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A randomized controlled trial of telephone continuing care

Mark D. Godley, (Ph.D.)*, Victoria H. Coleman-Cowger, (Ph.D.), Janet C. Titus, (Ph.D.), Rodney R. Funk, (B.S.), Matthew G. Orndorff, (M.A.)

Chestnut Health Systems, 448 Wylie Dr., Normal, IL 61761, USA

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Abstract

Telephone continuing care (TCC) was compared to usual continuing care (UCC) on substance use and related problems among adults discharged from residential treatment. Participants were randomly assigned to receive either UCC or TCC. A tapered TCC protocol, initiated by paraprofessional staff and volunteers, was provided during the first 3 months following discharge. The TCC condition participants reported high satisfaction ratings with the procedure and were more than twice as likely to enter continuing care than UCC participants. At the 3-month point, TCC patients reported significantly fewer past-month substance problems than UCC patients. Among the subgroup of lower severity (LS) participants, the TCC-LS sample had both significantly more days abstinent and fewer past-month substance problems at 3 months than the UCC-LS sample. The significant between-group differences in substance use outcomes were not maintained at the 6-month follow-up. The high satisfaction ratings and early favorable response among TCC patients suggest the procedure is promising. Further research with larger samples and over a longer period is necessary.

Keywords: Substance abuse; Continuing care; Aftercare; Telephone; Residential treatment

1. Introduction

The chronic, relapsing nature of substance use disorders and the complexity of addiction have been well documented (McKay et al., 2004; McLellan, Lewis, O'Brien, & Kleber, 2000; Saitz, Larson, LaBelle, Richardson, & Samet, 2008; White, 1996, 2008). However, outcome studies typically have not reflected expected recovery trajectories but instead usually evaluate acute care interventions without continuing care. Although acute, single-care episodes may be successful with some individuals, there is evidence that more than half of the patients entering publicly funded addiction programs require longer term care, consisting of three to four episodes of various kinds of treatment over several years to sustain recovery (Dennis, Foss, & Scott, 2007; Dennis & Scott, 2007). Researchers have drawn a parallel between addiction and chronic medical illnesses such as asthma, diabetes, and hypertension (Donovan, 1998; McLellan et al., 2000; O'Brien & McLellan, 1996) and have suggested treatment methods focused on continuing care for individuals with substance use disorders.

There has been a noticeable shift in the field toward focusing on the feasibility and efficacy of various continuing care models in addiction treatment. The American Society of Addiction Medicine (ASAM) urges that individuals receiving treatment for a substance disorder receive continuing care following the initial treatment to maintain progress or to provide intensified treatment if necessary (ASAM, 2001). McKay (2005) found support for the effectiveness of extended continuing care interventions when delivered through face-to-face contact and at a distance via telephone. These findings held across all types of interventions that were examined (e.g., behavioral treatment, pharmacological, and monitoring). Although

* Corresponding author. Research and Development, Chestnut Health Systems, 448 Wylie Dr., Normal, IL 61761, United States. Tel.: +1 309 451 7800; fax: +1 309 451 7761.

E-mail address: mgodley@chestnut.org (M.D. Godley).

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correlational in nature, the length of participation in continuing care has been cited as the best predictor of positive outcomes at 1 year posttreatment (Moos, Finney, Ouimette, & Suchinsky, 1999). At present, the most common type of formal continuing care is the 12-step group (Donovan, 1998; McKay, 2001). Although effective for many, McKay (2001) acknowledged that attendance rates tend to be low and drop off rapidly when treatment is complete. Donovan (1998) recommended that providers take a more proactive role to increase client attendance and compliance with continuing care, and Compton, Glantz, and Delany (2003) proposed a model of continuing care to directly address persistent vulnerability to relapse, including proactive recovery management checkups (Dennis, Scott, & Funk, 2003).

Because cost and time burdens are concerns associated with long-term continuing care, recent efforts to increase compliance with continuing care have included discussion of telephone delivery of care as a possibility. Telephone contact has been used most extensively with smoking cessation; meta-analyses of telephone counseling outcomes have shown that proactive calls consistently produce better smoking outcomes than control conditions (Lichtenstein, Glasgow, Lando, Ossip-Klein, & Boles, 1996; Stead, Perera, & Lancaster, 2006). Telephone care has also proven useful in the monitoring and treatment of chronic mental and physical illnesses, such as depression (Osgood-Hynes et al., 1998; Simon, VonKorff, Rutter, & Wagner, 2000), obsessive–compulsive disorder (Greist et al., 2002; Taylor et al., 2003), hypertension (Bosworth et al., 2005), diabetes (Kim & Oh, 2003), and rheumatology problems (Pal, 1998).

Telephone-based continuing care for substance use disorders is a relatively new concept, yet several researchers have demonstrated the potential benefits of this method with adult (Cacciola et al., 2008; McKay et al., 2004, McKay, Lynch, Shepard, & Pettinati, 2005) and adolescent (Kaminer & Napolitano, 2004) substance users. Telephone continuing care (TCC) is often more attractive and less burdensome to patients than other forms of continuing care, and manual-based telephone interventions may be just as effective in maintaining treatment gains as in-person interventions (Kaminer, Burleson, & Burke, 2008); however, support for this approach is not unequivocal. Hubbard et al. (2007) found no clear evidence of the efficacy of telephone utilization to encourage compliance with continuing care plans, although they acknowledged those receiving calls had a greater likelihood of documented attendance to continuing care than those who were not called.

Given the need for additional research in telephone-based continuing care, the goals of this study are to examine the feasibility and outcomes of an assertive, outreach-oriented TCC protocol for adults discharged from residential treatment. This study tests the hypotheses that TCC will reach more patients with greater frequency and improved clinical outcomes than usual continuing care (UCC).

2. Materials and methods

2.1. Participants

Participants in this study were 104 adult patients who met criteria for and were admitted to level III residential substance abuse treatment as defined by ASAM's Patient Placement Criteria for the Treatment of Psychoactive Substance Use Disorders (PPC-2R; ASAM, 2001). Adults were eligible to participate in this study if they were at least 18 years of age, met Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (*DSM-IV-TR*; American Psychiatric Association, 2000) substance abuse and/or dependence criteria, and resided in the designated multicounty central Illinois area at the time of admission to treatment.

Potential participants were excluded from the study if they did not plan on returning to one of the target counties, displayed uncontrolled psychotic symptoms, were deemed a danger to themselves or others, or did not remain in residential treatment for at least 7 days. Of 198 patients admitted to residential treatment, 61 (31%) did not meet eligibility criteria. The most common reasons for ineligibility were failure to reenter one of the designated counties upon discharge (57%) and not remaining in treatment for at least 7 days (36%). Remaining patients (7%) were excluded from the study because they were immediately incarcerated upon discharge from residential treatment ($n = 3$) or were enrolled in another study ($n = 1$). Of the 137 eligible patients, 104 (76%) agreed to participate in the study. Ninety-four participants (90%) completed the 3-month follow-up interview, 3 refused, 1 was located but unavailable, and 6 could not be located. Eighty participants (85%) completed their 3-month follow-up interview within 1 week plus or minus their 90-day postdischarge target date. At 6 months postdischarge, 88 participants (85%) completed the interview, 4 refused, and 12 could not be located. Seventy-six participants (86%) completed their 6-month follow-up interviews within 1 week plus or minus their 90-day post 6-month follow-up date. This analysis utilized data from both 3- and 6-month follow-up intervals. There were no significant differences in follow-up rates by condition.

The participants in this study averaged 31.6 years of age (range = 19–56), and most were Caucasian (76%), male (60%), not currently married (85%), and involved with the criminal justice system (65%). There were 11% that reported being in school/training in the 90 days prior to intake, and 32% were currently employed. In terms of clinical characteristics, 84% self-reported dependence on alcohol or other drugs with 53% reporting cocaine dependence, 49% alcohol dependence, 26% cannabis dependence, and 14% opioid dependence. Most (63%) started using drugs before the age of 15 and had at least one prior episode of substance abuse treatment (64%). Co-occurring mental disorders were common because 78% reported criteria for one or more disorders. Approximately half reported prior mental health treatment (see Tables 1 and 2).