Engaging the Unmotivated in Treatment for Alcohol Problems: A Comparison of Three Strategies for Intervention Through Family Members

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In a randomized clinical trial, 130 concerned significant others (CSOs) were offered 1 of 3 different counseling approaches: (a) an Al-Anon facilitation therapy designed to encourage involvement in the 12-step program, (b) a Johnson Institute intervention to prepare for a confrontational family meeting, or (c) a community reinforcement and family training (CRAFT) approach teaching behavior change skills to use at home. All were manual-guided, with 12 hr of contact. Follow-up interviews continued for 12 months, with 94% completed. The CRAFT approach was more effective in engaging initially unmotivated problem drinkers in treatment (64%) as compared with the more commonly practiced Al-Anon (13%) and Johnson interventions (30%). Two previously reported aspects of the Johnson intervention were replicated: that most CSOs decide not to go through with the family confrontation (70% in this study) and that among those who do, most (75%) succeed in getting the drinker into treatment. All 3 approaches were associated with similar improvement in CSO functioning and relationship quality. Overall treatment engagement rates were higher for CSOs who were parents than for spouses. On average, treatment engagement occurred after 4 to 6 sessions.

A common clinical problem is posed by calls for help from concerned significant others (CSOs) seeking ways to deal with loved ones who are unmotivated to change alcohol problems. Such contacts represent an opportunity for engaging relatively unmotivated problem drinkers in treatment, and such CSOs themselves suffer substantial distress, danger, and adverse consequences (Collins, Leonard, & Searles, 1990; Vellman et al., 1993). Conventional practice includes several approaches for helping CSOs, but clinical research in this area has been sparse, and the outcomes of these interventions are virtually unknown.

At least three distinct CSO counseling approaches have been advocated. They evolved from rather disparate understandings of the nature of motivation and alcohol problems and in some cases lead to seemingly inconsistent recommendations (e.g., intervene vs. detach). An Al-Anon-based approach (Al-Anon Family Groups, 1984, 1990; Alcoholics Anonymous [AA], 1976) advocates loving detachment, acceptance of the CSO's helplessness to control the alcoholic, and group support for the CSO. Little is known about the nature and determinants of outcomes for CSOs (and their loved ones) who are referred to Al-Anon, the most widely used source of support for CSOs. A second approach prepares CSOs for a meeting in which they confront the drinker with the adverse effects of his or her drinking and urge treatment. A familiar U.S. manifestation of this approach is an intervention advocated by Vernon Johnson (1986). Unilateral family therapy (UPT) is a third approach, in which the CSO is taught coping skills and strategies to use at home to alter the loved one's drinking and motivation for change (cf. Orford, 1994). This is exemplified by the community reinforcement (Sisson & Azrin, 1986, 1993) and unilateral family approaches (Thomas, Adams, Yoshioka, & Ager, 1990; Thomas & Ager, 1993; Thomas & Yoshioka, 1989), wherein the CSO learns skills to extinguish drinking behavior, reinforce nondrinking behaviors, improve communication, reduce conflict, and prepare for treatment initiation.

Although alcohol treatment outcome studies have been published for more than half a century, little evaluation research has been devoted to the problem of helping CSOs (Liepman, Nirenberg, & Begin, 1989). To be sure, there is a large literature on family therapy involving CSOs in treatment as adjunctive supporters, once the drinker is engaged (O'Farrell, 1993). Much less studied is the topic of unilateral intervention through CSOs when the problem drinker is unmotivated for change. Most available studies have been characterized by small sample sizes, limited outcome measures, and methodological problems.

Studies of Al-Anon

Al-Anon was not designed to engage individuals with alcoholism in treatment but to provide support for their loved ones. In fact, Al-Anon members are encouraged to detach and not try to control the alcoholic individual's drinking, advice that would not be expected to increase engagement of the drinker. Its focus is more on the well-being of family members. In this sense, Al-Anon functions as a "no-treatment" control condition for treatment engagement strategies. Nevertheless, referral to Al-Anon is common when relatives call for help regarding drinking problems of a family member.

Dittrich and Trapold (1984) studied benefits in 23 wives of untreated alcoholic husbands randomly assigned to receive imme-
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Johnson interventions on the CSOs who participate, on the problem drinkers, and on their relationships.

Studies of Family Training in Behavioral Coping Skills

Sisson and Azrin (1986) randomly assigned 12 CSOs to receive either skills-focused community reinforcement training (CRT) or a disease model/AI-Anon approach (both administered by the same behavior therapists). In the CRT condition, 6 of 7 identified patients entered treatment after a mean of 58.2 days and an average of 7.2 sessions, having already reduced their mean alcohol consumption by more than half. In the comparison group, none entered treatment or evidenced improvement. The fact that the AI-Anon condition was delivered by therapists who were inexperienced and unenthusiastic with the approach renders this an unfair comparison. Azrin, Sisson, Meyers, and Godley (1982), for example, found strikingly better outcomes with CRT relative to traditional (disease model) therapy when both were delivered by behavior therapists, whereas no such differences were observed in Project MATCH (Project MATCH Research Group, 1997), wherein cognitive-behavioral and 12-step approaches were each delivered by therapists trained, experienced in, and committed to their approach.

Other investigators have advocated unilateral family therapy (UFT) with CSOs of unmotivated substance abusers (Szapocznik, Kuttines, Foote, Perez-Vidal, & Hervis, 1983; Thomas et al., 1990; Thomas & Santa, 1982). Thomas, Santa, Bronson, and Oyserman (1987) assigned 25 spouses of alcoholic individuals to receive either immediate or delayed treatment and followed 10 other untreated nonrandom comparison participants (apparently treatment dropouts). From 13 (of 15) treated cases with usable data at the 4- to 6-month follow-up, 8 drinkers (62%) had entered treatment and/or reduced drinking by at least 53%, whereas none of the 6 (of 10) comparison participants at follow-up had done so. In a subsequent trial, 55 spouses were randomized to immediate or delayed UFT. UFT was again associated with improved CSO coping and reduced drinking (Thomas & Ager, 1993). Szapocznik et al., in a randomized design with 37 Hispanic families of drug-abusing adolescents, compared brief strategic therapy delivered to all family members or primarily to the drug abuser (although all were involved in assessment and initial counseling). At follow-ups to 12 months, comparable changes were observed for the two groups in family interactions/structure and in symptomatology of the identified patient. An Australian group developed an approach to teach CSOs to apply successive “pressures to change” (PTCs). PTC procedures overlap substantially with CRT, including motivational feedback, changing social reinforcement patterns with regard to drinking, scheduling incompatible activities, and behavioral contracting (Barber & Gilbertson, 1997). A noteworthy difference from CRT is that confrontation based on a Johnson model was used as the highest level of PTC. A pilot evaluation was conducted with 23 clients randomized to three groups: individual PTC, group PTC, or a waiting-list control (Barber & Crisp, 1995). For 10 of 16 clients given PTC, drinkers either “made appointments” to discuss treatment (n = 7) or stopped (n = 1) or reduced their drinking (n = 2), whereas no one on the waiting list showed such change at 3 months. Measures of CSO functioning were consistent with differential improvement in the PTC conditions, but the sample size was sufficient to detect only very large effects.
In a subsequent small trial (Barber & Gilbertson, 1996), 48 CSOs who were in “constant contact” with heavy drinkers were randomized to one of the three conditions from the pilot study or were referred to Al-Anon. In each of the PTC conditions, 4 drinkers kept appointments to discuss treatment and were referred. Eight more (6 in individual PTC) stopped or reduced their drinking. Once again, none of the drinkers whose CSOs were on the waiting list or were referred to Al-Anon made any of these changes during 11 to 17 weeks of follow-up. Therapeutic benefits to CSOs were observed only when PTC was delivered as individual treatment rather than as group treatment (Barber & Gilbertson, 1996). CSOs assigned to Al-Anon also benefited in terms of personal functioning, even though their loved ones did not change. A recent study found support for a self-help form of PTC relative to an untreated control condition (Barber & Gilbertson, 1997).

The long-term objective of the present study was to develop effective methods for counseling CSOs that will improve outcomes both for them and for the drinkers about whom they are concerned. Toward this objective, three different strategies were compared in a randomized trial with CSOs as clients: (a) an Al-Anon-oriented counseling approach, (b) the Johnson Institute intervention, and (c) community reinforcement and family training (CRAFT). The overall project compared rates of successful treatment engagement as well as the relative short- and long-term impact of these three strategies on a range of outcomes, including (a) general function of the CSO; (b) the drinker’s alcohol use and related problems; (c) relationship happiness and family environment; (d) health care utilization by the drinker and the CSO; and (e) seeking of further help for alcohol problems, including utilization of Al-Anon and AA. All drinkers prepared for treatment through CSO interventions were offered participation in an embedded clinical trial (Study 2), in which they were randomized to one of two treatments: the community reinforcement approach (Azrin et al., 1982; Meyers & Smith, 1995) or a 12-step facilitation treatment (Nowinski, Baker, & Carroll, 1992). This first report of outcomes from the 5-year Study 1 focuses on rates of treatment engagement and on outcomes for CSOs.

Method

The Study Sample

CSOs participating in this trial were seeking advice or help with regard to the problem drinking of someone who lived with them. Referrals were accepted from various sources, but most came in response to announcements through local news media. We had considered accepting only spouses as participants, but decided that a broader range of CSOs was preferable because (a) nonspouse CSOs also seek help, (b) little is known about the generalizability of spouse intervention approaches to other types of relationships, and (c) it is reasonable to expect that nonspouse CSOs can benefit from interventions (Szapocznik et al., 1983; Szapocznik, Kurtines, Foote, Perez-Vidal, & Hervis, 1986).

To participate in the study, CSOs met all of the following criteria: (a) living with a problem drinker who was either a close relative (parent, child, grandchild, or sibling) or a spouse or unmarried intimate partner; (b) residing within a 60-mile radius of the research site; (c) in contact with the drinker on at least 40% of the past 90 days, with no planned change (e.g., separation) in the next 90 days; (d) at least 18 years of age (both the CSO and the drinker); (e) willing to participate in the research; (f) describing the drinker in a manner consistent with Diagnostic and Statistical Manual of Mental Disorders (3rd ed., rev.; DSM–III–R; American Psychiatric Association, 1987) diagnostic criteria for alcohol abuse or dependence; and (g) evidence that the drinker refused to seek treatment and had not received any treatment (other than detoxification) for alcohol or drug problems in the prior 3 months. In addition, any of the following excluded a CSO from the study: (a) the CSO also met DSM–III–R criteria for a substance use disorder; (b) unremitted psychosis or other severe psychiatric condition in the CSO or the drinker that could impair ability to participate; (c) the CSO intended to receive more than 6 hr of additional treatment during the next 3 months; (d) evidence that the drinker had an illicit drug problem more severe than the alcohol problem (e.g., alcohol abuse but cocaine dependence); (e) any evidence of crack cocaine or intravenous drug abuse; (f) the drinker had received a Johnson Institute intervention within the prior 3 years; (g) the CSO had insufficient reading ability to comprehend the self-assessment packet (approximately sixth-grade reading level); or (h) evidence that the drinker had engaged in domestic violence, or had committed criminal assault during the prior 2 years, or had a history of severe violence (involving a weapon or resulting in hospitalization). Only 7 of these 15 criteria resulted in exclusions at screening. The criterion of at least 40% contact days between the CSO and the drinker was predicated on our analyses of the Project MATCH Research Group (1997) pretreatment data, which indicated that the accuracy of CSO estimates of drinking falls off substantially below this level of contact. Because we relied solely on CSO estimates of drinking for those who did not enter Study 2, we deemed this important for credibility of Study 1 outcome data.

Screening

Referrals were interviewed first through a telephone quiet-screen for eligibility. CSOs found ineligible were referred to appropriate community resources. CSOs passing the quiet-screen were scheduled for intake as soon as possible. The intake began with an explanation of the study, a review of the elements of informed consent, and the signing of the consent statement. The interviewer then ascertained eligibility through diagnostic information on alcohol, other drugs, and psychosis using the Structured Clinical Interview for DSM–III–R (Spitzer, Williams, Gibbon, & First, 1990), which was administered first to the CSO for him- or herself and then again to the CSO to obtain information regarding the drinker.

Fifty cases were excluded for the following reasons: CSO had insufficient contact with the drinker (n = 17), drinker had a history of violence (n = 11), drinker had not refused treatment (n = 10), CSO was unwilling to participate (n = 4), CSO was alcohol dependent (n = 3), drinker had severe psychiatric disorder (n = 3), and drinker did not clearly meet diagnostic criteria for alcohol abuse or dependence (n = 2).

Assessment

Once eligibility was determined, more detailed assessment was completed. Information from the CSO provided the only data that would be available for problem drinkers who did not enter treatment. We therefore obtained data from CSOs regarding all three domains of anticipated impact: CSO status, drinker status, and relationship status. Of central interest was the percentage of participants engaged in treatment, but other important domains were also assessed at intake and follow-up interviews. The intake assessment battery included the following measures.

CSO status. The functioning of CSOs themselves could be affected in several domains, beyond those pertaining to the relationship with the drinker. Beneficial impact of interventions might be observed in emotional status, psychosocial adjustment, physical health, and CSO alcohol and drug use. CSOs completed these measures: the Beck Depression Inventory (BDI; Beck, Steer, & Garbin, 1988); the State–Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and the State–Trait Anger Expression Inventory (STAXI; Spielberger, 1988); a self-esteem scale (Heatherton & Polivy, 1991); a physical symptoms scale (R. F. Moos, Cronkite, Billings, & Finney, 1987); and the Spouse Enabling Inventory.
and Spouse Sobriety Influence Inventory, which describe CSO coping strategies (Thomas, Yoshioka, & Ager, 1994). The Form 90–Alcohol Intake, a structured assessment interview developed for Project MATCH (Miller, 1996; Tongian, Miller, & Brown, 1997), was used to determine the quantity and frequency of drinking and other drug use, employment, and health care use. Form 90 is a hybrid of two previously used approaches for alcohol outcome assessment: the timeline follow-back (Sobell & Sobell, 1992) and grid profiling (Miller & Marlatt, 1984). Finally, lifetime and past 3-month incidence of alcohol-related problems and dependence were assessed using the Drinker Inventory of Consequences (DrInC: Miller, Tongian, & Longabaugh, 1995) and the Alcohol Dependence Scale (ADS; Skinner & Horn, 1984). The DrInC is a measure of negative life consequences (apart from dependence signs), which includes concerns more likely to be experienced by women.

Drinker status. Research indicates that collaterals give information about drinkers’ alcohol consumption that is reasonably correlated with drinkers’ self-reports (e.g., Tongian et al., 1997). This appears to be particularly true for CSOs who live with the drinker. We found that the convergence of collateral and self-report data in Project MATCH differed substantially depending on whether collaterals did not (r = -.20) or did (r = .84) live with and have frequent contact (>40% of days) with the drinker. The Form 90–Alcohol Collateral (Miller, 1996), which was used for obtaining collateral assessment, yielded data on drinking and other drug use, employment, treatment, and health care utilization. The DrInC and ADS were also completed by the CSO, who reported known lifetime and recent (3 months) consequences and dependence symptoms for the drinker.

Relationship status. Because we proposed to study CSOs who have a variety of relationships to problem drinkers, we administered instruments adaptable to a range of dyads. The Family Environment Scale (FES; R. H. Moos & Moos, 1986) was used to assess the quality of family interactions. The Dyadic Adjustment Scale (Spanier, 1976) assessed the quality of spousal relationships and was administered only to marital and cohabiting dyads. The more general Relationship Happiness Scale (Azrin, Naster, & Jones, 1973; Sisson & Azrin, 1986) rates relationship satisfaction in 10 areas using Likert scales. Finally, the Conflict Tactics Scale (Straus, 1979), a structured interview, was used to assess the occurrence of various methods of conflict resolution (including violence) in the CSO–drinker relationship.

Randomization

After intake assessment, CSOs were assigned at random to one of three intervention groups. To ensure a balanced distribution of critical pretreatment characteristics across groups, we used urn randomization (Stout, Wirtz, Carbonari, & DelBoca, 1994). Variables entered into the urn for CSOs were (a) gender, (b) ethnicity, (c) education, (d) age, (e) type of relationship to drinker, (f) lifetime DrInC score, and (g) number of lifetime Al-Anon meetings attended.

Intervention Groups

AI-Anon facilitation. The first intervention paralleled the 12-step facilitation modality developed and tested in Project MATCH (Nowinski et al., 1992) and was designed to engage the CSO in the program and processes of Al-Anon. The underlying philosophy was that the CSO is powerless to control the drinker and must detach, focusing instead on the acceptance program of Al-Anon and on strengthening his or her own mental health. This might be expected to impact the drinker indirectly (e.g., by reducing CSO enabling behavior), but it must be noted that changing the drinker is explicitly disavowed as a goal in Al-Anon. The intervention helped the CSO to become acquainted with basic concepts and readings of Al-Anon (AI-Anon Family Groups, 1973, 1984, 1990; copies of which were provided to CSOs) and to complete its initial steps. The treatment lasted up to 12 sessions of 60 min each, including 8 core sessions intended to be delivered to all CSOs. The counselor set the length of treatment within these limits, with flexibility to add 2 additional crisis sessions if needed, which directly paralleled the Project MATCH protocol. A therapist manual was developed by Joseph Nowinski, who tailored his Project MATCH manual, standardized treatment content, and trained and supervised the therapists.

Johnson Institute intervention. Vernon Johnson and the Johnson Institute have promoted a special form of family intervention designed to instigate treatment. In this widely used approach, family members are prepared to confront the problem drinker with what they have experienced and observed about the drinking and related problems. In a caring and supportive manner, the drinker is encouraged to enter treatment, and sanctions may be applied for failing to do so. Procedures for conducting this intervention have been well specified (Johnson, 1986; Johnson Institute, no date) and were explicitly followed in delivering this condition. This treatment was provided by professional staff from the Albuquerque Area National Council on Alcoholism and Drug Dependence, who were trained at the Johnson Institute and had regularly practiced this approach. Supervision was provided by A. Lane Leckman, a psychiatrist highly experienced in the approach. This protocol consisted of six sessions of approximately 2 hr each: four preparatory sessions with CSOs, the intervention session with the drinker and CSOs, and a postintervention evaluation session.

RAFT. The third group replicated and extended the approach tested by Sisson and Azrin (1986), originally developed in the 1980s by Robert J. Meyers, who supervised this treatment condition. The CSO was told that he or she could have a substantial impact on the drinker’s alcohol use and decision to enter treatment and was taught skills for doing so. Other adaptive skills were taught to improve the life quality of the CSO. Obviously, modifications were made in the procedures over 2 decades. Specific components retained and modified from the original treatment included the following.

1. Awareness training, which involved raising awareness of negative consequences and of potential benefits of treatment, was modified. The original treatment took a much more confrontational approach that focused on negative consequences to the CSO, whereas CRAFT emphasizes positive benefits to be gained and incorporates the clinical style of motivational interviewing (Miller & Rollnick, 1991).

2. Contingency management training to reinforce nondrinking, extinguish drinking behavior, and avoid interfering with negative consequences of drinking was modified. Imposing negative consequences (punishment) for drinking, emphasized in the original approach, was deemphasized in favor of extinction combined with reinforcement for nondrinking.

3. Communication skill training was retained, including role-play, to increase positive relationship patterns through unilateral counseling.

4. Competing activities were planned as before in order to interfere and compete with drinking. Strategies to interfere with drinking and potential drinking were also practiced.

5. Outside activities procedures were also retained in order to increase the CSO’s own reinforcing activities outside the relationship.

6. Handling dangerous situations was given greater emphasis and was moved to the first session of CSO counseling.

7. “Suggesting counseling” procedures were retained, which prepared the CSO to initiate treatment when the drinker appeared ready (see Meyers, Dominguez, & Smith, 1996; Meyers & Smith, 1997). Original procedures placed more emphasis on negative consequences and shame, whereas current CRAFT procedures emphasize positive expectations and reinforcement. Greater care was given to choosing an appropriate time to raise the topic of counseling, rather than waiting for negative consequences to occur.

Procedures originally designed to instigate and maintain disulfiram medication were not used. All treatment was provided through individual counseling, whereas some of the Sisson and Azrin (1986) treatment was done in group format. Finally, a functional analysis procedure was added.
to identify triggers for drinking and potential reinforcers for alternative nondrinking behaviors.

**Therapists**

As noted above, Sisson and Azrin (1966) crossed therapists with conditions, so that both behavioral and traditional (disease and 12-step) conditions were offered by behaviorally oriented therapists. Such therapists would likely have biased expectancies regarding the relative efficacy of the two approaches, and therapist expectancies can be a powerful determinant of outcome (e.g., Leake & King, 1977). To avoid this, we nested therapists within treatment protocols that reflected their own orientation and expertise. Nesting of therapists also mirrors clinical practice, wherein therapists offer the approach(es) with which they are most comfortable and proficient. All treatments were manual-guided and designed to consist of 12 hr of therapist contact.

The Al-Anon facilitation therapy, which was adapted from Project MATCH (Project MATCH Research Group, 1997; Nowinski et al., 1992), was delivered by four counselors with an average of 14 years of experience in 12-step treatment of substance use disorders. Three held master’s degrees, and one held a bachelor’s degree and had 22 years of 12-step treatment experience. Johnson Institute interventions were delivered by a master’s-level counselor with 27 years of alcohol treatment experience and by a licensed independent social worker with 17 years of alcohol treatment experience. CRAFT was provided by five therapists who had fewer years of experience and who were guided by a manual prepared by Robert J. Meyers. Four CRAFT therapists held master’s degrees (with 0 to 3 years of prior alcohol treatment experience), and one held a bachelor’s degree and 6 years of alcohol treatment experience. After initial training and supervision with clients not included in the trial, therapists in each condition were certified by the supervisor and continued in weekly supervision meetings to monitor and maintain quality of treatments. All three treatment conditions were videotaped, with randomly selected tapes monitored by the treatment supervisor for each condition to ensure ongoing adherence to protocols. Although session tapes were not systematically coded for analysis, monitoring supervisors had authority to remove a therapist from seeing trial clients if adherence fell below acceptable levels. However, it was never necessary for this step to be taken with therapists in this study.

**Treatment for Identified Patients (IPs)**

All CSOs were given a 24-hr access number to call when the drinker was willing to consider treatment. When a phone call was received, an initial appointment was scheduled, usually within 1 to 2 days. At this appointment, a clinical staff member described to the drinker (a) the rapid availability of free treatment through the trial and of alternative treatment programs in the community, (b) study procedures, and (c) the conditions of informed consent. No additional exclusion criteria were used at this point; all drinkers referred within 6 months of the CSO’s first session were eligible. Drinkers who declined to enter the Study 2 trial or who called after the 6-month eligibility window were referred to other treatment options in the community.

**Follow-Up**

Follow-up assessments were completed with the CSO (and, when treatment had been initiated, concurrently with the drinker) at intervals of 3, 6, 9, and 12 months after CSO randomization. At these points, drinking variables were assessed in a manner to yield a continuous daily timeline throughout the 12-month period. Regardless of the drinker’s status, CSOs continued to be assessed for 1 year at regular 3-month intervals from their own entry into the trial. Follow-up interviews were conducted by independent research staff who were unaware of group assignment or details of clinical procedures in the trial.

**Results**

**Study Sample**

A total of 130 CSOs, of whom 118 (91%) were women, were recruited into the study and were assigned to the Al-Anon facilitation (n = 45), Johnson Institute intervention (n = 40), or CRAFT (n = 45) conditions. Once individuals had entered the trial, they were retained for all analyses (intent to treat), so that this report represents the entire randomized sample.

CSOs were primarily Hispanic (39%) and White non-Hispanic (53%), with 8 Native Americans (6%), 1 African American, and 1 client indicating “other” ethnic origin. They ranged in age from 21 to 81 years, with a mean of 47 years, and reported an average of 14 years of education. For total annual family income, 17% fell below $15,000 and 53% fell below $30,000, with only 10% above $60,000. Their relationship to the loved one about whom they were concerned was that of a spouse (59%), parent (30%), boyfriend or girlfriend (8%), child (1.5%), or grandparent (1.5%); on average the relationship had been of 22 years’ duration (range = 1 to 57 years). Over half (58%) had previously sought help through Al-Anon. Most CSOs (73%) were currently married and living with a spouse and were employed full-time (51%) or part-time (17%).

To determine whether the treatment groups were equivalent at baseline, we compared them using one-way analyses of variance (ANOVAs) for 16 pretreatment variables, including continuous indexes of employment, length of marriage, physical symptoms, religious attendance, depression, anger, and use of medical and psychological care. We also conducted six chi-square analyses to compare groups on gender, ethnicity, marital status, type of relationship to the problem drinker, employment status, and prior Al-Anon participation. None of the 22 analyses reflected a significant difference among groups, even with alpha level unprotected at p < .05. Neither did the three groups differ significantly with regard to CSOs’ estimates of the drinker’s alcohol use (frequency or intensity) and negative consequences of drinking or scores on three scales of motivation for change (Miller & Tonigan, 1996). It appears, therefore, that random assignment procedures yielded pretreatment groups that were similar on a broad range of attributes.

**CSO Participation**

CSOs who sought help regarding a loved one showed a high rate of attendance at their own treatment sessions. Of 12 planned 1-hr sessions, CSOs completed an average of 11.4 (95%) in the Al-Anon facilitation condition and 10.7 (89%) in CRAFT. Of 6 planned 2-hr sessions in the Johnson Institute intervention condition, CSOs on average attended 3.18 sessions, or 6.2 of 12 hr (53%). A chi-square analysis of these percentages reflected a highly significant difference, $\chi^2(2, N = 130) = 18.71, p < .001$. The reason for the lower completion rate in the Johnson Institute intervention group is that a majority of CSOs (70%) decided not to go through with the family confrontation (Session 5), closely replicating a prior report (Lipman et al., 1989). We found no significant difference among the three groups in a one-way ANOVA of the number of days between initial recruitment and completion of the first treatment session ($M = 11.5$ days).

We observed differences among groups on two postrandomization measures. Consistent with the goals of treatment, CSOs in
Al-Anon facilitation therapy were more likely (75%) to have attended Al-Anon during the 90 days after randomization as compared with those in the CRAFT (18%) or Johnson Institute intervention (18%) condition. \( \chi^2(2, N = 109) = 45.14, p < .001 \). Those in the Al-Anon facilitation condition also reported receiving more therapy sessions outside the project \( (M = 4.81, SD = 6.56) \) during 90 days compared with those in the Johnson Institute intervention \( (M = 2.03, SD = 4.68) \) and CRAFT \( (M = 2.62, SD = 4.72) \) conditions, \( F(2, 124) = 3.09, p < .05 \), with unprotected alpha level.

Follow-up completion rates were excellent in all three conditions. In the Al-Anon facilitation condition, 98% (44/45) of the follow-up interviews were completed at 3 and 6 months and 93% (42/45) were completed at 9 and 12 months. In the CRAFT condition, all 45 participants completed interviews at 3, 6, and 9 months, as did 44 (98%) at 12 months. Of 40 CSOs in the Johnson Institute intervention condition, 39 were interviewed at 3 and 6 months (98%), 38 (95%) at 9 months, and 36 (90%) at 12 months. Of the 130 randomized CSOs, 94% participated in all four follow-up interviews.

**Treatment Engagement**

The primary outcome measure here was the percentage of drinkers who were successfully engaged in treatment during the first 6 months following CSO intake (although engagement was tracked for a full 12 months). Such treatment could be received by the drinker through Study 2 (free treatment available through this project) or from other sources. Overall, 44 drinkers (34%) were engaged in Study 2 treatment during the 6-month window of eligibility following randomization of the CSO. (Engaged is defined here as completing at least the initial 4-hr assessment and one treatment session.) Table 1 reports the dependent variable of central interest in this study: the percentage of unmotivated problem drinkers who were successfully engaged in treatment within each condition. The difference was significant, \( \chi^2(2, N = 130) = 29.84, p < .0001 \), with a substantially higher engagement rate in the CRAFT condition compared with the other two conditions.

As shown in Table 1, 3 other clients (all in the Johnson Institute intervention condition) were engaged (at least for two sessions) in treatment other than that provided through Study 2 (1 inpatient, 2 outpatients) during the 6-month window, raising the engagement rate for the Johnson Institute intervention condition to 30%. Combining these 3 clients with Study 2 participants, we found that the difference in overall 6-month engagement rates among the three intervention approaches remained significant, \( \chi^2(2, N = 130) = 27.33, p < .0001 \). During Months 7–12, 5 additional clients entered treatment (1 inpatient, 4 outpatients), and again engagement rates for the full year remained significantly different, \( \chi^2(2, N = 130) = 23.78, p < .0001 \).

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Al-Anon facilitation</th>
<th>Johnson Institute intervention</th>
<th>CRAFT</th>
</tr>
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<tbody>
<tr>
<td>No. randomized</td>
<td>45</td>
<td>40</td>
<td>45</td>
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<tr>
<td>No. engaged in Study 2</td>
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<td>9</td>
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<tr>
<td>% engaged in Study 2</td>
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<td>64</td>
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<td>0</td>
</tr>
<tr>
<td>% engaged within 6 months</td>
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<td>30</td>
<td>64</td>
</tr>
<tr>
<td>No. engaged in other treatment at 9–12 months</td>
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<td>2</td>
<td>1</td>
</tr>
<tr>
<td>% engaged within 12 months</td>
<td>20</td>
<td>35</td>
<td>67</td>
</tr>
</tbody>
</table>

*Note. CRAFT = community reinforcement and family training.*
therapy sessions received by CSOs during the intervention period (Months 1–3) was entered to control for effects that might be exerted by additional treatment. Finally, we entered the type of relationship between CSO and drinker (spouse, parent, or other) as a covariate. A total of 120 clients had complete data for this logistic regression (8% missing). Intervention condition remained a significant predictor of drinker engagement when entered after these three covariates, Wald $\chi^2(2, N = 120) = 17.27, p < .002$. Of the three covariates entered into the model, only CSO relationship status predicted IP engagement. This finding was consistent across 6-month, Wald $\chi^2(1, N = 120) = 7.04, p < .008$, and 12-month analyses, Wald $\chi^2(1, N = 120) = 7.91, p < .005$. Collapsing across treatment conditions, we found that pairwise contrasts indicated that parents were significantly more likely to engage problem drinkers (51% at 6 months and 56% at 12 months) than were spouses (32% at 6 months and 34% at 12 months).

**CSO Improvement**

Although engaging the drinker in treatment was a major focus of this trial, the interventions were also intended to benefit the CSOs themselves. We used a repeated measures multivariate analysis of covariance to test for group differences and to examine how such differences may have varied across time. Five dependent measures (see Table 2) were specified to represent CSO and relationship functioning at 3- and 6-month follow-ups: depression (BDI score), anger (STAXI), family cohesion and conflict (from the FES), and relationship happiness (rated on a Likert scale, per Azrin et al., 1973). The model had one between-subjects factor representing CSO intervention group (three levels) and one within-subject time factor with three levels (intake and 3- and 6-month dependent measures). One covariate was included in each of the five analyses: the total number of therapy sessions received by the CSO from sources other than the research program during the 6-month period.

No CSO Group × Time interactions were significant. Large time effects were observed on all five measures, reflecting overall reductions in depression, $F(2, 196) = 14.49, p < .001$; anger (STAXI state, $F(2, 222) = 10.65, p < .002$; STAXI trait, $F(2, 214) = 8.48, p < .002$); and family conflict, $F(2, 206) = 10.28, p < .001$, with significant improvement in family cohesion, $F(2, 204) = 10.59, p < .001$, and relationship happiness, $F(2, 198) = 9.00, p < .001$. No main effects of CSO intervention groups were observed, indicating that CSO improvement was similar in all three conditions.

To determine whether CSO improvement was contingent on success in engaging the drinker in treatment, we entered treatment engagement (yes vs. no) as a covariate, which was collapsed across the three conditions. In no case was a moderating effect observed, indicating that CSO improvement occurred whether or not the drinker ultimately entered treatment. We further performed analyses of covariance for the outcome variables, comparing CSOs whose drinkers did versus did not enter treatment, with baseline drinking as the covariate. Again, no significant effects were found (all $p > .05$), indicating that CSOs showed similar benefit whether or not they succeeded in engaging the drinker in treatment.

**Therapist Differences**

Therapists often differ substantially in their success rates in treating substance use disorders (for reviews, see Najavits &

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**Table 2**

Concerned Significant Other Functioning Before, During, and 3 Months After Study Intervention

<table>
<thead>
<tr>
<th>Measure and time</th>
<th>Al-Anon facilitation</th>
<th>Johnson Institute intervention</th>
<th>CRAFT</th>
<th>Time effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck Depression Inventory</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Intake</td>
<td>10.7</td>
<td>6.8</td>
<td>10.8</td>
<td>9.1</td>
</tr>
<tr>
<td>3 months</td>
<td>7.8</td>
<td>8.5</td>
<td>8.2</td>
<td>7.2</td>
</tr>
<tr>
<td>6 months</td>
<td>7.5</td>
<td>7.5</td>
<td>7.0</td>
<td>6.6</td>
</tr>
<tr>
<td>State anger (STAXI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>12.7</td>
<td>4.6</td>
<td>12.4</td>
<td>4.2</td>
</tr>
<tr>
<td>3 months</td>
<td>11.1</td>
<td>3.4</td>
<td>11.0</td>
<td>2.3</td>
</tr>
<tr>
<td>6 months</td>
<td>11.2</td>
<td>2.8</td>
<td>10.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Family cohesion (FES)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>5.3</td>
<td>2.9</td>
<td>4.4</td>
<td>2.2</td>
</tr>
<tr>
<td>3 months</td>
<td>5.8</td>
<td>2.7</td>
<td>5.2</td>
<td>3.0</td>
</tr>
<tr>
<td>6 months</td>
<td>5.7</td>
<td>2.9</td>
<td>5.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Family conflict (FES)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>3.5</td>
<td>2.5</td>
<td>3.6</td>
<td>2.0</td>
</tr>
<tr>
<td>3 months</td>
<td>3.2</td>
<td>2.3</td>
<td>2.8</td>
<td>1.9</td>
</tr>
<tr>
<td>6 months</td>
<td>2.8</td>
<td>2.4</td>
<td>2.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Relationship Happiness Scale</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intake</td>
<td>5.6</td>
<td>2.3</td>
<td>4.8</td>
<td>2.0</td>
</tr>
<tr>
<td>3 months</td>
<td>5.6</td>
<td>2.7</td>
<td>5.5</td>
<td>2.6</td>
</tr>
<tr>
<td>6 months</td>
<td>6.3</td>
<td>2.8</td>
<td>5.9</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*Note. CRAFT = community reinforcement and family training; STAXI = State-Trait Anger Expression Inventory; FES = Family Environment Scale.*

**$** $p < .002. **$*** $p < .001.
Weiss, 1994, and Project MATCH Research Group, 1998). A simple index in the present study is the percentage of each therapist’s cases in which the drinker was successfully engaged in treatment (see Table 3). Across the 11 therapists in the study, this figure ranged from 16% to 100%. A noteworthy finding here is that the lowest engagement rate for any CRAFT therapist (50%) surpassed the highest engagement rate for therapists in the other two conditions.

Therapists with smaller caseloads may yield unrepresentative rates, however, and greater reliability of measurement would be expected for therapists who treated at least 10 cases (Project MATCH Research Group, 1998). Two therapists in each condition met this criterion. The engagement rates of the two therapists did not differ significantly within the Al-Anon facilitation (16% and 17%) and Johnson Institute intervention (33% and 36%) conditions. Within the CRAFT condition, however, engagement rates differed for the two therapists who treated 10 or more cases (50% vs. 91%), \( \chi^2(1, N = 25) = 5.23, p < .02 \), Fisher’s exact test (two-tailed) \( p < .042 \).

**Discussion**

Our findings support reasonable confidence in the conclusion that the CRAFT approach—teaching CSOs skills to modify contingencies for drinking behavior—is substantially more effective than the two more commonly practiced approaches in engaging initially unmotivated problem drinkers in treatment. In another study, we reported a 74% rate of successful engagement for unmotivated illicit drug users when their CSOs are taught CRAFT procedures (Meyers, Miller, Hill, & Tonigan, in press; cf. 70% in Garrett et al., 1997). As in the present trial, we also observed in the drug abuse CRAFT study a significant but larger advantage for parents (relative to partners) in engaging unmotivated illicit drug-abusing loved ones in treatment (Meyers et al., in press).

An important next step, given the efficacy of CRAFT, is to understand the causal mechanisms involved. Why do the CRAFT procedures yield such a higher rate of engagement? We suggest two possible reasons, beyond the teaching of specific behavior management skills. First is the direct message that family members can do something to instigate change. The empowerment assump-

| Table 3 |
| Treatment Entry Rates for Therapists' Cases Within Each of the Three Counseling Approaches |

<table>
<thead>
<tr>
<th>Al-Anon facilitation</th>
<th>Johnson Institute intervention</th>
<th>CRAFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entered</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Therapists with &gt;10 cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Therapists with &lt;10 cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>33</td>
</tr>
</tbody>
</table>

Note. CRAFT = community reinforcement and family training.

Our findings also replicate reports from prior randomized trials of skill-training approaches in counseling CSOs. Our CRAFT 6-month engagement rate of 64% mirrors that reported for drinkers (62%) by Thomas et al. (1987), although it is not as optimistic as the 86% report from the small sample of Sisson and Azrin (1986). The latter group reported treatment engagement after an average of 58 days and 7.2 sessions of community reinforcement training, similar to our own finding of 47 days and 4.7 CRAFT sessions. None of these trials, however, have documented that clients actually learned and practiced the new skills that were taught—an important future step in understanding the mechanisms of change.
The present study introduced several methodological improvements over prior research on interventions with CSOs. A large sample was studied, enhancing power to detect reliable differences. We took care, through screening, to establish that drinkers met diagnostic criteria for alcohol abuse or dependence and were initially unmotivated to seek treatment. Three disparate approaches to counseling CSOs were compared with each other for the first time in a randomized trial. Urn randomization was successful in balancing pretreatment characteristics for the three groups. Each treatment was delivered by therapists who were committed to, trained in, and experienced with their approach. All three treatments were manual-guided and were designed to be sufficiently consistent with routine practice so as to enhance clinical generalizability. Therapists were predominantly master’s-level counselors, consistent with current provider patterns. Outcome measures included treatment engagement, CSO functioning, and relationship variables, as well as drinker outcomes (to be detailed in a subsequent report of the Study 2 randomized trial). Treatment was made readily available for drinkers engaged by their CSOs during the study. Follow-up retention was high (94% at 12 months), and assessment interviews were conducted by independent research staff who were not informed of group assignment.

Nevertheless, no single trial can be conclusive. We designed this study seeking to enhance both internal and external validity. Our findings are consistent with those reported from prior controlled and uncontrolled evaluations. Our data indicate that although the three approaches tested are similar in their impact on CSOs, teaching behavior change strategies to families (CRAFT) is substantially more effective in engaging unmotivated problem drinkers in treatment. These findings are of clinical significance because it remains common practice (at least in the United States) in counseling those who call for help with a substance-abusing loved one either to prescribe a Johnson Institute intervention or to recommend participation in Al-Anon. Our findings indicate that these two approaches are comparatively ineffective in initiating treatment, which is often the primary concern of relatives who call for help.

Finally, this study indicates that successful unilateral intervention is possible not only through spouses but through other family members as well. Parents in particular were quite successful in engaging an adult child in treatment. Our requirement of at least 40% contact days between CSO and drinker leaves open the question of whether CSOs who are in less frequent contact would have similar success. Our findings do clearly show that in initiating treatment, one need not wait for problem drinkers to find their own intrinsic motivation for change. With effective and empowering therapeutic intervention through the family, a majority can be engaged in treatment despite little or no initial inclination to seek help. These methods may be applicable to engagement for treatment of other life problems as well.

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