

Geriatric Conditions Among Formerly Homeless Older Adults Living in Permanent Supportive Housing

Benjamin F. Henwood, PhD, MSW¹, John Lahey, MSW¹, Harmony Rhoades, PhD¹,
Deborah B. Pitts, PhD, OTR/L, BCMH, CPRP², Jon Pynoos, PhD³, and Rebecca T. Brown, MD, MPH⁴

¹Suzanne Dworak-Peck School of Social Work, University of Southern California, Los Angeles, CA, USA; ²Chan Division of Occupational Science and Occupational Therapy, University of Southern California, Los Angeles, CA, USA; ³Leonard Davis School of Gerontology, University of Southern California, Los Angeles, CA, USA; ⁴Division of Geriatric Medicine, Perelman School of Medicine of the University of Pennsylvania, Philadelphia, PA, USA.

J Gen Intern Med 34(6):802–3
DOI: 10.1007/s11606-018-4793-z
© Society of General Internal Medicine 2019

INTRODUCTION

Permanent supportive housing (PSH) using a housing first approach is an evidence-based intervention to end chronic homelessness by providing low-barrier affordable housing paired with flexible health and social services.¹ The chronically homeless population in the USA has an average age over 50 years old² and experiences accelerated aging,³ including an elevated prevalence of geriatric syndromes such as cognitive impairment, falls, and urinary incontinence that can jeopardize PSH tenants' ability to live independently and age in place.⁴ The objective of this study is to determine the prevalence of common geriatric conditions in PSH tenants. We also assess whether housing tenure is associated with less impairment in daily functioning.

METHODS

Two hundred and thirty-seven adults aged 45 and older were recruited from two PSH agencies located in Los Angeles, California. Residents completed in-person interviews on demographics, housing and homelessness history, and overall health status. We also assessed for common geriatric syndromes, including functional impairment (difficulty performing activities of daily living (ADLs, e.g., bathing, dressing) and instrumental activities of daily living (IADLs, e.g., taking transportation, managing medication)), cognitive impairment (as measured by the Mini-Mental State Examination (MMSE) and the Trails Making Test, Part B (TMT-B)),⁵ past year falls, mobility impairment (difficulty walking without help), hearing impairment, visual impairment, and urinary incontinence. Depressive symptoms were measured using a trained interviewer-administered Patient Health Questionnaire-9. We used basic descriptive statistics to examine participant characteristics and adjusted logistic regression models to

assess whether housing tenure was associated with ADLs and IADLs. The study, which did not collect identifiable information, received expedited approval from the first author's institutional review board. Data collection occurred from December 2016 to July 2017.

RESULTS

The average age of the sample was 57.7 years old (SD 6.4), 87% were male, and 61% were African American (Table 1). The average length of residence in PSH was 4 years (IQR 2–6). The median age at first homelessness was 39 years (IQR 28–48), and the median lifetime years experiencing homelessness was 5 (IQR 2.1–10). Forty-two percent self-rated their health as good, very good, or excellent, and the median number of lifetime diagnosed chronic health conditions was 6 (IQR 3–8). Symptoms of major depression were present in 38% of respondents. Approximately 26% of respondents reported symptoms of alcohol or drug use problems. Nearly 42% of respondents reported having any ADL difficulty, 68% reported any IADL difficulty, and 40% reported urinary incontinence. More than half of respondents reported a fall in the past year (57%) or current mobility problems (51%). One fifth (21%) met criteria for cognitive impairment on the MMSE and 44% on the TMT-B. Around one third of respondents reported hearing impairment (33%) and 62% had visual impairment. In multivariable logistic regressions adjusted for demographics, chronic health conditions, depression diagnosis, drug and alcohol problems, having a usual source of health care, and lifetime years of homelessness, each additional year spent in PSH was associated with a 10% decrease in the likelihood of reporting any ADL impairment (OR = 0.90; 95% CI: 0.92, 0.99). The association between time spent in housing and IADL impairment was not statistically significant.

DISCUSSION

Despite an average age of just 58 years old, we found that tenants in PSH had a high prevalence of multiple geriatric conditions. A recent consensus study report from the National Academies of Sciences, Engineering, and Medicine concluded

Table 1 Sample Characteristics (N=237)

Demographics	
Age, <i>M</i> (SD)	57.7 (6.4)
Women, <i>n</i> (%)	87 (36.7)
Race and ethnicity, <i>n</i> (%)	
African American	144 (61.0)
White	43 (18.2)
Latino/a	17 (7.2)
Multiracial or other	32 (13.6)
Married or partnered, <i>n</i> (%)	7 (3.0)
< High school education, <i>n</i> (%)	81 (34.2)
Age at first homelessness, median (IQR)	39 (28–48)
Overall health status	
Self-rated general health good+, <i>n</i> (%)	99 (42.0)
Number of chronic health conditions, median (IQR)	6 (3–8)
Depression, lifetime history, <i>n</i> (%)	163 (68.8)
Symptoms indicative of major depression, <i>n</i> (%)	90 (38.0)
Alcohol use problem, <i>n</i> (%)	61 (25.7)
Drug use problem, <i>n</i> (%)	62 (26.2)
Geriatric conditions	
ADL impairment, <i>n</i> (%)	99 (41.8)
IADL impairment, <i>n</i> (%)	162 (68.4)
Urinary incontinence, <i>n</i> (%)	95 (40.3)
Falls during past year, 1+, <i>n</i> (%)	134 (56.8)
Mobility impairment, <i>n</i> (%)	120 (50.6)
Cognitive status, <i>n</i> (%)	
MMSE impairment	50 (21.1)
TMT-B impairment	103 (43.5)
Sensory impairment, <i>n</i> (%)	
Hearing impairment	78 (33.1)
Visual impairment	140 (62.0)
Health care utilization	
Emergency department visits, <i>n</i> (%)	
0	118 (50.0)
1–3	104 (44.1)
≥ 4	14 (5.9)
Any hospitalization in the past year, <i>n</i> (%)	56 (23.6)
Self-reported no. of hospitalizations, median (IQR)	2 (1–4.5)
Health insurance, <i>n</i> (%)	
Any insurance	231 (97.9)
Medicare	62 (26.2)
Medicaid	165 (69.6)
Military	5 (2.1)
Private	6 (2.1)
Other	35 (14.8)
Usual source of medical care, <i>n</i> (%)	229 (96.6)

that although access to PSH is effective at addressing homelessness, current evidence that PSH improves health is lacking.⁶ Findings from this study suggest that tenure in PSH may be associated with improved ability to perform ADLs. Lack of improvement in IADLs may reflect the sensitivity of IADLs to cognitive impairment, which was found in over 40% of the sample and may be unlikely to change over time in PSH. Limitations of the study include its cross-sectional design and convenience sample from two PSH agencies.

CONCLUSION

The findings from this study have three important implications about how PSH programs can meet the needs of tenants: first, additional support services in PSH are likely required; second, existing PSH staff members need specific training on geriatric conditions; and third, the physical characteristics of PSH housing, including units, may need to be modified to better suit residents' capacities and needs.

Acknowledgements: We thank our interviewer team (Laura Ruzzano, Nora Hedgecock, Manuel Chavez, Carson Klasner, Christine Rodriguez); the staff at participating PSH agencies; and the subjects who generously gave their time to this study. This work was presented at the 22nd Annual Conference of the Society for Social Work and Research on January 14, 2018.

Corresponding Author: Benjamin F. Henwood, PhD, MSW; Suzanne Dworak-Peck School of Social Work University of Southern California, Los Angeles, CA, USA (e-mail: bhenwood@usc.edu).

Funding Information This work was supported by the National Institutes of Health (1R21AG050009).

Compliance with Ethical Standards:

Conflict of Interest: The authors declare no conflicts of interest.

Publisher's Note: Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

REFERENCES

1. U.S. Interagency Council on Homelessness. Opening Doors: Federal Strategic Plan to Prevent and End Homelessness. Washington, DC: U. S. Interagency Council on Homelessness; 2010.
2. Culhane DP, Metraux S, Byrne T, Stino M, Bainbridge J. The age structure of contemporary homelessness: evidence and implications for public policy. *Anal Soc Issues Public Policy*. 2013;13(1):228–44.
3. Brown RT, Hemati K, Riley ED, et al. Geriatric conditions in a population-based sample of older homeless adults. *Gerontologist*. 2016;57(4):757–66.
4. Henwood BF, Katz ML, Gilmer TP. Aging in place within permanent supportive housing. *Int J Geriatr Psychiatry*. 2015;30:80–7.
5. Heaton RK. Revised Comprehensive Norms for an Expanded Halstead-Reitan Battery: Demographically Adjusted Neuropsychological Norms for African American and Caucasian Adults: Professional Manual. Lutz, FL: Psychological Assessment Resources; 2004.
6. National Academies of Sciences, Engineering, and Medicine. *Permanent Supportive Housing: Evaluating the Evidence for Improving Health Outcomes Among People Experiencing Chronic Homelessness*. Washington, DC: National Academies Press. doi:<https://doi.org/10.17226/25133>.