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Motivation to change and treatment attendance as predictors of alcohol-use outcomes among project-based Housing First residents

Susan E. Collins [a,*], Daniel K. Malone [b], Mary E. Larimer [c]

[a] Department of Psychiatry and Behavioral Sciences, University of Washington, 325 9th Ave, Box 359911, Seattle, WA 98104, USA
[b] Downtown Emergency Service Center, 515 3rd Ave, Seattle, WA 98104, USA
[c] Department of Psychiatry and Behavioral Sciences, University of Washington, 1100 NE 45th Street, Suite 300, Box 354944, Seattle, WA 98105, USA

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ABSTRACT

Collins et al. (2012) indicated that time spent in a project-based Housing First (HF) intervention was associated with improved two-year alcohol-use trajectories among chronically homeless individuals with alcohol problems. To explore potential correlates of these findings, we tested the relative prediction of alcohol-use outcomes by motivation to change (MTC) and substance abuse treatment attendance. Participants ($N = 95$) were chronically homeless individuals with alcohol problems receiving a project-based HF intervention in the context of a larger nonrandomized controlled trial (Larimer et al., 2009). Participants were interviewed regularly over the two-year follow-up. Treatment attendance and MTC were measured using items from the Addiction Severity Index and the SOCRATES, respectively. Alcohol-use outcomes included alcohol quantity, problems and dependence. Generalized estimating equation modeling indicated that MTC variables and not treatment attendance consistently predicted alcohol-use outcomes over the two-year follow-up. Findings suggest that the importance of motivation to change may outweigh treatment attendance in supporting alcohol behavior change in this population.

1. Introduction

Among the many problems facing chronically homeless people, the experience of alcohol-use disorders (AUDs) is one of the most widespread and physically debilitating. The prevalence of alcohol use in homeless populations has been estimated to be as high as 80% (Velasquez, Crouch, von Sternberg, & Grosdanis, 2000), and a review of 29 studies conducted worldwide estimated a mean alcohol dependence prevalence of 37.9% (Fazel, Khosla, Doll, & Geddes, 2008). Although there are very few studies addressing alcohol use among chronically homeless individuals, the prevalence of alcohol dependence in this population has been estimated to be even higher (Kuhn & Culhane, 1998). Because alcohol dependence is associated with very high levels of alcohol-related harm and increased risk for alcohol-related deaths (Eyrich-Garg, Cacciola, Carise, Lynch, & McLellan, 2008; O'Connell, 2005), effective approaches are needed to engage and address the issues facing chronically homeless people with AUDs.

1.1. Continuum model of housing and abstinence-based treatment for this population

Since the 1990s, the most widely used means of housing and service provision to chronically homeless people has been the "continuum-of-care model" of housing (U.S. Department of Housing and Urban Development, 2010). This model typically requires individuals to fulfill certain requirements, such as alcohol abstinence achievement and treatment attendance, before they may transition from a shelter to transitional housing to permanent housing. These aspects of the continuum model of housing are complementary to the medical model of alcohol treatment. The medical model characterizes alcohol dependence as a "chronic, relapsing brain disease" that should be addressed using formal treatments that are designed to help people achieve and maintain abstinence (Leshner, 1997; National Institute on Drug Abuse, 2008). The combined continuum/medical model therefore typically requires abstinence-based treatment and abstinence achievement to be bundled with supportive housing services (U.S. Department of Housing and Urban Development, 2010).

1.2. HF as a harm reduction approach to housing

In contrast to the continuum/medical model, Housing First (HF) is an approach to housing that advocates immediate, permanent, low-barrier supportive housing that is not dependent upon the fulfillment of specific requirements, such as abstinence achievement and

* Corresponding author. Tel.: +1 206 832 7885; fax: +1 206 744 9939.
E-mail address: collinss@uw.edu (S.E. Collins).

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treatment attendance (Larimer et al., 2009; Pearson, Locke, Montgomery, & Buron, 2007; Tsemberis, Gulcur, & Nakae, 2004). HF is therefore consistent with harm-reduction approaches, which deemphasize pathologizing alcohol use and support the realization of client-driven goals that can reduce harm and improve quality of life (Collins et al., 2011; Denning & Little, 2011; Marlatt, 1996). These goals may but are not required to include abstinence (Harm Reduction Coalition, 2009; Robbins, Callahan, & Monahan, 2009; Zerger, 2002).

One of the fundamental theoretical differences between the continuum/medical and HF/harm reduction models lies in the understanding of the mechanism by which individuals are likely to change their behavior to support a variety of goals (e.g., housing stability, alcohol behavior change). The continuum/medical model holds that alcohol behavior change—particularly among more severely dependent populations—is optimally achieved through external structure, such as treatment attendance and rewarding more "desirable" behavior, such as abstinence achievement, with permanent housing (U.S. Department of Housing and Urban Development, 2010). In contrast, the HF/harm reduction model is built on the assertion that behavior change is most lasting if it is client-driven and thereby reflects clients' own motivation to change (Tsemberis et al., 2004).

1.3. Motivation to change and alcohol outcomes

Motivation to change (MTC) has been described as a multi-dimensional, dynamic construct that represents one's openness to enter into a behavior change strategy (Miller, 1999). To the authors' knowledge, only three studies to date have explored MTC in regards to substance use among homeless adults. In the first of these studies, which involved 342 homeless individuals with co-occurring psychiatric and substance-use disorders, bivariate correlations indicated that higher baseline levels of MTC and readiness for treatment were associated with higher baseline levels of alcohol and other drug use, housing instability and psychiatric severity (De Leon, Sacks, Staines, & McKendrick, 1999). Thus, MTC in this sample appeared to represent participants' problem recognition rather than taking steps toward behavior change. In a study of 100 homeless adults in a shelter program, over half of the participants reported they drank "too much," which again reflected problem recognition, whereas a smaller minority reported currently taking steps to change their behavior (Velasquez et al., 2000). Finally, a more recent study of 370 homeless and housed patients in an acute care setting showed that homeless individuals were more likely to report being in the "action" stage of change than housed individuals (O'Toole, Pollini, Ford, & Bigelow, 2008). Thus, these individuals were more likely than their housed counterparts to report taking steps toward changing their alcohol-use behavior.

Although the findings are not entirely consistent, these three studies showed that most participants had some interest in changing their substance use and that some were actively taking steps toward that goal—despite the fact that most were neither abstinent nor involved in abstinence-based treatment. These studies also highlight an important literature gap: there are no studies to date testing the longitudinal associations between MTC and alcohol outcomes among chronically homeless individuals.

1.4. Abstinence-based treatment and alcohol outcomes

The literature on the associations between abstinence-based treatment and alcohol outcomes are mixed for homeless populations. Although literature reviews suggest that abstinence-based approaches for homeless individuals are associated with modest improvements in alcohol outcomes (Hwang, Tolomiczenko, Kouyoumdjian, & Garner, 2006; Zerger, 2002), these improvements are only experienced by the few who are fully engaged and retained in treatment. In fact, studies show that few homeless people start treatment (15–28%) (Rosenheck et al., 1998; Wenzel et al., 2001), and of those who start treatment, few complete it (2.5–33%) (Orwin, Garrison-Mogren, Jacobs, & Sonnefeld, 1999). An NIAAA review of US alcohol and drug treatment programs showed that treatment engagement in this population decreased as program demands—particularly abstinence from substances—increased (Orwin et al., 1999). This finding has recently been corroborated by research showing greater retention and decreased substance use among participants in Housing First programs compared to abstinence-based housing requiring treatment attendance (Padgett, Stanhope, Henwood, & Stefancic, 2011).

Studies have begun to explore potential factors underlying the failure of abstinence-based treatment to adequately engage and thereby optimally treat this population as a whole. Qualitative studies have documented that many chronically homeless individuals do not find abstinence-based goals and treatments to be acceptable or desirable (Collins et al., 2012; Padgett, Henwood, Abrams, & Davis, 2008). Such negative evaluations of abstinence-based treatment are correlated with decreased treatment attendance and poorer treatment outcomes (Long, Williams, Midgley, & Hollin, 2000; Pettinati, Monterosso, Lipkin, & Volpicelli, 2003). Relatedly, both theory and empirical data suggest that repeated failed treatment attempts may erode self-efficacy and self-control for later behavioral change (Marlatt & Gordon, 1985; Muraven & Baumeister, 2000). Our recent documentation of a mean of 16 failed lifetime treatment attempts in a sample of chronically homeless individuals with AUDs highlights the obvious obstacles to abstinence achievement (Larimer et al., 2009). On the other hand, many of the same individuals who were not motivated for abstinence-based treatment did express interest in changing their drinking to reduce alcohol-related problems (Collins, Clifasefi, et al., 2012). Further, in another recent study on this population, we found that chronically homeless individuals with AUDs who moved into project-based HF significantly reduced their alcohol use and related problems over a two-year period (Collins, Malone, et al., 2012).

1.5. Current study aims and hypotheses

The current, secondary study was conducted to quantitatively explore potential mechanisms associated with these improved, two-year alcohol-use outcomes following exposure to a project-based HF program (see Collins, Malone, et al., 2012 for more information on the parent study). Specifically, we tested the relative strength of both MTC and abstinence-based treatment attendance in predicting alcohol quantity, frequency and problems among chronically homeless people with AUDs for two years after their move into a project-based HF program. In doing so, we are adding to the sparse literature on the association between MTC, treatment and longitudinal alcohol outcomes for this population. We are also extending the current literature, which to our knowledge, does not yet comprise a study testing the relative contributions of internal, self-change oriented constructs (e.g., MTC) versus formal treatment attendance to alcohol behavior change in a project-based HF setting. Based on the current literature on abstinence-based treatment attendance for this population (Orwin et al., 1999), self-change (Klingemann, Sobell, & Sobell, 2010) and our own research observations (Collins, Clifasefi, et al., 2012; Collins, Malone, et al., 2012), we hypothesized that alcohol-use outcomes would be more strongly associated with MTC versus treatment attendance.

2. Material and methods

This study features secondary analyses of data (Collins, Malone, et al., 2012), which were collected in the context of a larger, nonrandomized controlled trial comparing the effects of an HF intervention and a wait-list control condition on public system utilization and associated costs (Larimer et al., 2009). For more detailed information on the within-subjects' design, methods and 2-year