

## Effects of structured vocational services on job-search success in ex-offender veterans with mental illness: 3-month follow-up

James P. LePage, PhD;<sup>1\*</sup> Edward L. Washington, BA;<sup>1</sup> Avery A. Lewis, MS;<sup>1</sup> Kim E. Johnson;<sup>1</sup> Elizabeth A. Garcia-Rea, PhD<sup>2</sup>

<sup>1</sup>Department of Veterans Affairs (VA) North Texas Health Care System, Research and Development Service, Dallas, TX;

<sup>2</sup>St. Louis VA Medical Center, Mental Health, St. Louis, MO

**Abstract**—With the high number of incarcerated veterans with mental illness and substance dependence returning to the community annually, a significant need exists for technologies that will help them return to employment. This study evaluates three methods of assistance: (1) basic vocational services, (2) self-study of a vocational manual designed for formerly incarcerated veterans, and (3) a group led by vocational staff using the vocational manual. We evaluated 69 veterans to determine the number finding employment within 3 months after enrollment in the study. The group format was expected to be superior to self-study, and self-study was expected to be superior to basic services. Though the group format was found to be superior to both self-study and basic services, the results for self-study and basic services were statistically similar. Limitations and directions for future refinement are discussed.

**Clinical Trial Registration:** ClinicalTrials.gov; NCT00648115, “Evaluating Vocational Materials for Incarcerated Veterans With Mental Illness or Substance Abuse”; <http://www.clinicaltrials.gov>.

**Key words:** employment, ex-offenders, homelessness, job-search skills, manualized treatment, mental illness, substance dependence, unemployment, veterans, vocational rehabilitation.

### INTRODUCTION

Based on the most current statistics from the Bureau of Justice Statistics, 225,700 veterans are incarcerated in U.S. jails and prisons [1], with estimated projections of approxi-

mately 64,000 veterans being released from incarceration each year [2]. These veterans, and particularly veterans with mental illness and substance dependence, will face numerous challenges and difficulties. These veterans will have lower levels of social support [3] and more challenges with relationships [4] than those who have not been incarcerated. They will more likely be homeless and with limited options for housing because of legal restrictions [1,3,5]. Medical and mental health will likely be poorer in those with a history of incarceration [3,6–7]. Additionally, almost 80 percent of all those incarcerated in state prisons are estimated to have a history of drug use [8]; this high interrelationship between incarceration and substance dependence will pose additional difficulties for veterans trying to maintain independence in the community.

**Abbreviations:** DRRTP = Domiciliary Residential Rehabilitation and Treatment Program, GDP = gross domestic product, MIRECC = Mental Illness Research, Education and Clinical Center, SD = standard deviation, VA = Department of Veterans Affairs, VAMC = VA medical center, VERC = Veterans Employment Resource Center, VISN = Veterans Integrated Service Network, VRC = vocational rehabilitation counselor.

\*Address all correspondence to James P. LePage, PhD; VA North Texas Health Care System, Research and Development Service, 4500 S Lancaster (151), Dallas, TX 75216; 214-857-0240; fax: 214-857-0340. Email: [james.lepage@va.gov](mailto:james.lepage@va.gov)  
DOI:10.1682/JRRD.2010.03.0032

Beyond the issues that affect the individual, incarcerated veterans also impose a high financial cost to society. Because approximately 8 percent of combined Federal and state prisoners are veterans, the cost attributed to maintaining incarcerated veterans is estimated to be >\$3 billion annually [2]. This does not consider the cost to gross domestic product (GDP). If an estimate of \$150 billion in lost GDP from all those incarcerated is used [7], incarcerated veterans cause an additional annual cost to the economy of approximately \$12 billion.

It is in the area of employment that those with histories of incarceration experience the most significant limitations. Findings indicate that 40 percent of those with felony histories experience unemployment during any given week. The findings are even more severe for male African-American ex-offenders who may have unemployment rates as high as 55 percent during any given week [9]. These difficulties result in lifetime earnings that are 10 to 30 percent lower than for those without a felony [10].

Ex-offenders seeking assistance through vocational services, especially in an urban setting, have many difficulties. In a study of 112 veterans with felony histories seeking employment services, LePage et al. found that more than approximately 50 percent considered themselves homeless, with the number increasing to 67 percent if those living with family and friends were included [2]. Among the ex-offender veterans with mental illness or substance dependence, 33 percent had at least one psychiatric hospitalization and 17 percent reported at least one suicide attempt. This population demonstrated a high level of historical contact with the legal system. The average number of felony convictions was 2.6, and the average number of arrests was 6.8. Additionally, more than 66 percent had been arrested for probation or parole violations.

Unemployed ex-offender veterans do not benefit from the significant positive effects associated with employment. Studies show that employment is positively associated with mental health functioning [11–12], as well as with improved abstinence across substances, including alcohol [13], opiates [11], and cocaine [14]. Employment can also affect rearrests. For example, results from a Drug Treatment Alternative-to-Prison program found that 33 percent of those without employment were rearrested within 3 years of release compared with only 13 percent of those with employment [15].

Even when veterans are in highly structured and supportive environments, significant negative associations between employment and felony convictions have been found. LePage et al. examined the impact of incarceration

on employment among veterans in a Department of Veterans Affairs (VA) homeless Domiciliary Residential Rehabilitation and Treatment Program (DRRTP) located on the grounds of an urban VA medical center (VAMC) [16]. As part of the DRRTP, veterans worked with a full-time vocational rehabilitation team to develop vocational plans, create résumés, practice interviewing, and perform full-time job searches. The association between incarceration and failure in employment search was dramatic. In this very supportive system, only 29.4 percent of veterans with non-drug-related felonies found competitive employment as compared with 70.2 percent of those without felonies.

The difficulties encountered by veterans with felonies are due to both internal and external factors. Both lack of use of skills and changing technologies during incarceration can reduce a veteran's marketable work skills [6]. Incarceration also limits the social networks veterans can draw on to assist in finding employment [6]. Additionally, employers' perceptions that some types of crimes, such as violent and sex crimes, are worse than others may further limit the job opportunities for a subset of formerly incarcerated veterans [17].

Labor realities and economic factors also place pressure on veterans with histories of incarceration. Studies have shown that ex-offenders are the least likely subgroup to be hired [17], and many professions are not available to ex-offenders for statutory reasons [7,18]. Veterans who are released often return to areas with high concentrations of other felons [13]. Termed "employment saturation," this high number of formerly incarcerated individuals compete with one another for the limited pool of available jobs, serving to keep wages low [7,19]. This frequently forces those with histories of incarceration to return to crime to subsist [17].

Combined with the external barriers to employment, studies have found that ex-offenders often lack many basic job-search skills. They may also lack the social skills for presenting themselves positively during an interview [20–21] and frequently do not know how to discuss their legal history in the least damaging way [7]. They may be unaware of job restrictions and employment saturation [6–7,19] and spend time focused on low-probability options. They may have expectations for employment that are unrealistic for entry-level positions [17] or may take a passive approach in searching for employment [22]. Additionally, they may lack the confidence to actively job search, assuming the effort is not worth the rejection [20–21,23].

Evidence exists that information tailored to ex-offenders can assist them in obtaining employment. Enhancing interview skills through mock interviews and critiques [7], educating ex-offenders on the presentation of their legal history [7], and providing information about employment saturation [7,19] are some of the areas shown to be beneficial. This study capitalizes on these areas through the use of the "About Face" manualized vocational program, a manual designed to help ex-offenders searching for employment. Veterans were enrolled in one of three conditions: (1) basic (i.e., search without manual), (2) self-study (i.e., search using manual as a self study modality), and (3) full program (i.e., search after vocational staff-led classes using the manual). We expected that more participants in the self-study condition than in the basic condition would find employment within 3 months of enrollment and that more participants in the full program than in the self-study condition would find employment within 3 months of enrollment.

## METHODS

### Subjects

Sixty-nine veterans (67 male, 2 female) from the "About Face" vocational rehabilitation study were enrolled. The average age was 50.5 years (standard deviation [SD] = 5.8). Sixty-one (88.4%) were racial or ethnic minorities. All veterans had been convicted of at least one felony and had a mental health diagnosis that could include Substance Dependence or Substance Dependence in Remission. Twenty-eight (40.6%) were homeless at the time of enrollment. The only exclusion criteria were seeking disability because of unemployability, having a diagnosis of dementia, or having any interfering psychosis. Active drug use was not an exclusion criterion, but veterans were not allowed to use study resources if they appeared intoxicated. Only veterans who did not live at the VAMC were included.

### Setting

The veterans were seen as part of "About Face," a VA Rehabilitation Research and Development-funded project focused on determining best practices for helping veterans with felonies and co-occurring mental illness and substance dependence return to employment. Veterans in the study had access to the Veterans Employment Resource Center (VERC) on the grounds of the Dallas VAMC.

### Description of Surrounding Area

The Dallas VAMC is located in an urban area within 5 miles of downtown. Dallas and 12 of the surrounding cities are served by integrated public transportation covering approximately 700 square miles. Statistics suggest that jobs in the Dallas area are 35.5 percent professional; 25.0 percent sales; 16.5 percent service; 12.0 percent production/transportation; 10.0 percent construction, maintenance; 1.0 percent farming; and 12.0 percent other.

Like many urban settings, Dallas has seen an increase in unemployment. Based on Bureau of Labor Statistics data, unemployment almost doubled from the recent low of 4.4 percent in April 2008 to 9.2 percent in January 2010 ([www.bls.gov/data](http://www.bls.gov/data)).

### Materials

The "About Face" vocational manual [24], referred to from this point on as "the Manual," was developed through a Veterans Integrated Service Network (VISN) 16 Mental Illness Research, Education and Clinical Center (MIRECC) Education Grant. The Manual is 72 pages long and covers important employment-seeking domains, such as identifying past successes and difficulties; identifying job-related, transferable, and adaptive job skills; developing résumés and brief skill descriptions; answering difficult questions; and learning interview strategies. Though the Manual is lengthy, its Flesch-Kincaid reading level is 6.8th grade.

Prior to the Manual's development, 200 veterans were interviewed to obtain their opinions about what they perceived to be their vocational rehabilitation needs, limitations, and barriers. This information was combined with the traditional vocational group content in the development of the Manual. During development, four focus groups—a total of 22 veterans—were convened to make suggestions and review the Manual and progress. Among these veterans, 63 percent had mental health diagnoses, 81 percent had substance dependence diagnoses, and 59 percent had felony convictions; the high rate of sampling of these cohorts assured the Manual was relevant to populations with difficulties obtaining employment. The final version of the Manual was rated by veterans for difficulty and ease of use. On a 5-point rating scale with 1 = "very difficult" and 5 = "very easy," the average rating was 3.7. Moreover, 100 percent of the veterans rated the Manual as "very" useful, 77 percent felt the Manual would be "very" beneficial, and 70 percent felt the Manual would prepare them "very" well for job search.

The Manual targets the important areas identified by the veterans who were interviewed and from research from other settings. Within the Manual, veterans begin by developing a list of proficiencies and aspirations. They then develop a list of their skills chosen from skills beneficial to most employers. Key to the skill list is the development of examples of these skills, which the veterans can then use while marketing themselves to employers.

The Manual focuses veterans on developing a basic but professional résumé. Examples are included, as is a do-it-yourself section that allows veterans to “plug-in” skills and examples. This is tailored to be simple enough that someone with access to a word processor can create it.

The Manual also incorporates the latest approaches to helping those with felonies interview and present work-relevant skills. It provides examples of answers to difficult questions and allows veterans to tailor their answers to their specific situation. Also, a large section focuses on the specific problem areas potentially encountered by veterans with felonies. Emphasis is also placed on nontraditional job-search methods, including developing a network of friends and contacts to assist the veteran and performing cold calls to generate employment leads. Suggestions for scripts and procedures are provided.

Following development, the Manual was piloted in three 1-week vocational rehabilitation classes. Seventeen homeless veterans with felony histories living on a DRRTTP completed a group manualized vocational program, similar to the one tested in this study, with groups led by a vocational rehabilitation specialist. The average time without stable employment before completing the classes was 9.8 months ( $SD = 11.5$ ). After completion of the classes, the average time before finding employment was 2.6 months ( $SD = 1.7$ ). The number of months unemployed before and after the classes significantly differed,  $t(16) = 2.678$ ;  $p < 0.02$ ; Cohen  $d = 0.87$ .

The Manual is available upon request in PDF format from the first author.

## Design

Three conditions were evaluated: (1) basic (i.e., job search without the Manual), (2) self-study (i.e., job search using the Manual as a self-study modality), and (3) full program (i.e., job search after completing the Manual in classes led by vocational staff). Because the vocational classes were offered once every 3 weeks to assure adequate numbers of attendees, condition assignment was based on week of enrollment. This process

allowed the longest wait time between enrollment and commencement of classes to be 7 days. Had traditional random assignment been pursued, a wait time of 21 days might have been possible. Our assignment method contributed to disparate sample sizes among conditions.

## Common Methods

All participants, regardless of condition, were given access to basic vocational resources through a VERC, a dedicated area at the Dallas VAMC. The VERC was staffed by a vocational rehabilitation counselor (VRC), a rehabilitation counselor, and clerical staff. Though veterans received different levels of assistance depending on experimental condition, all veterans were able to access the Internet for job searches, create and email résumés, watch DVDs on job applications and interviewing, and make telephone calls to set up interviews.

All enrolled veterans performed a videotaped practice interview at enrollment and then a second videotaped practice interview 1 week later. In the full program condition, vocational staff reviewed and critiqued the interviews with the veteran. Veterans in the basic and self-study conditions performed the interviews but received no feedback from staff; this procedure was implemented to control for potential effects of practicing interviews.

During the 3-month follow-up period, all veterans in the study were asked to return at least once a month to update assessments and job-search status. Veterans who returned every 2 weeks were entered into a raffle for \$100, with one winner each month. Additionally, all veterans who returned every 2 weeks received 2 weeks of passes for local public transportation; veterans could receive up to 3 months of passes. Veterans who could not come to the VERC were called and assessments were completed by telephone. Though contact was sporadic throughout the 3-month follow-up phase, 100 percent of veterans provided information about employment status during the 3-month follow-up period.

## Condition 1: Basic

Veterans in the basic condition received access to the resources in the VERC but no other assistance. Specifically, veterans in this condition received neither the manualized vocational program nor the interactive classes with staff. Staff were limited in the services and advice they could provide, only giving information about how to use the resources in the VERC.

### Condition 2: Self-Study

Veterans in the self-study condition received all the resources available to condition 1, but also received the Manual. They were instructed to work on the Manual during the week between the first and second practice interviews. Staff were limited in the services and advice they could provide, only giving information about how to use the resources in the VERC.

### Condition 3: Full Program

Veterans in the full program condition had access to all services provided by the study. In addition to access to the VERC and the Manual, veterans received in-person, interactive employment-seeking classes following the strategies used in the Manual. The classes took place between the first and second practice interviews. The classes allowed for individualized support and personalized examples to be developed and practiced in a week-long standardized vocational reintegration class led by a VRC. The VRC guided veterans through the sections of the Manual and helped tailor examples and information to meet the veterans' needs. The class lasted 1 week and took approximately 20 hours to complete. A sample schedule appears in **Table 1**.

**Table 1.**  
Sample schedule for groups in full program condition.

Day	Activity
Monday	Videotape first practice interview. Orientation. Job-related skills. Transferable skills. Adaptive skills.
Tuesday	Opening and closing statements. Brief summary. Applications. Interview dos and don'ts. How to answer specific questions.
Wednesday	How to answer specific questions. How to answer general questions. Résumé. Completing applications. Networking. Cold calling.
Thursday	Working on answering questions.
Friday	Videotape second practice interview. Review of videotape practice interview. Job fairs. Job banks. Internet.

Before conducting the vocational reintegration class, the VRC was trained in the use of the Manual, observed at least two classes run by the principal investigator, and conducted at least 1 week of classes while monitored for fidelity by the principal investigator. Once fidelity was obtained, the VRC began to provide classes to subjects.

The full program condition addressed the following areas:

- Enhancement of interview skills through mock interviews and critiques.
- Education on presentation of legal history tailored to personal history.
- Creation and editing of résumé and brief summary of skills.
- Practice performing cold calls.
- Assistance in developing answers for questions, opening statements, and closing statements.
- Education on employment saturation.
- Feedback on strengths and weaknesses.
- Advice on appropriateness of employment goals and strategies.

### Outcomes

The primary outcome measure for this study was the obtainment of "competitive employment" within 3 months of enrollment. Our definition of competitive employment was consistent with the Department of Labor's: (1) a paid position that is open to anyone (not set aside for people with disabilities), (2) in a mainstream integrated setting (i.e., working alongside those without disabilities), (3) paying at least minimum wage (\$7.25 an hour in Texas at the time of this study), and (4) "owned" by the veteran—not sheltered or jobs guaranteed by employer to be filled from consumers of a particular mental health/service agency. Additionally, employment through a temporary agency or day labor service was not considered competitive employment. Though many definitions for "employed" exist, working 1 day of competitive employment was used as a threshold for success because this evaluation focused on the obtainment of employment.

### RESULTS

Due to the group assignment technique used, 15 veterans were placed in the basic condition, 33 in the self-study, and 21 in the full program. To assure conditions

were statistically similar, we compared the conditions for differences within demographic, legal, and mental health variables. Overall, no differences existed between groups in terms of racial/ethnic status,  $\chi^2(8, n = 69) = 7.7; p > 0.40$ ; drug-related felonies,  $\chi^2(2, n = 69) = 1.8, p > 0.35$ , or violent felonies  $\chi^2(2, n = 69) = 2.6, p > 0.25$ ; substance dependence,  $\chi^2(2, n = 69) = 1.9, p > 0.35$ ; comorbid substance and mental health-related diagnoses,  $\chi^2(2, n = 69) = 1.2, p > 0.50$ ; marital status,  $\chi^2(8, n = 69) = 7.3, p > 0.50$ ; or types of work being sought,  $\chi^2(10, n = 69) = 9.6, p > 0.40$ . Groups were similar in age,  $F(2,66) = 0.13, p > 0.80$ ; number of felony convictions,  $F(2,66) = 0.48, p > 0.60$ ; number of nonfelony convictions,  $F(2,66) = 0.34, p > 0.70$ ; amount of time incarcerated in the past 10 years,  $F(2, 66) = 0.12, p > 0.80$ ; number of psychiatric hospitalizations,  $F(2,66) = 1.6, p > 0.20$ ; and number of suicide attempts,  $F(2,68) = 1.6, p > 0.15$ . The combination of the above variables using multinomial logistic regression failed to find

significance between groups,  $\chi^2(46, n = 69) = 51.1, p > 0.25$ . **Table 2** provides breakdowns by condition.

Overall, results found that the full program was superior to other conditions. Pearson chi-squares were performed to assess for differences between conditions in the number of veterans who found employment. A significant difference was found between conditions on the number of veterans finding competitive employment,  $\chi^2(2, n = 63) = 8.8, p < 0.05$ . An examination of the conditions revealed that the full program (number hired = 5, 23.8%) was superior to both the basic condition (number hired = 0, 0%),  $\chi^2(1, n = 36) = 4.1, p < 0.05$ , and the self-study condition (number hired = 1, 3%),  $\chi^2(1, n = 54) = 5.6, p < 0.05$ . No difference was found between the basic and self-study conditions,  $\chi^2(1, n = 48) = 0.46, p > 0.40$ .

To further evaluate the rate of hiring, we performed Kaplan-Meier survival analyses. Not unexpectedly, a significant difference was found between conditions,  $\chi^2(2, n = 69) = 9.2, p < 0.01$ . What was revealing is that even in the most

**Table 2.**

Descriptive information by vocational rehabilitation condition. No significant differences were found. Data shown as either mean  $\pm$  standard deviation or  $n$  (%).

Characteristic	Condition		
	Basic ( $n = 15$ )	Self-Study ( $n = 33$ )	Full Program ( $n = 21$ )
<b>Demographics</b>			
Age	50.8 $\pm$ 6.6	50.1 $\pm$ 6.0	51.0 $\pm$ 5.80
Racial or Ethnic Minority	14 (93)	29 (88)	18 (86)
Marital Status: Unmarried/Separated	13 (87)	27 (82)	19 (90)
Homeless	4 (27)	17 (52)	7 (33)
<b>Occupation</b>			
Clerical	1 (7)	1 (3)	1 (5)
Sales	1 (7)	2 (6)	0 (0)
Service Worker	3 (20)	8 (24)	1 (5)
Craftsman, Operative, Laborer	8 (53)	14 (42)	9 (83)
Military	1 (7)	2 (6)	0 (0)
Professional, Technical, Managerial	1 (7)	5 (15)	6 (29)
<b>Crime</b>			
Violent	1 (7)	7 (21)	6 (29)
Drug-Related	9 (60)	14 (42)	8 (38)
No. of Felony Convictions	2.7 $\pm$ 1.7	2.9 $\pm$ 1.9	2.4 $\pm$ 1.8
No. of Nonfelony Convictions	7.3 $\pm$ 15.5	4.9 $\pm$ 4.0	5.7 $\pm$ 9.3
No. of Months Incarcerated in Past 10 Years	31.1 $\pm$ 39.1	34.0 $\pm$ 39.7	29.0 $\pm$ 36.2
<b>Mental Health</b>			
Substance Dependent	13 (87)	28 (85)	15 (71)
Comorbid Substance and Mental Health	8 (53)	12 (36)	9 (43)
No. of Psychiatric Hospitalizations	1.7 $\pm$ 3.3	1.0 $\pm$ 2.0	0.42 $\pm$ 0.97
No. of Suicide Attempts	0.60 $\pm$ 0.98	0.20 $\pm$ 0.60	0.20 $\pm$ 0.62

successful condition, the full program, none of the enrolled participants found employment within the first month of job search. The **Figure** graphs the survival plot.

To assess the association between the use of the VERC and outcomes, we evaluated the number of visits to the VERC; visits due to group attendance or enrollment requirements were excluded. Numbers between conditions were generally similar,  $F(2,66) = 0.57$ ,  $p > 0.50$ . The mean number of visits was as follows: basic condition = 3.4 (SD = 2.5; range = 1–9), self-study condition = 2.7 (SD = 3.3; range = 1–16), and full program condition = 3.1 (SD = 2.9; range = 1–8). Though no differences were found between conditions, a significant difference was found between those who found employment and those who did not. Those who obtained employment used the VERC more than twice as often, 7.3 visits (SD = 5.0) versus 2.7 (SD = 2.4);  $F(1,67) = 15.9$ ,  $p < 0.001$ . Because this effect may have accounted for the successes of the full program, we performed logistic regression forcing the number of visits into the model in the first step, followed by the experimental condition in the second step. Even after the number of visits was accounted for, the conditions remained a significant predictor of success,  $\chi^2(2, n = 69) = 9.1$ ,  $p < 0.01$ .

A number of historical and clinical variables were evaluated to determine their relationship to being hired. Overall, the following variables were found to be unrelated to finding employment: racial/ethnic status, drug-related

felony convictions, violent felony convictions, substance dependence, comorbid substance and mental health-related diagnoses, marital status, types of work being sought, age, number of felony convictions, number of nonfelony convictions, amount of time incarcerated in the past 10 years, number of psychiatric hospitalizations, and number of suicide attempts.

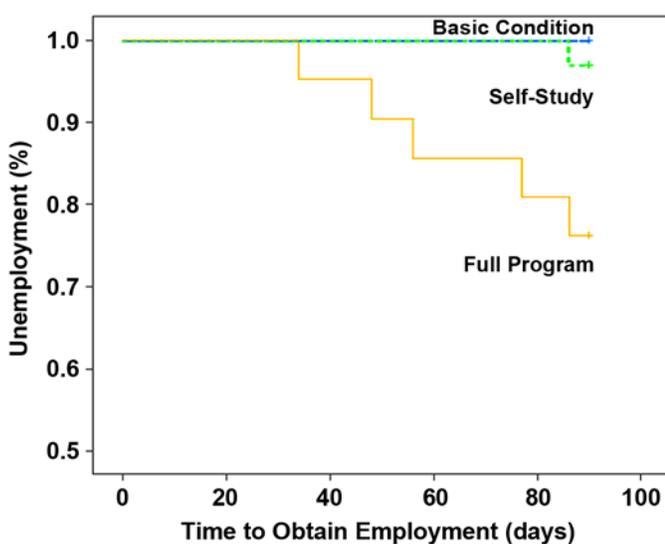
## DISCUSSION

The findings support the use of standardized vocational materials for ex-offenders in a group setting. The results found that those who participated in the group setting with trained vocational staff using the manualized program benefited more than those to whom the group and staff were not available. Findings from the 3-month follow-up showed 23.8 percent of veterans with felonies and mental illness and/or substance dependence in the full program found competitive employment. This was in stark contrast to the basic condition (0%) and self-help condition (3.0%).

The findings also indicated that use of services such as the VERC was associated with employment success. As use of the VERC may have been a general index of effort, no causation can be determined. However, the encouragement of the use of these types of resources could be an area of future exploration. Additionally, an effect of the experimental conditions was found, even when we accounted for use.

Findings suggest that the self-study program as presented, even with materials targeting ex-offender populations, is inferior over a 3-month period to the group format in preparing veterans for obtaining employment and no different from the basic services. This finding was surprising and unexpected. A fuller evaluation of the effectiveness of self-study resources over a longer period is in progress. The results also did not demonstrate significant differences for variables traditionally predicting success in finding employment (e.g., violent felonies, time incarcerated, comorbid mental health diagnoses). This finding is likely the result of the relatively homogenous population.

A number of causes may explain the unexpected finding of the self-study condition. The veterans in the study possibly lacked the skills necessary to generalize the information learned and apply it to their situations. Additionally, even if veterans were able to change their



**Figure.** Time to find competitive employment over 3-month period.

responses based on what they learned in the Manual, the lack of practice and feedback may have limited their confidence in what they learned, a factor that may have resulted in the techniques being abandoned or performed poorly.

The study had a number of limitations. The first and most important is the assignment to condition by week of enrollment. Though important to providing faster access to the services, this could have added error into the design. Specifically, though it was not publicly known which week would result in which condition, very motivated veterans could have found out which weeks enrollment into the full program would occur and waited until those weeks to enroll. As such, even though the samples were similar in demographics, substance dependence, mental health, legal histories, and housing, some aspects within the samples might not have been measured and thereby skewed the results.

A second limitation is the extent to which those in the self-study condition actually reviewed, completed, and integrated the information presented. It is possible that the veterans who received the Manual may not have effectively used it; however, this could be a natural reaction of this population to receiving a self-help manual and likely has ecological validity. Also possible is that those who received the Manual may have received a false sense of confidence and then failed to practice the skills or to use other resources available to them within the VERC.

Finally, the issues related to substance use need to be evaluated in the future. This study sought to mirror as much as possible the realities of working with this population, including no regular substance testing. As such, we were unable to determine the role substance use may have played in employment success. However, substance use may have prevented the use of effective search strategies or reduced effort. The role of active substance use will be targeted in future studies.

A larger issue to be addressed in ongoing follow-up studies is employment maintenance and long-term follow-up. The current definition of success, i.e., finding employment, is the critical first step to maintaining independence. However, future follow-up studies will need to use a broader multidefinitional view of employment, including days missed, time on job, and changes in employment. Additionally, the 3-month follow-up only assessed the rapid attainment of employment and, as such, does not inform on employment retention. Follow-up for 1 year is

planned to assess long-term changes and to determine when, if ever, rates equalize.

The findings lead to several obvious future areas of investigation. Because self-help models may be of limited benefit in short-term employment attainment, ways of providing group or individualized services to those who do not have easy access to a VAMC must be considered. These could include services in outpatient clinics, veteran centers, and community sites. Also, groups such as Alcoholics Anonymous, Cocaine Anonymous, or other patient-centered programs could be used as group sites. Additionally, technology could be developed to provide assistance to veterans in more remote areas or with limited resources. This could include the development of Internet-based ways of engaging veterans while providing personalized assistance. Additionally, the use of Supported Employment for this population may be a promising direction. Having demonstrated strong efficacy with mental health patients, Supported Employment's assistance in obtaining employment, working with veterans to maintain employment, and liaising with employers if employees are having difficulty could provide an excellent adjunct to traditional vocational programs for ex-offenders.

## CONCLUSIONS

This study supports the use of the "About Face" manual in a group setting where job-search requirements can be tailored to individual needs. We found limited evidence over the relatively short follow-up period that veterans with felonies and mental health and/or substance dependence have the ability to translate self-help information into rapid success in seeking employment. Though we hoped a self-help model of rehabilitation would provide a less expensive alternative to staff-led assistance, the results did not support this. Instead, at least over the 3-month period, the self-help model was not effective in helping the veterans obtain employment.

The results did find support for structured standardized groups focused on obtaining employment. Such services may be vital to assisting this difficult-to-employ population. This finding should encourage service providers, case managers, and referral sources to seek or develop these opportunities for these veterans.

## ACKNOWLEDGMENTS

### Author Contributions:

*Study concept and design:* J. P. LePage, E. A. Garcia-Rea.

*Acquisition of data:* E. L. Washington, A. A. Lewis, K. E. Johnson.

*Analysis and interpretation of data:* J. P. LePage, A. A. Lewis.

*Drafting of manuscript:* J. P. LePage.

*Statistical analysis:* J. P. LePage.

*Obtained funding:* J. P. LePage, E. A. Garcia-Rea.

**Additional Contributions:** We would like to acknowledge Brandi Davis and Annie Glasgow for assisting with this project.

**Financial Disclosures:** The authors have declared that no competing interests exist.

**Funding/Support:** This material was based on work supported by the Rehabilitation Research and Development Service (grant D6192-R), a VISN 16 MIRECC Clinical Education Grant Program grant, and VA North Texas Health Care Salary Support.

**Institutional Review:** The VA North Texas Health Care System Institutional Review Board reviewed and approved this project.

**Participant Follow-Up:** The authors plan to inform participants of the publication of this study.

## REFERENCES

- Noonan ME, Mumola CJ. Veterans in State and Federal prisons, 2004. Washington (DC): Bureau of Justice Statistics, U.S. Department of Justice; 2007. Report No.: NCJ 217199.
- LePage JP, Washington EL, Lewis AA, Johnson KE, Garcia-Rea EA. The effects of structured vocational services on job search success in ex-offender veterans with mental illness: 3-month follow-up. Paper presented at: the VA Psychology Leadership Conference; 2010 May; San Antonio, TX.
- McQuire JF, Rosenheck RA. Criminal history as a prognostic indicator in the treatment of homeless people with severe mental illness. *Psychiatr Serv*. 2004;55(1):42–48. [PMID: 14699199]
- Haney C. Psychology and the limits to prison pain: Confronting the coming crisis in eighth amendment law. *Psychol Public Policy Law*. 1997;3(4):499–588. DOI:10.1037/1076-8971.3.4.499
- California Department of Corrections. Prevention parole failure program: An evaluation. Sacramento (CA): California Department of Corrections; 1997.
- Western B, Kling JR, Weiman DF. The labor market consequences of incarceration. *Crime Delinq*. 2001;47(3):410–27. DOI:10.1177/001128701047003007
- Solomon AL, Johnson KD, Travis J, McBride EC. From prison to work: The employment dimensions of prisoner reentry [Internet]. Washington (DC): Urban Institute; 2004. Available from: <http://www.urban.org/publications/411097.html>
- La Vigne NG, Kachnowski V. Texas prisoners' reflections on returning home [Internet]. Washington (DC): Urban Institute; 2005. Available from: <http://www.urban.org/publications/311247.html>
- Freeman R. Crime and the employment status of disadvantaged young men. In: Peterson G, Vroman W, editors. *Urban labor markets and job opportunities*. Washington (DC): The Urban Institute Press; 1992. p. 201–33.
- Snyderman GS. Rehabilitating the ex-offender, ex-addict. *Int J Addict*. 1974;9(5):701–17. [PMID: 4443146]
- Brewer DD, Catalano RF, Haggerty K, Gainey RR, Fleming CB. A meta-analysis of predictors of continued drug use during and after treatment for opiate addiction. *Addiction*. 1998;93(1):73–92. [PMID: 9624713] DOI:10.1046/j.1360-0443.1998.931738.x
- Reynolds GL, Fisher DG, Estrada AL, Trotter R. Unemployment, drug use, and HIV risk among American Indian and Alaska Native drug users. *Am Indian Alsk Native Ment Health Res*. 2000;9(1):17–32. [PMID: 11279551]
- Pelc I, Ansoms C, Lehert P, Fischer F, Fuchs WJ, Landron F, Pires Preto AJ, Morgan MY. The European NEAT Program: An integration approach using acamprosate and psychosocial support for the prevention of relapse in alcohol-dependent patients with a statistical modeling of therapy success prediction. *Alcohol Clin Exp Res*. 2002;26(10):1529–38. [PMID: 12394286]
- McKay JR, Merikle E, Mulvaney FD, Weiss RV, Kopenhagen JM. Factors accounting for cocaine use two years following initiation of continuing care. *Addiction*. 2001;96(2):213–25. [PMID: 11182866] DOI:10.1046/j.1360-0443.2001.9622134.x
- Sung HE. Rehabilitating felony drug offenders through job development: A look into a prosecutor-led diversion program. *Prison J*. 2001;81(2):271–86. DOI:10.1177/0032885501081002007
- LePage JP, Bluit M, House-Hatfield T, McAdams H, Burdick M, Dudley D, Michaels S, Merrel C, Otto S, Jenger-Gvist J, Eisworth J, Newton JA, Gaston C. Improving success in a veterans homeless domiciliary vocational program: Model development and evaluation. *Psychol Rehabil*. 2005;50(3):297–304. DOI:10.1037/0090-5550.50.3.297
- Holzer H, Raphael S, Stoll MA. Employment barriers facing ex-offenders [Internet]. Washington (DC): Urban Institute; 2003. Available from: <http://www.urban.org/publications/410855.html>
- Harris PM, Keller KS. Ex-offenders need not apply: The criminal background check in hiring decisions. *J Contemp Crim Justice*. 2005;21(1):6–30. DOI:10.1177/1043986204271678
- Visher C, La Vigne NG, Travis J. Returning home: Understanding the challenges of prisoner reentry. Maryland pilot study: Findings from Baltimore [Internet]. Washington (DC): Urban Institute; 2004. Available from: <http://www.urban.org/publications/410974.html>

20. Hoffman H, Kupper Z, Kunz B. Hopelessness and its impact on rehabilitation outcome in schizophrenia—An exploratory study. *Schizophr Res*. 2000;43(2–3):147–58. [\[PMID: 10858633\]](#)  
[DOI:10.1016/S0920-9964\(99\)00148-6](#)
21. Michon HW, Van Weeghel J, Kroon H, Schene AH. Person-related predictors of employment outcomes after participation in psychiatric vocational rehabilitation programmes—A systematic review. *Soc Psychiatry Psychiatr Epidemiol*. 2005;40(5):408–16. [\[PMID: 15902412\]](#)  
[DOI:10.1007/s00127-005-0910-5](#)
22. Alverson H, Carpenter E, Drake RE. An ethnographic study of job seeking among people with severe mental illness. *Psychiatr Rehabil J*. 2006;30(1):15–22. [\[PMID: 16881241\]](#)  
[DOI:10.2975/30.2006.15.22](#)
23. Hoffmann H, Kupper Z, Zbinden M, Hirsbrunner H. Predicting vocational functioning and outcome in schizophrenia outpatients attending a vocational rehabilitation program. *Soc Psychiatry Psychiatr Epidemiol*. 2003;38(2):76–82. [\[PMID: 12563549\]](#)  
[DOI:10.1007/s00127-003-0603-x](#)
24. LePage JP. Vocational rehabilitation and veteran ex-offenders: A manualized vocational reintegration program. Paper presented at: the South Central MIRECC Bringing Science to Practice web-based conference series; 2007 Jun.

Submitted for publication March 10, 2010. Accepted in revised form November 22, 2010.

This article and any supplementary material should be cited as follows:

LePage JP, Washington EL, Lewis AA, Johnson KE, Garcia-Rea EA. Effects of structured vocational services on job-search success in ex-offender veterans with mental illness: 3-month follow-up. *J Rehabil Res Dev*. 2011;48(3):277–86. DOI:10.1682/JRRD.2010.03.0032

