminated from the study prior to engaging in any of the CRAFT sessions. The majority of the eight remaining participants were the biological mother ( $n = 7$ ) of a male adolescent ( $n = 7$ ) who was using marijuana ( $n = 7$ ; opiates  $n = 1$ ). Four participants were White, two were Black, two were of mixed race; and one was Hispanic. The adolescents ranged from 14 – 18 years old.

### Procedures

In the description of the intervention procedures below, the basic program structure and the treatment components are described. Additional procedural details regarding treatment entry procedures are also provided. The CRAFT components listed in Table 1 plus the two PMT

components added to modify the original CRAFT intervention are indicated in italics to show how all the components were integrated into the new CRAFT intervention for parents.

**Basic program structure**—All participants were encouraged to complete 12 individual training sessions within a 3-month period of time and could utilize up to six additional emergency sessions. The first session lasted 90 minutes and the remaining sessions lasted approximately 60 minutes. Emergency sessions typically lasted 30 – 60 minutes and were used to assist the parent with crisis situations during the intervention period, to deal with treatment components that were applied only under special circumstances (i.e., *safety training* or *bringing in critical family members*), or for subsequent post-intervention booster sessions.

The content of the CRAFT sessions were delivered according to standard guidelines for behavioral skill training. When training a new skill, the family specialists would first teach the skill didactically, then model the skill, have the parent practice the skill in a *role-play with praise and corrective feedback* provided regarding the parent's performance of the skill, and finally discuss how the parent would practice the skill at home, anticipating potential barriers and using *problem-solving* techniques to address them.

The intervention was implemented according to a structured 11-module manual that contained clear specifications and guidelines for the delivery of the intervention. For each module, the manual specified the estimated completion time, the purpose, specific behavioral goals for the parent and the family specialist, materials to be used, session content, homework, session evaluation, and decision-making guidelines (e.g., if the parent's communications skills were sufficient to progress to treatment entry training, which relied heavily on communication skills). Although the CRAFT manual was highly structured, the family specialist was given considerable flexibility in selecting the appropriate module for a session, individualizing the content for each parent, and addressing the parent's concerns and crises as they arose. Sessions followed a basic format: approximately 5–10 minutes to review homework and the parent's interactions with their child since the prior session. The next 40–45 minutes of targeted module content scheduled for the session; and about 5 min to summarize the session, assign homework (when appropriate), answer questions, and schedule the next appointment.

**Description of the modules**—The 11 modules included the 8 original behavior management strategies, and the two new PBT strategies that we added. Most of the modules focused on one of the 10 behavioral management strategies; however, one of the modules combined three strategies: positive reinforcement, ignoring substance use, and arranging competing reinforcing activities were combined into one module training differential reinforcement. Specifically the CRAFT modules were: (1) *introduction and building motivation*, (2) *functional analysis*, (3) use of differential reinforcement (i.e., *positive reinforcement, ignoring substance use, and arranging competing reinforcing activities*), (4) *communication skills*, (5) *allowing natural consequences*, (6) *behavior monitoring*, (7) *behavior-reducing consequences*, (8) *treatment entry training*, (9) *life enrichment*, and (10) *treatment termination*.

**Treatment entry procedures**—As part of the treatment entry training module, parents were trained to invite their adolescent to enter treatment. Parents were given the option of inviting the adolescent to enter an adolescent treatment program directly or to invite the adolescent to come with him or her to a meeting at the clinic. Adolescents who attended a clinic meeting, were asked to discuss their own concerns and goals (e.g., academic difficulties; family conflict) as well as the concerns of the parent (e.g., parent’s concern about their academic difficulties or family conflict). Family specialists used basic motivational interviewing strategies to encourage the adolescent to contemplate the possibility of receiving professional help to address his/her concerns and goals. Adolescents who agreed to consider receiving help were offered a wide variety of appropriate treatment options (e.g., substance abuse treatment; family, mental health, school guidance, or pastoral counseling). When necessary, clinicians assisted the parent with issues related to treatment costs (e.g., utilization of insurance, public assistance, etc.).

**Measures**—There were two main outcome measures for the pilot study; acceptability of the CRAFT intervention and adolescent treatment entry. We recorded the number of sessions parents completed as the primary measure of treatment acceptability. We defined adolescent treatment entry in two ways. First, we recorded entry to our treatment program if the parent was successful in bringing the adolescent to the CRAFT clinic to discuss parent and adolescent concerns. Second, parents completed the Supplemental Services Form at each visit, reporting any behavioral health services that they or their adolescent had received since the last visit.

## Results

**Parent Acceptance**—To date, 6 of the 9 parents who were assigned to CRAFT have either completed at least the minimum requisite 12 sessions ( $n = 3$ ) or are still active in treatment ( $n = 3$ ). This represents a 67% retention rate using an intent-to-treat model, and a 75% retention rate among those parents who initially engaged in the CRAFT intervention.

**Adolescent Treatment Entry**—All three of the parents who have completed 12 or more CRAFT sessions were successful in bringing their child to the clinic for a treatment referral. Two of the three adolescents accepted referrals for treatment after 2–3 meetings with a specialist and entered treatment in the community. The third adolescent has completed three meetings at our clinic, but has not yet accepted a treatment referral; however, this case is still active and there is still potential for treatment entry. Two of the three parents who are currently active in CRAFT also have been successful in getting their adolescent to enter treatment in the community, and the third adolescent has attended one meeting with a family specialist, but has not yet accepted a treatment referral. As such, all parents who actively engaged in CRAFT have been successful either in getting their adolescent to engage in treatment or to meet with one of our family specialists to discuss treatment referral options. Two thirds (67%) of these adolescents have currently entered treatment in the community to address their substance use.

## Discussion

Preliminary results of our uncontrolled pilot study appear promising. While the intent-to-treat parent retention rate of the revised CRAFT intervention is currently less than optimal, the retention rate among parents who initiate CRAFT is acceptable. Furthermore, initial results suggest that the revised intervention will be at least as successful as the 64–68% treatment entry rates found in the adult version of CRAFT. Anecdotally, parents have reported that the services they received were excellent, that the program gave them useful tools and skills, and that they would recommend the program to other parents. They stated that they still use the skills they learned and several indicated that they occasionally review their materials in order to retain the skills they learned in the CRAFT intervention. When asked for constructive feedback about their study involvement, comments focused on program logistics: one participant indicated that the assessments were a little monotonous; 2 indicated that the clinic location was inconvenient; and one indicated that hours were inconvenient. In response, we expanded to provide services at several locations and extended our hours for the randomized controlled trial of CRAFT for parents of adolescents that is currently underway.

We found that recruiting parents for the CRAFT program is more difficult than anticipated. While we were aware of the difficulties of recruiting multiple family members into adolescent treatment programs, we believed that recruiting a single parent would be easier. Future research examining factors influencing leading parents to request help could be useful for tailoring recruitment and other aspects of parent-focused programs. Our screening records indicated that most of the parents who were not eligible for the study were excluded because their child was over 20 years old. In discussions with parent groups we found that many parents did not recognize that their child had a problem until their early twenties. This suggests the possibility that many parents are not aware of their child's substance use or minimize its relevance during their adolescent's high school years, failing to perceive it as problematic until their child continues to use into early adulthood despite experiencing repeated negative effects. We have altered our inclusion criteria, increasing the age limit for the child to 25 years in order to address concerns of parents with older children and improve study recruitment.

## Summary and Future Directions

If our ongoing controlled clinical trial of CRAFT for parents proves efficacious, it would be an evidence-based treatment that could be directly disseminated to parents independent of their adolescent's treatment. Community-based drug abuse treatment programs would be an appropriate venue for CRAFT, but a direct parent-delivery strategy could open up additional avenues for dissemination, side-stepping barriers to dissemination in community substance abuse treatment programs (e.g., lack of reimbursement for parent services, limited staff training resources, reluctance to change the current approach). For example, CRAFT could be offered through private practitioners and community-based mental health therapists, as most parents of adolescents experience psychological distress and are likely to meet at least one diagnostic category that would make them eligible for third-party reimbursement for mental health treatment sessions. As components of the recently enacted Patient Protection

and Affordable Care Act are implemented, behavioral healthcare may be more readily available through behavioral healthcare specialists working in primary care practices and CRAFT could be offered by these settings. Furthermore, it may be possible to disseminate CRAFT online, allowing wider distribution directly to parents. Preliminary data suggest that providing CRAFT bibliotherapy alone to CSOs may assist in increasing treatment entry rates of adult drug abusers by a factor of 1.5 – 2 times that typically seen in study control groups (Smith, Meyers, & Austin, 2008).

While finding multiple methods for disseminating CRAFT to parents might make it easier for them to receive help, it will not replace the need for disseminating family-based and other empirically-supported treatments for adolescent drug abuse. What CRAFT can do is provide much-needed skills to parents who are interested in helping their children, but who are not receiving help or are dissatisfied with the help they are receiving via traditional community-based adolescent treatment programs.

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Table 1

| Parent Management Training               |                              |   |                        |                             |                                |                            |                            |                |                    |            |              |                                      |
|--|------------------------------|---|------------------------|-----------------------------|--------------------------------|----------------------------|----------------------------|----------------|--------------------|------------|--------------|--------------------------------------|
| CRAFT                                    | Introduction and orientation | Defining observing & recording behavior | Positive reinforcement | Time-out from reinforcement | Attending and planned ignoring | Shaping and school program | Review and problem solving | Family meeting | Low-rate behaviors | Reprimands | Compromising | Skill review, practice & termination |
| Introduction & building motivation       | X                            |   |                        |                             |                                |                            |                            |                |                    |            |              |                                      |
| Functional analysis                      |                              | X*                                      |                        |                             |                                |                            |                            |                |                    |            |              |                                      |
| Positive reinforcement                   |                              |   | X                      |                             | X                              | X                          |                            |                |                    |            |              |                                      |
| Arrange competing reinforcing activities |                              |   | X                      |                             |                                |                            |                            |                |                    |            |              |                                      |
| Ignoring substance use                   |                              |   |                        |                             | X                              |                            |                            |                |                    |            |              |                                      |
| Natural consequences                     |                              |   |                        |                             | X                              |                            |                            |                |                    |            |              |                                      |
| Communication skills                     |                              |   |                        |                             | X                              |                            |                            |                |                    |            |              |                                      |
| Treatment entry                          |                              |   |                        |                             |                                |                            |                            |                |                    |            | X            |                                      |
| Life enrichment                          |                              |   |                        |                             |                                |                            |                            |                |                    |            |              |                                      |
| Role-play with feedback                  |                              |   |                        |                             |                                |                            |                            | X              |                    |            |              | X                                    |
| Problem-solving                          |                              |   |                        |                             |                                |                            | X                          |                |                    |            |              |                                      |
| Bringing in critical family members      |                              |   |                        |                             |                                |                            |                            | X              |                    |            |              |                                      |
| Safety training                          |                              |   |                        |                             |                                |                            |                            |                |                    |            |              |                                      |
| Treatment termination                    |                              |   |                        |                             |                                |                            | X                          |                |                    |            |              | X                                    |

Note: X = Component in both treatments;

\* PMT component includes Functional Analysis, but CRAFT does not include Observing and Recording behavior;

Shaded headings = component missing in other treatment