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# 12-step facilitation for the dually diagnosed: A randomized clinical trial

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ABSTRACT

There are few clinical trials of 12-step treatments for individuals with serious mental illness and alcohol or drug dependence. This randomized trial assessed the effects of adding a 12-session 12-step facilitation therapy (TSF), adapted from that used in Project MATCH, to treatment as usual in an outpatient dual diagnosis program. Participants were 121 individuals dually diagnosed with alcohol dependence and a serious mental disorder, followed during 12 weeks of treatment and 36 weeks post-treatment. Participants receiving TSF had greater participation in 12-step programs, but did not demonstrate greater improvement in alcohol and drug use. However, considered dimensionally, greater participation in TSF was associated with greater improvement in substance use, and greater 12-step participation predicted decreases in frequency and intensity of drinking. Findings suggest that future work with TSF in this population should focus on maximizing exposure to TSF, and maximizing the effect of TSF on 12-step participation.



## 1. Introduction

A defining feature of 12-step treatment is the active facilitation of engagement in 12-step programs such as Alcoholics Anonymous (AA). There is now ample evidence that involvement in these programs has beneficial effects including improvement in drinking outcomes (e.g., Emrick, Tonigan, Montgomery, & Little, 1993; Magura, Cleland, & Tonigan, 2013; Majer, Jason, Aase, Droege, & Ferrari, 2013; Moos & Moos, 2006; Tonigan, 2001; Tonigan, Connors, & Miller, 2003; Tonigan, Miller, & Connors, 2001; Tonigan, Toscova, & Miller, 1996; Zemore, Subbaraman, & Tonigan, 2013). Likewise, alcohol treatment based on the 12-step approach has a strong empirical basis, and may actually be superior to motivational enhancement and cognitive behavioral therapies with respect to abstinence-based outcomes such as complete abstinence and increased time to the first drinking day (Moos, Finney, Ouimette, & Suchinsky, 1999; Ouimette, Ahrens, Moos, & Finney, 1998; PMRG, 1997, 1998).

Because such findings are often based upon clinical samples that, due to eligibility criteria, systematically exclude those with co-morbid psychiatric disorders, less is known about the effectiveness of 12-step programs and treatment for seriously mentally ill patients. This is unfortunate, because, while estimates vary, it appears that between 41% and 65% of adults in the United States with substance use disorders have lifetime mental disorders (USDHHS, 1999), and between 25% and 45% of veterans presenting for substance treatment have co-occurring substance and mental disorders (Ouimette, Gima, Moos, & Finney, 1999). People with serious mental illness are at particularly high risk for substance use disorders. Lifetime prevalences of non-nicotine substance use disorders in people with schizophrenia and bipolar disorder were reported as 47% and 56%, respectively, in the Epidemiologic Catchment Area study (Regier et al., 1990).The data that exist indicate that 12-step programs and treatments are effective for those with serious mental illness, but also suggest that psychiatric diagnoses, and psychosis in particular, may interfere with engagement and attenuate the beneficial effects (Bogenschutz, Geppert, & George, 2006; Jordan, Davidson, Herman, & BootsMiller, 2002; Timko, Cronkite, McKellar, Zemore, & Moos, 2013; Timko, Sutkowi, & Moos, 2010).

Dually diagnosed individuals (DDI) face a number of issues peculiar to the dually diagnosed that complicate their participation in 12-step programs. (Bogenschutz & Akin, 2000; Noordsy, Schwab, Fox, & Drake, 1996). For example, paranoia and social anxiety may make it very difficult for patients to participate in groups, especially when a confrontational style of interaction is employed, as it is in some 12-step meetings. Patients may feel that they have little in common with the non-mentally ill members of the groups. They may be told that they are not clean and sober if they are taking psychiatric medication. In response to the difficulties experienced by some DDI in participating in traditional 12-step programs, specialized mutual help

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programs have emerged which aim to create a more welcoming mutual help community for the dually diagnosed. Specialized programs include Double Trouble in Recovery (DTR) (The Dual Disorders Recovery Book: A Twelve Step program for those of us with addiction & an emotional or psychiatric illness, 1993; Vogel, 1993), Recovery Anonymous Dual ("The Twelve Steps of Dual Recovery Anonymous", 1993), and Dual Diagnosis Anonymous (Monica, Nikkel, & Drake, 2010), among others. These programs have been designed by and for the dually diagnosed to create "a safe environment where clients can discuss the issues of mental disorders, medication, medication side effects, psychiatric hospitalizations and experiences with the mental health system openly, without shame or stigma" (Double Trouble in Recovery: How to Start & Run a Double Trouble in Recovery Group, 1998). Prospective studies involving 310 DTR participants followed for 2 years have demonstrated that DTR attendance significantly associated with abstinence, as well as improvements in self-efficacy, social support, and quality of life (Laudet, Cleland, Magura, Vogel, & Knight, 2004; Laudet et al., 2004; Magura, Cleland, Vogel, Knight, & Laudet, 2007; Magura, Villano, Rosenblum, Vogel, & Betzler, 2008).

Although clinical use of the 12-step approach for mentally ill substance abusers is widespread, there are very few controlled studies of 12-step treatments specifically tailored to the seriously mentally ill (Brooks & Penn, 2003; Lydecker et al., 2010; Magura et al., 2008; Timko, Sutkowi, Cronkite, Makin-Byrd, & Moos, 2011), and none using an individual 12-step facilitation (TSF) approach. The principal aim of this study was to assess the efficacy of TSF, based on the Project MATCH TSF manual (Nowinski, Baker, & Carroll, 1992) but adapted for use with seriously mentally ill clients with alcohol use disorders, relative to treatment as usual. We hypothesized that participants receiving TSF in addition to treatment as usual would have greater increase in 12-step attendance and greater reduction in drinking than those receiving treatment as usual (TAU) alone.

## 2. Materials and methods

### 2.1. Participants

All study-related procedures and materials were reviewed and approved by the Human Research Review Committee of the University of New Mexico Health Sciences Center. Participants were males and females of age 18 or older, currently receiving psychiatric treatment for any length of time in the outpatient Dual Diagnosis Program at The University of New Mexico Hospitals Psychiatric Center, Albuquerque, NM, recruited between April 2006 and June 2010. To be included in the study, participants were required to have 1) a psychotic disorder or a major affective disorder and 2) alcohol abuse or dependence, both active within the past 1 month. Diagnoses were ascertained using the Structured Clinical Interview for DSM-IV (SCID) (First, Spitzer, Gibbon, & Williams, 1996). In addition, participants were required to have 2 or more days of heavy drinking (5 or more drinks for per occasion for a man, 4 or more drinks per occasion for a woman) in the 30 days prior to screening, and to be willing to participate in specialized 12-step programs, able to provide informed consent, able to read, speak, and understand English at least the 5th grade level, and able to provide at least one contact person to assist in tracking for follow-up assessment. Potential participants were excluded if they were currently attending any 12-step program (two or more 12-step meetings in the past month), had unstable psychiatric illness or cognitive impairment of sufficient severity to render them incapable of informed consent or unable to participate in the TSF therapy or 12-step meetings, were actively suicidal or homicidal, had medical illness severe enough to compromise participation in the study, expected to be out of town or in jail for more than 21 days during the treatment period, or expected to participate in any other addiction treatment during the treatment period (not including TAU, 12-step programs, or other mutual support groups).

Two hundred and seventy-nine potential participants were contacted and briefly screened to assess if they met inclusion or exclusion criteria. One hundred and eighty (64.52%) initially met inclusion criteria. Informed consent was given by 142 participants (50.90%) who were thoroughly screened; 121 (43.37%) were randomized. Fig. 1 provides a summary of reasons for exclusion from the study at each stage.

### 2.2. Randomization

Participants were randomized to the modified TSF condition vs. treatment as usual in a ratio of 2:1 using an urn randomization procedure. Variables included in the urn were 1) lifetime 12-step participation, using as a cut point the median lifetime attendance of 32 meetings which we found for patients in this clinic (Bogenschutz & Akin, 2000), 2) presence or absence of a psychotic diagnosis (schizophrenia, schizoaffective disorder, or psychosis not otherwise specified) based on SCID, 3) baseline percent days abstinent (PDA) from alcohol, 4) number of psychiatric hospitalizations in the past year, 5) motivation, based on the Taking Steps Scale of the SOCRATES (Miller & Tonigan, 1996), 6) gender, 7) presence or absence of an active drug dependence diagnosis, 8) social stability, from the Important People Interview (COMBINE_Study_Research_Group, 2003; Zywiak, Longabaugh, & Wirtz, 2002), and 9) medication compliance, based on days of medication use in past 90 days from the Form 90.

### 2.3. Treatments

#### 2.3.1. TSF

While the modified TSF approach retained the basic format of 12 weeks of individual TSF, significant content and process adjustments were made to adapt the manual for use with dually diagnosed clients. Modifications and rationale were as follows.

1. Because specialized 12-step programs for DDI appear to offer advantages beyond those of traditional programs, the therapy emphasized engagement in specialized dual-focus 12-step programs. However, AA or other 12-step involvement was encouraged if preferred by the participant, or if 12-step meeting attendance appeared to be limited by the availability of dual-focus meetings. The manual was specifically geared toward DTR because of the availability of DTR and lack of availability of other specialized 12-step programs in the city where the trial was conducted.
2. Throughout the 12-step facilitation therapy systematic attention was paid to the ways that psychiatric illness affects the addictive process, and vice-versa. This was to address the complex interplay between the co-occurring disorders which is an important part of the experience of being dually diagnosed, but is not addressed in standard TSF.
3. Two topics were added to deal with issues related to psychiatric illness. The first topic, adherence to psychiatric treatment as part of the recovery process, was added because medication non-adherence is a known cause of relapse for both psychiatric and substance use disorders in DDI (Coldham, Addington, & Addington, 2002). The second added topic was targeted social skills training to help patients tolerate meetings and interactions with individual 12-step program members such as the patient's sponsor. This topic was added to respond to the frequent patient complaints of being unable to tolerate groups, the well-known social skills deficits among seriously mentally ill patients (Brady, 1984), and some evidence that these skills deficits may interfere with attendance of and participation in meetings (Noordsy et al., 1996).
4. The topics dealing with work on the fourth step (inventory) and family history were eliminated. It was thought that this work was