Vocational Interests and Needs of Unemployed, Low-Education Adults with Severe Substance Abuse Problems in Anchorage, Alaska

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ABSTRACT

Vocational assessment data were collected from 94 low-education adults with severe substance abuse problems not currently in treatment. Participants completed the My Vocational Situation (MVS), Self-Directed Search (SDS), and Reading-Free Vocational Interest Inventory (R-FVII). Lower scores than the normative sample were revealed on all MVS scales, with scores for men being significantly lower than the normative sample. These findings indicate that these participants, particularly the men, lack a clear and stable view of their occupational future, need information to clarify their occupational options and goals, and perceive multiple barriers in attaining employment. SDS and R-FVII results provide detailed information about these participants’ occupational interests and vocational likes and dislikes. These findings highlight vocational counseling and guidance as critical needs for individuals with severe substance abuse problems who are unable or unwilling to seek treatment. Providing vocational services to this out-of-treatment population may be an essential pathway for their long-term recovery.

Keywords: Employment Barriers, Occupational Information, Occupational Interests, Substance Abuse, Vocational Assessment, Vocational Counseling

INTRODUCTION

Within the substance abuse treatment community, gaining and maintaining gainful employment is recognized as a critical component of successful treatment and long-term recovery. For example, Lamb et al. (1996) found that stability of one’s occupational role before entering treatment was strongly related to retention in substance abuse treatment. Conversely,
Milby et al. (2010) found that longer abstinence after treatment was associated with increased likelihood of stable employment. Given this relationship between employment and long-term treatment outcomes, considerable research has been conducted into the effects of adding vocational rehabilitation services into substance abuse treatment programs (Platt, 1995). What has drawn less research attention is the provision of such services to individuals with severe substance abuse problems who are unable or unwilling to seek treatment. Following, we review the research literature on the effects of providing vocational rehabilitation services within substance abuse treatment. This literature review provides the basis for this study’s focus on the vocational needs of individuals who have serious substance abuse problems but are not currently in treatment.

LITERATURE REVIEW

Research into the effects of providing vocational rehabilitation in substance abuse treatment has followed three main lines of inquiry. The first type of research has focused on identifying external barriers to employment in drug users, including the lack of jobs due to local economic environments, or a scarcity of jobs that are structured in such a way that recovering individuals can perform them. Two examples of this research include the evaluation of the Wildcat experiment (Friedman, 1978) and the National Supported Work Demonstration Project (Dickinson, 1981). These programs included intensive case management and supportive services in addition to providing subsidized employment. Successful outcomes of these projects included longer length of participation in treatment programs and movement from subsidized to unsubsidized jobs.

Platt, Widman, Lidz, Rubenstein, and Thompson (1998) and Vines and Mandell (1999) focused on the assessment of external barriers to employment among individuals with substance addictions and ways in which treatment programs can reduce the barriers through collaborative relationships with other service providers. Schottenfeld, Pantalon, Chawarski, and Pakes (2000) found that a community reinforcement approach to drug treatment that included engagement in alternative activities (such as work and family activities) for opiate and cocaine addicts was effective. This research attempted to quantify the amount of time spent on various activities to understand the impact of positive and negative uses of time on recovery from addiction, and to provide external community support to the individual in spending time on positive activities. French, Dennis, McDougal, Karuntzos, and Hubbard (1992), conducted a large effort to assess the need for and efficacy of training and employment programs in methadone maintenance. These researchers found that the participants had a strong interest in such services but had somewhat unrealistic expectations about their value.

The second type of research has focused on addressing individual or personal barriers that people with severe substance abuse problems experience with respect to employment. Programs to address these barriers have attempted to increase personal skills to enhance the prospects for gainful employment. An example of this type of program was developed by Loeb, LeVois, and Copper (1981). Designated the Job Seeker’s Workshop, the content of this program involved three components: job interviewing skills, instruction in the completion of application forms, and job search procedures. The intent of these skill building components was to increase the likelihood that participants could find gainful employment. Platt, Husband, Hermalin, Cater, and Metzger (1993) developed an intervention for methadone maintenance clients that focused on problem-solving skills and interpersonal skills as a way to facilitate employment among this group.

The third line of inquiry of researchers has investigated differences in underlying psychological symptomatology between employed and unemployed drug users. Szirony (1997)
found that MMPI-2 Work Interference Scale differences among incarcerated substance abusers were statistically significant between those who were employed and those who were not employed before incarceration. Higher scores on this scale were associated with low self-esteem, anxiety, and depression. Johnson, Reynolds, and Fisher (2001) found differences between out-of-treatment drug users reporting employment and those reporting unemployment on several domains of psychological functioning captured by the Symptom Checklist 90 (SCL-90), with unemployed individuals presenting more evidence of psychopathology. Reynolds et al. (1999) found that unemployed out-of-treatment drug users exhibited greater levels of depression than employed out-of-treatment drug users on three different scales of depression, including the Center for Epidemiological Studies-Depression Scale (CES-D), the Beck Depression Inventory (BDI) and the Brief Symptom Inventory (BSI).

Virtually all of the research that has explored the effects of providing vocational rehabilitation to individuals with severe substance abuse problems has included participants drawn from substance abuse treatment programs. Although this research has contributed great insights into the importance of vocational rehabilitation for this population, it has overlooked individuals with severe substance abuse problems who are either unable or unwilling to obtain substance abuse treatment. Further, most of the research to date has not used standardized assessment tools to measure vocational-related variables, but rather has considered variables such as post-treatment employment status. To begin to fill these gaps in the research, the purpose of this study was to examine the vocational profiles of unemployed, low-education individuals with severe substance abuse problems who are not currently in substance abuse treatment. To do so, we used three well-validated vocational assessment tools, namely, My Vocational Situation, Self-Directed Search, and Reading-Free Vocational Interest Inventory.

METHOD

Participants

Data were gathered from participants in the National Institute on Drug Abuse-funded study, “Interventions to Reduce Hepatitis B, Hepatitis C & HIV in IDUs.” The purpose of this study implemented in Anchorage, Alaska was to compare a needle exchange and pharmacy needle sales on the incidence of various blood-borne diseases, use of needles, and substance use. Eligibility to participate in the study included being at least 18 years of age, reporting current injection as determined by presentation of track marks (Cagle, Fisher, Senter, Thurmond, & Kastar, 2002), and positive urinalysis for cocaine metabolites, morphine or amphetamine. A detailed description of this study can be found in Fisher et al. (2002).

As part of their involvement in this study, participants completed the Risk Behavior Assessment (RBA) (National Institute on Drug Abuse, 1991), a structured interview that includes questions about demographics, including current employment status. The items regarding employment status and other economic issues were found to be reliable (Johnson, Fisher, & Reynolds, 1999). Participants who reported being unemployed (n = 94) completed additional vocational assessment tools. This sample included 78 (83%) men and 16 (17%) women, with an average age of 40.3 (SD=7.5). Relative to cultural heritage, 51 (57%) were Caucasian, 17 (19%) African American, and 21 (24%) Alaska Native. The majority (n=70; 74%) reported having a high school equivalency or less, with only 26% reporting any education beyond high school. Table 1 provides participants’ substance abuse history.

Instrumentation

As part of their involvement in this study, participants completed the following three vocational assessment tools: My Vocational Situation, Self-Directed Search, and Reading-Free Vocational Interest Inventory.
My Vocational Situation (MVS) (Holland, Daiger, & Power, 1980) was designed to provide an evaluation of several issues addressed in career counseling. It includes the following three scales: 1) Vocational Identity (VI), 18 items that assess the degree to which respondents have a “clear and stable picture of one’s goals, interests, personality, and talents” (Holland et al., 1980, p. 1); 2) Occupational Information (OI), 4 items that assesses respondents’ expressed need for additional occupational information; and 3) Barriers (B), four items that assess respondents’ perceived obstacles that limit their occupational pursuits. Each item is responded to with either yes or no, and scale scores are calculated by summing the number of positive responses. Higher scores on all scales indicate the more positive direction; for example, lower scores on the VI category indicate participants do not have a definite idea of their occupational goals. The instrument developers (Holland, Gottfredson, & Power, 1980; Holland et al., 1980) and other researchers (Fuqua & Newman, 1989; Lucas, Gysbers, Buescher, & Heppner, 1988) have found the MVS to have adequate reliability and validity.

Self-Directed Search (SDS) (Holland, Fritzschke, & Powell, 1994) is a self-administered instrument designed to yield career guidance. Results of the SDS include a two-letter summary code that represent the first letter of one of the following six interest groups: Realistic (e.g., skilled trades, labor, technical, some helping jobs), Investigative (e.g., scientific, some technical jobs), Artistic (e.g., musical, some writing jobs), Social (e.g., teaching, helping jobs), Enterprising (e.g., sales, supervisory jobs), and Conventional (e.g., office, clerical jobs) (Holland, 1996). Different types of jobs correspond to different summary codes. For example, an individual with the summary code RE might be interested in Realistic-Enterprising jobs (e.g., Rug Cleaner, Forest-Fire Fighter, or Lumber Sorter).

Reading-Free Vocational Interest Inventory (R-FVII) (Becker, 1981) was designed to assess respondents’ vocational likes and dislikes. The R-FVII includes trios of drawings depicting a wide range of job activities, including the setting and tools used in each job. Participants respond by choosing which of the three jobs depicted in each set they would prefer to have. Scores are obtained for each of 11 general job categories: Automotive, Building or Construction, Clerical, Animal Care, Food Service, Patient Care, Horticulture, Housekeeping, Personal Services, Laundry Service, and Materials Handling.

<table>
<thead>
<tr>
<th>Drug use</th>
<th>last 48 hours</th>
<th>last 30 days</th>
<th>lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>59.2%</td>
<td>81.7%</td>
<td>96.8%</td>
</tr>
<tr>
<td>Marijuana/Hashish</td>
<td>18.3%</td>
<td>51.4%</td>
<td>94.0%</td>
</tr>
<tr>
<td>Crack</td>
<td>33.5%</td>
<td>53.2%</td>
<td>75.2%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>40.4%</td>
<td>65.1%</td>
<td>89.4%</td>
</tr>
<tr>
<td>Heroin</td>
<td>46.8%</td>
<td>64.7%</td>
<td>85.8%</td>
</tr>
<tr>
<td>Speedball</td>
<td>16.1%</td>
<td>46.8%</td>
<td>72.9%</td>
</tr>
<tr>
<td>Methadone</td>
<td>5.5%</td>
<td>9.6%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Other opiates</td>
<td>3.7%</td>
<td>13.8%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>2.3%</td>
<td>3.2%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Other drugs</td>
<td>2.8%</td>
<td>3.2%</td>
<td>23.9%</td>
</tr>
</tbody>
</table>

Table 1. Participants’ substance use history

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Procedures

Informed consent was obtained using an informed consent form approved by the University of Alaska Anchorage Institutional Review Board. These vocational assessment tools were administered to unemployed participants as part of their regular involvement in the NIDA-funded project. The order of the instruments was held constant across all participants, namely, My Vocational Situation, Self-Directed Search, and Reading-Free Vocational Interest Inventory.

Statistical Analysis

For the MVS, mean scores of men (n = 66) and women (n = 14) who completed the instrument were compared to the mean normative scores provided in the MVS manual (Holland et al., 1980). One-tailed z-tests were performed using an alpha level of .05 to determine whether differences were statistically significant between the current sample and the normative group. The SDS was scored to summary codes for vocational interest. Participants’ scores on The Reading-Free Vocational Interest Inventory were compared to the normative data provided in the R-FVII manual (Becker, 1981) for economically and environmentally-disadvantaged adults. Scores above the 75th percentile for a specific interest area suggest the participant a strong vocational interest. Analyses for all assessment tools were conducted separately by sex.

RESULTS

My Vocational Situation

Table 2 provides MVS scale scores for the current sample and normative scores, separately by sex. As indicated in the table, male and female participants had lower mean scores on all three scales than the normative group. Lower scores on the Vocational Identity (VI) scale indicate that these individuals do not possess a well-established picture of their occupational goals; lower scores on the Occupational Information (OI) scale indicate a strong need for additional occupational information; and lower scores on the Barriers (B) scale indicate these individuals perceive significant external obstacles to achieving their occupational goals. For the men, all comparisons between the current and normative samples were statistically significant. For the women, although sample means were all lower than the normative means, these differences were not statistically significant, due, at least in part, to the small number of women in the sample.

Self-Directed Search

Table 3 provides the SDS summary codes, separately for men and women. For men, the most common single code was R (realistic) with 79% of the men’s results yielding codes that included S. This suggests that occupations that include contact with other people would
be the most rewarding. Relative to the most common two-codes, 26% of the men had the summary code RS (realistic-social); sample occupations in this category include truck or bus driver, firefighter, and police officer. An additional 17% of the men had a summary code of ER (enterprising-realistic), a code that includes jobs such as construction worker, chef, and salesperson.

For women, the most common SDS single code was S (social) with 64% of the women’s results yielding codes that included S. This suggests that occupations that include contact with other people would be the most rewarding. Relative to two-codes, 29% of the women had the summary code CS (conventional-social); sample occupations in this category include clerk, telephone operator, and fast food worker. An additional 14% of women participants had a summary code of AR (artistic-realistic), a code that includes jobs such as cook, floral designer, and photographer; 14% a code of AS (Artistic-Social) that includes jobs such as teacher and writers; and 14% a code of RS (Realistic-Social) that includes jobs such as truck or bus driver, firefighter, and police officer.

**Reading-Free Vocational Interest Inventory**

Table 4 provides percentages of male and female participants who scored greater than the 75th percentile for each of the 11 R-FVII vocational interest areas. For men, horticulture was the most endorsed area, men, followed by housekeeping, patient care, and animal care. For women, housekeeping and automotive were the most endorsed areas, followed by personal service, clerical, and building trades.

**DISCUSSION**

The research findings indicate that unemployed, low-education individuals who experience severe substance abuse problems and are not currently receiving treatment for these problems evidence serious challenges to gaining and maintaining gainful employment. More specifically, based on the My Vocational Situation,
these individuals lack a clear and stable view of their occupational future, need information to clarify their occupational options and goals, and perceive multiple barriers in attaining employment. These challenges are particularly heightened for the men in the current sample.

Findings from the Self-Directed Search and Reading-Free Interest Inventory suggest that valuable information regarding this sample’s occupational interests is attainable through the use of standardized instruments. Although these instruments provided no profound findings, their successful administration suggests that standardized instruments are a viable avenue through which to gain a starting basis for vocational rehabilitation and counseling with these individuals.

The MVS findings are consistent with regard to the lack of occupational goals among these individuals with substance abuse problems prior to obtaining treatment. For example, Hermalin, Steer, Platt, and Metzger (1990) noted that previous employment or higher levels of education prior to substance abuse treatment predicted employment after treatment initiation. Combining the experiencing of substance abuse problems with low levels of education creates a situation that may seem insurmountable to these individuals.

More research is needed to understand the perceived barriers to employment in among men with severe substance abuse problems not currently in treatment. Much work has been done on perceived barriers for women due to the recent legislation concerning welfare to work. Programs that attempt to reduce barriers for women with minimal education and job skills have focused on the need for childcare, transportation, and additional training (Vines & Mandell, 1999), and have become the subject of research assessing the impact of changes to the welfare system brought about the federal legislation concerning Temporary Assistance for Needy Families (TANF). Much less emphasis has been placed on identifying, understanding, or reducing barriers to vocational success among low-educated, unemployed men with severe substance abuse problems.

Another challenge that individuals with substance abuse problems face is the increased use of drug screening in the workplace, particularly in settings in which the minimally educated seek jobs. For example, many employers that operate warehouses routinely screen new ap-

### Table 4. Participants who scored above the 75th percentile by vocational interest area on the R-FVII, by sex

<table>
<thead>
<tr>
<th>Vocation</th>
<th>Men (n = 57)</th>
<th>Women (n = 12)</th>
<th>Both (n = 69)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Animal Care</td>
<td>13</td>
<td>23%</td>
<td>0</td>
</tr>
<tr>
<td>Automotive</td>
<td>11</td>
<td>19%</td>
<td>4</td>
</tr>
<tr>
<td>Building Trades</td>
<td>9</td>
<td>16%</td>
<td>3</td>
</tr>
<tr>
<td>Clerical</td>
<td>9</td>
<td>16%</td>
<td>3</td>
</tr>
<tr>
<td>Food Service</td>
<td>6</td>
<td>11%</td>
<td>2</td>
</tr>
<tr>
<td>Horticulture</td>
<td>26</td>
<td>5%</td>
<td>2</td>
</tr>
<tr>
<td>Housekeeping</td>
<td>18</td>
<td>32%</td>
<td>4</td>
</tr>
<tr>
<td>Laundry Service</td>
<td>4</td>
<td>7%</td>
<td>1</td>
</tr>
<tr>
<td>Materials Handling</td>
<td>5</td>
<td>9%</td>
<td>1</td>
</tr>
<tr>
<td>Patient Care</td>
<td>13</td>
<td>23%</td>
<td>2</td>
</tr>
<tr>
<td>Personal Service</td>
<td>8</td>
<td>14%</td>
<td>3</td>
</tr>
</tbody>
</table>
plicants for drug use if the position requires
the operation of forklifts or other equipment. Although such screening makes sense from the
employers’ point of view for liability reasons, it creates another obstacle to gaining employment
for individuals with substance abuse problems.

CONCLUSION
The findings of occupational challenges among
this sample are consistent with and similar to
the occupational challenges experienced by
individuals receiving substance abuse treatment. However, a major difference between
these two groups is that individuals in substance
abuse treatment often have the opportunity to
receive vocational rehabilitation whereas such
services are not as readily available, if at all, for
individuals not currently in treatment. It should
be noted that despite the oft-cited relationship
between vocational rehabilitation and positive
treatment outcomes, calls for the offering of
such services in all substance abuse treatment
programs have not been met with universal ac-
ceptance. For example, West (2008) surveyed
159 substance abuse treatment facilities and
found nearly three-quarters did not offer voca-
tional assessments or counseling and fewer than
one-third provided any job skills training at all.

Nevertheless, individuals in substance
abuse treatment are more likely to be able to
access vocational rehabilitation than individuals
not currently in treatment. Such lack of access
may have unforeseen consequences. That is,
given the established relationship reported
between gainful employment and attaining
and maintaining sobriety, the provision of voca-
tional rehabilitation to an out-of-treatment
population may be enough, for at least some
individuals, to attain sobriety and avoid costly
substance abuse treatment. The possibility that
vocational rehabilitation for individuals with
severe substance abuse problems not currently
in treatment may lead to positive outcomes
beyond just employment is an important issue
to address in future research.

In summary, these results indicate that in-
dividuals with severe substance abuse problems
not currently in treatment face occupational
obstacles to gainful employment. By neglect-
ing the vocational needs of these individuals,
our society may be missing an opportunity to
facilitate positive outcomes that would benefit
both the individuals and society as a whole.
For individuals in substance abuse treatment,
Shepard and Reif (2004) found vocational
rehabilitation to be associated with increased
probability of abstinence and to be a cost effec-
tive part of substance abuse treatment. Although
conducting a cost analysis was beyond the scope
of this study, just as with individuals in treat-
ment, it is likely that the expense of providing
vocational services to this out-of-treatment
population would be exceeded by savings at-
tained through the avoidance of costly substance
abuse treatment not to mention other reduced
societal costs.

REFERENCES
Becker, R. L. (1981). Reading-free vocational interest
Cagle, H. H., Fisher, D. G., Senter, T. P., Thurmond,
R. D., & Kastar, A. J. (2002). Classifying skin lesions
of injection drug users: A method for corroborating
disease risk. Rockville, MD: Center for Substance
Abuse Treatment, Substance Abuse and Mental
Health Services Administration.
Dickinson, K., & Maynard, E. S. (1981). The impact of
supported work on ex-addicts (Vol. 4). New York, NY:
Manpower Demonstration Research Corporation.
French, M. T., Dennis, M. T., McDougal, G. L.,
and employment programs in methadone treatment:
Client needs and desires. Journal of Substance
Abuse Treatment, 9, 293–303. doi:10.1016/0740-
5472(92)90022-G
Friedman, L. N. (1978). The Wildcat experiment:
An early test of supported work in drug abuse
Printing Office.


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