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Examining the Bidirectional Association Between Veteran Homelessness and Incarceration Within the Context of Permanent Supportive Housing

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Homelessness and incarceration share a bidirectional association: individuals experiencing homelessness are more likely to be incarcerated and former inmates are more likely to become homeless. Permanent supportive housing (PSH) programs have demonstrated positive outcomes for participants with criminal histories, yet participants continue to exit to jail or prison and experience subsequent homelessness. Using data on Veterans participating in a PSH program at 4 locations between 2011 and 2014 (N = 1,060), logistic regression was used to examine the risk factors for exiting PSH because of incarceration and returning to homelessness. Though exiting because of incarceration was uncommon, Veterans with a drug use disorder who decreased the frequency of related care over time had an increased risk for this outcome, and a history of incarceration increased Veterans' risk of experiencing ongoing homelessness. Findings can inform housing and reentry interventions which should account for participant risk factors and service needs in an effort to end the cycle of homelessness and incarceration.

Keywords: homelessness, incarceration, prisoner reentry, substance use

The relationship between homelessness and incarceration has been well documented (Greenberg & Rosenheck, 2008; Kushel et al., 2005; Metraux & Culhane, 2004; Metraux, Roman, & Cho, 2007; Roman & Travis, 2004; Tsai & Rosenheck, 2013). The research literature describes a bidirectional association between these two social conditions: both homelessness and incarceration share risk factors and each increases the risk of the other, with individuals experiencing homelessness more likely to face incarceration and former inmates more likely to become homeless (Greenberg & Rosenheck, 2008; Kushel et al., 2005; Metraux & Culhane, 2004; Roman & Travis, 2004). Compared with the general population, recent homelessness (i.e., within one year prior to incarceration) is 7.5 to 11.3 times more common among jail inmates, explained largely by previous incarceration, mental illness, and substance abuse (Greenberg & Rosenheck, 2008).

The strong association between incarceration and homelessness—one study found that approximately one-quarter of homeless and marginally housed individuals had ever been incarcerated (Kushel et al., 2005) compared with less than 7% of the general population (Bonczar, 2003)—may indicate a system that does not provide timely or sufficient services to address the underlying issues that pose risk for both homelessness and incarceration (Kushel et al., 2005). Discharges from institutions such as jails and prisons may generate homelessness when individuals who are ill-prepared for independent living must care for themselves without assistance or support (Metraux, Byrne, & Culhane, 2010). In this way, homelessness can be seen as a readjustment problem (Metraux & Culhane, 2004). Among shelter users, Hopper and colleagues (1997) uncovered what they called an "institutional circuit," wherein users had spent the majority of their lives in one institution or another, including shelters, jail, rehabilitation facilities, and hospitals with only short periods of independent housing.

The mechanisms within this institutional circuit that move individuals from homelessness to incarceration and back again are not clearly understood, though research suggests that substance misuse and mental illness play a role. Among individuals who have and have not experienced homelessness, the most significant mutable risk factor for incarceration is substance dependence or abuse (Greenberg & Rosenheck, 2008). In a review of research on alcohol and drug dependence among incarcerated populations, Fazel, Bains, and Doll (2006) found prevalence estimates of substance dependence or abuse ranging from 10% to 57.8%; higher rates have been identified among inmates who were recently homeless (Greenberg & Rosenheck, 2008). In addition, individuals who have alcohol and drug use disorders tend to have more extensive homeless histories than those who do not (Tsai, Kasprow, & Rosenheck, 2014). Military service further complicates this issue: incarcerated veterans have higher rates of substance dependence or abuse and mental health problems than veterans who are not incarcerated but are experiencing homeless-

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ness (McGuire, Rosenheck, & Kasprow, 2003) and twice as many incarcerated veterans as nonveterans have a diagnosis of posttraumatic stress disorder (PTSD; Bronson, Carson, Noonan, & Bersofsky, 2015).

Permanent supportive housing (PSH) programs, particularly those utilizing a housing first approach, have demonstrated effectiveness in housing individuals who are considered hard to house, including those with a criminal history (Malone, 2009; Tsai & Rosenheck, 2013), substance use issues (Davidson et al., 2014; Larimer et al., 2009; O'Connell, Kasprow, & Rosenheck, 2012; Tsai et al., 2014), and mental illness (Padgett et al., 2011; Pearson, Montgomery, & Locke, 2009). PSH combines permanent subsidized housing with supportive services designed to help participants obtain and maintain housing (Carling, 1990; Rog, 2004). PSH programs that use a housing first approach provide clients access to housing, regardless of substance use or behavioral health issues, without requiring that they accept other services or treatment; housing is based on consumer preference and is typically scattered-site apartment units and participants may choose to receive treatment or supportive services once housed (Tsemberis & Eisenberg, 2000).

Housing retention rates in PSH are high; the majority of participants remain housed for at least one year (Lipton et al., 2000; Pearson et al., 2009; Tsemberis & Eisenberg, 2000; Tsemberis, Gulcur, & Nakae, 2004). Participants with a criminal record have similar retention rates as those without a criminal record (Malone, 2009), and participants spend fewer days in jail following an entry into PSH (Mondello et al., 2007). Though tenure in PSH is generally shorter for those with a history of substance misuse (Gabrielian et al., 2016; Kertesz et al., 2009; Lipton et al., 2000), outcomes related to substance use are promising: participants decrease alcohol use over time (Collins et al., 2012; Larimer et al., 2009), are less likely to misuse substances (Davidson et al., 2014; Padgett et al., 2011) and are more likely to stay in the PSH program, even if they relapse (Padgett et al., 2011). However, improvements are slower for participants with substance abuse disorders (Kertesz et al., 2009; Tsai et al., 2014) and substance abuse at program entry increases the likelihood of a return to homelessness (Kertesz et al., 2009).

Still, some PSH participants continue to exit these programs to return to jail or prison and experience subsequent homelessness. Whereas research on the institutional circuit has primarily focused on temporary, emergency shelters as a way-stop prior to admission or following discharge from other institutions (Hopper et al., 1997; Metraux et al., 2010), this study adds to the literature by exploring this cycle within the context of PSH. In addition, we focus on veterans who have access to a broad range of health (i.e., medical, mental/behavioral, and substance use) and housing services through the U.S. Department of Veterans Affairs (VA). These services include proactive efforts to link veterans who receive VA health care and are experiencing housing instability with services such as homelessness prevention and rapid rehousing through the Supportive Services for Veteran Families (SSVF) program, Veterans Justice Outreach (VJO) and Health Care for Reentry Veterans (HCRV) programs that link justice-involved veterans with services upon their release, and PSH provided through a collaboration between the U.S. Departments of Housing and Urban Development (HUD) and VA (U.S. Interagency Council on Homelessness, 2015). Despite the availability of services, veterans continue to move through the cycle of homelessness and incarceration. This paper examines risk factors for exiting PSH because of incarceration and returning to homelessness, including both individual characteristics and service use, in an effort to understand how PSH programs can better serve participants and end this cycle.

Method

This study used administrative data collected from veterans who were enrolled in the PSH program operated by HUD and VA, HUD-VASH, which combines a permanent housing subsidy provided through HUD's Housing Choice Voucher Program and supportive services, including case management, provided by VA clinicians. At program entry, veterans must be homeless, eligible for VA health care, and typically require a higher level of services to maintain independent housing. Participants may choose to receive medical, mental/behavioral health, substance use, and supportive services at local VA facilities or from community-based providers in addition to required program case management.

Two sources of data were extracted from VA's Corporate Data Warehouse: (a) VA Medical Records included demographics and data related to diagnoses and outpatient encounters; and (b) VA Homeless Operations Management and Evaluation System (HOMES) included utilization of VA homeless and housing services and data collected on veterans' social and housing history at program entry. The study was approved by the Corporal Michael J. Crescenz VA Medical Center Institutional Review Board.

Data

The cohort for this study comprised 1,060 male veterans who were admitted to HUD-VASH, moved into a housing unit, and subsequently exited the program between June 2011 and November 2014 at four study sites that utilized a housing first approach. Because of the importance of assessing previous incarceration for this study, the sample was restricted to veterans who had complete HOMES records on this variable, which excluded 1,497 veterans. There were no meaningful differences between veterans who were included in and excluded from the study. Each veteran in the sample was assigned to one of two groups based on the "most important reason" for program exit as noted by case managers in HOMES: those who exited because of incarceration and those who exited for other reasons (i.e., accomplished goals/no longer needed program, eviction, chose other housing, no longer interested, financially ineligible, unable to be located, noncompliant with case management, too ill, transferred to another program, unhappy with housing, and other reasons).

The study assessed two outcomes from HOMES, both coded as binary variables. The first outcome was whether veterans exited HUD-VASH because of incarceration, as indicated by case managers at the time of exit. The second outcome was whether veterans who exited the program experienced a return to homelessness during the 600 days following exit; veterans' use of a Veterans Health Administration (VHA) homeless program served as a proxy for a return to homelessness as Veterans must meet homeless eligibility criteria to access these programs. VHA homeless programs included Domiciliary Care for Homeless Veterans (DCHV), which provides residential rehabilitation and treatment; Health Care for Homeless Veterans (HCHV), which provides outreach

and case management; Grant and Per Diem (GPD), which provides transitional housing in the community; and HUD-VASH.

The following independent variables from the VA Medical Record were assessed for each veteran: age, race, ethnicity, history of combat during military service, presence of medical (hypertension, diabetes, chronic pulmonary disease, obesity, and traumatic brain injury), mental/behavioral health (PTSD, depression, psychoses, schizophrenia, and history of suicide or intentional self-inflicted injury), and substance use disorders using classifications from the *International Classification of Diseases*, ninth revision (ICD-9 codes; Brenner, Ignacio, & Blow, 2011; Elixhauser, Steiner, Harris, & Coffey, 1998; Kimerling, Gima, Smith, Street, & Frayne, 2007; National Center for Health Statistics, 1980), based on services use and related diagnoses during the 12 months prior to admission to HUD-VASH; and VA Enrollment Priority Group, which indicated whether veterans received income for a disability related to military service. The following independeent variables from HOMES were also assessed for each veteran: incarceration prior to program entry as indicated on an assessment form completed by case managers prior to veterans' admission to the program and veterans' tenure in the program (i.e., the number of days between moving into housing and exiting HUD-VASH).

Service use measures were accessed from the VA Medical Record. Outpatient service use related to medical, mental/behavioral health, and substance use disorders were measured for two periods prior to program exit: 0 to 30 days and 61 to 90 days. These continuous variables were dichotomized in models to indicate whether the veteran decreased services use as his or her exit approached (i.e., between 61 and 90 days and 0 to 30 days prior to exit).

Analyses

Differences in veterans' characteristics, length of stay in HUD-VASH, services utilization, and returns to homelessness were assessed using chi-square tests and ANOVA. A logistic regression modeled risk factors for exiting HUD-VASH because of incarceration: variables for demographic characteristics, diagnoses for medical, mental/behavioral health, and substance use disorders, and history of incarceration were entered as independent variables and forward selection was used for dichotomized outpatient service use variables. A logistic regression also modeled risk factors for returning to homelessness following an exit from the program; this model included the same control variables as well as whether the veteran had a history of incarceration at program entry or exited HUD-VASH because of incarceration and forward selection was used for dichotomized outpatient service use variables.

Results

Demographic Features

The majority of veterans who exited HUD-VASH did so for reasons other than incarceration (93.4%, including: accomplished goals/no longer needed program, 43.7%; eviction, 11.3%; chose other housing, 8.9%; no longer interested, 8.7%; financially ineligible, 5.2%; unable to be located, 3.8%; noncompliant with case management, 3.0%; too ill, 1.8%; transferred to another program, 1.4%; unhappy with housing, 0.5%; and other reasons, 11.6%). Incarceration only accounted for 6.6% of exits, but these veterans were significantly different than those who exited for other reasons: they more frequently identified as black, did not receive compensation related to a service-connected disability, and had at least one of the mental/behavioral health conditions assessed in this study and higher rates of schizophrenia. Veterans who exited because of incarceration also had higher rates of substance use disorders; 45.7% of veterans who were incarcerated had a drug use condition—either alone or in conjunction with an alcohol use disorder—compared with 29.2% of veterans who exited for other reasons. Nearly all (97.1%) veterans who exited HUD-VASH because of incarceration had a prior history of incarceration. On average, the veterans included in this study maintained housing stability in PSH for more than one year; however, veterans who exited because of incarceration spent significantly less time in housing, an average of over two months less (see Table 1).

Service Use

The service use patterns of the two groups also differed: veterans who exited HUD-VASH for reasons other than incarceration generally had consistent service use patterns prior to their exit. Veterans who exited because of incarceration decreased their service use across all categories between 61 to 90 and 0 to 30 days prior to exit. It is also notable that the two groups of veterans had significantly different rates of outpatient visits for substance use during the 61 to 90 days prior to exit, with veterans who ultimately exited because of incarceration accessing care more frequently; however, a significantly larger proportion of veterans who would exit because of incarceration decreased their participation in substance use services leading up to their exit. In addition, these veterans had significantly fewer case management contacts in the 30 days prior to exit compared with veterans who would exit for other reasons (see Table 2).

Risk Factors for Exiting Because of Incarceration

A logistic regression modeled the risk factors for a veteran exiting HUD-VASH because of incarceration. Veterans with a drug use disorder were more than two times as likely to exit because of incarceration (adjusted odds ratio [AOR] 2.257; 95% confidence interval [CI] [1.109–4.593]), whereas there were lower odds of this type of exit among veterans who had access to compensation related to a service-connected disability (AOR .370; 95% CI [.202–.679]). The predictors with the largest effect sizes were previous incarceration, which increased the odds of exiting because of incarceration by over 13 times (AOR 13.095; 95% CI [3.110–55.130]), and having a decrease in outpatient substance use visits during the three months prior to exit (AOR 3.808; 95% CI [1.589–9.122]; see Table 3).

Returns to Homelessness

Veterans who exited HUD-VASH generally did not return to homelessness within 600 days; approximately one in six of the veterans included in the study sample accessed a VHA homeless program within 600 days of exiting HUD-VASH. Among veterans who exited because of incarceration, however, the proportion was much higher, with nearly one in four (24.3% vs. 18.8% of other

Table 1
Demographic Features (N = 1,060)

Variable	Exited because of incarceration		Exited for other reasons		
	N	*M* ± *SD* or %	*N*	*M* ± *SD* or %	*p*
N	70	6.6	990	93.4	
Age					.090
18–34	5	7.1	106	10.7	
35–44	8	11.4	117	11.8	
45–54	36	51.4	348	35.2	
55–64	18	25.7	349	35.3	
65 and older	3	4.3	70	7.1	
Race					**.038**
Black	45	64.3	515	53.1	
White	17	24.3	393	40.6	
Other	6	8.6	61	6.3	
Ethnicity					.396
Hispanic or Latino	4	5.7	89	9.1	
Not Hispanic or Latino	65	92.9	878	89.6	
Multiple	0	.0	13	1.3	
Combat history	2	2.9	45	4.5	.507
Medical and mental/behavioral health conditions					
Any medical condition	21	30.0	262	26.5	.518
Any mental/behavioral health condition	**39**	**55.7**	**424**	**42.8**	**.036**
PTSD	8	11.4	82	8.3	.362
Depression	8	11.4	151	15.3	.387
Psychoses	16	22.9	154	15.6	.108
Schizophrenia	**14**	**20.0**	**118**	**11.9**	**.048**
History of suicide or intentional self-inflicted injury	9	12.9	67	6.8	.056
Substance use conditions					**.007**
None	34	48.6	633	63.9	
Alcohol use disorder only	4	5.7	68	6.9	
Drug use disorder only	19	27.1	129	13.0	
Both alcohol use and drug use disorders	13	18.6	160	16.2	
Enrollment priority group					**.035**
≥50% SC disability	8	11.4	260	26.4	
<50% SC disability	11	15.7	186	18.9	
No SC disability, Medicaid eligible	48	68.6	497	50.5	
No SC disability, not Medicaid eligible	0	.0	1	.1	
Other	3	4.3	41	4.2	
History of incarceration	**68**	**97.1**	**698**	**70.5**	**<.001**
Tenure in housing (days, *M* ± *SD*)	**69**	**407.4 ± 256.6**	**1234**	**480.5 ± 238.4**	**.014**
Return to homelessness within 600 days	17	24.3	186	18.8	.259

Note. Columns may not sum to 100% because of missing data. SC = service-connected. Any medical condition includes: hypertension, diabetes, chronic pulmonary disease, obesity, and traumatic brain injury. Any mental/behavioral health condition includes: PTSD, depression, psychoses, schizophrenia, and history of suicide or intentional self-inflicted injury. Bold text indicates significance at $p \leq .05$.

exiters) returning to homelessness, though the difference was not statistically significant (see Table 1). A history of incarceration—either prior to entry into HUD-VASH or at the time of exiting the program—increased veterans' odds of returning to homelessness by more than 50% (AOR 1.524; 95% CI [1.023–2.272]) and having a diagnosis of schizophrenia or a decrease in outpatient substance use visits prior to exiting HUD-VASH more than doubled the odds of returning to homelessness (AOR 2.007; 95% CI [1.134–3.553]; and AOR 2.848; 95% CI [1.481–5.477], respectively; see Table 4).

Discussion

This study attempted to assess the bidirectional nature of homelessness and incarceration by identifying predictors of veterans' exits from PSH because of incarceration and their experience of ongoing homelessness. Only 6.6% of the study sample exited HUD-VASH because of incarceration, with increased risk among those with a drug use disorder who decreased the frequency of related care over time. Almost all of the veterans who exited the program because of incarceration had been previously incarcerated and having a history of incarceration either prior to program entry or at the time of program exit—or both—significantly increased veterans' risk of experiencing ongoing homelessness, providing evidence for the institutional circuit.

Within this study sample, almost 1 in 4 (24.3%) veterans who exited HUD-VASH because of incarceration returned to a VHA homeless program within 600 days of program exit. A history of incarceration was a significant predictor for this outcome—along

Table 2
Service Use Prior to Exit From HUD-VASH (N = 1,060)

Category of service use	Exited because of incarceration N	Exited because of incarceration M ± SD or %	Exited for other reasons N	Exited for other reasons M ± SD or %	p
Outpatient care 61–90 days prior to exit (*M* ± *SD*)					
Medical	70	.37 ± 1.00	990	1.04 ± 3.43	.102
Behavioral health	70	.50 ± 2.17	990	.45 ± 1.67	.815
Substance use	**70**	**1.03 ± 4.34**	990	**.23 ± 1.70**	**.001**
Case management	70	.87 ± 1.31	990	1.10 ± 1.55	.234
Outpatient care 0–30 days prior to exit (*M* ± *SD*)					
Medical	70	.06 ± .38	990	1.28 ± 5.42	.059
Behavioral health	70	.09 ± .44	990	.53 ± 2.70	.172
Substance use	70	.30 ± 2.16	990	.26 ± 1.86	.862
Case management	**70**	**.51 ± 1.00**	990	**.96 ± 1.45**	**.011**
Decrease in services use between 61–90 and 0–30 days prior to exit (%)					
Medical	12	17.1	230	23.2	.241
Behavioral health	10	14.3	126	12.7	.706
Substance use	**9**	**12.9**	**35**	**3.5**	**<.001**
Case management	12	17.1	234	23.6	.214

Note. Bold text indicates significance at $p \leq .05$.

with a diagnosis of schizophrenia and a decrease in outpatient care related to substance use proximal to program exit—demonstrating the need for services to break the institutional circuit of homelessness and incarceration. Community reentry programs may be able to initially assist formerly incarcerated veterans in connecting with health care resources (Buck, Brown, & Hickey, 2011) and housing assistance (McGuire, Rosenheck, & Kasprow, 2003). According to Roman, McBride, and Osborne (2006), promising practices in reentry housing programs include coordination with the criminal justice system, integration of housing and services, reliance on housing ready approaches, structured daily routine, central community location, single-site configuration, and use of peers. However, these authors stress that a one-size-fits-all approach is unlikely to work and that programs should seek to match services with needs, which VA should take into account as it continues to grow its reentry services (Blue-Howells & Clark, 2016). A significant need identified by the present study is stable income: veterans receiving service-connected income were half as likely to exit HUD-VASH because of incarceration, which may point to financial difficulties that led participants to take part in illegal activities. Income-related issues can and should be addressed through case management and supportive services, either through application for public benefits, educational opportunities, or employment training.

Table 3
Logistic Regression Modeling Risk Factors for Exiting Because of Incarceration (N = 1,049)

Variable	*OR*	95% CI	*p*
Constant	.046	—	.004
Age	.976	.947–1.005	.102
White	.536	.278–1.032	.062
Other race	1.681	.633–4.465	.297
Hispanic	.744	.239–2.321	.611
Combat	.883	.191–4.084	.873
SC disability	**.370**	**.202–.679**	**.001**
Any medical condition	.990	.511–1.921	.977
PTSD	1.304	.527–3.228	.565
Depression	.409	.165–1.011	.053
Psychoses	1.155	.501–2.661	.736
Schizophrenia	1.361	.541–3.422	.513
Suicide or self-inflicted injury	2.113	.764–5.843	.149
Alcohol use disorder only	.983	.294–3.284	.978
Drug use disorder	**2.257**	**1.109–4.593**	**.025**
Alcohol and drug use disorder	1.075	.453–2.552	.870
History of incarceration prior to HUD-VASH	**13.095**	**3.110–55.130**	**.000**
Decrease in outpatient substance use visits prior to exit	**3.808**	**1.589–9.122**	**.003**

Note. *OR*s also adjusted for study site. Nagelkerke R^2 = .194; SC = service-connected. Any medical condition includes: hypertension, diabetes, chronic pulmonary disease, obesity, and traumatic brain injury. Bold text indicates significance at $p \leq .05$.

Table 4
Logistic Regression Modeling Risk Factors for Returning to Homelessness (N = 1,049)

Variable	*OR*	95% CI	*p*
Constant	.133	—	<.001
Age	1.004	.987–1.021	.669
White	1.097	.760–1.584	.622
Other race	1.073	.539–2.133	.841
Hispanic	.823	.456–1.485	.518
Combat	.672	.255–1.772	.422
SC disability	.825	.586–1.163	.273
Any medical condition	1.065	.707–1.605	.762
PTSD	.707	.376–1.330	.282
Depression	1.027	.638–1.653	.914
Psychoses	1.058	.635–1.763	.829
Schizophrenia	**2.007**	**1.134–3.553**	**.017**
Suicide or self-inflicted injury	1.366	.726–2.571	.333
Alcohol use disorder only	.872	.437–1.738	.697
Drug use disorder	1.199	.731–1.966	.472
Alcohol and drug use disorder	1.094	.640–1.872	.742
History of incarceration	**1.524**	**1.023–2.272**	**.039**
Decrease in outpatient substance use visits prior to exit	**2.848**	**1.481–5.477**	**.002**

Note. *OR*s also adjusted for study site. Nagelkerke R^2 = .071; SC = service-connected. Any medical condition includes: hypertension, diabetes, uncomplicated chronic pulmonary disease, obesity, and traumatic brain injury. History of incarceration includes incarceration prior to HUD-VASH entry as well as whether the Veteran exited the program because of incarceration. Bold text indicates significance at $p \leq .05$.

Veterans with drug use issues also may not be well-served by the PSH housing first model utilized in the sites studied here. The consumer choice valued in the housing first model may not be beneficial for some participants, especially those with substance use disorders (Goldfinger et al., 1999). Though housing first programs do not require it, researchers have found a positive relationship between abstinence and housing and employment outcomes (Milby et al., 2010). Abstinence-contingent housing programs have been shown to decrease substance use (Kertesz et al., 2009; Milby et al., 2005) and lead to better housing and employment outcomes (Kertesz et al., 2007).

These findings highlight the need to match participants with an effective model of care. Veterans with significant behavioral

health issues who are not accessing care are at particularly high risk of incarceration and may require services tailored to their needs: case managers may be able to proactively identify veterans at increased risk of incarceration based on changes in services use over time, or connect these veterans with more intensive services, if appropriate (Pearson et al., 2009; Tsai et al., 2014). For example, the assertive community treatment (ACT) model, which delivers support services using a multidisciplinary team typically consisting of a psychiatrist, nurse, and case managers and can be used within a PSH model, may be adapted to meet participants' needs, and shows promise with improvements in housing stability and reductions in jail time and substance abuse (Mueser et al., 1998). In a study comparing homeless participants with severe mental illness on 6 measures—housing status, employment status, psychiatric problems, alcohol problems, drug problems and criminal justice involvement—being served by an ACT team, those with shorter incarceration histories (<6 months) showed similar improvement as those with no history of incarceration in all areas but psychiatric problems one year after entering treatment; those with longer incarceration histories (6+ months) had poorer outcomes on two measures—psychiatric problems and number of days in jail—demonstrating potential benefits to hard to serve participants (McGuire & Rosenheck, 2004).

HUD's advancement of the recovery housing model reflects the growing recognition that substance use treatment may be an invaluable factor to sustaining housing. HUD defines recovery housing as "housing in an abstinence-focused and peer-supported community for people recovering from substance use issues" (U.S. Department of Housing and Urban Development, 2015, p. 1). This model recognizes that though the housing first model may be effective for some populations, clients with substance use issues may prefer to live in abstinent-focused housing while in recovery (U.S. Department of Housing and Urban Development, 2015).

The primary limitation of this study was that the study sample was significantly restricted due to several reasons: the sample only included veterans from four study sites and there was a large amount of missing data related to incarceration history, which we identified as a particularly important predictor to assess. In addition, the subsample of veterans who exited HUD-VASH because of incarceration was quite small, due largely to the fact that exiting the program because of incarceration was a rare event. The frequency of the two outcomes studied here may also be understated: veterans with other exit reasons (e.g., eviction or unable to be located) may have also left HUD-VASH for jail or prison whereas others who faced short-term incarceration could have had their housing held for them, remaining in the program while incarcerated. Similarly, the assessment of subsequent returns to homelessness only included services provided by VHA and did not include veterans who may have accessed emergency shelter or other homeless programs in the community, which may represent an underestimate of the homeless experiences of this population. Finally, the available data did not include any information about the timing of veterans' pre-HUD-VASH incarceration nor the duration of the incarceration for which veterans exited the program.

Here, we discussed the importance of matching veterans with an appropriate model of care, which could include more intensive case management provided through an ACT team, recovery housing for those with substance use issues, and community reentry housing programs for veterans exiting jail or prison. Future research should examine additional housing and supportive service models for participants at high risk for incarceration in an effort to end the cycle of homelessness and incarceration. Understanding more about the timing between incarceration and entry into PSH could elucidate whether veterans moving into housing during the "critical time" postincarceration might benefit from a critical time intervention.

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