

Reasons for job loss among homeless veterans in supported employment

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ABSTRACT

Individual Placement and Support (IPS) improves competitive employment rates for those with serious mental illness (SMI) and is available through the Veterans Healthcare Administration (VHA). IPS clients often have difficulty maintaining jobs, and various reasons for job loss have been identified for those with SMI. No study has yet investigated IPS job loss in a homeless and largely substance-using population. An analysis of data from a quasi-experimental demonstration examined the association of various reasons for job loss with the duration of the first IPS job and with veteran characteristics. This study also examined the relationship of job duration and reasons for job loss with subsequent employment. Veterans' most commonly identified reason for termination was drug/alcohol use; mental and/or physical health problems were uncommonly cited as reason for job loss. Those whose jobs ended due to drugs/alcohol were less likely to find subsequent employment. They also had greater scores on alcohol (but not drug) use measures and were more likely to have alcohol (but not drug) use diagnoses, highlighting a potentially unique role of alcohol in job loss in veterans who were homeless. These analyses reveal distinctive work-related challenges among homeless IPS participants. Suggestions to improve vocational services for homeless individuals are provided.

KEYWORDS

Compensated work therapy; homeless; individual placement and support; substance use; supported employment

Introduction

One of the primary consequences of severe mental illness (SMI) is that it impedes participation in competitive employment (Bond & Drake, 2014; Rosenheck et al., 2006; Salkever et al., 2007), a major source of self-esteem and social involvement. Diverse approaches have been used to facilitate employment in this population, including, most prominently, the Individual Placement and Support (IPS) model of Supported Employment (Bond, 2004; Cook et al., 2005; Crowther, Marshall, Bond, & Huxley, 2001; Killackey, Jackson, Gleeson, Hickie, & McGorry, 2006; Lehman, 1995). Supported

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Employment services following the IPS model have been widely disseminated in state mental health systems (Drake, Becker, Goldman, & Martinez, 2006) and have been available through the Veterans Health Administration (VHA) Compensated Work Therapy (CWT) program since December 2003 (Veterans Healthcare, Capital Asset, and Business Improvement Act of 2003).

IPS emphasizes rapid placement in competitive jobs, ongoing professional support, client job choice, and integration of vocational support and clinical care (Becker & Drake, 2003). It has been designed primarily for individuals diagnosed with serious mental illness (SMI) (Becker & Drake, 2003; Bond, Campbell, & Drake, 2012; Bond, Drake, & Becker, 2008, 2012; Burns et al., 2009; Crowther et al., 2001; Dixon et al., 2010; Drake, Bond, & Becker, 2012; Lehman et al., 2002; Mueser, Becker, & Wolfe, 2001; Twamley, Jeste, & Lehman, 2003; Twamley, Narvaez, Becker, Bartels, & Jeste, 2008), but also homeless veterans (Rosenheck & Mares, 2007), and veterans with post-traumatic stress disorder (Davis et al., 2012). IPS has repeatedly been demonstrated to result in higher competitive employment rates, shorter time to entering competitive employment, greater numbers of hours worked per week, and more weeks worked per year.

Despite these superior employment outcomes, IPS clients often have difficulty maintaining their jobs (Drake, Becker, Clark, & Mueser, 1999; Drake, McHugo, Becker, Anthony, & Clark, 1996; Lehman et al., 2002; Mak, Tsang, & Cheung, 2006; McGurk & Mueser, 2006; Tsang, 2003; Twamley et al., 2003). Although clients who receive IPS services maintain jobs longer than those receiving other vocational services (Catty et al., 2008), job tenure in IPS is typically brief (Drake et al., 1996, 1999; Fabian & Wiedefeld, 1989; MacDonald-Wilson, Revell, Nguyen, & Peterson, 1991) often lasting no more than 6 to 8 months (Becker, Whitley, Bailey, & Drake, 2007; Bond & Kukla, 2011; Corbière, Lanctôt, Sanquirgo, & Lecomte, 2009; Macdonald-Wilson, Mancuso, Danley, & Anthony, 1989; Mak et al., 2006; McGurk & Mueser, 2006; Xie, Dain, Becker, & Drake, 1997). Individual client factors, job characteristics, and vocational program service delivery have all been found to influence job duration and reasons for job loss (Catty et al., 2008; Corbière et al., 2014; Huff, Rapp, & Campbell, 2008; Kukla & Bond, 2012; Mueser et al., 2001; Villotti, Corbiere, Zaniboni, & Fraccarole, 2012; Wewiorski & Fabian, 2004).

Previous studies suggest that a majority of jobs are terminated for unsatisfactory reasons, such as poor work quality, rather than for positive reasons, such as promotions or obtaining higher paying jobs (Becker, Bebout, & Drake, 1998; Becker et al., 1998; Fabian & Wiedefeld, 1989; MacDonald-Wilson et al., 1991; Mak et al., 2006). Unsatisfactory reasons for termination have been associated with poorer previous work histories, more problems with interpersonal conflicts, psychiatric symptoms, and job dissatisfaction (Becker, Bebout, & Drake, 1998; Becker et al., 1998).

Although the types of termination and reasons for termination have been documented for individuals with SMI, to our knowledge none of these studies investigated participation in IPS and job loss in a population that was homeless and largely substance using, a potentially important target population. The current study examines job loss using data the Therapeutic Employment and Support (TEPS) Study, a quasi-experimental demonstration of IPS among veterans who were homeless (Mares & Rosenheck, 2006; Rosenheck & Mares, 2007). This original study implemented the IPS model of Supported Employment at nine VHA programs for veterans who were homeless. The study design recruited a comparison cohort ($N = 308$) before IPS was implemented and a postimplementation group ($N = 321$), after IPS was implemented. It showed IPS was associated with significant improvement in employment and, to a lesser degree, with increased days of independent housing

This study thus expands the existing literature by examining reasons for job loss in IPS in a new population: veterans with co-occurring substance use disorders who are homeless. It also identifies the association of various reasons for job loss with the duration of the first IPS job and with sociodemographic and clinical characteristics at the time of program entry. Further, this study examines the relationship of job duration and reasons for job loss with getting another job through IPS, following the first job loss. These analyses may reveal distinctive work-related challenges among participants who are homeless and may inform Supported Employment programs on specific approaches to facilitating job retention in this population.

Method

This study examines a new hypothesis (i.e., secondary analysis) using the data collected in the TEPS study. In that study, nine Veterans Affairs (VA) Medical Centers (Augusta, GA; Rochester, NY; Cincinnati, OH; Dallas, TX; Houston, TX; Los Angeles, CA; Pittsburgh, PA; Tampa, FL; West Haven, CT) received funds in January 2000 to hire and train an employment specialist to offer IPS services to veterans with psychiatric or substance use disorders who were currently homeless. Veterans were considered eligible if they had slept in a shelter or on the street in the past 90 days and had not been receiving VA health services. Additional eligibility requirements included having a psychiatric diagnosis and/or substance use disorder, as well as expressing an interest in seeking competitive employment (i.e., answering in the affirmative when asked, “Are you interested in working for pay in the community – somewhere other than at the VA?”).

After the nine sites had hired and trained employment specialists (as described by Rosenheck & Mares, 2007), a cohort of veterans experiencing current homelessness ($N = 321$) was recruited and offered IPS. This group

was assessed every 3 months over 2 years. Follow-up data collection continued through March 2005 and was conducted by independent, trained, research assistants. In parallel, data on reasons for job loss were collected by the employment specialists at the beginning and end of each IPS-related job.

Veterans gave written informed consent to participate in the study and for employment specialists to communicate with employers. Participants received \$10.00 for each interview they completed. Original Institutional Review Board approval was obtained at the principal investigators' parent institution and at each of the nine participating VA facilities.

Job start/end documentation

All jobs obtained during the study were competitive in nature, given they were obtained in the context of the IPS model. For each job obtained, a Job Start/End Form was completed, which documented the date when job began and which number in the sequence of jobs this represented for each veteran. At termination of each job, the job end date was recorded. Additionally, veteran, employer, and employment specialist perspectives on the reasons contributing to termination were documented. The 11 reasons for termination, derived from the previous literature cited above, included: did not get along with supervisors/peers, concerned about losing compensation/disability benefits, found a better job, did not like the work, not enough pay, problems with transportation, problems with child care, physical health problems, mental health problems, problems with drugs and/or alcohol, and "other reasons." The form also documented veteran, employer, and employment specialist perspectives on which of the aforementioned reasons was the primary reason for job termination. Duration of job tenure was non-normally distributed with a skew to the right and thus was classified into four categories based on quartiles of job duration: less than or equal to 1 month, greater than 1 month up to 4 months, greater than 4 months up to 9 months, and greater than 9 months.

Baseline measures

Employment status. Employment status at the time of program entry was assessed by the number of days in the past 30 days of (1) competitive employment, (2) noncompetitive employment (e.g., transitional work experiences (TWE) in VA's CWT program), (3) casual or volunteer work, and (4) any type of employment (i.e., the sum of the previous three measures). Employment data were based on client interviews.

Health status. Diagnoses were based on nonstructured clinical interviews conducted by homeless outreach staff. Subjective distress was measured with the 33 items of the anxiety, depression, and psychoticism subscales of the

Symptom Checklist-90 (range 0–4) (SCL; Derogatis, 2000). Alcohol and substance use problems were assessed using composite scores from the Addiction Severity Index (ASI; range 0–1) (McLellan, Luborsky, Woody, & O'Brien, 1980). The Short Form Health Survey (SF-12; Gandek et al., 1998) was used to assess mental (mental health component score [MCS]) and physical health status (physical health component score [PCS]) (range = standardized scores \times 10).

Community adjustment and housing status. Housing status was measured by questions concerning sleeping arrangements during the previous 90 days and used to calculate days of independent housing (whether in their own place or with others), days homeless, and days in institutions (hospitals or time-limited transitional residences).

Attitudes toward employment, self-esteem, and quality of life. Attitudes toward work were assessed using a measure used in the Social Security Administration's Project NetWork (Kornfeld & Rupp, 2000). A factor analysis of its 21 items (varimax rotation) conducted by Mares and Rosenheck (2006) produced five factors reflecting attitudes toward work that can be summarized as "I can't work," "I want to work," "Work helps me cope with problems," "I don't like the jobs I get," and "Others expect me to work." Self-esteem was assessed with the Rosenberg Self-Esteem measure (Rosenberg, 1979), and quality of life was measured by the single summary item in the Lehman Quality of Life Interview (Lehman, 1988).

Analyses

The 11 reasons for job loss were collapsed into six categories (after the data were collected, because several of the categories were seldom endorsed) and we examined the agreement of employees', employers', and employment specialists' perspectives on the reason for job termination. The six clustered reasons for job termination were (1) found better job, (2) problems with drugs and/or alcohol, (3) dissatisfaction with job or pay, (4) physical and/or mental health problems, (5) did not get along with supervisors or peers ("interpersonal problems"), (6) other (which comprised infrequently reported reasons including fear of losing compensation/disability benefits, problems with transportation, problems with child care, and "other reasons").

First, chi-squared tests were used to evaluate the relationship between reasons for job loss and duration of employment. Chi-squared tests were also used to identify the association of reasons for job loss, and duration of the first job, with re-employment in IPS. Next, ANOVA was used to bivariately examine the association of reasons for job loss and baseline sociodemographic variables and clinical characteristics. Finally, multinomial logistic regression

was used to identify the independent association of each reason for job loss and sociodemographic and clinical characteristics, job duration, and likelihood of reemployment in IPS. Due to the large number of comparisons made, the significance level was set at $p < .005$. All analyses were completed using SAS (version 9.2).

Results

Table 1 depicts demographic information for the total sample of veterans who obtained at least one competitive job. The average duration of the first job was 211.71 days ($SD = 270.14$), or approximately 6 months and 28 days. Of the 321 “first” jobs obtained, 253 had been associated with a report of the veteran’s perceived reasons for termination, and 241 had all three perspectives documented (veteran, employer, employment specialist). Concordance between the three perspectives was high. Of the 241 job losses that had all three perspectives rated, 195 job terminations had been attributed to the same reason by all three parties (80.91%). Of the job losses that had at least two perspectives documented ($n = 250$), two or more of the reported perspectives were concordant for 246 job terminations (98.4%). Given the high level of agreement we present data from only the veteran consumer perspective.

Reason for job loss and association with duration of employment and subsequent reemployment

Veterans’ most commonly identified primary reason for the termination of the first job ($n = 253$) was drugs and/or alcohol ($n = 100$, 39.5%). Other less common responses were obtained a better job ($n = 46$, 18.18%), dissatisfaction with job or pay ($n = 43$, 17.00%), interpersonal problems ($n = 28$, 11.07%), and mental or physical health problems ($n = 19$, 7.51%). Few indicated that some “other” reason was the primary cause of first job termination ($n = 17$, 6.72%).

The association between duration of employment and the primary reason for job loss was not significant, $\chi^2(15) = 24.90$, $p = .05$. There was not a significant association between duration of the first job and likelihood of obtaining a second job, $\chi^2(3) = 4.83$, $p = .18$. The relationship between reason for job loss and getting a second job was significant and showed that individuals who had been terminated due to drugs/alcohol were less likely have found subsequent employment during the study period than those whose jobs ended due to having found a better job or for other reasons ($p = .003$).

Reason for job loss and association with veteran characteristics

Table 1 presents veteran characteristics and their association with various reasons for job terminations. Several individual characteristics of veterans

Table 1. Baseline veteran characteristics and employment process by veteran view of reason for job termination ($p < .005$, $N = 253$)

Variable	Total Sample ($N = 253$), Mean (SD) or Percent	Obtained Better Job ($n = 46$, 18.18%) (1)	Drugs or Alcohol ($n = 100$, 39.53%) (2)	Dissatisfied with Job or Pay ($n = 43$, 17.00%) (3)	Physical or Mental Health problems ($n = 19$, 7.51%) (4)		Did not Get Along with Peers or Supervisor ($n = 28$, 11.07%) (5)	Other ($n = 17$, 6.72%) (6)	F	df	p	Paired Comparisons
					Analysis of Variance, Least Square Means							
Baseline characteristics												
Age	45.16 (6.05)	44.39	43.59	47.96	45.26	47.98	44.73	45.7	5	0.0005		
Male	94.84%	0.91	0.98	0.98	0.89	0.86	1.00	2.18	5	0.06		
Married	5.06%	0.00	0.05	0.09	0.16	0.04	0.00	1.91	5	0.09		
White	41.27%	0.40	0.53	0.28	0.42	0.26	0.41	2.42	5	0.04		
Enlisted	99.21%	0.98	1.00	1.00	1.00	0.96	1.00	1.06	5	0.38		
Honorable discharge	85.38%	0.91	0.77	0.86	1.00	0.89	0.94	2.37	5	0.04		
Education	13.01 (1.61)	13.09	12.96	13.02	13.00	12.89	13.29	0.18	5	0.97		
Number of convictions	4.51 (7.22)	3.09	7.27	3.42	1.95	2.18	1.65	5.08	5	0.0002		
Years incarcerated	1.25 (2.26)	1.12	1.53	1.31	0.60	1.14	0.74	0.85	5	0.52		
Days homeless	18.12 (24.66)	10.93	17.66	27.37	10.57	14.96	30.47	3.30	5	0.007		
Days in hospital	10.89 (12.24)	12.68	12.44	6.86	16.12	9.26	3.67	3.15	5	0.009		
Days worked competitive employment, past 30 days	6.36 (9.23)	8.63	5.14	4.86	9.21	10.50	1.18	3.70	5	0.003		1,5 > 6
Days worked volunteer job, past 30 days	0.45 (3.01)	0.00	0.13	0.07	0.00	3.54	0.00	6.61	5	<0.0001		5 > 1,2,3,4,6
Total income	\$885.66 (\$1020.28)	850.98	812.58	862.33	819.29	1255.07	934.12	0.88	5	0.50		
Planning to apply for disability	25.30%	0.13	0.26	0.37	0.26	0.07	0.53	3.94	5	0.002		6 > 1,5 3 > 5
Currently receiving VA or SSI benefits	13.44%	0.11	0.12	0.09	0.11	0.29	0.17	1.40	5	0.22		
Service connected disability	13.10%	0.09	0.16	0.09	0.00	0.33	0.00	3.61	5	0.004		5 > 1,3,4,6
Employment process					Chi-squared							
Job duration								χ^2	df	p		
≤1 month		2.47%	4.12%	4.53%	1.23%	2.47%	2.88%	24.90	15	0.05		

Variable	Total Sample (N = 253), Mean (SD) or Percent	Obtained Better Job (n = 46, 18.18%) (1)	Drugs or Alcohol (n = 100, 39.53%) (2)	Dissatisfied with Job or Pay (n = 43, 17.00%) (3)	Physical or Mental Health problems (n = 19, 7.51%) (4)	Along with Peers or Supervisor (n = 28, 11.07%) (5)	Did not Get	F	df	p	Paired Comparisons
>1-4 months	5.35%	5.35%	2.47%	2.47%	0.41%						
>4-9 months	4.94%	4.12%	2.06%	3.70%	2.06%						
>9 months	5.76%	3.70%	2.06%	2.88%	0.82%						
Obtained second job	0.45	0.36	0.22	0.20	0.47		3.65	5	0.003		1 > 2

SSI = Supplemental Security Income.

Table 2. Baseline veteran clinical characteristics and attitudes by veteran view of reason for job termination, analysis of variance (least square means), $N = 253$.

Variable	Obtained Better Job ($n = 46$, 18.18%) (1)	Drugs or Alcohol ($n = 100$, 39.53%) (2)	Dissatisfied with Job or Pay ($n = 43$, 17.00%) (3)	Physical or Mental Health Problems ($n = 19$, 7.51%) (4)	Did not Get Along with Supervisor ($n = 28$, 11.07%) (5)	Other ($n = 17$, 6.72%) (6)	F	df	p	Paired Comparisons ($p < .005$)
Clinical Characteristics										
SF-12 mental	49.04	42.22	45.10	47.04	42.13	37.40	3.44	5	0.005	
SF-12 physical	49.08	51.21	47.73	47.98	50.64	51.27	2.15	5	0.06	
ASI psych	.021	0.27	0.21	0.23	0.28	0.42	1.98	5	0.08	
ASI alcohol	0.29	0.51	0.32	0.46	0.32	0.28	8.08	5	<0.0001	2 > 1,3,5,6
ASI drug	0.13	0.18	0.14	0.16	0.21	0.16	2.28	5	0.05	
Self esteem	0.75	0.64	0.71	0.66	0.61	0.64	1.72	5	0.13	
Quality of life	4.46	4.04	4.02	4.11	3.82	3.82	1.22	5	0.30	
Social support	2.78	2.48	3.12	2.51	2.90	3.71	2.05	5	0.07	
DSM-IV Diagnosis										
Alcohol abuse	0.67	0.92	0.70	0.68	0.57	0.64	5.29	5	0.0001	2 > 1,3,5
Substance (drug) abuse	0.56	0.75	0.56	0.68	0.64	0.53	1.81	5	0.11	
Mood disorder (depression, bipolar)	0.33	0.42	0.40	0.32	0.21	0.47	1.06	5	0.38	
Post-traumatic stress disorder	0.02	0.07	0.05	0.00	0.11	0.29	3.51	5	0.004	6 > 1,2,3,4
Schizophrenia	0.11	0.00	0.07	0.11	0.00	0.29	6.09	5	<0.0001	6 > 1,2,3,,5
Any SMI diagnosis	0.14	0.02	0.12	0.06	0.19	0.12	2.37	5	0.04	
Dual diagnosis	0.49	0.62	0.49	0.47	0.22	0.59	2.99	5	0.01	
Attitudes and Beliefs										
Factor 1: "I can't work"	1.48	1.57	1.61	1.64	1.54	1.57	0.74	5	0.60	
Factor 2: "Really positive about working"	3.73	3.66	3.75	3.60	3.65	3.69	0.86	5	0.51	
Factor 3: "Work helps me cope"	3.25	3.12	3.36	3.02	3.25	3.10	2.02	5	0.08	
Factor 4: "I don't like the jobs I get"	2.25	2.27	2.40	2.24	2.46	2.09	0.95	5	0.45	
Factor 5: "I feel external pressure to work"	2.16	2.44	2.43	2.09	2.54	2.27	3.68	5	0.003	2,5 > 1 5 > 4
Interest in Various Forms of Treatment										
Interest in case management	89.32	79.48	88.02	90.00	80.55	92.35	2.70	5	0.02	
Interest in vocational rehabilitation	67.92	56.92	53.66	49.21	69.02	71.47	1.59	5	0.16	
Interest in IPS	98.37	95.04	92.79	85.92	95.36	95.29	3.10	5	<0.01	

SF-12 = 12-Item Short Form Health Survey; ASI = Addiction Severity Index; psych = ; SMI = serious mental illness; IPS = Individualized Placement and Support; DSM-IV = Diagnostic and Statistical Manual of Mental Disorders, 4th Edition.

were associated with reasons for job loss. For example, veterans whose jobs ended due to getting a better job had worked more days in competitive employment upon entry into the program than veterans who lost their job for some other reasons (Table 1). They were more likely to get a second job through IPS, but they were not distinctive on clinical measures. Veterans who lost their jobs because they did not get along with their supervisors were more likely to receive VA service-connected compensation and to have spent more days working in volunteer jobs.

Veterans who lost their job because of drugs/alcohol were younger than those whose jobs ended due to dissatisfaction or interpersonal problems, had significantly more criminal convictions than the other groups (Table 1), and had higher ASI Alcohol composite severity scores, but not higher ASI Drug composite severity scores (Table 2). Similarly they were more likely to have an alcohol use disorder diagnosis but were not significantly more likely to have a drug use disorder diagnosis (Table 2). They also more strongly endorsed feeling external pressure to work when compared to some other groups (Table 2).

Multinomial logistic regression model predicting job termination

Finally, the model predicting the reason for job termination was significant, $\chi^2(30) = 121.75, p < .0001$. The overall effects of age, $\chi^2(5) = 18.59, p = .002$, and baseline ASI Alcohol composite scores, $\chi^2(5) = 29.53, p < .0001$, had significant independent associations with the reason for job termination. In specific comparisons against the reference group (veterans who left their job for a better job), the only parameter that was significant was baseline ASI Alcohol composite scale scores. Baseline ASI Alcohol composite scores were significantly higher for those who eventually lost their job due to drug/alcohol problems, when compared to those who obtained a better job, $\chi^2(1) = 19.84, p < .0001$ (see Table 3).

Table 3. Multinomial logistic regression of factors associated with obtaining a second job.

	Drugs or Alcohol OR (95% CI)	Dissatisfied with Job or Pay OR (95% CI)	Physical or Mental Health Problems OR (95% CI)	Did not Get Along with Supervisor OR (95% CI)	Other OR (95% CI)
Age	0.96 [0.89, 1.04]	1.11 [1.03, 1.21]	1.03 [0.93, 1.14]	1.10 [1.00, 1.21]	1.06 [0.95, 1.20]
ASI alcohol score at baseline	49.24 [8.86, 273.55]	2.70 [0.39, 18.79]	23.79 [2.31, 245.58]	1.20 [0.11, 12.60]	3.53 [0.20, 61.56]

OR = odds ratio; CI = confidence interval; ASI = Addiction Severity Index. Results from a multinomial logistic regression model, with adjusted odds ratios for all groups compared to the reference group, those who left their job because they obtained a better job.

Discussion

This study examined reasons for job loss in IPS among a sample of veterans with frequent co-occurring substance use who were homeless and revealed employment patterns that were similar to and different from previous studies of IPS for individuals with SMI. Similar to reports from other studies, the average duration of the first job obtained via IPS was approximately 7 months (Bond & Kukla, 2011; Xie et al., 1997). There was also a high level of agreement between veterans, employment specialists, and employers with regard to the perceived reason for termination, which has been demonstrated in IPS trials for those with SMI (Becker et al., 1998). Encouragingly, mental health problems were infrequently cited as a cause for job termination, consistent with the report from Mak et al. (2006). This study is also consistent with previous studies showing that having a more extensive work history at the time of program entry is associated with obtaining competitive employment, earning more wages, and working more hours (Drake et al., 1996; McGurk, Mueser, Harvey, LaPuglia, & Marder, 2003). In addition, those who left their first job for a better job and those who eventually obtained a second job (regardless of why they left the first) were more likely to have had a greater baseline competitive employment history. Finally, concern about losing benefits was rarely reported, consistent with findings that even when working in IPS, individuals did not approach the work ceiling limits to remain on disability (Drake et al., 2013; Frank, 2013).

A finding that is unique to this study was the relationship that substance use, particularly alcohol use, had with in job terminations and subsequent IPS employment. The most commonly identified primary reason for job termination was drug and/or alcohol use, with nearly one third of terminations attributed to this factor. This is inconsistent with the data reported by Becker et al. (1998) who found that substance use only played a role in 7.9% of all terminations, and with data reported by Mak et al. (2006) who found substance abuse was not related to any IPS terminations, although alcohol use problems were less prevalent in these samples. The current study also showed that when job termination was related to drug/alcohol use veterans were less likely to obtain a second job through IPS. This suggests that, unlike SMI samples, for individuals who are homeless substance use may be a distinctive problem with regards to maintaining or regaining employment. This conclusion is consistent with literature that has highlighted the unique and strong association of substance use and homelessness more generally (Edens, Kaspro, Tsai, & Rosenheck, 2011; Tsai, Mares, & Rosenheck, 2010).

More specifically, the results of this study suggest that it is alcohol, rather than other substances (i.e., illicit drugs) that is primarily implicated in job terminations. Veterans who lost their job because of drugs/alcohol had higher alcohol composite severity scores, but not drug composite severity scores, and

were more likely to have an alcohol use diagnosis but were not significantly more likely to have a substance use diagnosis. Baseline ASI Alcohol composite scores were significantly higher for those who eventually lost their job due to alcohol problems, when compared to those who obtained a better job. These results highlight the distinctive role of alcohol in job loss among veterans who are homeless, in stark contrast to the reasons for job loss commonly reported individuals with SMI who are not homeless.

The significant impact that substances, most notably alcohol, had on job maintenance and regaining employment after an initial job termination highlights the need for integrated, holistic treatment that addresses vocational and housing needs, mental health concerns, as well as substance use. Among the core principles of IPS is rapid job placement and removal of barriers to employment. These analyses may reveal distinctive work-related challenges when these principles are applied to participants who are homeless or alcohol using in IPS and alerts program planners and providers to the need for employment programs that serve adults who are homeless to address alcohol-related problems to facilitate job retention. Our results support the suggestion of Cook et al. (2001) that employment programs for individuals who are homeless may be most effective when combined with additional services that address their substance abuse, including medication, psychotherapy and regular toxicological screening. Supported Employment programs working with individuals who are homeless may do well to incorporate all of these features of comprehensive substance use treatment into their programs, and, perhaps, to include a substance use clinician on their team.

The findings of the current study also highlight possible points for more intensive intervention and support. Given that veterans who are homeless and who lost their initial jobs due to substance use were less likely to obtain a second job, the period after job loss may be a critical juncture at which more intensive, integrated substance use and employment services can be offered to prevent demoralization and support reentry into the workforce. Integrated vocational and substance use services may also need to be implemented at transition points within the justice system. Veterans who lost their job because of drugs/alcohol had significantly more criminal convictions than the other groups, highlighting a potential benefit of incorporating employment and substance use services into criminal justice system diversion programs, correctional settings, or recovery (“halfway”) houses. Within VHA, the Veterans Justice Outreach initiative aims to prevent homelessness among veterans involved with the justice system, which makes this program an ideal location for the introduction of veterans to Supported Employment and substance use services. Recent efforts have supported the feasibility of Supported Employment for individuals involved with the criminal justice system (Becker, Drake, & Bond, 2014).

Another juncture at which integrated employment and substance use may be beneficial is within transitional housing. Within VHA, Transitional Residence programs offer a therapeutic residential setting for veterans involved in CWT who use their earnings to partially defray the costs of their housing. The CWT Transitional Residence program provides a rehabilitation-focused residential setting for veterans recovering from mental illness, severe long-standing substance use disorders, and homelessness (Rosenheck & Seibyl, 1997). Transitional Residence programs provide a bridge between hospitalization or intensive outpatient treatment and successful community reintegration, including employment. Given that individuals in transitional housing tend to have more significant substance use needs (Tsai et al., 2010) and that clients with serious substance use disorders are often referred to transitional programs prior to independent housing (O'Connell, Kaspro, & Rosenheck, 2009), these transitional programs may be a necessary, and perhaps optimal, setting in which substance use treatment can be coupled with Supported Employment to enable veterans who are homeless to maintain employment.

As Housing First models (i.e., supported housing that has no prerequisites and is not contingent on abstinence from substances) gain popularity, it is important to consider the impact of continued substance use and its treatment on recovery. Housing First is an effective housing and treatment intervention that ends and prevents homelessness for individuals with SMI, co-occurring substance use disorders, and health problems (Gulcur, Stefancic, Shinn, Tsemberis, & Fischer, 2003; Tsemberis, Gulcur, & Nakae, 2004). However, though Housing First may effectively address homelessness, it may not address substance use problems (Edens, Mares, Tsai, & Rosenheck, 2011), which this study suggests may contribute to future job loss. Further, it has been suggested that subsidized housing may serve as an economic disincentive for obtaining employment among adults who are homeless (Tsai, Kaspro, & Rosenheck, 2011). As such, it may be of benefit to incorporate integrated Supported Employment and substance use treatment within housing programs to help clients obtain and maintain employment and independence, as opposed to limiting the focus on maintaining housing (Tsai & Rosenheck, 2012).

The current study is limited by the fact that in looking at job terminations, only those who obtained a first job were included. It would be of benefit to examine the factors that influence first job attainment. Further, there are likely multiple factors that contribute to job loss for each individual. This study only reports the primary reason for job loss, whereas many factors are likely to be involved, including more specific behaviors related to alcohol use (e.g., working while intoxicated, absenteeism) that result in termination. Self-report may also limit our data; it is possible that veterans did not report illicit drug use, regardless of if it was occurring. A relatively small proportion of veterans reported job termination due to physical/mental health problems

or “other” reasons. These small proportions may have limited the ability to detect between group differences in reasons for job termination on various measures and so cannot provide information about the characteristics of veterans who are homeless with less common reasons of job termination. Further, although fidelity was deemed “adequate” at most of the nine VHA sites (Rosenheck & Mares, 2007), adequate, but not ideal, implementation of IPS may have somewhat weakened job maintenance (Becker, Smith, Tanzman, Drake, & Tremblay, 2001; Bond, 2007; Bond, Becker, & Drake, 2011; Bond, Peterson, Becker, & Drake, 2012; Drake, Bond, & Rapp, 2006), though it is not clear merely “adequate” fidelity would have affected the reasons for job loss. However, in a study that showed that, over 2 years, people receiving IPS worked more days in an average month than a quasi-experimental control group (Rosenheck & Mares, 2007), this examination of job terminations implicated substance use as the primary factor in a large proportion of terminations. Given that substance use, alcohol use in particular, is a detriment to maintaining employment in this high-risk population, as well as the high occurrence of substance use in individuals with SMI, Supported Employment programs for adults who are homeless may benefit from integrating or embedding substance use treatment into their programs. Future research should determine whether participants in programs that work with individuals with substance use disorders and housing problems benefit from specific approaches to integrating substance use treatment and supported employment (O’Connell et al., 2009).

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