

## Outcomes with the *ARISE* Approach to Engaging Reluctant Drug- and Alcohol-Dependent Individuals in Treatment<sup>#,†</sup>

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## ABSTRACT

Our goal was to explore, through a Stage I NIH clinical study, the effectiveness of a manual-driven, timely response method for helping the “concerned other” get resistant substance abusers into treatment/self-help with minimum professional time/effort. A manual-driven protocol, “A Relational Sequence for Engagement (ARISE),” was applied with 110 consecutive, initial calls/contacts from concerned others; no cases excluded for research, refusal, or other reasons. The research was conducted at two upstate New York outpatient drug/alcohol clinics. Participants were concerned others who called regarding a cocaine, alcohol, or “other drug” abuser ( $N = 110$ ); participating family/friends: 11 ARISE clinicians; and 110 substance abusers. ARISE is a graduated continuum starting with the least demanding option/stage, increasing effort as needed to engage substance abusers in treatment/self-help. Stage I: Coaching the concerned other to arrange a meeting of significant others, inviting the substance abuser; Stage II: 1 to 5 additional meetings (median = 2); Stage III: A modified Johnson “Intervention.” Primary outcome variables were substance abuser engagement (or not) in treatment/self-help; days between first call and engagement; clinician time/effort. Predictors were concerned other, substance abuser, and clinician demographics; number of participants per case; and Collateral Addiction Severity Index. ARISE resulted in an 83% success rate (55% at Stage I). Median days to engagement was 7 (IQR = 2 to 14). Average total time (telephone, sessions) per case was 1.5 hours. Treatment/self-help chosen was 95% treatment and 5% self-help. Number of family/friends involved correlated 0.69 with a success/efficiency index. *Conclusions.* A call from a family member or concerned other for help in getting a loved one into treatment is a rich opportunity for treatment professionals and agencies to engage substance abusers in treatment. These initial calls are similar to referral calls from EAPs or probation

officers looking to get an individual started in treatment. *ARISE* provides an effective, swift, and cost-efficient option for engaging substance abusers in treatment or self-help. The more significant others involved, the greater the success of treatment engagement.

*Key Words:* Addiction; Concerned other; Significant other; Engagement; Family; Intervention; Link; Link therapist; Network; Outcome; Outreach; Research; Resilience; Substance abuse.

## INTRODUCTION

A major concern in the addiction field in the United States and Canada is that in any given year, 90% to 95% of drug- and/or alcohol-dependent persons do not get into either treatment or self-help (1–6). This disturbing finding highlights the need for improved methods for engaging substance abusers in treatment. As Frances and Miller (7) have stated, the substance abuse field's "major challenge is helping substance abusers to accept and continue in treatment" (p. 3).

Partly in response to the above, a number of research-supported innovations in treatment engagement have emerged within the field since at least the late 1980s. Evidence has been accumulating that, next to legal and employer coercion, one of the most potent avenues for engagement of substance abusers into treatment is through the actions of "concerned others" (COs), such as family, friends, clergy, coworkers, neighbors, etc. For example, in a 12-year follow-up of opioid addicts, Simpson and Sells (8) found that 75% credited family as a major reason for their entering a treatment program. As Resnick and Resnick (9) put it, "...the family can often be the key to forcing the patient to stop the denial and avoidance and begin dealing with the... problem" (p. 723), whereas Miller, Meyers and Tonigan (10) note, in this regard, that "family members can do something to instigate change" (p. 695). In fact, the studies in this area tend to support the premise that family members and extended social support networks can have a positive influence on treatment engagement, regardless of initial resistance and ambivalence.

Historically, the best known model for mobilizing members of the support network to engage substance abusers (SAs) in treatment, particularly alcoholics, is the Johnson "Intervention" (11,12). This method normally requires 10 to 12 hours (range = 8 to 15 hours) of secret meetings in which strategizing, letter writing, and rehearsing of presentations to the SAs are undertaken. However, despite a 30-year history and widespread use, we could locate only four studies, all of them with alcohol problems, which provide outcome data for this model. For two of the studies, 6-month

engagement rates (i.e., the proportion of SAs who entered treatment within 6 months from the CO's entry to the project) were 25% (13) and 30% (10). (To allow comparison across studies, the 6-month criterion is used throughout the remainder of this article.) An early study by Logan (14) reported a 90% rate (although, as discussed below, that rate may be spuriously high). A fourth study by Barber and Gilbertson (15) offered the Johnson Intervention as the final phase of a heavy drinker engagement model and attained a 0% engagement rate from the intervention. None of the COs in that study (spouses or partners) agreed to participate in it, due to the nature of the confrontation, secrecy, and concerns about the potential damage to their relationship with the drinker.

Berenson developed another of the earlier approaches (16) [see also Stanton (17)]. It involves "several sessions" with the most motivated family member or members—commonly a spouse or partner—to get a problem drinker into treatment and AA. The therapist strategizes with the CO and works toward helping her or him "detach" from the drinker. The drinker is also invited to these meetings, but they are held whether or not he/she attends. Although this approach has several fairly clear-cut stages, and a number of specific techniques that could be manualized, no research has yet been undertaken with it.

A number of investigators have examined other engagement models that capitalize on the efforts of COs. Thomas et al. (18,19), compared results with spouses in an immediate versus a delayed intervention for engaging alcoholics in treatment. Their method involved 4 to 6 months (11 to 30 sessions) of Unilateral Family Therapy with the CO (20) [also adapted by Barber and Gilbertson (15)]. Within the 6 months from CO project entry, they obtained a 39.1% rate of engagement success with drinkers in the group in which the spouse was treated immediately, compared with 11% for the delayed group. An additional 17.4% of the immediate intervention drinkers maintained "clinically meaningful" reductions in their drinking levels without treatment entry, so beneficial change was attained for a total of 56.5% (compared to 37% for the delayed group) (21).

An intensive, "strategic structural-systems" engagement model was used by Szapocznik et al. (22) to engage adolescent drug abusers in treatment. Although the sample ranged in age from 12 to 21, 82% were between the ages of 14 and 18. Most (90%) of the COs were the youths' mothers. The method averaged 2.5 "contacts" (telephone, home visits, and office sessions) per case, to be completed within 3 weeks (cases not engaged within that time being regarded as failures). It was found to be 93% successful, compared with 42% for an "engagement as usual" condition.

Without doubt, the most extensively and carefully researched intervention working with COs has been Community Reinforcement and

Family Training (CRAFT). Developed and studied by Meyers, Miller, and associates (20,23–25). CRAFT involves 12 one-hour sessions. It expands the Community Reinforcement Approach/Training (CRA/CRT) of Azrin and colleagues (26–28). A recent study of CRAFT with 62 resistant drug abusers attained a 74% engagement rate (24). Like Unilateral Family Therapy, CRAFT comprises both an engagement method and psycho-educational counseling. It aims at and tracks the progress of improved functioning in the CO (29). Miller et al. (10) performed a randomized trial comparing three engagement approaches ( $N = 130$ ) and found that, within the 6 months following the first CO session, CRAFT was successful at engaging 64% of resistant drinkers in treatment, whereas the rates for the Johnson intervention and Al-Anon were 30% and 13%, respectively.

### Barriers to Successful Engagement

#### Clinical and Programmatic Barriers

Particularly relevant to the engagement question is the long-standing belief, held by many in the field (with, incidentally, little empirical support), that substance abusers must “hit bottom” before they can be helped. A significant proportion of treatment agencies operate from a philosophy that “substance abusers will deny or minimize their problem and will be unmotivated to seek help until their disease reaches an advanced stage and overwhelming problems accrue in many areas of functioning (i.e., they hit bottom)” [(30) p. 45]. In an effort to ensure that SAs demonstrate sufficient self-motivation before starting treatment, many agencies have clear policies that telephone calls or requests from family members, friends, or associates will not be accepted for making intake appointments for SAs (31–35). The logic is that the SAs themselves must call for the appointment, thereby demonstrating significant self-motivation. Such an approach “has led many agencies to be reactive, waiting for the substance abuser to approach them for care” [(30), p. 54, (36)]. This view can, however, be counterproductive, because it discourages active attempts to get help for potential patients at an earlier point in the addiction process. In that way it works against the generally established notion [e.g., (37,38).] that early identification and treatment result in better treatment outcomes (66).

#### Media-Based Barriers

A particularly potent media-based barrier has been the aforementioned nature of the Johnson Intervention, with its popular portrayal as “extremely confrontational, judgmental, shaming, threatening, and harsh, which created

a psychological barrier for the recipient”[(39) p. 10]. Regarding this “old model” of the Johnson Intervention, Fearing (40) has stated that, “This harshness gave the intervention process a negative image... It could, and often did, leave both the patient and intervention team participants with deep emotional scars” (p. 1). Consequently, many COs who might have benefited from the intervention experienced reluctance either to initiate or to complete the process.

Recent years have seen a shift from the old model Johnson Intervention toward Johnson-based models that are less confrontational and blaming and more positive and systemically sophisticated. Examples are Fearing’s (40) “Carefrontation” and Speare and Raiter’s “Systemic Family Intervention” (41). Often, to divest themselves of the earlier stereotype, these methods now avoid the word “intervention” when describing the process to the SA, opting instead for terms like “family meeting” or “family consultation” (40). The extent to which these shifts have infiltrated the public consciousness, however, is unclear. Furthermore, we are aware of no research on these newer Johnson models and how they compare either with the old one, or with other engagement approaches.

### **The Denominator Issue for Engagement Studies**

Engagement research finds itself somewhat in the position that clinical trial research faced some years ago. In the past, substance abuse outcome studies tended to include in their outcome analyses only those individuals who completed a certain minimal number of sessions. This practice came under criticism because it introduces biases into the results—especially when the treatment conditions being compared differ in their dropout rates—and presents a threat to the internal validity of a randomized experiment (42). Indeed, Nathan and Lansky (43) asserted that dropouts should be considered “treatment failures,” whereas Stout et al. (44) have stated that “assessing the effectiveness of a treatment only on a subset of the intake population can lead to overestimation of the effect a treatment will have when applied in the field” (p. 614). For these reasons, present-day practice in outcome research is to include all cases in the analyses, (i.e., the “intent to treat” design).

Likewise, the preponderance of engagement studies have excluded from analysis a proportion, in many instances a high proportion, of cases in which a CO sought help but did not proceed with the engagement method. This raises another issue. Implicit in the engagement enterprise is the notion that any call or contact by a CO to get help for an SA is a “cry for help” and should be taken very seriously. If an engagement method is committed to help as many of these people as possible (and most of them explicitly or

implicitly subscribe to that goal), then those COs who are not helped should, nonetheless, be considered in the outcome analysis. Obviously, this would also include those who do agree to enroll in an engagement activity, are randomly assigned, but do not proceed with it. To maintain any kind of rigor where engagement per se is the question, it is therefore instructive and important for at least the initial analysis to include, in the computation of its success rate, all petitioners for help for an SA. This will better address what is the commonly posed, legitimately high priority question of, “What proportion of SAs did the method get into treatment or self-help?”

Although the above may seem self-evident, its disregard has evolved into a problem of some consequence within this arena. Only 7 of the 13 engagement outcome studies we have located (10,13,18,19,24,29,45) included in their computations the number of cases who failed to proceed with the protocol. Only four (10,18,19,24,45,46) have reported the baseline number of initial inquiries received from COs.

Of the nine studies that did not provide information about inquiries, “feeler” calls, willingness to proceed, and the like (thereby excluding such data from the success rate denominator), the most significant is the Logan (14) study. The reason: Its “90% success” rate has been promulgated as the final word regarding Johnson Intervention outcome. This figure has frequently been cited in the U.S. media, as well as touted by no less than former U.S. First Lady Betty Ford. Unfortunately, Logan makes no mention of the number of cases that were offered a Johnson Intervention but turned it down, as well as those who initially began the process but decided against the confrontation; there is no true baseline N from which to compute an accurate success rate. Meanwhile, the three subsequent studies of this modality found that 70% (10), 71% (13), and 100% (15,47,48) of their cases refused to proceed with the confrontation, resulting in 6-month success rates ranging from 0 to 30%. Although the extent to which nonbaseline results are biased is not exactly clear, in the long run, neither the public nor the field are served by incomplete research leading to overestimated levels of effectiveness.

Fortunately, two groups have endeavored to identify some parameters of the “initial inquiries” question. In an effort to solicit COs of problem drinkers, Yates (45) launched a multimedia publicity campaign—including 350 posters, 1,000 leaflets, and newspaper advertisements—to a plethora of community groups, agencies, hospitals, and referral agents in the Newcastle, England, area. Over the 6 months of the campaign, 30 calls were received from COs, of which 63% came in for at least one session of the engagement method—called “Cooperative Counseling.” Successful treatment engagement (or, in one case, significantly curtailed drinking) was achieved with five cases. (i.e., 16.7% of the original sample).

The other effort was on a larger scale and was conducted at the University of New Mexico over a 2-year period. In response to an ambitious advertising campaign to solicit cases for both an alcohol and a drug abuse engagement study, the investigators received 832 calls from COs interested in getting help for an SA (49). Of those, 240 were selected for the alcohol and drug studies (10,24,46), meaning 640 (76.9%) were excluded [which is close to the 80% reported by Thomas et al. (18,19)]. As a specific example, in the drug abuser study, 241 of 303 callers (79.5%) either declined or were deemed unsuitable and were referred to community resources, leaving 62 cases in the study. The ratios attained in this program probably define the parameters of what other researchers might expect, given various funding agency- and research design-based exclusion criteria. Consequently, the New Mexico and Newcastle investigators have rendered the field a considerable service by providing windows into a previously obscured reality.

### **Background, Rationale, and Procedure of ARISE**

The method examined in the present Stage I study, A Relational Intervention Sequence for Engagement (ARISE), is protocol driven and manual based and works toward mobilizing as many COs from the natural support network as necessary to attain successful engagement of resistant substance abusers in treatment or self-help (34,50–52). This study accepted “all comers” (i.e., all cases about whom a CO contacted one of our agencies). ARISE is designed to hold to a minimum the amount of time and effort expended by professional staff and network members in the engagement endeavor.

Most substance abusers are closely tied to their families. Review of the literature on the regularity with which drug addicts are in contact with their families of origin have concluded that 60% to 80% of them either live with their parents or are in daily, face-to-face, or telephone contact with at least one parent (53–55). Seventy-five to 95% are reported to be in at least weekly contact with one or both parents. Furthermore, this is not just an American phenomenon. In other countries such as England, Greece, Italy, Puerto Rico, and Thailand where such patterns have been examined, an average of 74.3% of drug-dependent adults reside with their parents (range: 62% to 82.5%). In sum, 26 of 28 reports have attested to the regularity with which most drug abusers are in contact with one or more of their parents or parent surrogates (56,57). Similarly, a study by Stanton, Shea, and Garrett [cited in Stanton and Heath (55)], found that, of alcohol-dependent adults (mean age = 36.2 years) with at least one living parent, 87% were in touch with one or both parents at least two or three times per month, and 68%



were in contact weekly or daily. Consequently, it would make sense that these important parental figures be petitioned to help their substance abusing offspring to engage in treatment. The *ARISE* method is designed to actively put such family connectedness to use in the engagement process with resistant SAs.

Developed primarily by Garrett et al. (31). *ARISE* is theoretically and operationally based on the Transitional Family Therapy/Theory (TFT) approach (formerly known as the Rochester Model) for working with SAs and their families (54,58–65). Garrett observed that many families refused to follow through with the Johnson Intervention model when, in the face of what they regarded as too harsh a confrontation, they saw a risk to long-term relationships. By contrast, TFT is nonblaming, nonjudgmental, and committed to family competence, resulting in a “gentler,” more systemic approach to coaching family members to bring their SA into treatment or self-help. In part, it is a systems-based application of the kind of agape that Miller (65) notes can be so important in helping to reverse a pattern of chemical dependency.

#### The *ARISE* Model

*ARISE* is a three-stage, graduated continuum of intervention. It begins with the least demanding option, increasing the effort only if the SA is not engaged at that lesser level. In this way it is consonant with the current interest—within the fields of medicine, mental health, and the addictions—in “stepped care” models for maximizing the efficiency of resource allocation (67–69). The SA, in negotiation with the members of the network, including the clinician, decides on the level of care, the specific treatment program, and/or attendance at self-help meetings.

#### Stage I

Stage I begins the moment a family member or other CO takes action and phones or physically contacts a clinician or treatment program to get help for an SA—the “First Call.” This initial, all-important conversation typically entails 10 to 20 minutes of coaching over the telephone (or in person) by the clinician, facilitator, or interventionist receiving the call. The caller is told, “You don’t need to do this alone, and dealing one-on-one with the SA isolates you, and in such interactions the SA will almost always ‘win.’” The goal of this conversation is to help the caller agree to invite as many significant others from his or her support system as needed to help motivate the SA to enter treatment or self-help. In some instances, the pressure provided by the support system results in the SA presenting for

treatment. However, in most situations a face-to-face meeting is needed. Similar to Berenson's (16) approach, the SA is also invited to that first meeting—the process is kept aboveboard as much as possible and secrecy is discouraged. Another key feature is that the person making the first call agrees to mobilize the network and keep the initial appointment regardless of whether the SA comes to that session. Throughout this interchange, the clinician works from a "First Call Worksheet," which organizes the relevant information.

### Stage II

The clinician proceeds to Stage II only if the SA does not enter treatment during Stage I. Stage II sessions are devoted to setting strategy, designing action plans, and determining others who might assist in the effort. During Stage II, clear and enforceable consequences for the SAs behavior are set, whether the SA attended the session or not, because he/she was invited each time. If, after one to five Stage II network sessions, the SA is still not engaged in treatment/self-help, the network is offered the option of moving to Stage III. Stage III only occurs if the network members agree to enact specific consequences for the SA if he/she chooses not to enter treatment or self-help.

### Stage III

Stage III is the (more confrontational) ARISE Intervention. This is essentially a modified Johnson Intervention similar to "Carefrontation" (40) and "Systemic Family Intervention" (41) but requiring fewer hours. It includes the TFT procedures of mapping the system (51,59,62) and constructing a family time line (70), as appropriate. Again, the overall ARISE procedure is designed to maximize the probability of SA engagement at the earliest possible stage, thus minimizing the amount of time and energy required of staff and network. In this way, it differs substantially from other approaches, because most of them require from 8 to 30 hours of face-to-face sessions (sometimes including several home visits). In addition, ARISE normally achieves its goal within 1 to 3 weeks, similar to the strategic structural-systems model of Szapocznik et al. (22), whereas most other engagement models tend to take 4 to 26 weeks.

The ARISE method has been presented in a series of publications. Garrett et al. provide an overview (31) and manuals (33,34,50,51). Stage I is described in detail in Garrett et al. (70), Stage II in Landau et al. (71), and Stage III in Garrett et al. (32).

## METHODS

The primary purposes of this NIH Stage I study were to develop the *ARISE* protocol and manual and to explore the effectiveness of *ARISE* in assisting COs toward engaging an SA in treatment or self-help. Intake for the study occurred at sites in Albany and Rochester, New York, USA (see site descriptions below), covering a period of 16 months at Albany and 8 months at Rochester. A decision was made to admit every CO caller into the study (i.e., every CO call or face-to-face contact regarding possible treatment or self-help for an SA), with no exceptions or exclusions. Even if a call was received in which the CO caller was ostensibly asking only for program information, that call was still deemed eligible unless it became clear that the caller was not calling about getting help for a SA. This position was taken because our earlier investigations had found that many ‘‘information only’’ calls were actually pleas for help.

### Sites

Albany and Rochester, each with a metropolitan area population of approximately 1 million, are located 200 miles from each other. The Albany site was Al-Care, a private, for-profit, freestanding outpatient agency. The agency had no prior research background, and it was there that the *ARISE* model was first developed. The Al-Care counselors trained in the *ARISE* method represented the typical mix found in outpatient settings, ranging from counselors with substance abuse credentials, to bachelor’s level counselors, to master’s level therapists.

The Rochester site was Strong Recovery Chemical Dependency (SRCD), a program of Strong Behavioral Health at the University of Rochester Medical Center. Strong Recovery includes outpatient chemical dependency services and a methadone maintenance program. It uses an interdisciplinary approach to chemical dependency, including individual, group, and family therapy; multifamily group education; and, when necessary, psychiatric and psychological consultation. The model incorporates the disease concept of addiction with an awareness of the influence of family systems in health and illness.

### Sample

#### Substance Abusers

Table 1 presents demographics for the SAs ( $N = 110:84$  at Al-Care and 26 at SRCD). Their average age was 33.4 (median = 32.2), with a range of

**Table 1.** Sociodemographic characteristics of the substance abuser sample ( $N=110$ ).<sup>a</sup>

	<i>N (%)</i>
Age	
33.41 ± 12.21 (SD)	
Age classification (yr)	
16–19	13 (12.0)
20–24	18 (16.7)
25–50	69 (63.9)
51–80	8 (7.4)
Gender	
Female	36 (33.0)
Male	73 (67.0)
Education	
Graduate degree	2 (3.3)
Bachelor's degree	5 (8.30)
Some college	16 (26.7)
HS diploma	24 (40.0)
Some HS	4 (6.7)
Junior high	3 (5.0)
< 7 years	6 (10.0)
Race	
Caucasian	90 (85.7)
African American	12 (11.4)
Other	3 (2.9)
(Alaskan)	(1)
(American Indian)	(1)
(Hispanic)	(1)
Marital status	
Married	32 (43.1)
Cohabiting	10 (13.4)
Separated	8 (10.7)
Divorced	6 (8.5)
Single	18 (24.3)
Relation of CO	
Parent	38 (40.3)
Spouse/partner	29 (30.9)
Offspring	4 (4.3)
Miscellaneous relative	18 (19.2)
Nonfamily	5 (5.3)
Gender of CO (%)	
Female	68.8
Male	31.2

*(continued)*

*Table 1.* Continued.

	<i>N</i> (%)
Age of CO	46.6 (range 15–78)
Mean age	
Primary substance abused	
Cocaine	73 (66.4)
Alcohol	26 (23.6)
Other	11 (10.0)
(Cannabis)	(6)
(Opioid)	(4)
(LSD)	(1)
Length of substance use (yrs)	12.2 ± 11.0
Number prior inpatient treatments	0 IQR [0,1] range [0,4]
Number prior outpatient treatments	0 IQR [0,1] range [0,3]

<sup>a</sup>Because these data were mostly gleaned from COs, certain information was not always obtained from the phone call. This was most likely with cases that did not extend beyond one call and was due to one of four reasons: 1) *ARISE* was refused; 2) the case did not progress beyond one call, and the potential client was not engaged (plus, in some instances, the CO did not know the information); 3) the SA enrolled in a different treatment program from Al-Care or SRCDC from which no release of information was obtainable; 4) the SA entered a self-help program, in which, due to anonymity, records are not kept. All of these cases were, nonetheless, included in the sample of 110 that was analyzed. For 4 of the 10 variables listed here, the percentage of cases with missing entries ranged from 0% to 4.5%. The 6 remaining variables had higher percentages, as follows: relationship between CO and potential client (14.5%) marital status (32.7%); education level (45.5%); number of prior inpatient and outpatient treatments (both 47.3%); and length of substance use (58.2%).

16 to 80 and an interquartile range of 24 to 38 (12.0% aged 16 to 19; 16.7% aged 20 to 24; 63.9% aged 25 to 50; and 7.4% aged 51 to 80). Women comprised 33.0% of the sample. The proportion of SAs who had a high school diploma or more (78.3%) fairly closely approximates the national figure of 82% (72). The bulk of the sample was white (85.7%), with most of the remainder being African American (11.4%). More than half (56.8%) were or had been married or living with a partner (24.4% married, 13.5% cohabiting, 10.8% separated, and 8.1% divorced), whereas 43.2% were single. Cocaine was the most common drug of choice (66.4%), followed by alcohol (23.6%), whereas 46% used two or more substances.

The average SA had been using substances for a mean of 12.2 years (median = 10; range = 1 to 50) at the time of study entry (i.e., the CO's first call). The median number of prior inpatient and/or outpatient substance abuse treatment experiences was zero.

#### Concerned Others

In terms of their relationship to the SA, nearly all (94.7%) of the COs were family members (parents = 40.3%; spouses/partners = 30.9%; offspring = 4.3%; other relatives = 19.2%). Nonrelatives constituted 5.3% of the sample. The majority (68.8%) were female. Their mean age was 46.6 (range = 15 to 78).

#### Sites

SAs at the two sites did not differ significantly on any demographic variables with one exception: Fewer African Americans were seen at Al-Care than at SRCD (7.1% vs. 28.6%;  $p < 0.015$ ).

### Measures

#### Outcome

The primary outcome variable was dichotomous. Did the substance abuser, within 6 months from the first call, engage in treatment or self-help by physically either showing up and enrolling in treatment or by attending self-help meetings.

#### Outcome/Effort Scale (OES)

This is an attempt to refine the above dichotomous outcome score (engaged vs. non-engaged) to examine the ease with which engagement occurred. The premise is that a successful engagement, achieved with less clinician time and effort (e.g., engagement requiring a Stage I intervention only), should be viewed as a more positive outcome than a successful engagement that entailed greater clinician time/effort (i.e., one requiring graduation to Stage II or Stage III). Conversely, an unsuccessful engagement in which the CO refused even to attempt ARISE should be viewed as more negative than an unsuccessful case in which at least some effort was made. A score was thus assigned to each case according to the following 5-point, ordinal scale: CO refused ARISE (−2); ARISE was attempted but failed (−1); engagement success at Stage III (1); engagement success at Stage II (2); engagement success at Stage I (3).

### Clinician Time Expenditure

The clinicians administering *ARISE* were required to keep ongoing records, which were regularly turned in, for the following information: 1) all pretreatment entry phone and face-to-face conversations with COs, the SA, and other network members, as well as notes on the length of those calls or contacts and 2) date, length, and who was in attendance at all sessions or meetings with *ARISE* participants (COs, SA, etc.). These data were gathered to allow examination of the method's time/effort demands on *ARISE* providers.

### Collateral Addiction Severity Index

A challenge faced by this research was how to obtain systematic information about the substance abuser's drug and alcohol abuse without having direct access to that person. The only available source for such information across all subjects (including those unsuccessfully engaged) was the CO. Consequently, the decision was made to use the Collateral Addiction Severity Index (CASI), an instrument developed by McLellan and colleagues as a collateral informant version of the widely used Addiction Severity Index (ASI) (73,74). The CASI includes a subset of questions from the ASI for which COs report adequate knowledge and which permit calculation of the same seven Composite Scores of problem level—Alcohol, Drug, Medical, Employment, Legal, Family/Social, and Psychiatric—derived for the ASI. Composite Score values range from zero to 1 and rest on a firmer empirical base than ASI severity scores by themselves. Although these ratings themselves cannot be applied as outcome measures, they have in the past served as useful predictors of performance (74).

In addition to the Composite Scores, two specific CASI items were deemed particularly pertinent to this research. These were the CO's ratings of the need for the SA to get treatment, either for an alcohol or a drug problem. These items were scored on a 5-point scale, from "Not at all" (score of 0) to "Extremely" (score of 4). They reflected the CO's perception of the SA's addiction severity.

Given McLellan's (personal communication, October 19, 1996) evidence for good test-retest reliability for the CASI (2- to 3-day test-retest = 0.80) and the strong evidence of interrater and test-retest reliability of the ASI, the key issue for the CASI was that of validity. Consequently, an adjunctive analysis was conducted with a subsample of 40 cases for which we were able to obtain ASI data from the SAs: Their seven ASI Composite Scores were correlated with the seven Composite Scores from the CASI's obtained from their COs. [Details of the study and its results are

given in Landau et al. (35).] Two conclusions can be drawn from the pattern of those correlations. First, the concurrent validity of the CASI was generally supported by the intercorrelations of “like dimensions” (Composite Scores) from the two instruments. In fact, the average percent of shared variance between the reports of the SA and CO on like dimensions was 35.1% ( $r = 0.59$ ), with a range from 14.4% ( $r = 0.38$ ) on the Family/Social Composite to 75.7% ( $r = 0.87$ ) for the Employment Composite. Second, the discriminant validity of the CASI was supported by the fact that the average percent of variance explained by the seven like correlations was significantly greater than that explained by the 13 statistically significant (i.e.,  $p < 0.05$ ) different dimension correlations (Wilcoxon rank sum test  $Z = 2.66$ ;  $p < 0.01$ ). Accordingly, we concluded that the psychometrics of the CASI appear acceptable, supporting its potential utility as a predictor variable for this study.

#### **ARISE Clinician Skills, Competence Training, and Model Adherence**

Eleven clinicians were involved in the project—six at Al-Care and five at SRCD. Seven of them were Certified Alcohol and Drug Abuse Counselors, three were social workers, and one was a psychiatrist with a specialty in Addiction Psychiatry. (Henceforth, the term “clinician” is used to generically refer to these and other professionals working with ARISE.) They averaged 8.4 years of experience in the addiction field. All had at least a bachelor’s degree, five had master’s degrees, and one a doctorate. ARISE training included a 20-minute pretest that measured ARISE knowledge and ARISE attitudes [e.g., whether family members were viewed more positively or negatively—judged to be a key variable for success (62,75)]. This was followed by 2 days of basic ARISE training and then a posttest. The training followed a set of specific protocols outlined in the ARISE manual (50). Each trainee received a copy of the manual and was asked to adhere to the protocols. The training involved didactic presentations, video vignettes demonstrating the three stages of the ARISE model and role plays of the stages.

Following basic training, the clinicians received supervision on pilot cases until they met criterion. All received ongoing weekly and then biweekly group supervision in ARISE throughout the project’s case intake period. This included case reports, live supervision, and role playing to ensure adherence and fidelity to the model (76,82).

Training in the method included not only the ARISE clinicians but also administrators, telephone receptionists, and other intake staff. Administrative and intake staff members were trained immediately to transfer calls to



the *ARISE* clinician on call. If the clinician was unavailable at that moment, the caller's name and phone number were requested, or if the caller preferred (at least temporary) anonymity, he/she was given times to call back when the *ARISE* clinician would be sure to be available. Administrators were involved in facilitating the training of telephone receptionists, intake staff and clinicians.

#### Model Adherence

The adherence measures applied in this study were adapted from measures developed and used by Landau and colleagues over the past 16 years in the American Association for Marriage and Family Therapy-accredited University of Rochester Family Therapy Training Program (63,77). They include adherence-rating scales, didactic and experiential training of clinicians and supervisors, pre- and posttesting of knowledge and attitudes, and monitoring of clinical skills in supervision (51). Again, and in line with the writings of Carroll et al. (77,78), Chevron et al. (79), Luborsky et al. (80), and Rounsaville et al. (81), clinicians were trained to criterion before the study commenced, and model adherence was closely monitored.

Pretest comparisons of *ARISE* knowledge and attitudes showed a correlation between age and score, with older clinicians scoring significantly higher ( $r=0.58$ ;  $p<0.01$ ). No differences were noted for clinician gender or across sites (Al-Care or SRCDD) in terms of *ARISE* knowledge or attitudes. Pre and posttest comparisons demonstrated significant improvement by the overall group on both knowledge ( $p<0.006$ ) and attitudes ( $p<0.03$ ). No gender or site differences were found. A mild ceiling effect was observed in that trainees who knew less at the pretest learned significantly more than those with higher pretest scores ( $p<0.005$ ). Overall, it appears that the *ARISE* training successfully increased knowledge and changed reported attitudes in the desired direction.

#### Statistical Methods

Pilot study data from the two sites were subjected to extensive data quality assurance checks prior to analysis. Missing and questionable data were verified and corrected, when necessary, by comparison of computer files to source documents. Summary descriptive statistics were computed by using proportions or medians and interquartile ranges. Comparisons of variables between groups were performed by using Wilcoxon rank sum tests to compare medians and chi-square tests or Fisher's exact tests to compare proportions. Where appropriate, correlational analyses were also performed

by using point-biserial and Spearman correlations. All tests of hypotheses were two-tailed and were performed at the 0.05 level of significance.

## RESULTS

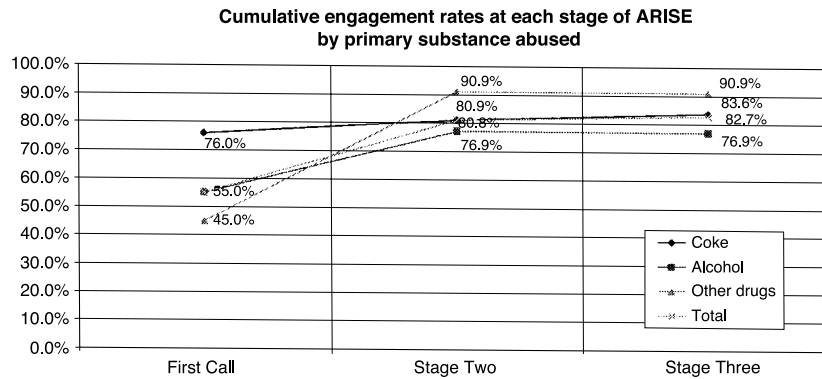
### Engagement Outcome

#### Effectiveness in Getting Substance Abusers to Engage in Treatment or Self-Help

Again, the dichotomous primary outcome measure for this Stage I study was whether the SA actually became engaged in treatment or self-help (Yes/No). As indicated in Table 2, of the 110 cases, 83% (82.7%;  $n = 91$ ) became engaged in treatment ( $n = 86$ ) or self-help ( $n = 5$ ). In

**Table 2.** Outcomes with the ARISE method.

Engagement ( $N = 110$ )		
Engaged in treatment (%)	78	( $n = 86$ )
Engaged in self-help (%)	4.5	( $n = 5$ )
Total engaged (%)	82.7	( $n = 91$ )
Stage of engagement ( $N = 110$ )		
Engaged		
Stage I (%)	60	(54.5)
Stage II (%)	29	(26.4)
Stage III (%)	2	(1.8)
Not engaged (%)	19	(17.3 including 3 up-front refusals of ARISE)
Length of time to engagement in treatment or self-help		
Days between CO's call and SA engagement		
Median	7	
Mean	13.7	
Interquartile range	2–14	
Range	1–37	
Cumulative engagement by week for those who engaged in treatment or self help (%)		
1 wk	50	( $n = 45$ )
2 wk	76	( $n = 69$ )
3 wk	84	( $n = 76$ )



**Figure 1.** Cumulative engagement rates at each stage of *ARISE* by primary substance abused.

cumulative terms, 55% were engaged in Stage I; another 26% were engaged in Stage II, bringing the total up to that point to 81%. Stage III added another 2%, thus completing the 83% final figure (see Fig. 1).

Within each of the stages separately, the success rates (i.e., the proportion of those dealt with at that stage who became engaged in treatment/self-help) were as follows: Stage I: 77.9% (60 of 77 cases, including 3 refusals of *ARISE*); Stage II: 93.5% (29 of 31 cases; the other two proceeded to Stage III); Stage III: 100% (2 of 2). The three stages did not differ significantly in success rate, although the inclusion of only two cases at Stage III (the modified Johnson Intervention) tempers this finding. Both of those two cases were cocaine-abusing females in their mid-30s, and issues as to whether they were properly caring for their children were primary for both. One of them involved four people in the network, having one Stage I session, one at Stage II, and a third at Stage III. The other case involved three people in one Stage I, two Stage II meetings, and one Stage III meeting.

**Days to Engagement**

For cases that engaged, the median and mean number of days between the CO's initial call and the date the SA enrolled in treatment/self-help were 7 and 13.7 days, respectively. The range was 1 to 137 days, with an interquartile range of 2 to 14 days. The outlier case requiring 137 days was unique, because three quarters of the cases (76%) became engaged within 14 days, 84% within 21 days, and 99% within 67 days (see Table 2).

### Engagement Options Selected

Among the 91 engagers, 94.5% opted for treatment and 5.5% chose self-help groups. Of those electing treatment, 63.8% were judged to first require detoxification, and they distributed among the following detoxification methods: inpatient medical: 34.1%; outpatient medical: 1.1%; acupuncture: 5.5%; at home with family: 23.1%. (The three ARISE stages did not differ significantly as to type of detoxification.) Either following detoxification, in conjunction with it, or (for those not needing it) in place of it, the treatment group distributed as follows: inpatient/residential (4-week program): 14.0%; intensive outpatient: 55.8%; outpatient substance abuse (with psychotherapy): 29.1%; aftercare: 1.1%. Sixty-one of these 86 treatment patients entered one of the two outpatient programs providing ARISE (AI-Care or SRCD), either subsequent to detoxification elsewhere, or directly.

### Expenditure of Effort

As noted above, the engagement rates for each stage did not differ significantly, but, almost by definition, higher stages required more effort in terms of time spent by the clinician (rank sum chi square = 64.79;  $p < 0.0001$ ). Of the 91 SAs who actually entered treatment or self-help, 98% did so either by the end of Stage I, or in Stage II, leaving 2% to progress to Stage III.

Most (70%) of the total sample of 110 cases (including both engagers and non-engagers), (i.e., 77 cases) were dealt with exclusively at the lowest level of effort, (i.e., Stage I). Time/effort for Stage I telephone calls for all 110 cases was a mean of 1.6 phone calls (median = 2; range = 1 to 3) averaging a total of 16.9 minutes (median = 15 minutes; range: 5 to 45 although 75% were 20 minutes or less). In addition, 84 (76.4%) of the 110 cases participated in a Stage I face-to-face session requiring 50 to 60 minutes.

Of those cases dealt with only at Stage I, and summing phone and session time, the mean was 56 minutes of total time spent by clinicians with this subset (median = 70; range = 5 to 85). In addition, engagers among this Stage I-only group differed significantly from non-engagers in total time spent—65.3 versus 23.5 minutes, respectively (rank sum test  $p < 0.0001$ ).

Engagement was inversely related to the amount of time a clinician spent on the telephone—during Stage I—the less phone time required, the more likely was success (point-biserial correlation =  $-.24$ ;  $p < 0.033$ ). However, when the time spent in Stage I sessions was added to these participants' telephone time, the point-biserial correlation was a positive

one of 0.62 ( $p < 0.00001$ ). As mentioned above, several Stage I cases included 1) face-to-face contact with the CO alone; 2) the CO and members of his or her network, or 3) the CO, members of the network, and the SA. It appears that less time on the phone, coupled with a Stage I session, tended to predict success. The indication is that talking on the phone alone was frequently not sufficient to guarantee success [i.e., only 10 of 26 telephone-only cases (38.5%) became engaged].

Of the cases that progressed to Stage II but no further (i.e., 28.2% of the total sample), there was an average of 2.4 face-to-face sessions (including their Stage I session, which was a requirement for moving to Stage II). The median was 2 and the range was two to six sessions. The mean total time was 2.7 hours (median = 2.3; range = 2 to 6.3 hours).

Stage III was undertaken with 2% of cases ( $N = 2$ ). One case required 3.3 hours and the other 4 hours, meaning they averaged 3.7 hours in total time and 3.5 face-to-face sessions.

In terms of engagement success, 88.6% of those who engaged had one or more face-to-face sessions, whereas only 15.8% of non-engagers had such sessions (chi square = 45.1;  $p < 0.0001$ ). Put another way, of the 19 cases that did not engage, 3 refused at the outset and 13 dropped out at Stage I, having participated only in phone calls. Only 3 of the 84 cases, which either had a Stage I face-to-face session or which progressed to Stage II, did not engage. Hence, cases that came in for one or more *ARISE* sessions were successful 96% of the time.

Summarizing for the total sample, the average effort across all three stages was 1.6 phone calls (averaging a total of 16.9 minutes), plus 1.2 face-to-face sessions. Thus, the mean total professional time commitment for these 110 cases (whether engaged or not) was 1.46 hours or 87.7 minutes (median = 75 minutes; range = 5 to 375 minutes). Age, race, gender, and primary substance of choice did not differ significantly on this variable.

A point-biserial correlation was calculated between total time spent (both on the phone and in sessions) and engagement success (yes/no). The coefficient was 0.33 ( $p < 0.0005$ ), meaning that spending a greater amount of time was somewhat related to success.

#### Preferred Substance of Abuse and Engagement

The engagement rate for primarily cocaine abusers was 83.6%. For alcohol abusers it was 76.9%, and for those primarily using other drugs it was 90.9%. These rates did not differ significantly from each other (none of the Fishers's exact tests approached conventional levels of significance). The three groups also did not differ significantly as to engagement rate within each of the three *ARISE* Stages.

The total amount of time spent on phone calls at Stage I, as well as the number of ARISE sessions at Stages II and III, did not differ significantly among the three subsamples. There was, however, a significant difference in the number of Stage I telephone conversations involved: COs of abusers of “other” drugs engaged in fewer phone calls (mean = 1.2; median = 1) than did COs of either cocaine abusers (mean = 1.7; median = 2) or alcohol abusers (mean = 1.6; median = 2;  $p < 0.05$  for both comparisons). The latter two groups did not differ significantly on this variable. The rates of engagement across stages for these three substance abuser categories are illustrated in Fig. 1.

### Other Network, Relationship, and Patient Factors

#### Number and Relationship of Network Members Involved

Ten of the cases were successfully engaged by means of telephone calls only. Of the remaining cases (i.e., those that progressed to one or more face-to-face sessions), the mean number of participants in such sessions was 2.4 (range = 1 to 8). Engaged cases did not differ significantly from non-engaged cases on this variable (respective means = 2.4 and 2.0).

Most (91.1%) of those involved in sessions were family members, the remaining 8.9% being friends and work associates. Parents comprised 37.5% of the participants, spouses/partners 15.6%, and other family members 38%.

Within the overall sample, and pertaining to parents, in 38.5% of the cases one or more parents of the SA were involved—either as COs or as session participants—whereas in 61.5% of the cases no parents participated. The 38.5% of cases with parent involvement broke down as follows in terms of the number of parents who participated: 2 parents 28.9%; 1 parent 8.6%; and 3 parents (including a step-parent) 1%. The rate of success among cases in which a parent was involved was 95%, whereas it was 75% for cases without parents. These rates differed significantly (chi square  $p < 0.009$ ). The point-biserial correlation between parent involvement (yes/no) and engagement was 0.26 ( $p < 0.009$ ).

#### Differential Engagement Rates by Age, CO-SA Relationship, and Marital Status

Of late adolescents (16 to 19 years), 69% engaged in treatment or self-help, whereas 89% of young adults (20 to 24 years) became so engaged. Of middle adults, aged 25 to 50, 86% engaged in treatment or self-help, whereas the figure for those aged 51 to 80 was 75%. These various age

groups did not differ significantly in their engagement rates. In addition, Stage I cases were not significantly different in terms of age relative from those requiring Stages II and III.

Five categories pertaining to the relationship of the CO to the SA—parent, spouse/partner, offspring, miscellaneous relative, non-family—were examined as to engagement success. They did not differ significantly among themselves.

In terms of marital status and *ARISE* stage, single SAs were more likely to require Stage II or higher (53.1%), whereas the remaining cases were handled at Stage I (85.7%; chi square = 26.3;  $p < 0.0009$ ). In fact, all the cases identified as married were dealt with at Stage I. Rate of engagement success did not differ across the five marital status categories (single, married, cohabiting, separated, or divorced).

#### Engagement, Severity Level, and the CO's Reported Need for the Substance Abuser to Get Treatment

Engagers and non-engagers did not differ in the extent of their drug, alcohol, or psychiatric problems, as measured by the CASI Composite Scores. Across the sample, engagement success was, however, related to the CO's CASI report of the need for the SA to get treatment for a drug problem. Need for treatment was based on the length and intensity of the addiction, the number of failed treatment and engagement attempts, and the SA's continued use despite continued problems. The greater the perceived need, the more likely was the person to be engaged (rank sums test  $p < 0.04$ ). The point-biserial correlation between drug treatment need and engagement success (yes/no) was a not quite significant one of 0.19 ( $p < 0.06$ ). Engagement success was related to the CO's rating of need for treatment of an alcohol problem (rank sum test  $p < 0.29$ ). The related point-biserial correlation was 0.14 ( $p < 0.20$ ).

Separate analyses of two subsamples—those who were primarily drug abusers (cocaine/other drug) and those whose preferred substance was alcohol—were also performed. The mean and median scores for primarily drug abusers on the 5-point CASI scale of need for drug treatment (scores could range from 0 to 4) were 3.6 and 4, respectively (range = 0 to 4). The point-biserial correlation between this score and engagement success was a significant one of 0.25 ( $p < 0.04$ ), meaning engagement was more likely if treatment need was rated as greater.

Considering primarily alcohol abusers, the mean and median for need for alcohol treatment were, respectively, 3.9 and 4 (range = 2 to 4). The point-biserial correlation of 0.46 between engagement success and need for alcohol treatment approached significance ( $p < 0.106$ ). Its level of

significance was, however, likely moderated both by its smaller  $n$  of 21 and the extreme skewness in its ratings (i.e., 95% of the alcohol cases received the maximum score of 4).

Among engagers, those SAs who opted for treatment did not differ significantly in their CO/CASI-reported) need for drug or alcohol treatment from those who chose self-help. However, the small size of the self-help group ( $n = 5$ ) limits the impact of this conclusion.

It should be noted that CASIs were obtained for 93 of the 110 subjects. As might be expected, the proportion of skittish COs who were less amenable to providing CASI data (including two who refused even to proceed with ARISE) was higher among the 26 cases that only involved telephone calls, compared to the 84 cases that participated in at least one face-to-face session. The percentages for which CASI's were obtained were 50% and 95.2%, respectively, for these two subsamples, and they differed significantly (chi square = 31.1;  $p < 0.0001$ ). It is of interest that among the subsample of telephone-only cases, the proportion of the 16 non-engaged cases that yielded CASIs was identical to that for the 10 engaged cases (i.e., CASIs were obtained with 50% of both groups). If it can be assumed that, relative to the face-to-face subsample, the telephone-only group included a greater proportion of less serious cases (i.e., there was less of a press to put in the effort to get their SAs engaged), whatever bias may attend the CASI data in this study would appear to be one of exclusion of some of the less severe cases.

### **Outcome/Effort Scale (OES)**

This 5-point scale ranged from  $-1$  (CO refused to proceed with ARISE) to  $+3$  (engagement was successful at Stage I). It was found to correlate significantly with the size of the network involved (Spearman  $\rho = 0.69$ ;  $p < 0.0001$ ), meaning that the greater the number of people participating in ARISE, the more successful was the effort in terms of both engagement outcome and reduced time demands on the clinician. The scale also correlated significantly, but negatively with the total time required in phone calls ( $\rho = -.38$ ;  $p < 0.0001$ ). This would indicate that the less time the clinician spent on the phone, or the fewer the number of calls (probably meaning that the network got the patient in right away), the better the outcome.

### **Other Pertinent Null Findings**

Clinicians did not differ significantly in percentage of cases successfully engaged (range = 67% to 100%;  $p < 0.38$ ). Clinicians' level



of experience, academic degree (bachelor's vs. master's/doctorate), and age were also not related to success rate. Furthermore, the two project sites did not differ significantly regarding engagement effectiveness. The percentage of successfully engaged cases was 83.3% for Al-Care and 80.8% for SRCD. SA race, gender, or age were not related to engagement rate.

In terms of substance-related variables, the following SA factors did not differ significantly as to success: length of substance abuse, four of the CASI Composite Scores (Medical, Employment, Legal, Family/Social), and number of prior inpatient or outpatient experiences.

Finally, the *ARISE* stage required for treatment engagement was not predicted by SA gender, race, education, legal history, or CO's rating of the SA's need for either alcohol or drug treatment.

## DISCUSSION AND CONCLUSIONS

*ARISE* proved successful at helping COs to get their resistant loved ones or friends into substance abuse treatment or self-help in 83% of the cases. Of perhaps equal importance relative to most other engagement methods in the field, the 83% level of success was achieved without excluding any cases who asked for help and with an average of only one session and one or two phone calls, the two together totaling 88 minutes of clinician time (median = 75 minutes; range = 5 to 375 minutes).

The relative rapidity with which *ARISE* achieved engagement—50% of engagers entering within 1 week from the first call and 84% within 3 weeks—needs to be underscored. Aside from the “three-weeks-or-out” strategic structural systems model for adolescents (22), all the other researched approaches normally require between 6 and 26 weeks following the first call. (Of course, a major reason for this difference with some models, such as the Unilateral, CRA/CRT, CRAFT, and Cooperative Counseling approaches, is that they additionally provide psycho-educational counseling for the CO—they are addressing two agendas.) In addition, some of the studies introduced delays to gather assessments for research purposes—a third agenda.

When the amount of clinician time and effort required is considered, the *ARISE* method would appear to be a cost-efficient engagement method that warrants further investigation. *ARISE* is geared to having the CO, family, and support network take responsibility for a major proportion of the work, reducing the expenditure of time and effort by the clinician. This phenomenon appears to be multifactorial. For example, many of the COs reported extensive exploration of psycho-educational materials, on and off the World Wide Web. Further investigation is warranted into the extent

to which self-guided psycho-education and other factors enhance the engagement process.

The engagement rate did not differ across such demographic variables as age, gender, or race. Nor did it differ across a number of commonly important substance abuser variables such as preferred substance of abuse (cocaine, alcohol, or other drug), current level of substance abuse, length of use, or treatment history (inpatient or outpatient).

One variable that did reach significance was the extent to which COs deemed their SAs to be in need of treatment: The greater the perceived need, the more likely were they and their network to get the SA engaged in treatment or self-help. This is probably not surprising, because both variables relate to the CO's level of motivation and their frustration at dealing with the SA's ongoing denial and resistance to treatment. In other words, the more the CO is concerned or alarmed about the SAs drug abuse, and therefore in need of help, the more likely is that CO to take the necessary steps, such as devoting effort to contacting other network members, convening meetings, etc., toward getting the SA on the road to recovery.

It is interesting that, unlike the findings of Meyers et al. (46) and Miller et al. (10) that parents were more likely to get SAs engaged than spouses, we found no significant differences among different types of CO-SA relationship. On the other hand, our finding of improved results with cases in which at least one parent was involved as a participant, whether or not that parent was the actual CO, is consistent with the data of Meyers et al. and Miller et al. It is also consonant with the aforementioned widespread finding that the preponderance of SAs are closely involved with one or both of their parents. The present results, in conjunction with the findings of Meyers et al. (46), Miller et al. (10), and Szapocznik et al. (22), suggest that parents can be a potent, albeit often untapped, resource for inducing SAs to seek help.

### **Engagement at Stage I**

By the end of Stage I, 55% of these cases had been engaged, requiring only one or two telephone conversations between the clinician and the CO and one face-to-face session. We believe the effectiveness and parsimony of this success rate can be attributed to four primary factors. First is immediacy. ARISE capitalizes on whatever forces may have coalesced to prompt a CO to call on that particular day. Barriers are minimized and the clinician seizes the moment by parlaying the factors contributing to the emergent situation into reasons why the CO should act now rather than later. A similar rationale has been used with the Community Reinforcement

Training approach to engagement: the clinician attempts to see the CO on the day of the first call (26–28). Furthermore, the immediacy of a program's response has been shown significantly to increase the rate at which substance abusers, calling in for initial appointments, will actually show up (83,84). Indeed, the crisis intervention literature is replete with evidence of the importance of an immediate response toward effecting positive behavioral change in people faced with crises [(cf. (85,86)].

Second is spreading the responsibility by mobilizing network and social support for the CO. This commences during the first call, when the CO is told that she/he does not need to attempt to handle the situation alone any more and that help from others breaks the isolation and provides needed support. A key, but frequently overlooked, factor is the constraint inherent in limiting the intervention to the CO-SA dyad [i.e., by not expanding the system (58,62,87)]. Should the clinician work only with the CO-SA relationship, he or she is necessarily confined to the dynamics currently transpiring within that relationship. If the relationship is beset by considerable tension or a stalemate, or has recently erupted into an altercation, the SA may be less willing to comply with the CO's wishes or admonitions. The most stressed dyad is also likely to have the least energy and capacity for change. Spreading the responsibility, and thereby getting the CO out of the middle, allows other network members—who may have more leverage with the SA at that time—to intervene, as well as to bring both strength in numbers and additional resources to the endeavor (87).

Support for the above comes from the present finding that the greater the number of people involved, the more likely is the engagement effort to succeed, and to succeed with less effort. This has not been a widely explored variable. It does receive indirect corroboration, however, from two of the Johnson Intervention studies: Logan (14) reported 90% engagement success using networks of 8 to 12 people, whereas those using smaller groups of either one person (15), or an average of 4.5 network members (13) obtained rates of 0 and 25%, respectively. Again, such findings suggest that families and social network forces can be effective change agents toward substance abuse engagement (i.e., that family ties can matter).

Pertinent to the above two factors, the importance of that first phone conversation cannot be overemphasized. How it is handled is pivotal to the rapidity and ease with which engagement is attained.

The third factor is instilling confidence in the CO. This is achieved by several means. The clinician fosters confidence by assuring the CO that there is a method designed for just such situations. This leads to hope where previously there may have been frustration, despair, and anger. The clinician's own confidence in the model is also reassuring, possibly contributing to a behavioral contagion effect vis-à-vis the CO. Furthermore,

the message that a Herculean effort may not be required to engage the SA makes the enterprise appear less daunting and, therefore, more achievable. The CO is motivated by the knowledge that only the amount of time and effort necessary to effect engagement will be expended. Finally, the aforementioned spreading of responsibility among other network members both relieves the CO of a considerable burden and fortifies the notion that the contributions of these others may increase the chances that something constructive will result from the effort. As Miller et al. (10) write: there is a “direct message that family members can do something to instigate change” (p. 695).

The fourth factor is the respect for the substance abuser that is shown by including him or her in the process from the very start. As noted earlier, and in line with the method developed by Berenson (16), the SA is invited to the first ARISE session. The SA is also told that, because the discussion will revolve around her or him, he/she may want to attend to provide input and have her/his views considered (a point that does the trick in many cases, because most people do not like to be talked about without both hearing what is said and having a voice in the discussion). Should the SA not attend that meeting, efforts are made to continue to loop her or him into the process. Consequently, there is neither the loss of face, nor the possible degradation that could ensue should he or she be confronted or cajoled to come in consequent to a more secretive approach. This makes it easier for the SA to participate earlier rather than later. In fact, Loneck et al. (86) have contended that such humiliation can eventually backfire, in that SAs engaged in that manner are twice as likely to relapse during treatment than those inducted by other methods.

### **Contrasts with Current Lore in the Field**

As with most of the other published engagement studies, these findings challenge the widespread view that SAs must “hit bottom” and be self-motivated to enter treatment. Along these lines, Loneck et al. (86,88) found that self-referrals (i.e., those SAs who came in on their own after hitting bottom) had the lowest treatment completion rates by comparison with criminal justice referrals and family-type intervention referrals.

Miller et al. (10) confirm that the value of Al-Anon is the focus on CO “detachment.” In this vein, it is important not to be misled by the fact that controlled studies show that Al-Anon has, at best, only slight effects for treatment engagement (10,15,29). This effect is based on the philosophy and mission of Al-Anon, which is CO “detachment,” not SA engagement. Coaching a CO to motivate an SA to enter treatment can be done in a fashion consistent with “detachment” rather than from a “controlling” or

“responsibility” position. For example, CO callers in the present study often indicated to the *ARISE* clinicians that they had tried other agencies without receiving encouragement to apply their interest in a positive way. Many mentioned the anger they experienced at being labeled “co-dependent,” “controlling,” a “victim” or an “enabler” and the helplessness at being told that there was nothing they could do until their loved one “hit bottom.” Reaching this group with a positive message remains a challenge that perhaps can best be addressed by treatment agencies changing their policies and procedures for dealing with calls from COs. In other words, there does appear to be room for both *ARISE* and Al-Anon to coexist, and possibly to augment each other, when handled inclusively. This is an area ripe for further research.

As mentioned earlier, many families refuse to use a Johnson-style Intervention. In the studies where this was examined, refusal rates ranged from 70% to 100% (10,13,15). The extreme on this variable was obtained by Barber and associates (15,47,48), who observed that none of their 22 COs who were (randomly) assigned to a condition that included a Johnson Intervention agreed to proceed.

In comparing the above findings with the present Stage I study, in which a modified Johnson Intervention was used as a “last resort” (i.e., Stage III), it was found that the COs (2 of 110 or 2 of the 91 successful cases) who needed to use Stage III did so without reservation. Because this is a very small sample, conclusions cannot be drawn, but our impression is that the difference appears to be that the *ARISE* intervention: 1) respects the long-term commitment of the CO and the network, as well as their relationship with the SA; 2) avoids secrecy; and 3) involves the SA throughout the process. In addition, perhaps the use of a stepped intervention reduces the CO’s reluctance. When COs make an earnest effort to succeed at Stages I or II, they can avoid or postpone the more confrontational Stage III. Other factors in COs agreeing to proceed to Stage III might be their knowledge that other options have been exhausted through the use of the stepped *ARISE* method and that they are well supported by their networks. In sum, *ARISE* may provide a procedure and process wherein the strengths of the Johnson Intervention are maximized, while avoiding many of its shortcomings. Additional work needs to be done in this area to clarify such motivational and procedural factors.

### **Future Research**

As with any single study, there are caveats here. This was not a “controlled” study, in that no comparison groups or conditions were included. Baseline data have necessarily had to be inferred from

comparison with other studies, most of which incorporated samples that differed in some ways from this one. Hence, there is a need for clinical trials that measure the efficacy and effectiveness of ARISE relative to other engagement methods. Such research would, of course, need to ensure, through competence and adherence procedures, that clinicians had adequately inculcated both the method itself and its “mind-set” as to the strengths and inherent health of families and the advantages of including as large a network as possible in the effort. (As of this writing we have trained and certified 55 clinicians in the ARISE protocol, as well as familiarized 600 others with it, and have found that it can be readily adopted by clinicians from a broad range of settings.)

In addition, ARISE possesses some similarities to medical emergency and other quick-response techniques (e.g., its immediacy, responsiveness, low cost, and inclusiveness features). One of the factors that would be helpful in this area is further study that looks at the interface between engagement and degree of motivation or resistance and how these impact the success and speed with which engagement occurs.

Missing data are an inherent problem with this kind of rapid response method. These usually arise from exigencies surrounding the first call. Sometimes the CO does not know the information requested or may be anxious about sharing sensitive information during a first contact. In other instances, time may run out. Meanwhile, the clinician is faced with a multilevel task of a sensitive or “tricky” sort, the primary goal of which is to facilitate the CO’s taking action. Under such conditions, completeness of information may, unfortunately, be compromised.

Another area for investigation concerns the interface with treatment. Given the evidence that 1) early identification and intervention result in better treatment outcomes, regardless of initial resistance and ambivalence (5,20,22,25,37,38); 2) families can encourage their SAs to stay longer in addictions treatment [c.f., (57,90)]; and 3) that if SAs complete at least a “minimum dose” of 8 to 12 weeks of treatment, the results of that treatment are enhanced (37,91–96), future research might explore the impact of ARISE on treatment retention and outcome.

This study found that a variety of clinician characteristics, such as area of discipline, level of education, and years of experience, were not associated with engagement effectiveness. Future efforts will need to answer other important questions in this area, such as whether the clinician’s levels of belief in the inherent health of families and in the families’ ability to do much of the motivational work, affect outcome.

In conclusion, ARISE appears to offer considerable promise as a relatively easily taught and applied method for motivating resistant substance abusers to enter treatment or self-help. It is also an inclusive

model, because it does not exclude any COs or potential clients. Furthermore, *ARISE* specifically aims to minimize the time and effort required of often overburdened professionals, while capitalizing on the strengths, commitment, and caring of the extended family and social support network.

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