Journal of Substance Abuse Treatment 54 (2015) 63–68

Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment

Safer-Drinking Strategies Used by Chronically Homeless Individuals with Alcohol Dependence☆

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ARTICLE INFO

Article history:
Received 17 October 2014
Received in revised form 16 December 2014
Accepted 26 January 2015

Keywords:
Safer-drinking strategies
Alcohol dependence
Homelessness
Harm reduction

ABSTRACT

Chronically homeless individuals with alcohol dependence experience severe alcohol-related consequences. It is therefore important to identify factors that might be associated with reduced alcohol-related harm, such as the use of safer-drinking strategies. Whereas effectiveness of safer-drinking strategies has been well-documented among young adults, no studies have explored this topic among more severely affected populations, such as chronically homeless individuals with alcohol dependence. The aims of this study were thus to qualitatively and quantitatively document safer-drinking strategies used in this population. Participants ($N = 31$) were currently or formerly chronically homeless individuals with alcohol dependence participating in a pilot study of extended-release naltrexone and harm-reduction counseling. At weeks 0 and 8, research staff provided a list of safer-drinking strategies for participants to endorse. Implementation of endorsed safer-drinking strategies was recorded at the next appointment. At both time points, strategies to buffer the effects of alcohol on the body (e.g., eating prior to and during drinking) were most highly endorsed, followed by changing the manner in which one drinks (e.g., spacing drinks), and reducing alcohol consumption. Quantitative analyses indicated that all participants endorsed safer-drinking strategies, and nearly all strategies were implemented (80–90% at weeks 0 and 8, respectively). These preliminary findings indicate that chronically homeless people with alcohol dependence use strategies to reduce harm associated with their drinking. Larger randomized controlled trials are needed to test whether interventions that teach safer-drinking strategies may reduce overall alcohol-related harm in this population.

1. Introduction

In the US, 610,042 individuals were estimated to be homeless on a given night in 2013 (National Alliance to End Homelessness, 2014). Homeless individuals are a particularly vulnerable population (Booth, Sullivan, Koegel, & Burnam, 2002), affected by medical, psychiatric and substance-use disorders (Fazel, Khosla, Doll, & Geddes, 2008; Martens, 2001; Taylor & Sharpe, 2008). In fact, according to a meta-analysis, up to 58% of homeless individuals worldwide have alcohol dependence (Fazel et al., 2008).

Among chronically homeless individuals (i.e., unaccompanied individuals who have a disability and have been homeless for at least 1 year or on 4 or more separate occasions in the past 3 years; Homelessness Emergency Assistance and Rapid Transition to Housing Act, 2009), the prevalence of alcohol dependence is even higher (Kuhn & Culhane, 1998). Studies have indicated that chronically homeless individuals with alcohol dependence experience severe alcohol-related consequences (Collins et al., 2012). Previous research has also documented that homeless individuals with alcohol dependence have interpersonal problems and difficulties maintaining housing (Drake & Brunette, 1998; Fichter, Quadflieg, Greifenhagen, Koniarczyk, & Wolz, 1997). Further, alcohol-use disorders among homeless people are associated with high comorbidity of psychiatric disorders (Fazel et al., 2008) and high rates of suicidal ideation (Prigerson, Desai, Liu-Mares, & Rosenheck, 2003). Alcohol-use disorders also precipitate both acute medical problems (e.g., delirium tremens, Collins, Malone, et al., 2012; Fichter et al., 1997; falls and injuries; Hibbs et al., 1994; Roy, Boivin, Haley, & Lemire, 1998) and chronic medical problems (e.g., liver disease and cancer; Fichter et al., 1997; Hwang, Wilkins, Tjepkema, O'Campo, & Dunn, 2009). As a result, the risk of mortality due to alcohol-related problems among homeless individuals is many times that of the general population (Hwang et al., 2009).

Considering these findings, it is important to explore ways to help chronically homeless individuals with alcohol dependence reduce their alcohol-related harm. Recent qualitative studies, however, have documented that chronically homeless individuals with alcohol problems do not find abstinence-based goals to be acceptable or desirable and endorse mostly negative perceptions of abstinence-based approaches (Collins et al., 2012; Grazioli, Collins, Daeppen, & Larimer, 2014). Thus, interventions that do not require abstinence and

☆ The authors have no conflict of interest.

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http://dx.doi.org/10.1016/j.jsat.2015.01.010
0740-5472/

instead promote the use of safer-drinking strategies may be more acceptable treatment alternatives for this population. Safer-drinking strategies are ways in which patterns of alcohol use may be changed to reduce alcohol-related harm, including buffering the effects of alcohol on the body (e.g., eating protein- and carbohydrate-rich foods before/while drinking), changing the manner of consumption (e.g., drinking in safer places), and/or reducing alcohol consumption (e.g., engaging in non-drinking activities, Collins, Duncan, et al., 2014).

To the best of the authors' knowledge, use of safer-drinking strategies among chronically homeless individuals with alcohol dependence has not been explored. However, a close construct, namely "protective behavioral strategies" (PBS), has received considerable attention among high school (e.g., Glassman, Werch, & Jobli, 2007) and college students (e.g., Araas & Adams, 2008; Benton et al., 2004; Martens, Pederson, Labrie, Ferrier, & Cimini, 2007; Pearson, D'Lima, & Kelley, 2013). PBS are defined as cognitive and behavioral strategies that students can use while drinking to limit alcohol consumption and alcohol-related consequences (Martens, Pederson, Labrie, Ferrier, & Cimini, 2007). Examples of PBS include avoiding drinking games or using a designated driver. Research has documented use of PBS as a promising way to reduce alcohol-related harm among young adults (e.g., Araas & Adams, 2008; Benton et al., 2004; Delva et al., 2004; Glassman et al., 2007; Martens, Martin, Littlefield, Murphy, & Cimini, 2011; Martens, Neighbors, Dams-O'Connor, Lee, & Larimer, 2007; Napper, Kenney, Lac, Lewis, & LaBrie, 2014; Pearson, 2013). Although the PBS and safer-drinking strategy constructs both represent means of alcohol harm reduction, they were independently developed for two distinct populations: college students and chronically homeless individuals, respectively. Given the unique needs and characteristics of these populations, these constructs are parallel yet distinct (Collins, Clifasefi, et al., 2012; Collins, Kirouac, et al., 2014).

Although use of PBS has been widely studied among young adults, no studies to date have explored this topic among more severely affected populations, such as chronically homeless individuals with alcohol dependence. Further, research examining safer-drinking strategies among populations other than college students are needed (Pearson, 2013). The current study was designed to fill this gap in the literature. Specifically, the aims of this study were to qualitatively and quantitatively document the safer-drinking strategies endorsed by chronically homeless individuals with alcohol dependence within the context of a pilot study of a pharmacobehavioral intervention featuring extended-release naltrexone and harm-reduction counseling (for more information on the parent study, see Collins, Duncan, et al., 2014; Collins, Kirouac, et al., 2014). In the present, secondary study, we used content analysis to classify and evaluate the frequency of participant-endorsed safer-drinking strategies. Second, we used inferential statistics to evaluate whether participant's number of endorsed and implemented safer-drinking strategies changed over the course of the study.

2. Materials and methods

2.1. Participants

Participants ($N = 31$; 12.9% women) were currently or formerly (i.e., now living in permanent supportive housing) chronically homeless individuals with alcohol dependence (see Table 1 for baseline demographic data), who participated in a pilot study assessing initial feasibility, acceptability, and alcohol outcomes after receiving treatment with extended-release naltrexone and harm-reduction counseling (for a complete list of inclusion and exclusion criteria in the parent study, see Collins, Duncan, et al., 2014; Collins, Kirouac, et al., 2014).

2.2. Measures

2.2.1. Demographic variables

The personal information form comprises single items assessing age, gender, race, ethnicity, education level and employment status.

Table 1
Baseline descriptive statistics for the study sample (N = 31).

Variable	*M* (*SD*)/%
Age	50.16 (6.35)
Housing status 1 week prior to baseline assessment	54.8% Housing First[a] residents
	45.2% Currently homeless
	29% Sleep-off shelter
	6.5% Emergency shelter
	3.2% Outside
	3.2% Friend's house
	3.2% Other
Ethnicity	3.3% Hispanic/Latino/a
Race	
American Indian/Alaska Native/First Nations	35.5%
Asian	0%
Black/African American	9.7%
Native Hawaiian/Pacific Islander	3.2%
White/European American	38.7%
"More than one race"	12.9%
Highest education level	
No high school degree	29.0%
HS graduate/GED	29.0%
Vocational school	16.1%
Some college	16.1%
College graduate	3.2%
Some graduate school/advanced degree	6.4%
Employment status	
Full time	0%
Part time	3.2%
Unemployed (no assistance)	9.7%
Unemployed (Cash Assistance Program)[b]	38.7%
Disability (SSI/SSDI)	45.2%
Other	3.2%
Self-reported alcohol outcomes	
Typical quantity	24.02 (22.40)
Peak quantity	33.21 (19.00)
Frequency	26.45 (6.15)
Craving	21.00 (7.39)
Alcohol problems	23.29 (11.24)

Notes. Percentages may not total 100% due to rounding.
[a] Housing First is an innovative model of housing that entails the provision of immediate, permanent, low-barrier, nonabstinence-based supportive housing to chronically homeless people who often have co-occurring psychiatric, medical and substance-use disorders.
[b] The Aged, Blind, Disabled Cash Assistance Program is a state program that provides cash grants to people who a) are 65 or older, blind or have a long-term medical condition that is likely to meet federal disability criteria; b) meet income and resource requirements; c) meet citizenship/alien status requirements; and d) reside in-state. This program is applied until individuals qualify for federal disability income.

The housing timeline followback is a set of monthly calendars used to record where participants resided/spent the night each day over the past 30 days (Sobell & Sobell, 1992; Tsemberis, McHugo, Williams, Hanrahan, & Stefancic, 2007). These measures yielded variables that were used to describe the sample at baseline.

2.2.2. Drinking variables

The Alcohol and Substance-use Frequency Assessment questions were adapted from the Addiction Severity Index (ASI) and were used to assess frequency of alcohol use in the past 30 days (McLellan et al., 1992). The Alcohol Quantity of Use Assessment (AQUA) assessed participants' peak and typical alcohol quantity in the past 30 days (Collins, Duncan, et al., 2014). Alcohol craving in the past week was measured using the 5-item, Likert-type *Penn Alcohol Craving Scale* (PACS; Flannery, Volpicelli, & Pettinati, 1999). Internal consistency was adequate ($\alpha = .91$). Finally, alcohol-related problems were assessed using the Short Inventory of Problems (SIP-2R). The SIP-2R is a 15-item, Likert-scale questionnaire that measures social, occupational and psychological alcohol problems (Miller, Tonigan, & Longabaugh, 1995). Internal consistency was adequate ($\alpha = .91$). All of the drinking measures yielded variables that were used to describe the sample at baseline.