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Utilization of Alcohol Treatment Among HIV-Positive Women with Hazardous Drinking

Xingdi Hu, Ph.D., M.S. [a,*], Jeffrey Harman, Ph.D. [b], Almut G. Winterstein, Ph.D. [a,c], Yue Zhong, M.D., Ph.D. [d], Amber L. Wheeler, M.D. [e], Tonya N. Taylor, Ph.D. [f], Michael Plankey, Ph.D. [g], Anna Rubtsova, Ph.D. [h], Karen Cropsey, Psy.D. [i], Mardge H. Cohen, M.D. [j], Adaora A. Adimora, M.D., M.P.H. [k], Joel Milam, Ph.D. [l], Adebola Adedimeji, Ph.D., M.P.H., M.B.A. [m], Robert L. Cook, M.D., M.P.H. [a]

[a] Department of Epidemiology, College of Public Health and Health Professions, College of Medicine, University of Florida, Gainesville, FL, USA
[b] Behavioral Sciences and Social Medicine, College of Medicine, Florida State University, Tallahassee, FL, USA
[c] Department of Pharmaceutical Outcomes and Policy, College of Pharmacy, University of Florida, Gainesville, FL, USA
[d] The Center for the Evaluation of Value and Risk in Health, Institute for Clinical Research and Health Policy Studies, Tufts Medical Center, Boston, MA, USA
[e] Department of Medicine, University of California, San Francisco and Department of Veterans Affairs Medical Center, San Francisco, CA, USA
[f] College of Medicine, State University of New York Downstate Medical Center, Brooklyn, NY, USA
[g] Georgetown University Medical Center, Department of Medicine, Division of Infectious Diseases, Washington, DC, USA
[h] Department of Behavioral Sciences and Health Education, Rollins School of Public Health, Emory University, Atlanta, GA, USA
[i] Department of Psychiatry and Behavioral Neurobiology, University of Alabama at Birmingham, Birmingham, AL, USA
[j] Department of Medicine, Stroger Hospital of Cook County Health and Hospital System and Rush University, Chicago, IL, USA
[k] Division of Infectious Diseases, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
[l] Department of Preventive Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA
[m] Department of Epidemiology and Population Health, Albert Einstein College of Medicine, Bronx, NY, USA

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ABSTRACT

Hazardous alcohol consumption has been frequently reported among women with HIV infection and is associated with a variety of negative health consequences. Treatments to reduce alcohol use may bring in health benefits. However, little is known regarding the utilization of alcohol treatment services among HIV+ women with hazardous drinking. Using data from the Women's Interagency HIV Study (WIHS), this study assessed utilization of any alcohol treatment in the past 6 months and performed multivariable logistic regression to determine correlates of receipt of any alcohol treatment. Among 474 HIV+ women reporting recent hazardous drinking, less than one in five (19%) reported recent utilization of any alcohol treatment. Alcoholics Anonymous (AA) was the most commonly reported (12.9%), followed by inpatient detoxification (9.9%) and outpatient alcohol treatment program (7.0%). Half (51%) receiving any alcohol treatment reported utilization of multiple treatments. Multivariable analyses found alcohol treatment was more often utilized by those who had social support (odds ratio [OR] = 1.68, 95% confidence interval [CI] = 1.00 to 2.83), fewer economic resources (income ≤$12,000 vs. >$12,000, OR = 3.10, 95% CI = 1.53 to 6.27), higher levels of drinking (16–35 drinks/week vs. 12–15 drinks/week, OR = 3.02, 95% CI = 1.47 to 6.21; 36+ drinks/week vs. 12–15 drinks/week, OR = 4.41, 95% CI = 2.03 to 9.59), and those who reported any illicit drug use (OR = 2.77, 95% CI = 1.44 to 5.34). More efforts are needed to enhance the utilization of alcohol treatment. Our findings highlight the unique profile of those who utilized alcohol treatment. Such information is vital to improve treatment delivery to address unmet need in this particular population.

1. Introduction

Alcohol use is common among women with HIV infection in the United States. Approximately half of HIV-positive women reported any alcohol consumption in the past year with 14–24% drinking at hazardous levels (Cook et al., 2009). Recent studies have shown that hazardous drinking, often defined as >7 drinks per week or >3 drinks per occasion for women (Willenbring, Massey, & Gardner, 2009), could affect multiple outcomes throughout the entire HIV care continuum. Studies have shown that hazardous drinking is associated with low engagement and retention in HIV care (Chander, Lau, & Moore, 2006; Cunningham et al., 2006), suboptimal adherence to HIV medication (Braithwaite et al., 2005; Chander et al., 2006; Cook et al., 2001;

* Corresponding author.
E-mail address: xingdi.hu@gmail.com (X. Hu).

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Hendershot, Stoner, Pantalone, & Simoni, 2009), increased HIV viral load (Chander et al., 2006; Samet et al., 2005), increased risky sexual behaviors (Hutton et al., 2012), and more rapid HIV disease progression (Wu, Metzger, Lynch, & Douglas, 2011). In addition, heavy alcohol consumption imposes greater risk for cirrhosis and hepatocellular carcinoma and worsens other liver conditions among HIV-positive women with hepatitis C virus (HCV) co-infection (Cainelli, Concia, & Vento, 2001; Cohen et al., 2002; Joshi, O'Grady, Dieterich, Gazzard, & Agarwal, 2011).

A variety of treatment options are available to address a wide spectrum of unhealthy drinking ranging from risky drinking to chronic alcohol dependence (Willenbring et al., 2009). Prior studies in the United States (U.S.) general population have consistently found that participation in alcohol treatment programs, (e.g., detoxification, Alcoholics Anonymous or other 12-step programs, halfway houses) improves outcomes in people with alcohol use disorders (AUD) (Dawson, Grant, Stinson, & Chou, 2006; Hasin et al., 2013; Moos & Moos, 2004, 2006; Timko, Debenedetti, & Billow, 2006 and Ye & Kaskutas, 2009). Nevertheless, community studies of treatment patterns among the general population have repeatedly demonstrated substantial underutilization of alcohol treatment (Cohen, Feinn, Arias, & Kranzler, 2007; Harris & Edlund, 2005; Mojtabai, 2005; Wu, Ringwalt, & Williams, 2003).

Andersen's Behavioral Model of Health Services Use (Andersen, 2008) has been widely used to help better understand access and utilization of health care services (Babitsch, Gohl, & von Lengerke, 2012; Dawson, Goldstein, & Grant, 2012; Goldstein, Dawson, & Grant, 2010; Mojtabai, 2005). This model classifies potential individual and contextual determinants into 3 domains: predisposing, enabling, and need factors. Predisposing factors represent individuals' predisposition affecting services use, such as demographics, social structure, and health beliefs. Enabling factors that refer to various characteristics influencing care delivery, such as financial or societal sources for care, availability of and access to care providers. Need factors include health status assessed by health professionals or perceived by patients themselves (e.g., severity of drinking problems, comorbid health conditions, and co-existing mental health and substance abuse problems).

Provision of alcohol treatment services may result in substantial benefits in health and wellbeing among HIV-positive women who are hazardous drinkers. However, little is known about their utilization of alcohol treatment. The objectives of this study were to describe utilization and, under the framework of the Andersen's Behavioral model, to determine factors associated with utilization of any alcohol treatment among HIV-positive women with hazardous drinking.

2. Material and methods

2.1. Study sample

This study used data from the Women's Interagency HIV Study (WIHS), the largest, observational prospective cohort study of HIV disease in U.S. women (Bacon et al., 2005). The WIHS recruited HIV-positive women from 6 study sites across the U.S.: Brooklyn, New York; Bronx, New York; Chicago, Illinois; Los Angeles, California; San Francisco, California; and Washington, District of Columbia. To better reflect real-world experience of HIV disease and management, women were recruited via various venues, including HIV primary care clinics, HIV testing sites, hospital-based programs, community outreach sites, and research programs (Barkan et al., 1998). The questions assessing alcohol treatment utilization were implemented from 1994 to 2002. The present study was a cross-sectional study, in that information from each participant was based on the first visit in which women reported hazardous drinking. Written informed consent was obtained for all women participating in WIHS and the institutional review board of the University of Florida approved this study to analyze existing WIHS data.

2.2. Measurements

2.2.1. Hazardous drinking

Alcohol use questions assessed frequency and quantity, and weekly alcohol consumption was calculated to define hazardous drinking. The present study defined hazardous drinking as ≥12 drinks per week (Gordon et al., 2001; Parsons, Golub, Rosof, & Holder, 2007). In the absence of a formal AUD diagnosis in WIHS, using this relatively higher criterion than the NIAAA threshold (>7 drinks per week or >3 drinks per day for women) enhanced the specificity to better identify women who experienced alcohol-related negative consequences and hence, were in need of alcohol treatment.

2.3. Alcohol treatment use

Following the alcohol consumption questions, recent use (in the past 6 months) of alcohol treatment was assessed by asking: "during the past 6 months\since your last visit, have you been in an alcohol treatment program? I am interested in any alcohol treatment programs you may have been in, including inpatient and/or outpatient alcohol detoxification, halfway houses, Alcoholics Anonymous (AA), and/or other alcohol treatment programs." A series of 5 subsequent questions were then asked of those who responded affirmatively to that question, inquiring about specific sources of treatment.

Based on the frequency of sources of treatment, we constructed a hierarchy of two mutually exclusive types of care (Dawson et al., 2012): utilization of formal sources of care (inpatient detox or outpatient alcohol treatment), irrespective of whether any informal sources of care were also used, and utilization of informal sources of care (AA, halfway houses, etc) only.

2.4. Predisposing factors

Predisposing characteristics affecting care-seeking behavior included age (18–35, 36–42, 43+), race/ethnicity (Hispanic, Black non-Hispanic, and White non-Hispanic/other races), educational attainment (≤high school vs. ≥college), employment status, and marital status (married/cohabiting vs. single/never married).

2.5. Enabling factors

Factors facilitating or acting as barriers to the utilization of alcohol treatment included family income (≤12K vs. >12K), health insurance coverage (yes/no), and perceived social support (yes/no). Strong support and aid from family members, friends and social connections have been associated with greater likelihood of entry into treatment (Grant, 1997; Mowbray, 2014) compared with those who lack such support. A dichotomized social support variable was determined by positive responses to all three questions in the general social support domain: whether receiving any help (caring for children, getting a ride somewhere or borrowing something) from family members and/or friends (yes/no); whether receiving comfort and encouragement from family members and/or friends (yes/no); whether family members and/or friends listen and/or try to understand participants' concerns (worries/troubles) since the last visit (yes/no) (Barkan et al., 1998).

2.6. Need factors

Need factors included the amount of weekly alcohol intake categorized into 3 levels: 12–15, 16–35, and 36+ drinks; presence of depressive symptoms measured as a score of the Center for Epidemiological Studies Depression Scale (CES-D) equal or greater than 16 (Tandon, Cluxton-Keller, Leis, Le, & Perry, 2012); use of any illicit drugs defined as using marijuana, cocaine, "crack" or freebase cocaine, heroin, methadone, and other drugs in the past 6 months. Overall health status was measured by a shortened version of the Medical Outcome Study