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Motivational Interviewing to Enhance Treatment Initiation in Substance Abusers: An Effectiveness Study

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Abstract

Sixty individuals referred for a substance abuse evaluation by a child welfare worker were randomly assigned to either a standard evaluation or an evaluation enhanced by Motivational Interviewing techniques, each delivered in a single session. Participants who received the enhanced evaluation were significantly more likely to attend at least one additional treatment session after the initial evaluation (59% versus 29%). This finding suggests that comparatively inexpensive modifications of "standard" initial evaluations with substance-using parents may increase engagement of substance-abusing parents in treatment. Moreover, this study adds to an overwhelmingly positive literature supporting Motivational Interviewing with alcohol-using populations and extends prior findings to non-research community settings.

A comparatively strong relationship between parental substance abuse and child abuse and neglect has been established.[1,2] Providing effective treatment for substance-abusing parents is thus a promising strategy for preventing further neglect.[2–4] Unfortunately, however, efforts to provide treatment to this population have been hampered by major gaps between the child welfare and the substance abuse treatment systems, including limited access to treatment.[3,4]

In response to increasing incidence of child abuse associated with parental substance abuse in Connecticut,[5] the Department of Children and Families (DCF) initiated Project SAFE (Substance Abuse Family Evaluation). Through a contract with Advanced Behavioral Health Incorporated, a network of 43 substance abuse treatment providers, Project SAFE provides DCF child welfare workers with immediate access to substance abuse treatment for parents suspected of substance abuse. Rather than relying on the parents to make the initial contact with treatment providers, DCF caseworkers call a centralized intake system to make the initial evaluation appointment, which is scheduled within 24 hours of the call. After the evaluation, outpatient treatment is offered free of charge through the provider network.

Project SAFE's success has been notable in several respects:[6] since its inception in 1995, 23,447 individuals have been referred to Project SAFE, and approximately 68% of those completed an evaluation. However, engaging this population in treatment has proven more difficult, as only 36% of those referred have attended one or more subsequent treatment sessions.

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Brief motivational approaches that focus on mobilizing the individual's own resources to change[7] have high levels of empirical support in the substance abuse treatment literature, particularly for cigarette and alcohol users,[8–10] but they have not been widely evaluated in community treatment programs nor as a strategy to foster treatment engagement in non-treatment-seeking populations. Motivational approaches typically focus on reviewing objective information about the individual's substance use as well as on eliciting any concerns that the individual or their significant others may have about the individual's substance use.[7] By increasing the individual's awareness regarding the consequences of substance use as well as their own ambivalence toward use within an empathic and non-confrontational context, motivational approaches seek to increase motivation for changing substance use and related behaviors.[7] This trial evaluated whether integrating these motivational strategies into standard substance abuse evaluations would increase rates of initiation of substance abuse treatment among individuals referred through Project SAFE.

METHODS

An important aim of this trial was to evaluate interventions intended to enhance treatment engagement in "real world" community settings.[11] Thus, several design features were included to emphasize external validity. For example, the study was conducted within a community treatment clinic with no prior involvement in research, clinicians were drawn from the existing program staff, assessments were limited to those already in place for Project SAFE, training was comparatively brief, and inclusion/exclusion criteria were non-restrictive to enhance the generalizability of the sample.

Participants were 60 individuals referred for evaluation by their DCF caseworkers for a substance abuse evaluation between March and June of 1999 at the Genesis Center in Manchester, Conn. At the time the individual presented for the evaluation, he or she was approached by a study clinician who explained the purpose of the study and obtained written informed consent. The participant was then randomly assigned to either the standard or enhanced evaluation.

To minimize attrition that may have resulted from delaying the time between randomization and the evaluation (eg, by requiring participants to return to the clinic for the evaluation at another time), the entire study process (informed consent, random assignment, delivery of standard or enhanced evaluation) was completed within a single 2-hour sequence.

Clinicians and Training

Four clinicians (2 masters-, 2 bachelors-level) conducted the experimental evaluations, and four conducted the standard evaluations (1 masters-, 3 bachelors-level). The clinicians who provided the enhanced evaluation completed one day of training in Motivational Interviewing,[7] utilizing a therapist training protocol demonstrated to facilitate competent implementation of motivational techniques in a previous major multisite trial[12,13] and provided by one of the original supervisors from that project.

Interventions

Standard Evaluation—The standard evaluation was conducted according to the practice standards established for Project SAFE. This involved collecting information on the participant's reason for referral, substance use history, history, and current status of psychosocial problems, and collection of a urine specimen. The clinician then provided a treatment recommendation and referral. The evaluation process required approximately 1 hours.

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Motivational Evaluation—In this condition, clinicians elicited the same information as in the standard evaluation; however, the clinicians integrated Motivational Interviewing techniques throughout the interview.[7] These included (1) heightening participants' awareness of the personal consequences of substance use (eg, "What bothers you about your cocaine use?"), (2) expressing empathy (eg, "It must have been difficult for you to come here today"), and (3) avoiding resistance (eg, "What you decide to do about your substance use is up to you"). The motivational evaluation was the same length as the standard evaluation (1 hours).

Assessments

Because the major focus of the trial was treatment initiation, the primary outcome measures were the rates of participants who attended one or three subsequent drug abuse treatment sessions after the evaluation. For both conditions, a standard clinical summary was used to obtain basic demographic data and substance abuse history. Data on treatment utilization was drawn from the Project SAFE database.

RESULTS

Of 75 individuals who were approached and invited to participate, 60 elected to participate and were randomized. Reasons for refusal were: reluctance to cooperate with DCF (n = 8), not interested (n = 4), concerns about confidentiality (n = 2), or insufficient proficiency in English (n = 1). Baseline demographic data are provided in Table 1. Regarding substance use in the previous month, 92% reported some alcohol use, 77% reported marijuana use, and 53% reported some cocaine use, although the reported frequency of marijuana or cocaine use was low (less than 2 days per month).

The rate of participants attending at least one treatment session at the Genesis Center ("treatment initiation") following the evaluation was 59.3% in the motivational group compared with 29.2% of the standard group (chi square = 4.6, $p = .03$). The percentage attending three or more treatments continued to favor the motivational condition but was lower for both conditions; differences between the groups were not statistically significant (29.6% versus 16.7%, chi square = 1.2, NS).

DISCUSSION

Results of this study suggest that modifying clinicians' interviewing style to include motivational strategies can substantially increase the likelihood of treatment initiation in this resistant and challenging population. Although the rate of treatment inception for the group assigned to the motivational condition was twice that of the group assigned to the standard evaluation, further treatment participation dropped off sharply in both groups. There are several possible reasons for the weakening effect. First, the clinician who conducted the evaluation was rarely the same one who provided subsequent treatment. Thus, prior to the first session, participants did not know that they would be seeing a different clinician from the one who conducted the initial evaluation. Second, the clinicians who provided subsequent treatment were likely to use more traditional, confrontational approaches, which may have led to poorer engagement.

Limitations of the current study include the somewhat specialized study population and the lack of substance abuse outcome data. Nevertheless, as one of very few clinical trials evaluating Motivational Interviewing with drug abusers, this study adds to an overwhelmingly positive literature supporting this approach with alcohol-using populations[8–10] and extends prior findings to nonresearch community settings. It should be noted that these dramatic initial effects were achieved through minor variations in clinician

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style, delivered in a single session by community substance abuse counselors who had completed very abbreviated training in Motivational Interviewing.

These findings suggest, first, that Motivational Interviewing techniques can be taught to and used by “real world” clinicians. Second, Motivational Interviewing techniques, provided in one session, are powerful and practical in the short term in this case doubling the return rate of this client population. Finally, a single session of Motivational Interviewing may not produce enduring engagement effects, at least when followed by traditional counseling techniques. Additional motivationally focused sessions or greater integration of these techniques into ongoing counseling might be associated with improved long-term engagement.

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TABLE 1

Baseline Demographic and Substance Use Data by Group, N = 60

Characteristic	Standard Evaluation N = 29	Motivational Interviewing Enhanced Evaluation N = 31	F or X2, df., *p*
Number (%) female	18 (62.1%)	25 (80.6%)	ns
Number (%) African American	1 (3.4%)	2 (6.5%)	ns
Hispanic	3 (10.3%)	3 (9.7%)	
Caucasian	25 (86.2%)	25 (80.6%)	
Other		1 (3.2%)	
Number (%) single/divorced	15 (51.7%)	15 (48.4%)	ns
Number (%) unemployed	8 (27.6%)	5 (16.1%)	ns
Mean (SD) age	34.0 (10.0)	34.7 (9.3)	ns
Mean (SD) years of education	11.4 (1.0)	12.1 (0.9)	7.83, (1,58), .007
Mean (SD) of days alcohol use in past month	5.0 (6.7)	2.3 (2.8)	ns
Mean (SD) days of marijuana use in past month	1.8 (6.2)	1.7 (4.3)	ns
Mean (SD) days of cocaine use in past month	0.1 (0.3)	0.3 (0.8)	ns
Number (%) has SO who is substance user	16 (55.2%)	14 (45.2%)	ns
Number (%) family history of substance use	25 (86.2%)	26 (83.9%)	ns
Mean (SD) number of children	2.17 (1.34)	2.42 (1.39)	ns
Mean (SD) number of minor children residing w/participant	1.55 (1.33)	1.90 (1.64)	ns
Number (%) with history of psychiatric treatment	14 (48.3%)	11 (35.5%)	ns
Number (%) on probation or parole	3 (10.3%)	3 (9.7%)	ns