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The effect of 12-step self-help group attendance and participation on drug use outcomes among cocaine-dependent patients☆

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Abstract

Objective: Although cocaine-dependent patients are frequently referred to 12-step self-help groups, little research has examined the benefits of 12-step group attendance in this population. Moreover, the distinction between attending meetings and actively participating in 12-step activities has not typically been examined.
Method: In the National Institute on Drug Abuse Collaborative Cocaine Treatment Study, 487 cocaine-dependent outpatients were recruited at five sites for a randomized controlled trial of 24-week behavioral treatments. Study data were examined to see whether self-help attendance or active participation were related to subsequent drug use.
Results: Twelve-step group attendance did not predict subsequent drug use. However, active 12-step participation in a given month predicted less cocaine use in the next month. Moreover, patients who increased their 12-step participation during the first 3 months of treatment had significantly less cocaine use and lower ASI Drug Use Composite scores in the subsequent 3 months. Finally, Individual Drug Counseling, based on a 12-step model, and increasing levels of 12-step participation each offered discrete benefits.
Conclusions: Results suggest that active 12-step participation by cocaine-dependent patients is more important than meeting attendance, and that a combination of Individual Drug Counseling and active 12-step participation is effective for these patients.

Keywords: Cocaine; Treatment; Alcoholics Anonymous; Self-help; Addiction; Substance abuse

1. Introduction

Self-help groups based on the 12-step philosophy of Alcoholics Anonymous (AA) are frequently recommended for the treatment of substance use disorders in the United States (Humphreys, 1997; Institute of Medicine, 1990). For alcohol dependence, studies have indicated that affiliation with 12-step groups is associated with positive clinical outcomes (Montgomery et al., 1995; Timko et al., 1994, 2000), as well as reduced health care costs (Humphreys and Moos, 1996).

While 12-step self-help (often called mutual-help) groups are typically recommended for drug-dependent patients as well, outcomes research on 12-step groups in this population

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is limited by two major factors. First, few reports separate individuals dependent on alcohol alone from those identifying illicit drugs as their primary problem. Benefits of 12-step affiliation have been reported among samples of alcohol and/or drug abusers combined (Christo and Franey, 1995; Miller and Hoffman, 1995; Ouimette et al., 1998; Toumbourou et al., 2002) and drug abusers (Fiorentine and Hillhouse, 2000). Better drug and alcohol outcomes have also been associated with 12-step group affiliation among patients dependent on alcohol and/or cocaine (McKay et al., 1994; Morgenstern et al., 1997), but these studies have not examined cocaine-dependent patients separately. Since results of large comparative psychotherapy studies have not been consistent across substances of abuse (Crits-Christoph et al., 1999; Project MATCH, 1997; Woody et al., 1983), studying the relationship between self-help activities and outcome in this population is important.

The second limitation of previous research in this area is that studies of 12-step groups for substance-dependent patients have rarely differentiated attendance at 12-step groups from active participation, such as speaking at meetings, working on one or more of the 12 steps, having a sponsor, or performing duties such as making coffee at meetings. Some researchers have not distinguished between the two (McKay et al., 1998) or have used the terms interchangeably (Watson et al., 1997). Studies differentiating attendance from degrees of "participation" (Kingree, 1997), "involvement" (Montgomery et al., 1995; Ouimette et al., 1998; Toumbourou et al., 2002), "commitment" (Tonigan et al., 2002b), or other AA-related behavior (Morgenstern et al., 1997; Tonigan et al., 2000) have hypothesized that greater active participation in 12-step activities is associated with improved outcome. Results are conflicting. Some studies have found better substance use outcomes associated with attendance and active participation items combined (Humphreys et al., 1999; McKay et al., 1994; Morgenstern et al., 1997) or with each measured separately (Ouimette et al., 1998). Montgomery et al. (1995) found that greater participation predicted better drinking outcomes and attendance did not, while Tonigan et al. (2002b) found that neither was correlated with alcohol use. Toumbourou et al. (2002) reported that attendance and participation among Narcotics Anonymous members each predicted less hazardous alcohol use, but not the frequency of injection drug use.

In an earlier report from the pilot phase of the National Institute on Drug Abuse Collaborative Cocaine Treatment Study (NCCTS; Crits-Christoph et al., 1997), our group found that 12-step self-help group attendance and participation during the week prior to treatment entry predicted likelihood of attaining abstinence during the first month of treatment (Weiss et al., 1996). This paper extends those findings by examining a sample of patients from the main trial of the NCCTS and following the subset for whom weekly self-help data were collected through the entire 6-month treatment period. The purpose of our current study was to evaluate the relationship between 12-step self-help group attendance, active participation, and cocaine outcomes among cocaine-dependent patients receiving professional treatment. We studied 12-step group attendance and participation in patients participating in the main trial of the NCCTS, a 24-week, randomized, controlled study comparing different forms of psychotherapy and drug counseling, posing two hypotheses:

Hypothesis 1. Attendance at 12-step groups is associated with reduced subsequent drug use.

Hypothesis 2. Active participation in 12-step activities is associated with reduced subsequent drug use.

2. Methods

2.1. Procedures

NCCTS patients were recruited at four academic hospitals and one community hospital. Inclusion criteria were a DSM-IV diagnosis of cocaine dependence; age 18–60; and cocaine use in the last month. The principal diagnosis of cocaine dependence was established using a 9-point severity rating scale (based on the Anxiety Disorders Interview Schedule-Revised; Dinardo and Barlow, 1988), incorporating the diagnostician's evaluation of both subjective distress and functional impairment, as well as the absence of a principal diagnosis of alcohol or polysubstance use disorder. Exclusion criteria were ongoing pharmacotherapy or psychotherapy; imminent homicide or suicide risk; mandated treatment; concurrent opioid dependence; and hospitalization for cocaine dependence for more than 10 days in the past month. After complete description of the study to the patients, written informed consent was obtained.

The 24-week treatment included weekly group drug counseling (GDC; Mercer et al., 1994) for all patients to educate them about addiction and encourage 12-step group involvement. Patients were randomly assigned to individual treatment: either (1) individual drug counseling (IDC; Mercer and Woody, 1992), based on 12-step principles, emphasizing the disease concept of addiction and strongly encouraging 12-step group involvement; (2) supportive-expressive psychodynamic therapy (SE; Mark and Luborsky, 1992), focusing on conflictual relationships; (3) cognitive therapy (CT; Beck et al., 1993), emphasizing the importance of maladaptive cognitions; or (4) no individual treatment. Neither SE nor CT routinely urged 12-step attendance. For more details, see Crits-Christoph et al. (1997). Results from the study revealed that patients receiving IDC plus GDC had the greatest improvement on the Addiction Severity Index (ASI; McLellan et al., 1992) Drug Use Composite score, the fewest days of cocaine use, and the most abstinent months (Crits-Christoph et al., 1999).