

BRIEF REPORTS

A Randomized Trial of Two Methods for Engaging Treatment-Refusing Drug Users Through Concerned Significant Others

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In a randomized clinical trial, 90 concerned significant others (CSOs) of treatment-refusing illicit drug users were assigned to either (a) community reinforcement and family training (*CRAFT*), which teaches behavior change skills; (b) *CRAFT* with additional group aftercare sessions after the completion of the individual sessions; or (c) AI-Anon and Nar-Anon facilitation therapy (*AI-Nar FT*). All protocols received 12 hr of manual-guided individual treatment. Follow-up rates for the CSOs were consistently at least 96%. The *CRAFT* conditions were significantly more effective than *AI-Nar FT* in engaging initially unmotivated drug users into treatment. *CRAFT* alone engaged 58.6%, *CRAFT* + aftercare engaged 76.7%, and *AI-Nar FT* engaged 29.0%. No CSO engaged a treatment-refusing loved one once individual sessions had been completed.

Drug treatment facilities regularly receive desperate phone calls from concerned significant others (CSOs) regarding drug-abusing loved ones who refuse to seek treatment. This is not surprising, in that a majority of individuals with drug problems are unmotivated to seek help (Institute of Medicine, National Academy of Sciences, 1990). Historically, clinicians have had limited options for CSOs. This is regrettable because (a) CSOs have close contact with the drug user and, consequently, are in an excellent position to influence drug use (Stanton & Todd, 1982); (b) CSOs can play critical roles in prompting drinkers and drug users to seek treatment (Cunningham, Sobell, Sobell, & Kapur, 1995); and (c) CSOs have to deal with drug-related stressors, including violence, verbal aggression, financial problems, marital conflict, and social embarrassment (Velleman et al., 1993).

Options for CSOs have been 2-step programs such as AI-Anon and Nar-Anon (AI-Anon Family Groups, 1990) or the Johnson Institute Intervention (HI; Johnson, 1986). The 12-step programs advocate detachment and acceptance of the CSO's inability to control the loved one's drug or alcohol use. For the HI, the intervention itself—a confrontational meeting with the alcoholic shows reasonable engagement rates for those whose families actually complete the intervention. However, a majority of the families find this confrontational approach unacceptable, with only 30% carrying through to the family meeting (Leipman, Nirenberg, & Begin, 1989; Loneck, Garrett, & Banks, 1996).

Community reinforcement and family training (*CRAFT*) is an enhanced version of the community reinforcement training (CRT) program for CSOs, developed by RJM. These programs were

outgrowths of the well-supported, learning-theory-based community reinforcement approach for people with substance use disorders (Azrin, 1976; Azrin, Sisson, Meyers, & Godley, 1982; Hunt & Azrin, 1973; Smith, Meyers, & DeJaney 1998). In a small study with CSOs of drinkers (Sisson & Azrin, 1986), 6 of the 7 drinkers whose CSOs received CRT entered treatment compared with none of the 5 drinkers whose CSOs received disease-concept treatment. As the study had only 2 participants, further research was needed.

In a much larger study, 130 CSOs of treatment-refusing identified patients (IPs) with alcohol use disorders were randomly assigned to *CRAFT*, AI-Anon facilitation therapy (AFT), or the HI. CSOs in *CRAFT* were significantly more successful at engaging their IPs in treatment (64%) than were CSOs in HI (30%) or AFT (13%; Miller, Meyers, & Tonigan, 1999).

Recently *CRAFT* and CRT have been applied to drug-abusing populations. Significant differences in IP engagement were detected when CSOs who received CRT (64% engaged) were contrasted with CSOs who attended 12-step meetings (17% engaged; Kirby, Marlowe, Festinger, Garvey, & LaMonaca, 1999). An uncontrolled *CRAFT* study found that 74% of 62 CSOs of treatment-refusing drug users successfully engaged their IPs into treatment (Meyers, Miller, Hill, & Tonigan, 1999).

The present study was an extension of the earlier *CRAFT* alcohol trial (Miller et al., 1999). The *CRAFT* and 12-step interventions from that study were compared for the CSOs of treatment-refusing illicit drug users. Because most CSOs in our earlier *CRAFT* studies (Meyers et al., 1999; Miller et al., 1999) attended a majority of sessions and often desired continuing support, we decided also to test whether adding an aftercare group to *CRAFT* would improve outcomes, including engagement rates. The intent was to offer ongoing support, such as is available to 12-step participants through AI-Anon and Nar-Anon meetings, and to provide additional behavioral training as needed. It was predicted that CSOs assigned to either *CRAFT* condition would be more successful at engaging their IPs in treatment than would CSOs receiving AI-Nar FT and that CSOs in *CRAFT* + aftercare would show better engagement rates than those in *CRAFT* alone or

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AI-Nar FT. On the basis of our alcohol trial, we expected CSOs in all groups to show improved personal functioning.

When IPs initiated treatment, they received the same treatment modality to which their CSO was originally randomized. The present report focuses on the impact of CSO interventions on IP engagement and CSO functioning.¹

Method

Study Sample

CSOs were recruited through newspaper ads offering help with treatment-refusing, drug-abusing loved ones. CSOs had to meet the following criteria: (a) be a first-degree relative, spouse, intimate partner, or someone who lives with the IP; (b) be at least age 18 (both CSO and IP); (c) have IP contact on at least 40% of the last 90 days; (d) live within 60 miles of the project; (e) describe the IP in a manner consistent with the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*;

American Psychiatric Association, 1994) diagnoses for a psychoactive substance use disorder other than alcohol; and (f) consent to participate. Interested CSOs were interviewed initially through a brief screening interview by telephone. One of the first questions asked was how their IP would respond today to an invitation to enter treatment. If they said that their IP would be interested, the CSO was excluded from the study. CSOs who said their IP would refuse treatment or CSOs who were too apprehensive to approach the IP because of prior repeated refusals were included. The 55 CSOs who were excluded for these and other reasons were given referrals.² The remaining CSOs were scheduled for intake, at which time informed consent was obtained and final eligibility was decided by administering the substance use and psychotic screening sections of the Structured Clinical Interview for *DSM-IV* (SCID; First, Spitzer, Gibbon, & Williams, 1996). The SCID was conducted first with the CSO to obtain information about her or him and a second time with the CSO to collect IP information. All IPs had to meet abuse or dependent criteria to be eligible for the study. This same procedure was followed for the Form-90 Lifetime Treatment History section.

Assessment

The CSO's assessment covered three domains: CSO functioning, IP functioning,³ and relationship status. The CSO's impression of the IP's functioning was collected because these would be the only data on IP status for IPs who never began treatment.

CSO functioning. Research suggested that CSO functioning could be influenced in several areas as a result of treatment: psychological status, psychosocial adjustment, and physical health. CSOs completed the following instruments about themselves: Beck Depression Inventory, State-Trait Anxiety Inventory, State-Trait Anger Expression Inventory, State Self-Esteem Scale, Form-90-Drug Intake, Inventory of Drug Use Consequences, Social Functioning and Resources Scale, Purpose in Life Scale, Physical Symptoms, and the Stages of Change Readiness and Treatment Eagerness Scale. (Citations for these instruments can be found in Meyers et al., 1999, or Miller et al., 1999.)

Relationship status. Because CSOs were involved in various types of relationships with the IPs, several instruments assessed these dyads: Family Environment Scale, Dyadic Adjustment Scale, Relationship Happiness Scale, and Conflict Tactics Scale. (Citations for these instruments can be found in Meyers et al., 1999, or Miller et al., 1999.)

Interventions

CSOs were assigned to one of three conditions: CRAFT, CRAFT + aftercare, or AI-Nar FT using urn randomization procedures. This ensured that critical pretreatment characteristics did not differ across groups:⁴

skills training designed to influence the IP's drug use and to persuade the IP to enter treatment. CRAFT components included domestic violence precautions, motivational strategies, assessment of the context of the IP's use, communication training, positive-reinforcement training, discouragement of drug use, training CSOs to reward themselves, and suggesting treatment to the IP (Meyers & Miller, 2001).

Both CRAFT conditions offered] 2 individual sessions and 2 optional emergency sessions. Participants in CRAFT + aftercare were eligible to attend a CRAFT aftercare group for up to 6 months after completing their individual sessions. These open-ended groups used the same CRAFT principles and were conducted by the same therapists.

AI-Nar FT CII/Iditioll. CSOs assigned to the AI-Nar FT condition also received manual-guided therapy to facilitate their understanding of and entry into the 12-step family program. The manual was modeled after the Project MATCH 12-step modality (Nowinski, Baker, & Carroll, 1992) and was previously adapted for our CRAFT alcohol trial. It included an emphasis on detachment and the CSO's powerlessness to control the IP's use. But it departed somewhat from traditional AI-Anon/Nar-Anon philosophy, as there was an emphasis on getting the IP to enter formal treatment. CSOs were encouraged to strengthen their own mental health as well.

Therapists. Behaviorally oriented therapists delivered CRAFT, and 12-step-oriented counselors offered AI-Nar FT.⁵ All therapists received weekly supervision from experts in the protocol. Supervisors also reviewed and rated randomly selected videotapes as well as difficult case tapes referred by the therapists. The CRAFT supervisors were on site (RJM & JES). The AI-Nar FT supervisor, Joseph Nowinski, offered initial training on site and weekly supervision via telephone.

¹ IPs will be presented in a separate report.

² Potential CSOs were excluded for the following reasons: IP had not refused treatment ($n = 14$), IP did not meet criteria for substance dependence or abuse ($n = 11$), CSO was unwilling to participate ($n = 7$), IP was already in substance abuse treatment ($n = 7$), insufficient contact with the IP ($n = 6$), CSO met criteria for substance use disorder ($n = 2$), insufficient information regarding the IP ($n = 2$), CSO had a current psychiatric disorder ($n = 2$), IP had a history of domestic violence or criminal assault in the prior 2 years or had a history of severe violence (involving a weapon or resulting in hospitalization: $n = 1$), IP had a current psychiatric disorder ($n = 1$), IP was incarcerated ($n = 1$), or the IP no longer had a substance use problem ($n = 1$). Additional CSO exclusion criteria that resulted in no exclusions were being unable to read the assessment material (6th grade level) or CSO planned to obtain more than 6 hr of psychotherapy outside of the project within the next 3 months.

³ CSOs' impressions of their IPs were collected with the following instruments: the Form-90C, Inventory of Drug Using Consequences, States of Change Readiness and Treatment Eagerness Scale (SOCRATES), Readiness Ruler, Barrier to Treatment, Family Environment Scale, Dyadic Adjustment Scale, Relationship Happiness Scale, and the Conflict Tactics Scale. (Citations for these instruments can be found in Meyers et al., 1999, or Miller et al., 1999.) Only data related to IP demographics and baseline substance use are presented in this article.

⁴ The urn variables were CSO's age, CSO's relationship to the IP, CSO's estimate of IP's motivation (SOCRATES; using a median split on Taking Steps subscale), CSO's Beck Depression Inventory score, CSO's prior 12-step group exposure, and whether the IP had prior formal drug treatment.

⁵ Of the eight CRAFT therapists, seven held master's degrees in psychology and had 1-3 years of experience, and one had a bachelor's degree and 12 years of substance abuse treatment experience. Two of the three AI-Nar FT therapists held master's degrees and had an average of 12 years

Treatment for IPs

When an IP agreed to seek treatment, the CSO or IP called either the project office or the pager to schedule an appointment. Efforts were made to schedule the IP's assessment within 48 hr. CSOs had a 6-month window from their first treatment session in which to engage their IP.

Follow-Up

Regardless of whether their IP entered treatment, follow-up assessments were conducted with CSOs at 3, 6, 9, 12, and 18 months after the CSO's intake by independent interviewers using the same instruments noted for baseline.

Results

Study Sample

Ninety CSOs were randomly assigned to *CRAFT* ($n = 29$), *CRAFT* + aftercare ($n = 30$), or *AI-Nar FT* ($n = 31$). Most of the CSOs were women ($n = 79$; 88%), and about half were of Hispanic origin ($n = 44$; 49%). Across conditions, 53% of CSOs were parents of the IP, 30% were spouses or unmarried romantic partners, and 17% were close friends or family members other than parent or spouse (e.g., siblings, children) of the IP. CSOs, on average, had known the IP for over 20 years. They reported having some type of contact with the IP on more than 77% of the 90 days before intake. One-way analyses of variance were conducted to assess *CSO* group equivalency on continuous measures, and chi-square analyses were used with categorical measures. None of the 6 inferential tests indicated a significant difference among groups on pretreatment measures (all p s > .05; *CSO* characteristics are available from *RIM* on request). On average, CSOs attended 10.61 ($SD = 3.7$) therapy sessions, with no between-groups differences.

How valid were *CSO* reports of IP status? For cases in which the IP was subsequently engaged, Pearson product-moment correlations were computed on selected measures between *CSO* report of IP functioning and IP self-report. Relatively high *CSO* and IP agreement was obtained on frequency of IP work days in the 90 days before IP engagement, $r = .69$, $p < .01$, and frequency of IP institutional days, $r = .77$, $p < .01$. Likewise, *CSO* and IP agreement was high for the frequency of any illicit drug use prior to IP engagement, $r = .65$, $p < .01$, and for target drug use, $r = .73$, $p < .01$. These correlations supported the validity of *CSO* report of IP functioning.

In terms of *CSOs'* pretreatment reports of IP drug use, *CSOs* estimated that IPs had used the drug of most concern on about 40 of the past 90 days, and use of any illicit drug was estimated at 61 days of the past 90. (Details are available from *RIM* on request.) No significant differences by *CSO* treatment group were found across six illicit drug use categories. Finally, differences in intravenous (IV) drug users were obtained across groups, with the *CRAFT* + aftercare and *AI-Nar FT* conditions having significantly higher proportions of IV users relative to *CRAFT* alone. This withstood a Bonferroni correction to account for the 10 inferential tests. When the two *CRAFT* conditions were combined, there was no difference between them and *AI-Nar FT*. Excellent *CSO* follow-up rates were achieved, with none of them below 96%.

CSO Engagement of IP Into Treatment

A total of 49 treatment-refusing IPs (54%) were engaged in substance abuse treatment after *CSO* recruitment. Engagement was

defined as completing baseline assessment, signing the informed consent, and scheduling a treatment session. Three chi-square tests were conducted to test the relative effectiveness of the *CSO* interventions, and a Bonferroni correction was applied to control for inflated Type I ($\alpha = .0167$). Overall, a significant relationship was found between *CSO* group assignment and IP engagement status when considering all three *CSO* groups, $\chi^2(2, N = 90) = 14.77$, $p < .01$. The engagement rate for each condition was *CRAFT* (58.6%; $n = 17$), *CRAFT* + aftercare (76.7%; $n = 23$), and *AI-Nar FT* (29.0%; $n = 9$). A second chi square (without the *AI-Nar FT* group) indicated that the engagement rate for *CRAFT* + aftercare did not significantly exceed that for *CRAFT* alone. When both *CRAFT* groups were combined, *CRAFT* *CSOs* engaged resistant IPs significantly more often than did *CSOs* of the *AI-Nar FT* group, $\chi^2(2, N = 90) = 12.55$, $p < .01$. This finding was maintained when contrasting *AI-Nar FT* separately with *CRAFT* ($p < .02$) and *CRAFT* + aftercare ($p < .01$). Importantly, engaged IPs attended an average of 7.56 ($SD = 4.22$) therapy sessions.

Changes in CSO Functioning

Between-groups pre-post changes in *CSO* functioning were considered through the 12-month follow-up by using a multivariate approach to repeated measures analyses. Baseline values of the dependent measure were used as a covariate in each analysis. No mean group differences for the 12 months after intake were found when using the Bonferroni correction. A more consistent pattern was found in pre-post improvement in functioning regardless of *CSO* group assignment. Here, seven measures indicated improvement in *CSO*-Depression, physical symptoms, and family functioning (at unprotected $p < .05$). None of these tests, however, were significant after correction for the number of tests conducted (i.e., $.05/19 = .0026$).

Discussion

Data from this study parallel our earlier finding that *CRAFT* procedures were significantly more effective in engaging unmotivated problem drinkers in treatment, relative to a 12-step condition, and they replicate the similar report of Kirby et al. (1999) with drug abuse as the presenting concern. The absolute level of successful engagement with *CRAFT* is also similar across these three controlled trials, 64% in Miller et al. (1999), 64% in Kirby et al. (1999), and 67% in the present study, and approaches our engagement rate (74%) in an uncontrolled trial of *CRAFT* to initiate drug abuse treatment (Meyers et al., 1999). Together, these studies indicate that approximately two thirds of IPs with substance use disorders can be engaged in treatment despite their initial refusal by training the *CSO* in reinforcement methods.

The rate of successful engagement via *AI-Nar FT* was somewhat higher in this study (29%) than in the two prior trials (13% in Miller et al., 1999; 17% in Kirby et al., 1999), but in all three studies, there was a substantial difference between *CRAFT* and the 12-step program. This is of clinical concern, because referral to *AI-Anon* or *Nar-Anon* is the common professional response when *CSOs* call for help regarding an IP.

CSOs in our prior study had indicated that they wanted more treatment than the 12 sessions of *CRAFT*, and we had hoped that offering this continuing care in the form of an aftercare group

would further increase CSO benefit and engagement. Neither happened. Perhaps CSOs did not benefit substantially from aftercare because only 47% of those eligible for it even attended any of the groups. Of the 14 CSOs who attended, 11 (79%) had already engaged their IP before participating in the groups. CSOs for the majority of the unengaged IPs for this condition never attended aftercare (4 on), and the remaining 3 CSOs of unengaged IPs who attended aftercare did not succeed in engaging them. Thus, not one CSO engaged their IP in treatment as a result of attending the additional aftercare sessions. Analyses indicated no significant difference in engagement rates between the two CRAFT conditions, allowing them to be combined for other analyses. When combined, 67.2% of the CSOs assigned to CRAFT engaged their IP, as compared with only 29% of the CSOs assigned to AI-Nar FT.

There are two limitations of the study that are noteworthy. One is that the treatment supervisors were the sole raters of treatment integrity and quality. It would have been preferable to have coders unaffiliated with the delivery of the treatment rate the sessions as well. A second limitation is the relatively small number of CSOs who were the spouses or unmarried romantic partners (as opposed to being the parents) of the IPs. Still, this probably should not be viewed as a major concern, because several studies now have demonstrated robust engagement rates for CRAFT-trained CSOs who have had a wide variety of relationships with their IP.

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