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## A Combined Group and Individual 12-Step Facilitative Intervention Targeting Stimulant Abuse in the NIDA Clinical Trials Network: STAGE-12

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### Purpose of Paper

This paper describes a unique collaboration between addiction community treatment providers and researchers involved in the National Institute on Drug Abuse (NIDA) National Drug Abuse Treatment Clinical Trials Network (CTN) in developing and evaluating a combined individual and group intervention to increase involvement in 12-Step mutual support programs among patients addicted to cocaine or methamphetamine (referred to as STAGE-12, Stimulant Abuser Groups to Engage in 12-Step programs) as a means to reduce stimulant and other drug use. We provide an overview of the bidirectional process in which providers and researchers jointly developed a behavioral intervention to incorporate into an ambulatory intensive outpatient program (IOP). This partnership led to the integration of two evidenced-based interventions for addiction -- Twelve Step Facilitation Therapy (1–4) and the Intensive Referral Program (5, 6) -- into a combined model aimed at facilitating involvement in 12-Step mutual support programs during and following treatment for stimulant addiction. A 12-Step approach was chosen because of its appeal to community-based treatment programs (CTPs) in the CTN, its broad applicability, minimal cost, treatment service utilization reductions, and the potential benefit that has been demonstrated as an adjunct to treatments for individuals with drug use disorders (7–15).

### Treatment Providers and Researchers Collaboration on Developing the Study

This study is sponsored by the National Institute on Drug Abuse (NIDA) Clinical Trials Network (CTN). The CTN is a collaborative project consisting of NIDA, treatment

researchers in 16 academic medical centers and over 150 community agencies providing clinical services to diverse patient populations across a range of addiction treatment settings. The mission of the CTN is to improve treatment of drug abuse throughout the country using science as a vehicle. The two objectives of the CTN are to: 1) conduct multi-site clinical trials of behavioral, medication or combined treatments among diverse patient populations across a broad range of treatment settings; and 2) disseminate the results of research to providers and patients.

The primary objective of the current study is to compare the impact of the STAGE-12 intervention (experimental group) to treatment-as-usual (control group) on stimulant use outcomes. Secondary objectives are to compare other drug use outcomes and involvement in 12-Step programs between the experimental and control conditions at 3 and 6 months post-treatment. This study was conducted to determine if a systematic approach to preparing stimulant addicted patients to engage in mutual support programs improves outcomes compared to usual IOP care provided, as well as to test a mediational model that would support the hypothesis that decreased substance use was attributable to increased 12-Step meeting attendance and involvement.

Community Treatment Programs (CTPs) played a major role in all aspects of the study, which evidences the importance of bidirectionality between providers and researchers. This includes study design; conducting surveys of 67 CTPs to elicit their input on using a group, individual or a combined model of treatment; reviewing and evaluating potential study treatment sites; developing standard operating procedures, a treatment protocol, clinician manual and patient recovery materials; training and supervision of counselors; and disseminating information about the study in presentations, training workshops and publications.

This study was approved by the CTN office of the National Institute on Drug Abuse, the Steering and Research Development Committees of the CTN, the Data Management and Safety Monitoring Board of NIDA and Internal Review Boards of all academic institutions involved. All questions and concerns raised were addressed in the development of this protocol.

What makes this protocol different than other protocols or TAU is that it combines two evidenced-based interventions and adapts these to the context of a group focused intensive outpatient program (IOP). IOPs are commonly used in most ambulatory addiction treatment programs and primarily involve group sessions. We believe these strategies will make this intervention more acceptable to providers if it is found to be more effective than TAU. What makes this protocol innovative is that CTPs provided significant input on all aspects of it and were the ones who help determine that while community programs often used 12-Step related interventions, this is not done in a systematic way. CTPs were very interested in developing a protocol that would help answer the question as to whether systematic preparation for 12-Step programs would make a difference in treatment outcomes compared to usual care. CTPs were also interested in finding out if a 12-Step treatment would be effective for methamphetamine abuse as well as cocaine abuse. Given the increase use of methamphetamine in the past several years, focus on a behavior intervention was viewed as important among CTPs.

## Study Questions and Outcomes

The main question of this study is “does STAGE-12 improve substance use outcomes in stimulant users compared to treatment-as-usual (TAU)?” A secondary question is “does STAGE-12 improve attendance and involvement in 12-step programs leading to improved substance use outcomes compared to TAU. TAU consists of attending a similar number of

sessions as the experimental intervention within structured IOP programs in ambulatory settings that offer up to 15 hours of treatment per week for a minimum of 8 weeks. TAU varied among sites participating in this study in order to determine how patients receiving treatment in “real world” programs were affected by the experimental intervention.

To answer these questions 471 subjects were recruited from 10 community treatment programs across the country. Each site randomized 40 or more patients in the experimental or control conditions over a period of up to two years. Follow-up assessments were conducted at 3 and 6 months post treatment. Data analysis is currently underway.

## Why Consider 12-Step Approaches?

The CTP Caucus, comprised of representatives from the community-based programs affiliated with the 16 academic research centers in the CTN, highly recommended this study because 12-Step approaches (counseling utilizing principles of 12-Steps as well as interventions to prepare or facilitate linkages of patients to community 12-Step programs) are commonly used in community settings and are applicable to all types of drug addiction. Findings from numerous clinical trials demonstrate that there are efficacious interventions to facilitate patient involvement in 12-Step mutual support programs (5, 6, 11, 14, 16). Therapy manuals and training materials are also available so that addiction counselors can be trained in a relatively short period of time to use this intervention to augment standard treatment (1, 4). Because 12-Step programs are so highly regarded by counselors, any effective evidenced-based intervention is likely to be adopted and sustained in community settings following completion of a clinical trial. Perhaps the most important aspect of this study is to determine if a more *systematic* approach to preparing Intensive Outpatient Program (IOP) patients to actively engage in 12-Step programs is more effective than TAU in CTPs, which often incorporate a focus on 12-Step programs during and following treatment. However, most programs do so in a relatively unsystematic fashion, often merely providing the patient a list of local self-help groups and suggesting that he/she attend a meeting; such an approach has been described as “a minimally effective clinical practice” (14).

## Research on 12-Step Involvement

Participation in AA and NA is associated with greater likelihood of abstinence, improved social functioning, greater self-efficacy and reduced health care utilization and costs (8, 9, 11, 12, 14, 17–20). Combining treatment with 12-Step program involvement leads to better outcomes compared to either alone, particularly if the patient is “active” in using the program rather than just attending meetings (9, 10, 15). When AA attendance and involvement (e.g., reading 12-step literature, getting a sponsor, “working” the steps, or helping set up meetings) are both measured, involvement is a stronger predictor of outcome (15, 21). Longitudinal studies usually find that 12-Step involvement after treatment is associated with higher rates of abstinence regardless of the kind of treatment received.

Since consistent and early involvement in 12-Step programs leads to better outcomes it is important for clinicians to facilitate involvement early in the treatment process. While long-term active involvement in 12-Step programs is the ideal in enhancing recovery and reducing relapse risk, even small amounts of participation can help patients (22). Despite the documented benefits of active involvement in 12-Step programs, research shows that only a small percentage of patients regularly attend meetings, “work” any of the 12-Steps and become active in the program (23, 24). For example, in the NIDA Collaborative Cocaine Treatment Study only 34% of patients were classified as consistently high attendees of 12-Step programs; of those who were classified as having a low participation pattern during the first three months of the study, 81% were also classified as having a low level of participation (15).

An expert VA/CSAT Consensus Panel on Mutual Support Organizations (25) reviewed current research and recommended that community programs: 1) evaluate whether their current program practices actively support involvement in 12-Step groups; 2) examine the typical referral methods used by counselors since empirically-based approaches are rarely used but when these are used, patients are more likely to engage in community-based 12-Step recovery programs; and 3) use more intensive methods of promoting mutual support program involvement demonstrated empirically to be effective as these efforts help maximize the maintenance of gains made in treatment.

## Adapting Research to Practice

The manual-guided therapy developed by researchers and community providers for STAGE-12 is based on previous research. Its goals are to help patients reach a better understanding of 12-Step programs and get more active in using these programs in their ongoing recovery. It also helps link the patients with a “buddy” (current member of NA, CA, CMA, AA) who mentors the patient about 12-Step programs and facilitates attendance at meetings. Since most addiction treatment programs provide group treatments in an IOP as a major intervention, the STAGE-12 intervention was adapted for use in five group sessions and supplemented by three individual sessions within the context of a structured IOP that patients attend between 5–15 hours per week for 8 weeks or longer. The 8 week intervention period allows for patients to make up sessions missed.

In the context of the research protocol these STAGE-12 sessions substitute for existing IOP sessions so that patients are not asked to attend additional sessions. This combination of group and individual sessions integrates elements of Twelve Step Facilitation Therapy (TSF) (1–4) and the Intensive Referral Program (IRP) (5, 6). The TSF component focuses on providing an understanding of the philosophy, traditions, beliefs, concepts, and steps involved in 12-Step programs, while the IRP component focuses considerably more on linking the individual to and engaging in meetings and mutual support meetings in the community. The rationale for combining TSF and IRP derives from the findings and recommendations of Caldwell and Cutter (26) in their study of 12-Step affiliation early in recovery. They noted that interventions effective in increasing attendance may be insufficient to ensure active involvement. Early attrition from attending 12-Step meetings may be in part due to patients' inability to embrace or utilize other aspects of the 12-Step program such as sponsorship and the 12-Steps. Also, individuals attending 12-Step programs who are having difficulty understanding and embracing key aspects of the program may benefit from professional assistance focusing more on 12-step practices and tenets and less on meeting attendance (26).

Most TSF research has focused on individual counseling (27–29), but there is now more focus on using TSF in groups (16, 30–32), which is also the modal form of treatment delivery in addictions treatment, especially IOPs (33, 34). In order to guide the development of the STAGE-12 intervention, the protocol development team conducted a survey of 67 CTPs in the CTN. They were asked which approach, individual or group delivery, would work best for them to integrate a 12-Step intervention into their treatment program. Results showed that 59.4% would use a combined group plus individual model, 39.1% would use a group model, and only 1.6% would use an individual therapy model. In addition, over 95% believed that open ended or rolling admissions (versus cohort or closed admission) groups were needed since this is standard practice in community programs. Closed groups were seen as impractical in community settings because of patient attrition. Our survey shows that community providers are more likely to adapt a group approach especially when combined with individual sessions.

## Twelve-Step Facilitation Therapy (TSF) and Its Application in STAGE-12

The initial TSF protocol was developed for use in the large, multi-site Project MATCH study of alcoholics (4, 29). TSF is designed for use in early recovery and has two primary goals: 1) *acceptance*--helping patients accept their addiction as a chronic disease and that this had led to unmanageability, and 2) *surrender*--helping patients engage in a recovery process involving a willingness to reach-out beyond oneself and follow a 12-step program.

As developed in Project MATCH, TSF consisted of 4 core content and 6 sessions plus a core termination session. All patients received these core sessions: Introduction to 12-Step Programs; Step 1 - Acceptance; Steps 2 and 3 - Surrender; Getting Active; and Termination. The decision about which elective sessions patients received was based on each patient's individual needs and included: the Genogram; Enabling; People, Places and Things; HALT (Hungry, Angry, Lonely, Tired); Steps 4 and 5 - Moral Inventories; and Sober Living). Two Conjoint sessions were provided to patients married or involved in a significant relationship supportive of the patients efforts at sobriety (e.g., Enabling; Detaching).

Since its initial development, the TSF model has been adapted for the treatment of patients with cocaine and opiate problems (1, 27, 35). The content of the sessions was similar to that outlined above but adapted to focus on drug use rather than drinking behavior; there was also the addition of two new sessions. One session addresses "HIV Risk Reduction" since patients with drug abuse or dependence often engage in high-risk behaviors (e.g., sharing needles or drug paraphernalia or engaging in unprotected sex or sex with multiple partners) that increase the chances of transmitting or acquiring HIV infection. The other new session addresses the need to identify and manage feelings to reduce relapse risk since the inability to manage negative emotional states is one of the highest relapse risk factors. Emotions addressed include but are not limited to loneliness, anger, grief, anxiety, resentment and self-pity.

### Group Sessions

Based upon the research literature and the input from clinicians and community-based programs within the CTN, the decision about the TSF component of STAGE-12 was to use the TSF model developed for use with stimulant abusers (1), to reduce the number of sessions to allow the intervention to fit better within the context of IOPs, to adapt it from its original individual counseling format to be delivered in groups (30, 31, 36), and to adapt it for use with rolling admissions, which requires that each session is free-standing and not dependent on material presented in preceding sessions. Group were led by a single clinician, which is standard practice in CTPs.

The five group session topics taken from the TSF manual for use in STAGE-12 were chosen since they were viewed by CTPs as core sessions essential for all participants to receive. These are listed in Table 1 and include: 1) Acceptance; 2) People, Places and Things; 3) The Process of Surrender; 4) Getting Active in 12-Step Programs; and 5) Managing Emotions.

The first group session on *Acceptance* introduces the first Step of 12-Step programs. The key concepts of Powerlessness, Unmanageability, and Denial are presented in an interactive manner. Being "powerless" is reframed with the concept of accepting a limitation in one's life. In this case, the limitation is specifically the patient's inability to safely use mood altering substances. Evidence of one's inability to safely use substances is provided by the numerous negative consequences patients' have experienced. This is the "unmanageability of Step One. A natural response to facing a limitation is "denial." One doesn't want to believe that things are truly as bad as they are. Denial is the beginning of the process of acceptance. TSF frames this process in terms of the stages of grief: Denial, Anger, Bargaining, Sadness,



and Acceptance. Patients are encouraged to identify how they have progressed in terms of this process.

*People, Places and Things*, the second group topic, is organized around the “Lifestyle Contract.” This grid-like tool helps clients examine people, places, and things (habits and routines) that are dangerous to recovery or that support their recovery. They are able to voice ambivalent feelings and view the balance between those parts of their lives that are dangerous and those parts that are supportive and healthy.

*Surrender* focuses on Steps 2 and 3 of the 12-Step program. Step 2 deals with the belief that someone or something more powerful than the individual can help with recovery from addiction. Patients discuss their beliefs about a power greater than themselves. As the words of the step are discussed, the phrase “return us to sanity” is framed in terms of patient's “unmanageability” as well as continuing the same behaviors and expecting different outcomes. This discussion explores the concept that the ability for returning one to sanity lies not within the patient, but rather within one's “higher power.” Step 3 then states that the person in recovery is going to *allow* an outside force to help. The discussion is structured around the concept of “trust,” specifically trusting others to care and help. Concepts include determining if another is “trustworthy” and determining if one is worthy of care or support from others.

*Getting Active* focuses on three components of 12-Step programs: going to meetings, making use of the telephone, and finding and using a sponsor. Following discussion of each section, patients are asked to commit to increasing their involvement with 12-step groups - increasing meeting attendance or activity, obtaining phone numbers and making phone calls, and looking for a sponsor.

The fifth group topic, *Managing Emotions* is organized around the acronym of “H.A.L.T.” or “Don't get too Hungry, Angry, Lonely, and Tired.” Facilitators lead a discussion of Twelve Step tools for coping with emotions to reduce the risk of relapse including making use of group fellowship, slogans and the Serenity Prayer. In addition, basic self care skills such as getting enough rest and proper nutrition are discussed.

## Intensive Referral Program (IRP) and Its Application in STAGE-12

The Intensive Referral Procedure is based on the seminal work of Sisson and Mallams (37) on “systematic encouragement and community access” and its more recent systematic application by Timko and colleagues (5, 6). The primary goal of IRP is to rapidly engage the individual into 12-Step meetings by having a volunteer who is actively involved in 12-Step mutual support groups to meet the patient and accompany him/her to a meeting in the community. This volunteer is not necessarily meant to assume the role of a sponsor, but merely serve as a “bridge” from treatment program to community support group. It has been a common practice in many treatment programs to use AA or NA members who serve as volunteers in a “buddy system” or as temporary sponsors (38–41). This approach also builds on the “Bridging the Gap” program of Alcoholics Anonymous Patients who have engaged in 12-step activities through the efforts of such volunteers have credited the peer intervention as being the most important factor that motivated them to seek help for their substance use disorder. Additionally, when recovering alcoholics and drug addicts provide help to a substance-abusing patient, they are furthering their own 12-Step work (38, 42). The systematic application of IRP has been shown to increase patients' involvement in 12-Step programs -- patients not only attend meetings, but find a home group, get a sponsor and “work” the 12-Steps of recovery. Further, this increased involvement is associated with subsequent reductions in alcohol and drug use and addiction severity (5, 6). An aspect of the intervention noted by participants in this study was the positive experience of personal

contact with a 12-Step group volunteer who served as both a role model and an additional source of support.

As employed in the STAGE-12 intervention, three individual IRP sessions are provided during weeks 1, 3 and the end of treatment to complement the group sessions. All three sessions focus on facilitating the patient's use of 12-Step recovery programs in the community, emphasizing active participation in 12-Step activities as a primary means to recovery. The patient is encouraged to attend 12-Step meetings, to turn to the 12-Step program to gain support in changing old habits that maintain substance use, and to increase social involvement with other 12-Step members.

Patients begin their involvement in STAGE-12 with an introductory individual session that provides an orientation to the intervention and the sequence of the group sessions into which they will enter, thus facilitating the rolling admission process. The counselor provides an overview of the STAGE-12 study protocol, reviews the patient's history of addiction, treatment and recovery, and discusses experiences and interests in the 12-Step program as well as expectations about and possible barriers to future involvement. This first individual session integrates these elements from the introductory session from the TSF manual with the IRP component of calling a 12-Step group member to arrange for their becoming involved with the participant. The counselor gets written permission from the patient to make a phone call to a "buddy" actively involved in 12-Step programs who arranges to attend a meeting with the patient. This buddy ideally calls and reminds the patient of the meeting and either drives the patient to the meeting or meets the patient at the 12-Step meeting.

The second individual session occurs approximately midway through the intervention, usually after the second or third group session. The focus varies depending on whether or not the patient has attended a 12-Step meeting during the intervening time. If the patient has attended a meeting, then the focus is on reactions to the meeting, people that were met, other 12-Step activities engaged in, and plans for future meeting attendance. If the patient has not attended a meeting, the reasons for not doing so and other potential barriers are explored. A volunteer buddy is called to try to arrange taking the patient to a meeting in the near future. The third and final individual session is based upon the Termination core session from the TSF manual. In addition to determining whether or not the patient attended a meeting since the last individual session and following the procedures outlined for session two, it will also review the patient's experience in STAGE-12, changes in his/her perceptions about 12-Step programs, likelihood of getting a temporary or regular sponsor, and future plans about continued 12-Step meeting attendance and engagement in recovery activities.

Each group session is 90-minutes and is conducted using a similar format involving a check-in period, review of session content, and check-out period. The first individual session is up to 75 minutes as it reviews the patient's background; the other two individual sessions last up to 45 minutes. The STAGE-12 sessions are delivered over a period up to eight weeks, which fits the time frame of intensive outpatient programs in real world treatment settings. This structure also allows time for participants to attend 12-Step meetings and "practice" other recovery activities between sessions. Sessions missed can be made up, but these must occur within the eight week intervention period.

## Recovery Tasks Between STAGE-12 Sessions

A component of the STAGE-12 intervention is the work done by the patient outside of sessions. Both group and individual sessions have "homework" that the participant is asked to complete between sessions and be ready to share in the group or with the counselor. There are four elements to this homework. The first is literature (e.g., AA's *Big Book*, NA's *Basic*

*Text*) that clients are asked to read. This material is meant to complement the topics discussed during the weekly sessions. The second is “recovery tasks,” which the participant is asked to do, such as contacting a sponsor, taking on service work at a meeting, etc. The third is strong encouragement from the counselor to attend several different kinds of 12-step meetings per week. The final element is keeping a journal. The journal documents 12-step group attendance and participation, reactions to the meetings and other assigned recovery tasks, or, if the client did not attend a meeting, what factors served as barriers to attendance. They are also asked to keep track of when, where, and with whom they experienced urges to use drugs or actual slips, how they handled these, and what they could do in the future (e.g., calling a 12-step friend, going to a meeting, going to a 12-step group social activity, calling one's sponsor). The journal entries are reviewed at the beginning of each individual session, while the other activities are reviewed during the check-in at group session. These activities also provide additional material for the weekly group sessions.

## Supervision of Counselors

The STAGE-12 intervention was delivered by counselors at each participating CTP. An initial pool of potential counselors was developed based upon their potential interest in serving as a counselor for the trial; it was not necessary for the counselors to be in recovery themselves to be considered. Those selected were chosen randomly from this pool of potential volunteer counselors. Once counselors were selected, they were trained to deliver the treatment protocol and went through a certification process. This process involved participation in a 2-day clinical workshop followed by supervision of individual and group sessions. During the certification process each session was audio recorded and the clinician completed an adherence scale; the supervisor also completed an adherence scale based on review of the audiotape of the sessions. To have a concrete basis on which to evaluate counselor implementation of STAGE-12, both counselors and supervisors completed parallel adherence rating forms; these ratings also served as the basis for supervision. The adherence rating forms covered a range of key components of the specific group or individual session and rated the amount and kinds of information provided as well as the skill with which it was delivered.

Counselors were *provisionally* certified or approved to deliver STAGE-12 under close weekly supervision after they completed twelve hours of training and passed a post-training knowledge examination. Counselors became *fully* certified, being able to provide STAGE-12 at reduced levels of supervision (monthly), when their supervisor determined that they had completed an adequate number of group sessions and at least two individual training cases successfully. After certification counselors continued to record all group and individual sessions and were monitored closely by having 20% of their sessions reviewed and rated by supervisors on an ongoing basis. When counselors strayed from the treatment protocol or “counselor drift” occurred, supervision increased until counselor performance returned to acceptable levels.

## Follow-up Assessments

After completing the STAGE-12 protocol, patients returned for 3 and 6-month assessments. These were administered by a Research Associate and included completion of a substance use calendar, addiction severity index with the AUDIT-C, alcohol breathalyzer, urine drug screen, Fagerstrom nicotine dependence questionnaire, self-help activities questionnaire and treatment services review. Since we will conduct an intent-to-treat analysis, patients who did not complete the protocol will be included in the data analysis.



## Patient Participation in the STAGE-12 Protocol

This study took place in 10 ambulatory community-based addiction treatment programs throughout the U.S. Four hundred and seventy-one patients were recruited and randomized from 2008 to 2010 and followed for 6 months after completing the protocol. Study patients randomized to STAGE-12 could participate in a total of eight sessions during the protocol (5 group and 3 individual sessions). While attendance at individual sessions was slightly higher (69.5%) than group sessions (64.9%), overall patients attended 67% of all possible sessions. This rate of treatment exposure compares favorably to other clinical trials for treatment of stimulant addiction.

## Dissemination

Although data from this study are currently being analyzed, the acceptance of 12-Step interventions is evident in many of the CTN's dissemination activities. Further, a number of the programs that participated as sites for the study have integrated the STAGE-12 intervention into their treatment services. Several national and regional dissemination conferences sponsored by NIDA, the CTN, and the 16 Regional Research and Training Centers within the CTN have provided clinical workshops that have focused on 12-Step facilitative interventions. Involvement in the development of this clinical trial and dissemination activities have led to an increase in adapting 12-Step interventions in community programs.

## Summary

This protocol is an example of a long-term bidirectional collaboration between NIDA, researchers and community providers to develop, implement and evaluate a 12-Step intervention for ambulatory patients with stimulant addiction. This paper describes the process of integrating an individual and group intervention to systematically prepare patients in an ambulatory IOP to become active in a 12-Step mutual support program. When the data are analyzed, we will have a better understanding of the impact of such an intervention on drug use outcomes and participation in mutual support programs as part of ongoing recovery. The development and implementation of this protocol evidences the importance of community providers collaborating with researchers to address important issues facing providers treating patients with stimulant addiction. Since CTPs highly value 12-Step counseling interventions the outcome of this trial will help inform clinical practice. Effective clinical practices that treatment providers contribute to in a significant manner are more likely to be sustained after completion of a clinical trial such as this one.

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## References

1. Baker, S. Twelve Step Facilitation for Drug Dependence. Psychotherapy Development Center, Department of Psychiatry, Yale University; New Haven, CT: 1998.

2. Nowinski, J.; Baker, S. *The Twelve Step Facilitation Handbook: A systematic approach to early recovery from alcoholism and addiction*. Lexington Books; New York: 1992.
3. Nowinski, J.; Baker, S. *The Twelve Step Facilitation Handbook*. Jossey Bass; San Francisco: 1998.
4. Nowinski, J.; Baker, S.; Carroll, K. *Twelve step facilitation therapy manual: A clinical research guide for therapists treating individuals with alcohol abuse and dependence*. National Institute on Alcohol Abuse and Alcoholism; Rockville, MD: 1992.
5. Timko C, DeBenedetti A. A randomized controlled trial of intensive referral to 12-step self-help groups: one-year outcomes. *Drug and Alcohol Dependence*. 2007; 90(2–3):270–279.
6. Timko C, DeBenedetti A, Billow R. Intensive referral to 12-Step self-help groups and 6-month substance use disorder outcomes. *Addiction*. 2006; 101(5):678–688. [PubMed: 16669901]
7. Donovan DM, Wells EA. “Tweaking 12-Step”: The potential role of 12-step self-help group involvement in methamphetamine recovery. *Addiction*. 2007; 102(Supplement 1):121–129. [PubMed: 17493061]
8. Fiorentine R. After drug treatment: are 12-step programs effective in maintaining abstinence? *American Journal of Drug and Alcohol Abuse*. 1999; 25(1):93–116. [PubMed: 10078980]
9. Fiorentine R, Hillhouse MP. Drug treatment and 12-step program participation: the additive effects of integrated recovery activities. *Journal of Substance Abuse Treatment*. 2000; 18(1):65–74. [PubMed: 10636609]
10. Fiorentine R, Hillhouse MP. Exploring the additive effects of drug misuse treatment and Twelve-Step involvement: does Twelve-Step ideology matter? *Substance Use and Misuse*. 2000; 35(3): 367–397. [PubMed: 10714452]
11. Gossop M, Stewart D, Marsden J. Attendance at Narcotics Anonymous and Alcoholics Anonymous meetings, frequency of attendance and substance use outcomes after residential treatment for drug dependence: A 5-year follow-up study. *Addiction*. 2008; 103(1):119–125. [PubMed: 18028521]
12. Humphreys K, Moos RH. Reduced substance-abuse-related health care costs among voluntary participants in Alcoholics Anonymous. *Psychiatric Services*. 1996; 47:709–713. [PubMed: 8807683]
13. Humphreys K, Moos RH. Can encouraging substance abuse patients to participate in self-help groups reduce demand for health care? A quasi-experimental study. *Alcoholism: Clinical and Experimental Research*. 2001; 25(5):71–716.
14. Humphreys K, Moos RH. Encouraging posttreatment self-help group involvement to reduce demand for continuing care services: Two-year clinical and utilization outcomes. *Alcoholism: Clinical & Experimental Research*. 2007; 31(1):64–68.
15. Weiss RD, Griffin ML, Gallop RJ, Najavits LM, Frank A, Crits-Christoph P, Thase ME, Blaine J, Gastfriend DR, Daley D, Luborsky L. The effect of 12-step self-help group attendance and participation on drug use outcomes among cocaine-dependent patients. *Drug Alcohol Depend*. 2005; 77; (2):177–184. [PubMed: 15664719]
16. Kaskutas LA, Subbaraman MS, Witbrodt J, Zemore SE. Effectiveness of Making Alcoholics Anonymous Easier: a group format 12-step facilitation approach. *Journal of Substance Abuse Treatment*. 2009; 37(3):228–339. [PubMed: 19339148]
17. Humphreys K. Alcoholics Anonymous and 12-step alcoholism treatment programs. *Recent Developments in Alcoholism*. 2003; 16:149–164. [PubMed: 12638636]
18. Humphreys K, Moos R. Can encouraging substance abuse patients to participate in self-help groups reduce demand for health care? *Alcoholism: Clinical and Experimental Research*. 2001; 25(5):711–716.
19. Kaskutas LA. Alcoholics anonymous effectiveness: Faith meets science. *Journal of Addictive Diseases*. 2009; 28(2):145–157. [PubMed: 19340677]
20. Tonigan JS. Benefits of alcoholics anonymous attendance: Replication of findings between clinical research sites in Project MATCH. *Alcoholism Treatment Quarterly*. 2001; 19(1):67–78.
21. Owen PL, Slaymaker V, Tonigan JS, McCrady BS, Epstein EE, Kaskutas LA, Humphreys K, Miller WR. Participation in alcoholics anonymous: intended and unintended change mechanisms. *Alcoholism: Clinical and Experimental Research*. 2003; 27(3):524–532.

22. Kelly JF, Stout R, Zywiak W, Schneider R. A 3-year study of addiction mutual-help group participation following intensive outpatient treatment. *Alcoholism: Clinical and Experimental Research*. 2006; 30(8):1381–1392.
23. Harris J, Best D, Gossop M, Marshall J, Man LH, Manning V, Strang J. Prior Alcoholics Anonymous (AA) affiliation and the acceptability of the Twelve Steps to patients entering UK statutory addiction treatment. *Journal of Studies on Alcohol*. 2003; 64(2):257–261. [PubMed: 12713200]
24. Rawson RA, Obert JL, McCann MJ, Castro FG, Ling W. Cocaine abuse treatment: A review of current strategies. *Journal of Substance Abuse*. 1991; 3(4):457–491. [PubMed: 1668230]
25. Humphreys K, Wing S, McCarty D, Chappel J, Gallant L, Haberle B, Horvath AT, Kaskutas LA, Kirk T, Kivlahan D, Laudet A, McCrady BS, McLellan AT, Morgenstern J, Townsend M, Weiss R. Self-help organizations for alcohol and drug problems: toward evidence-based practice and policy. *Journal of Substance Abuse Treatment*. 2004; 26(3):151–158. [PubMed: 15063905]
26. Caldwell PE, Cutter HS. Alcoholics Anonymous affiliation during early recovery. *Journal of Substance Abuse Treatment*. 1998; 15(3):221–228. [PubMed: 9633034]
27. Carroll KM, Nich C, Ball SA, McCance E, Frankforter TL, Rounsaville BJ. One-year follow-up of disulfiram and psychotherapy for cocaine-alcohol users: Sustained effects of treatment. *Addiction*. 2000; 95(9):1335–1349. [PubMed: 11048353]
28. Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR, Woody GE, Barber JP, Butler SF, Daley D, Salloum I, Bishop S, Najavits LM, Lis J, Mercer D, Griffin ML, Moras K, Beck AT. Psychosocial treatments for cocaine dependence: National Institute on Drug Abuse Collaborative Cocaine Treatment Study. *Archives of General Psychiatry*. 1999; 56(6):493–502. [PubMed: 10359461]
29. Project Match Research Group. Matching alcoholism treatments to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol*. 1997; 58:7–29. [PubMed: 8979210]
30. Brown SA, Glasner-Edwards SV, Tate SR, McQuaid JR, Chalekian J, Granholm E. Integrated cognitive behavioral therapy versus twelve-step facilitation therapy for substance-dependent adults with depressive disorders. *Journal of Psychoactive Drugs*. 2006; 38(4):449–460. [PubMed: 17373561]
31. Brown TG, Seraganian P, Tremblay J, Annis H. Process and outcome changes with relapse prevention versus 12-Step aftercare programs for substance abusers. *Addiction*. 2002; 97:677–689. [PubMed: 12084137]
32. Wells EA, Peterson PL, Gainey RR, Hawkins JD, Catalano RF. Outpatient treatment for cocaine abuse: A controlled comparison of relapse prevention and Twelve-Step approaches. *American Journal of Drug and Alcohol Abuse*. 1994; 20(1):1–17. [PubMed: 8192128]
33. Stinchfield, R.; Owen, PL.; Winters, KC. Group therapy for substance abuse: A review of the empirical evidence. In: Fuhrman, A.; Burlingame, GM., editors. *Handbook of group psychotherapy: An empirical and clinical synthesis*. John Wiley & Sons; New York: 1994. p. 458-488.
34. Weiss RD, Jaffee WB, de Menil VP, Cogley CB. Group therapy for substance use disorders: what do we know? *Harvard Review of Psychiatry*. 2004; 12(6):339–350. [PubMed: 15764469]
35. Carroll KM, Nich C, Ball SA, McCance E, Rounsaville BJ. Treatment of cocaine and alcohol dependence with psychotherapy and disulfiram. *Addiction*. 1998; 93(5):713–727. [PubMed: 9692270]
36. Brown TG, Seraganian P, Tremblay J, Annis H. Matching substance abuse aftercare treatments to client characteristics. *Addictive Behaviors*. 2002; 27(4):585–604.
37. Sisson RW, Mallams JH. The use of systematic encouragement and community access procedures to increase attendance at Alcoholics Anonymous and AI-Anon meetings. *American Journal of Drug and Alcohol Abuse*. 1981; 8(3):371–376. [PubMed: 7340507]
38. Blondell RD, Looney SW, Northington AP, Lasch ME, Rhodes SB, McDaniels RL. Using recovering alcoholics to help hospitalized patients with alcohol problems. *Journal of Family Practice*. 2001; 50(5):E1. [PubMed: 11401751]

39. Blondell RD, Looney SW, Northington AP, Lasch ME, Rhodes SB, McDaniels RL. Can recovering alcoholics help hospitalized patients with alcohol problems? *Journal of Family Practice*. 2001; 50(5):447. [PubMed: 11350721]
40. Chappel JN, DuPont RL. Twelve-step and mutual-help programs for addictive disorders. *Psychiatric Clinics of North America*. 1999; 22(2):425–446. [PubMed: 10385942]
41. Collins GB, Barth J. Using the resources of AA in treating alcoholics in a general hospital. *Hospital and Community Psychiatry*. 1979; 30(7):480–482. [PubMed: 447233]
42. Crape BL, Latkin CA, Laris AS, Knowlton AR. The effects of sponsorship in 12-step treatment of injection drug users. *Drug and Alcohol Dependence*. 2002; 65(3):291–301. [PubMed: 11841900]

**Table 1**

## TSF Group Sessions Used in the STAGE-12 Intervention

<ul style="list-style-type: none"><li>• <b>Acceptance (Step 1):</b> This session includes a review of previous assignments and participant experiences. Step work begins in this session. Recovery assignments are provided for review at the next session.</li><li>• <b>People, places, &amp; things (habits &amp; routines):</b> This session begins with a review of previous recovery assignments and patient experiences. A review of lifestyle changes is the main focus of this session. Recovery assignments are provided for review at the next session.</li><li>• <b>Surrender (Steps 2 &amp; 3):</b> This session involves reviewing previous recovery assignments and participant experiences. Step work continues and recovery tasks for the upcoming week are assigned.</li><li>• <b>Getting active in 12-Step programs:</b> This session includes a review of previous recovery assignments and patient experiences. The focus of this session is on abstinence vs. sobriety with a recovery program and the details of 12-Step meeting involvement. Recovery tasks for the upcoming week are assigned.</li><li>• <b>Managing Emotions:</b> This session reviews previous recovery assignments and participant experiences. The focus of this session is to help the individual identify emotions that are most often associated with slips. Recovery tasks for the upcoming week are assigned.</li></ul>
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**Table 2**

## Individual IRP Sessions Used in the STAGE-12 Intervention

<p><b>1 First Individual Session:</b> The first session involves establishing rapport and introducing the 12-step view of substance use and dependence. The session includes discussion on the patient's history and future goals for sobriety and 12-Step participation. The counselor provides the participant with 12-Step group information. The counselor and participant call a "buddy" or volunteer who agrees to meet the participant before the first meeting so they can attend the meeting together. Recovery assignments to be reviewed at the next session are assigned.</p> <p><b>2 Second Individual Session:</b> The second session content will vary, depending on whether the participant attended a 12-Step meeting since the first session. If so, the participant's reactions to the meeting are discussed and homework is reviewed. If not, the session focuses on perceived and actual barriers to attendance and a 12-Step meeting volunteer will again be contacted.</p> <p><b>3 Third Individual Session:</b> This session reviews recovery assignments and participant experiences. The session discussed the patient's views of addiction and 12-Step programs now as opposed to prior to treatment. It focuses on finding a sponsor if a meeting was attended since the last session or setting up a meeting with a 12-step group volunteer if a meeting was not attended. Barriers to participation are reviewed. Goals and plans for the future are also discussed.</p>
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