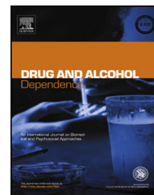
Drug and Alcohol Dependence 153 (2015) 207–214

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep



The effects of continuing care on emerging adult outcomes following residential addiction treatment

Brandon G. Bergman[a,b,*], Bettina B. Hoeppner[a,b], Lindsay M. Nelson[c], Valerie Slaymaker[c], John F. Kelly[a,b]

[a] *Massachusetts General Hospital, Boston, MA, United States*
[b] *Harvard Medical School, Boston, MA, United States*
[c] *Hazelden Betty Ford Foundation's Butler Center for Research, Center City, MN, United States*

ARTICLE INFO

Article history:
Received 18 February 2015
Received in revised form 13 May 2015
Accepted 14 May 2015
Available online 27 May 2015

Keywords:
Substance use disorders
Emerging adulthood
Continuing care
12-Step mutual-help organizations

ABSTRACT

Background: Professional continuing care services enhance recovery rates among adults and adolescents, though less is known about emerging adults (18–25 years old). Despite benefit shown from emerging adults' participation in 12-step mutual-help organizations (MHOs), it is unclear whether participation offers benefit independent of professional continuing care services. Greater knowledge in this area would inform clinical referral and linkage efforts.
Methods: Emerging adults ($N = 284$; 74% male; 95% Caucasian) were assessed during the year after residential treatment on outpatient sessions per week, percent days in residential treatment and residing in a sober living environment, substance use disorder (SUD) medication use, active 12-step MHO involvement (e.g., having a sponsor, completing step work, contact with members outside meetings), and continuous abstinence (dichotomized yes/no). One generalized estimating equation (GEE) model tested the unique effect of each professional service on abstinence, and, in a separate GEE model, the unique effect of 12-step MHO involvement on abstinence over and above professional services, independent of individual covariates.
Results: Apart from SUD medication, all professional continuing care services were significantly associated with abstinence over and above individual factors. In the more comprehensive model, relative to zero 12-step MHO activities, odds of abstinence were 1.3 times greater if patients were involved in one activity, and 3.2 times greater if involved in five activities (lowest mean number of activities in the sample across all follow-ups).
Conclusions: Both active involvement in 12-step MHOs and recovery-supportive, professional services that link patients with these community-based resources may enhance outcomes for emerging adults after residential treatment.

© 2015 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Substance use disorders (SUDs) are widely recognized as chronic conditions, often characterized by multiple cycles of treatment, abstinence, relapse, and, in some cases, incarceration prior to full remission (Dennis and Scott, 2007; Dennis et al., 2005; McLellan et al., 2000; Substance Abuse and Mental Health Services Administration (SAMHSA), 2014; White, 2012). Not surprisingly, relapse risk appears to be greatest early post-intervention, especially during the first 90 days (Hubbard et al., 1997; Hunt et al., 1971), though there is an elevated relapse risk across the entire post-treatment year (Dennis et al., 2007; Weisner et al., 2003) and even up through 5 years of continuous abstinence (Flynn et al., 2003; Hser et al., 2001).

1.1. The role of professional continuing care in SUD recovery

This chronic relapse risk has helped catalyze an expansion of the conventional acute care paradigm to a three-phased model of SUD treatment, marked by (a) initial detoxification and/or symptom stabilization, (b) an acute, time-limited, more intensive treatment phase, and (c) most critically, continuing care that facilitates maintenance and/or further improvements in health and functioning

* Corresponding author at: Massachusetts General Hospital, Recovery Research Institute, 151 Merrimac Street Suite 620, Boston, MA 02113, United States. Tel.: +1 6176437563.
E-mail address: bgbergman@mgh.harvard.edu (B.G. Bergman).

http://dx.doi.org/10.1016/j.drugalcdep.2015.05.017
0376-8716/© 2015 Elsevier Ireland Ltd. All rights reserved.

over time (Dennis and Scott, 2007; Kelly and White, 2011; McKay, 2009, 2010; McLellan, 2008; Simpson, 2004; Stout et al., 1999). Based on a narrative review (McKay, 2009) and a meta-analysis (Blodgett et al., 2014), as a broad (and heterogeneous) group of interventions, continuing care generally appears to support a modest, reliable improvement in SUD outcomes. For example, Scott and Dennis (2009) showed that receiving quarterly assessments and active assistance with treatment re-engagement enhanced outcomes 2 years post-treatment. Also, McKay et al. (2010) found that telephone-based continuing care (brief assessments, feedback, and progressively less intensive counseling) enhanced outcomes over 18 months. Among adolescents, Godley et al. (2007) showed that a package of direct and active continuing care linkages coupled with interventions that facilitate community-based prosocial activities promoted better adherence to continuing care recommendations and abstinence rates 9 months post-treatment.

1.2. Emerging adulthood: a clinically unique stage of the life course

Taken together, with some exceptions (e.g., Godley et al., 2010; McKay et al., 2013), evidence suggests well-articulated, active continuing care interventions can improve post-treatment outcomes among adolescents and adults. Little is known, however, regarding professional continuing care among treatment-seeking emerging adults (e.g., 18–25 years old; Arnett, 2000), who comprise approximately one-fifth of all SUD treatment admissions (SAMHSA, 2014), and are developmentally unique in their combination of life stressors (e.g., transition to independent living) and recovery barriers (e.g., social networks with substantial proportions of substance using individuals; Kelly et al., 2013; Mason and Luckey, 2003). Emerging adults are also clinically challenging, presenting with initially lower recovery motivation (Sinha et al., 2003) and evidencing poorer treatment engagement and retention compared to adults (Choi et al., 2013; McKay and Weiss, 2001; Schuman-Olivier et al., 2014; Shin et al., 2007; Sinha et al., 2003), as well as poorer treatment and recovery outcomes compared to both adults and adolescents (Dawson et al., 2007; Hoeppner et al., 2014; Schuman-Olivier et al., 2014; Sinha et al., 2003; Smith et al., 2011).

1.3. Emerging adults' participation in community-based, 12-step continuing care

As with adolescents and adults, initial findings support 12-step mutual-help organizations (MHOs) as potent, community-based continuing care resources for emerging adults (Chi et al., 2009; Delucchi et al., 2008; Kelly et al., 2008, 2013). Given the overlap among 12-step MHOs and professional treatment (Borkman et al., 2007; Kelly, 2003), however, empirically informed continuing care recommendations require a simultaneous analysis of both professional (treatment) and non-professional (MHO) approaches. For example, among adult outpatients, studies show that 12-step MHO attendance is associated with abstinence *over and above* participation in SUD treatment as well as treatment-sanctioned, professional continuing care (Fiorentine, 1999; Fiorentine and Hillhouse, 2000). In the current study, we examined the unique effects of both professional continuing care and 12-step MHOs on post-treatment recovery rates in a sample of emerging adults.

1.4. Aims

Aims of the current study were three-fold: (1) to describe emerging adults' engagement in professional continuing care and 12-step MHOs over the year following residential treatment; (2) to investigate unique associations between professional continuing care services and abstinence while controlling for individual factors (e.g., recovery motivation); and (3) to investigate unique associations between 12-step MHO involvement and abstinence, controlling for professional continuing care engagement and individual factors.

2. Methods

2.1. Treatment model

Participants were recruited from the Hazelden Betty Ford Foundation (HBFF) in Plymouth, Minnesota (formerly known as the Hazelden Center for Youth and Families [HCYF]), a Minnesota-model (McElrath, 1997) residential treatment program for adolescents and young adults. It employs 12-step facilitation, cognitive-behavioral, and motivational enhancement therapies in individual and group formats, and provides adjunctive psychiatric care when clinically indicated (Bergman et al., 2014b).

2.2. Procedure

Participants were reimbursed $20, $30, $40, and $50 for follow-up assessments at 1 month (83.8%), 3 months (81.1%), 6 months (73.2%), and 12 months (70.9%) after discharge from the index treatment episode, respectively. The study was conducted in accordance with the Institutional Review Board at Schulman Associates IRB, an independent review board.

2.3. Participants

Among possible participants who attended HBFF between October 2006 and April 2008 (i.e., 18–24 years old; $N = 384$), 79% were enrolled and consented to participate ($N = 302$). For more information on the original sample, refer to Kelly et al. (2012). In brief, participants were predominantly male (73.8%) and Caucasian (94.7%); mean age was 20.4 years old ($SD = 1.5$). Alcohol and cannabis use disorders were the most common SUDs (about 75% each), and approximately one-third and one-half of the sample met criteria for opioid and cocaine use disorders, respectively, in their lifetime (*Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition; American Psychiatric Association, 2000). Roughly 85% of the sample completed treatment and the average participant attended for 25.5 days ($SD = 5.7$). Regarding treatment payment, 61% of patients paid via insurance reimbursement and 35% via self-pay (i.e., family). Also, 50% of the sample came from areas where the median household income was below $56,000. Apart from greater likelihood of being Caucasian, on aggregate participants were demographically similar to young adults (18–24 years old) in public sector as well as adults (18 and older) in private sector treatment (Roman and Johnson, 2004; SAMHSA, 2008).

Given the current study's focus on post-treatment continuing care, the study sample initially included 284 patients who completed at least one follow-up assessment (94%). Relative to participants who were not included in the study ($n = 18$), those included in the study had significantly longer days in treatment for the index episode ($p < .001$, $d = 0.74$) but were similar on several other relevant clinical characteristics at treatment admission (e.g., days abstinent in the past 90). They were also significantly more likely to have at least some college experience ($p = .01$; Odds Ratio [OR] = 5.72) but similar on all other measured demographic characteristics (e.g., gender).

2.4. Measures

2.4.1. Professional continuing care services. Each of four continuing care services was assessed with items from the Form-90 (Miller and Del Boca, 1994). Number of outpatient sessions per week was calculated by summing number of outpatient treatment program sessions and number of SUD-related individual sessions and dividing by total weeks in the assessment period. Percentage of days in residential treatment and percentage of days in a sober living environment were calculated by dividing total days residing in each setting by total days in the assessment period. SUD medication was modeled dichotomously based on whether the patient reported taking any medication specifically to address SUD during a follow-up period (e.g., buprenorphine/naloxone). The Form-90 has been tested with adult and adolescent samples and has demonstrated good test–retest reliability and validity (Slesnick and Tonigan, 2004; Tonigan et al., 1997).

2.4.2. Substance use. Given the abstinence-focused nature of the residential program from which the sample was recruited, the primary outcome was *abstinence* from all substances including alcohol and other drugs during each follow-up period (Form-90; Miller and Del Boca, 1994). For ease of data interpretation and to maximize the study's clinical application, we modeled abstinence dichotomously (yes/no), in order to convey the likelihood of abstinence given varying levels of service engagement (i.e., odds ratios; also see Section 2.5). Saliva tests (Cone et al., 2002) assessing for the presence of tetrahydrocannibol (THC), cocaine metabolites, opioids, amphetamines, and phencyclidine, were administered at follow-up assessments to verify self-reported abstinence among participants that lived within 50 miles of the treatment facility and could attend assessments in person (21.7% of those who completed 1-month follow-up, 18.9% at 3 months, 7.7% at 6 months, and

Download English Version:

https://daneshyari.com/en/article/7505039

Download Persian Version:

https://daneshyari.com/article/7505039

Daneshyari.com