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Short communication

Residential patterns in older homeless adults: Results of a cluster analysis

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ABSTRACT

Adults aged 50 and older make up half of individuals experiencing homelessness and have high rates of morbidity and mortality. They may have different life trajectories and reside in different environments than do younger homeless adults. Although the environmental risks associated with homelessness are substantial, the environments in which older homeless individuals live have not been well characterized. We classified living environments and identified associated factors in a sample of older homeless adults. From July 2013 to June 2014, we recruited a community-based sample of 350 homeless men and women aged fifty and older in Oakland, California. We administered structured interviews including assessments of health, history of homelessness, social support, and life course. Participants used a recall procedure to describe where they stayed in the prior six months. We performed cluster analysis to classify residential venues and used multinomial logistic regression to identify individual factors prior to the onset of homelessness as well as the duration of unstable housing associated with living in them. We generated four residential groups describing those who were unsheltered (n = 162), cohabited unstably with friends and family (n = 57), resided in multiple institutional settings (shelters, jails, transitional housing) (n = 88), or lived primarily in rental housing (recently homeless) (n = 43). Compared to those who were unsheltered, having social support when last stably housed was significantly associated with cohabiting and institution use. Cohabiters and renters were significantly more likely to be women and have experienced a shorter duration of homelessness. Cohabiters were significantly more likely than unsheltered participants to have experienced abuse prior to losing stable housing. Pre-homeless social support appears to protect against street homelessness while low levels of social support may increase the risk for becoming homeless immediately after losing rental housing. Our findings may enable targeted interventions for those with different manifestations of homelessness.

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1. Introduction

Over the past thirty years the median age of adult homeless individuals in the United States has increased from the late twenties to approximately fifty. This trend has continued beyond what would be expected by the aging of the general population (Culhane et al., 2010; Hahn et al., 2006). As the age structure of the homeless population shifted, so did the health characteristics of people experiencing homelessness. Among older homeless adults, there are high rates of chronic diseases, cognitive and functional impairments (Brown et al., 2012; Garibaldi et al., 2005). Homelessness is associated with increased morbidity (Fazel et al., 2014; Hwang, 2001) and early mortality (Barrow et al., 1999; Hibbs et al., 1994; Hwang et al., 2009; Metraux et al., 2011), although the risk that homelessness imparts goes beyond poverty, demographic background, health behaviors, and insurance coverage (Browning and Cagney, 2003; Morrison, 2009), suggesting an important role of the lived environment.

The definition of homelessness in the Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act includes both those who lack a fixed residence or reside in a place not

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typically used for sleeping and those who are at imminent risk of losing housing within fourteen days (Homeless Emergency Assistance and Rapid Transition to Housing Act of 2009. Definition of homelessness., 2009). The HEARTH Act acknowledges that people experiencing homelessness reside in a variety of environments including unsheltered environments, shelters, residential hotels, temporary stays with friends and family, jails, hospitals, and treatment programs. The lived environment plays a significant role in defining the experience of homelessness and homeless survival (Marr et al., 2009; Wolch et al., 1988). These environments may result in different patterns of exposure to environmental risks and access to health and social services, yet little is known about where people experiencing homelessness reside and whether there are differences in the characteristics of people who live in different environments (O'Flaherty, 2012).

The role of safe environments may be particularly important for older adults, as disability results from an interaction between physical impairment and the environment (Verbrugge and Jette, 1994). Poor household and neighborhood conditions have been associated with poorer physical functioning in older people (Lan et al., 2009; Samuel et al., 2015). Although such individuals may rely on environmental modifications and external supports to mitigate impairments, homelessness impedes the ability to control one's environment (Kushel, 2012).

Previous work has used typologies of homelessness to understand the choices made by individuals who experience homelessness and the actions of the institutional structures that were established to serve them (Adlaf and Zdanowicz, 1999; Farrow et al., 1992; Jahiel and Babor, 2011), the most enduring of which is a time-aggregated approach describing chronic, episodic, and transitional patterns of homelessness using shelter data from New York City (Kuhn and Culhane, 1998). Shelters however house only a subpopulation of homeless individuals. We hypothesized that the lived environment during homelessness is heterogeneous and that those residing in different environments may share certain strengths and vulnerabilities. We developed an environmental typology using cluster analysis as a lens to explore how individual impairments and strengths are related to structural factors and institutional actors, theorizing that understanding residential patterns will help us better understand the complex dynamics between individual factors and structural factors (DeVerteuil, 2003).

Using baseline data from the Health Outcomes of People Experiencing Homelessness in Older Middle Age (HOPE HOME) cohort, we define and describe four clusters of residential venues in older homeless adults. We examine duration of unstable housing and homelessness, demographic factors, and behavioral and situational factors prior to the loss of the last stable housing associated with each of these residential patterns. Defining residential patterns and determining factors associated with them may allow for more targeted service delivery and further elucidate the role of the lived environment in mediating the morbidity and chronicity of homelessness.

2. Methods

2.1. Sampling and inclusion criteria

From July 2013 to June 2014, we conducted community-based sampling of 350 homeless individuals aged 50 and older in Oakland CA. Similar to our prior research with homeless adults, we sampled from homeless shelters and free meal programs (Hansen et al., 2011; Palar et al., 2015; Vijayaraghavan et al., 2013a, 2013b; Vogenthaler et al., 2013; Weiser et al., 2009, 2013a, 2013b). We also included homeless encampments and recycling centers because of concerns among key informants that some individuals would not be represented adequately (Fig. 1). We sampled from all overnight homeless shelters in Oakland that served single adults over the age of 25 (n = 5), all free and low-cost meal programs that served homeless individuals at least 3 meals a week (n = 5), one recycling center close to homeless service agencies, and homeless encampments throughout Oakland. To recruit participants from homeless encampments, the study team followed an outreach van that served homeless individuals on randomly selected shifts and enrolled participants at each stop. At other sites, we used random sampling of individuals from each venue, based on the number of unique individuals estimated to be served annually at that site. If the designated person declined, was ineligible, or already in the study, we approached the next person until we identified an eligible individual. Someone from the primary recruitment team was present for enrollment interviews to ensure that participants were not double-counted. Inclusion criteria included English-speaking, age 50 or older, and defined as currently homeless by the HEARTH Act (lacked a fixed residence, resided in a place not typically used for sleeping, or were imminently at risk of losing housing within fourteen days) (Homeless Emergency Assistance and Rapid Transition to Housing Act of 2009. Definition of homelessness., 2009). At meal programs, encampments and recycling centers, staff asked individuals where they had stayed for the last 2 weeks to establish homelessness. Individuals residing in shelters were presumed to be homeless. Study staff provided a brief description of the study and invited potential participants to a visit for more intensive screening at a community center that served lower-income adults. Individuals who presented for the study visit underwent another screening procedure to confirm homelessness and evaluate the ability to consent to the study. The study protocol was approved by the University of California, San Francisco Institutional Review Board.

2.2. Measures

We gathered demographic data from participants, including age, gender, race, veteran status, and highest level of educational attainment. Participants reported whether they experienced homelessness before the age of eighteen, the age at which they first became homeless in adulthood, and the duration of their current episode of homelessness, defined as the time since meeting the HEARTH criteria definition.

2.3. Events during the target year

We asked participants to report on their experiences during the 'target year,' the last year in which participants were stably housed (housed in a non-institutional setting for 12 months or more) (Shinn et al., 2007). This construct is distinct from the time since the current onset of homelessness. We asked where participants had stayed and the reasons why they left, which we used for descriptive purposes only (Burt et al., 1999). We asked participants to report whether they had suffered verbal, physical, or sexual abuse during the target year. We assessed social support by asking participants whether they had someone to stay with or someone who would lend them money if needed, and used those responses to create an instrumental support index ranging from 0 to 2 (Gielen et al., 1994). We also asked about the receipt of government financial assistance, case management services, health insurance, and primary care during the target year and coded positive values for each as a binary measure.

2.4. History of substance use, mental health problems and incarceration through the end of the target year

To measure substance use disorders and mental health problems, we adapted questions from the Addiction Severity Index