Addictive Behaviors 64 (2017) 35–41

Contents lists available at ScienceDirect

Addictive Behaviors

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

Baseline health status and quality of life after alcohol treatment for women with alcohol dependence

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HIGHLIGHTS

- Women with alcohol use disorders report many comorbid negative health problems.
- Quality of life domains improved with 12-session cognitive behavioral therapy.
- Reducing alcohol use was associated with greater gains in quality of life domains.

ARTICLE INFO

Article history:
Received 25 February 2016
Received in revised form 13 June 2016
Accepted 9 August 2016
Available online 10 August 2016

Keywords:
Alcohol
Drinking
Health
Quality of life
Female
Treatment

ABSTRACT

Background: Research suggests that women with alcohol use disorders (AUDs) experience more severe medical and social consequences from alcohol use compared to men, but little is known about health improvements following alcohol treatment.
Methods: This study sought to characterize the pre-treatment health status of 138 alcohol dependent women enrolled in 12 sessions of female-specific group or individual outpatient treatment and examine the degree to which alcohol treatment might promote positive quality of life changes. Quality of life was assessed using the World Health Organization Quality of Life measure at baseline and 3 months later at the end of treatment.
Results: The most common health problems at baseline were: smoking cigarettes (34.1%), hypertension (31.2%), obesity (27.5%), arthritis (21.0%), high cholesterol (17.4%), heart problems (8.7%), and a history of cancer (7.2%). Significant improvements across physical, $t(117) = 4.67$, $p < 0.001$, $d = 0.42$; psychological, $t(117) = 7.31$, $p < 0.001$, $d = 0.62$; social, $t(117) = 3.18$, $p = 0.002$, $d = 0.28$; and environmental, $t(117) = 2.39$, $p = 0.018$, $d = 0.17$; quality of life domains were seen after treatment. Percent days abstinent during treatment was positively associated with overall health satisfaction and psychological health at the end of treatment.
Conclusions: Women presenting for outpatient treatment for alcohol use disorders report many comorbid negative health problems. Thus, it is important for both substance use and health care providers to consider the overlap of alcohol use problems and health domains. Furthermore, female-specific cognitive behavioral treatment for alcohol use disorders positively impacted multiple health domains for women, suggesting a potential transdiagnostic intervention to target co-occurring health and substance use problems.

1. Introduction

Alcohol use disorders (AUDs) are a serious public health problem affecting an estimated 16.6 million adults in the United States (SAMHSA, 2014). AUDs are related to high rates of morbidity and mortality due to associated severe and chronic medical problems such as liver disease, cardiovascular disease, endocrine diseases, obesity, diabetes, osteoporosis, and cancers (Kay et al., 2010).

Research findings on gender differences in the initiation of alcohol use and development and course of alcohol-related problems highlight the importance of understanding unique risk factors and treatment considerations for women (e.g., Diehl et al., 2007; Greenfield et al., 2007; Nolen-Hoeksema, 2004). In particular, women are more likely to experience severe problems and health-related consequences from comparable (weight and gender adjusted) alcohol use compared to men (Bradley et al., 1998; Eagon, 2010; Rehm et al., 2009). Compared to men, women with AUDs have higher rates of cancer and cirrhosis,

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http://dx.doi.org/10.1016/j.addbeh.2016.08.014
0306-4603/

cardiovascular disease, diabetes, osteoporosis and hip fracture, and greater susceptibility to lung cancer from smoking (Rehm et al., 2009; see Kay et al., 2010 for a review). Of particular concern, a number of studies indicate that medical problems worsen more quickly in women with AUDs, and women with AUDs have higher rates of premature death from alcohol-related problems than men (Epstein & Menges, 2013; Johnson et al., 2005; Kay et al., 2010; Mann et al., 2005).

Despite a growing body of research on women and alcohol use, little is known about the rates of comorbid medical conditions in women presenting for alcohol treatment. Much of the extant research has examined the relative risk for specific alcohol-related diseases for women compared to men (e.g., cardiovascular disease, Ikehara et al., 2008; see Kay et al., 2010 for review). Women often cite health concerns as a reason for seeking alcohol treatment (Grosso et al., 2013), so understanding the constellation of health problems in a population of women seeking alcohol treatment may suggest opportunities to target and engage at-risk women in treatment for other health issues.

Equally important is identifying effective strategies for addressing alcohol use to improve health outcomes. A substantial body of research has documented treatment strategies that are effective at reducing alcohol use, including cognitive behavioral therapy (CBT) (e.g., Anton et al., 2006; Marlatt & Witkiewitz, 2005; McCrady, Epstein, Cook, Jensen, Hildebrandt, 2009). Given the unique patterns of alcohol use problems in women, researchers have suggested gender-sensitive or gender-specific treatments may be ideal for engaging and treating women with AUDs (Ashley, Marsden, & Brady, 2003; Epstein & Menges, 2013; Greenfield et al., 2008; Greenfield & Grella, 2009; McCrady et al., 2009). Evidence suggests that women are successful at reducing alcohol use with these interventions (e.g., McCrady et al., 2009; McHugh & Greenfield, 2010; Walitzer & Connors, 2007), but data for improvement in other physical and psychological domains as a result of treatment are limited.

One relevant meta-analysis by Orwin et al. (2001) identified patterns of significant improvements in psychological well-being and specific health behaviors, like reductions in HIV-risk behavior, in studies of female-specific treatments for substance use disorders (SUDs). This suggests there are collateral improvements for women from substance use treatment that warrant further examination, but few studies have examined other domains of health improvement or quality of life. Identifying possible health benefits from receiving alcohol treatment for women may inform integrated treatment approaches to health and substance use.

The current study addresses these gaps in the literature via two study aims: (a) documenting baseline health status and comorbid health conditions for a sample of women entering outpatient alcohol treatment, and (b) examining changes in women's quality of life status during a 12-session female-specific CBT intervention for alcohol use. This treatment added female-specific components to a standard approach to CBT for AUDs to help women deal with unique risk factors such as depression and anxiety, poor social support, low assertiveness, and need for better self-care. We expected women would show improvements across physical, psychological, social, and environmental quality of life domains (WHOQOL-BREF; WHO, 1996) from baseline to end-of-treatment three months later. We also expected that improvements in quality of life would be predicted by within treatment alcohol use, such that those who reduced their alcohol use during treatment would have greater improvements in their quality of life. Health benefits from a coping-skills-based alcohol treatment could inform intervention efforts to improve women's health overall.

2. Method

2.1. Participants

Participants were 138 women from a randomized clinical trial evaluating a 12-session group versus individual female-specific CBT treatment (FSCBT). Women were recruited in central New Jersey via media advertisements for alcohol treatment research participants. Eligibility criteria for participation included: being at least 18 years old, meeting DSM-IV-TR criteria for current alcohol dependence, consuming alcohol in the past 60 days, no physiological dependence on drugs other than nicotine or cannabis, no psychotic symptoms in the last 6 months, no gross cognitive deficits (measured by the Mini Mental Status Exam), and no concurrent group therapy alcohol treatment (not including self-help meetings).

2.2. Procedure

Interested participants initially were screened over the telephone ($n = 341$) and those who met preliminary eligibility criteria ($n = 325$) were invited for an individual intake appointment that included explaining the treatment and research procedures, obtaining informed consent, and conducting a structured clinical interview to verify eligibility criteria. At the baseline assessment, participants completed self-report measures and semi-structured interviews, and specific measures included in the present analyses are described below. In total, 155 participants completed the baseline assessment and were assigned to 12 sessions of either individual or group female-specific treatment using a block randomization procedure (Rosenberber & Lachin, 2002). The majority of participants were lost during screening due to no show or no contact with research staff ($n = 143$); others were ineligible ($n = 7$), or were eligible but dropped out prior to the baseline interview ($n = 20$) or prior to beginning treatment ($n = 17$). The most common reasons for drop out prior to treatment were lost contact ($n = 14$), practical barriers such as inability to make scheduled appointment times ($n = 11$), and not interested ($n = 10$). Follow-up appointments were completed at the end of treatment and 6 and 12 months later. Participants received compensation up to $345 for completion of all study activities including intake, within-treatment assessments, and follow-up appointments.

Both individual and group treatments were manual-guided, 12 session outpatient female-specific cognitive behavioral therapies (FSCBT) with an explicit goal of abstinence from alcohol. The female-specific CBT treatment was adapted from a gender-neutral CBT manual used in prior clinical trials (Epstein & McCrady, 2009; McCrady et al., 2009). The gender-neutral CBT manual focused on skill development to achieve and maintain abstinence, including motivational enhancement and relapse prevention components, and was delivered using a non-confrontational and collaborative therapist style. The FSCBT was adapted to include seven modules of female specific content: (a) psychoeducation about women and alcohol use; (b) coping with heavy drinkers in the social network; (c) coping with anxiety; (d) coping with depression; (e) assertiveness; (f) improving social network support; and (g) emotion regulation and coping with anger. Additionally, female-specific treatment included two core themes that were integrated into each session: the woman as active agent in her own life to enhance autonomy and empowerment and reduce reactivity to others, and the woman's right to self-care and self-respect. For group treatment, the FSCBT individual manual was adapted to deliver in an all-female group format with identical content to the individual modality.

2.3. Measures

2.3.1. Health questionnaire

Rates of medical problems were assessed via clinical interview. Participants were asked to respond “yes/no” about whether they had been diagnosed or treated for 30 specific medical conditions (e.g., hypertension, arthritis, high cholesterol, heart problems, diabetes, or cancer). Participants were also asked about the frequency of contact with medical providers for gender-specific care (e.g., gynecology). This assessment was completed once at baseline and was used to characterize the frequency of current medical problems in the sample. Rates of