
AMERICAN JOURNAL OF PSYCHOLOGICAL RESEARCH

Volume 1, Number 1
Submitted: January 10, 2005
First Revision: March 1, 2005
Accepted: March 15, 2005
Publication Date: March 25, 2005

THE EFFECTS OF APPLICANT GENDER AND SUBSTANCE USE HISTORY ON PERCEPTIONS OF JOB APPLICANTS

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ABSTRACT

Chemical dependence on drugs or alcohol is a devastating disability that can lead to long-term physical, psychological, occupational, and social problems. Even after chemical use has subsided, many individuals in the recovery process will continue to struggle with their disability for the rest of their lives. The purpose of the present research was to examine the role that substance use history plays in observer perceptions of job applicants. In two analogue studies, participants rated fictional job applicants based on a written description. The independent variables of substance use history and gender were embedded in the descriptions. Results showed that observers categorize individuals according to substance use history and that substance use history is associated with stereotypic ability and personality characteristics. In a second study, substance use history and gender of the applicant had an interactive influence on observers' behavioral expectations for job applicants. The implications of these findings are discussed with an emphasis on substance use stereotypes as a potential barrier to employment and recovery.

INTRODUCTION

Chemical dependence on drugs or alcohol is a devastating disorder that can lead to long-term physical, psychological, occupational, and social problems (Franken, 2002). Even after chemical use has subsided, most individuals in the recovery process will continue to struggle with their disability for the rest of their lives. In recognition of multifaceted and enduring nature of substance use disabilities, the National Institute on Disability and Rehabilitation Research (NIDRR) outlined a comprehensive research agenda in its long-range plan that outlined the need for more knowledge in the area of applied rehabilitation (U.S. Department of Education, 2000).

The NIDRR Long-Range Plan detailed a large number of research priorities. For example, NIDRR declared its desire to "measure the environmental factors (social or physical) that contribute to disabilities" (p. 19), and to increase its "understanding of employer roles, perspectives, and motivational systems" (U.S. Department of Education, 2000, p. 36). In addition, NIDRR's future research priorities included evaluating "the contribution of employer practices and workplace supports to the employment outcomes of people with disabilities" (p. 37), investigating "employers' hiring and promotion practices" (p. 39), and developing "cost-effective strategies for improving the receptivity of the workplace environment to workers with disabilities" (p. 39). The current study is the first step of a larger research program designed to address NIDRR priorities with an emphasis on reducing barriers to employment for individuals recovering from a substance use disability. By examining the real and perceived barriers to employment for individuals in the recovery process, this research program is consistent with NIDRR's stated research priorities and will also provide valuable information that will facilitate treatment and rehabilitation.

The goals of the current studies are to document the existence of negative perceptions and behavioral expectations about individuals in the substance abuse recovery process. Research shows that a common reason that substance users avoid treatment is to avoid the stigmatization of addictive disorders (Rivers, Sarata, & Anagnostopolus, 1986). People who abuse alcohol and other drugs are reluctant to admit the problem, because they fear being perceived by the public as a stereotypic skid row character (Sparks, 1976).

In 1994, approximately eight percent of all full-time workers were using illicit drugs, and 70 percent of those who reported using drugs were employed full-time (SAMHSA, 1997). Millions of Americans live in fear that their secret substance use will be discovered. A recent nationwide survey of recovering addicts and their families found that one of the most frequently cited barriers to recovery was fear of discrimination (Survey, 2001). Of the 500 survey respondents, 40 percent identified embarrassment and shame about the addiction as a barrier to recovery, and 19 percent reported having fear of being fired or otherwise discriminated against on the job as a barrier to seeking help. The fear of discrimination is very real for current users, because discovery of a substance use problem may result in termination of employment or legal action such as child custody hearings. However, the fear of real or imagined job discrimination is unlikely to end just because a former substance user enters the recovery process.

This fear among current and former substance users of being stereotyped and discriminated against even after the recovery process begins seems to be well-founded. Research

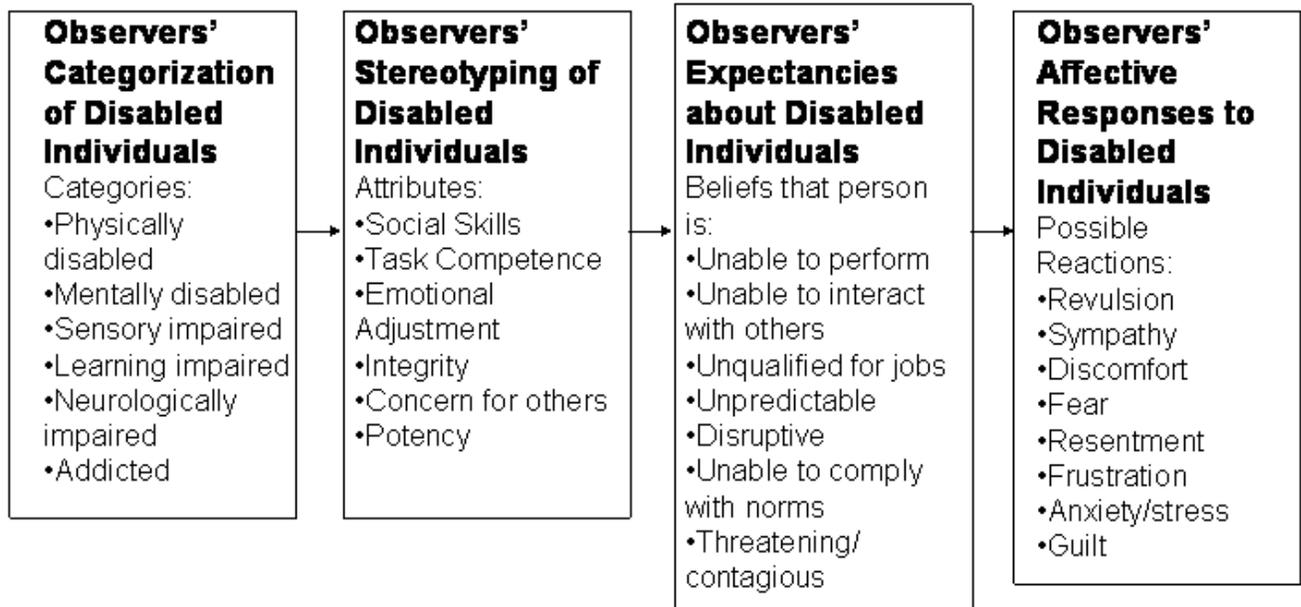
shows that individuals with little or no history of involvement with drugs tended to stereotype drug users, especially on negative trait dimensions (Holcom, Lehman, & Lord, 1993). Although added exposure to drugs and drug users results in the ability to make finer distinctions among drug user types, current and former substance users also showed a tendency to perceive substance users in stereotypic ways. Often, an individual's status as a current or former substance user functions as a master status, as a title which "entitles the perceiver to apply a stereotyped list of additional attributes to that person" (Griffiths & Pearson, 1988, p. 14). The effect of widespread negative labeling on the public perception and employment prospects of individuals in the recovery process is unknown.

Many researchers acknowledge the presence of a social stigma that surrounds addictive disorders and recovery, but the literature that addresses this topic in the workplace has been fragmented, lacking in theoretical rationale (Najavits & Weiss, 1994), and narrowly focused on health-care providers (see Howard & Chung, 2000a, b, c for a review). In contrast to the fragmented research on substance use and recovery stereotypes, Stone and Colella (1996) presented a comprehensive model of factors thought to affect the perception and treatment of disabled individuals in organizational settings that contained a complex set of personal, environmental, and organizational factors. Although not specifically constructed to address observers' perceptions of individuals recovering from addictive disorders, Stone and Colella's model offers a theoretically plausible depiction of the role that substance use history plays in observers' perceptions of such individuals.

Stone and Colella (1996) contend that observers automatically categorize individuals according to several disability subtypes (see Figure 1). Once an individual is categorized, observers use stereotypes associated with the specific categories to make inferences about the disabled individual's ability and personality characteristics such as social skills, task competence, and integrity. These stereotyped inferences are then used as the basis for observers' behavioral expectancies for the disabled individual. Observers might hold the belief that individuals with a particular disability are unable to perform, unqualified, disruptive, etc. These stereotyped behavioral expectancies are then compared to the prototypical images of job requirements to evaluate how well a individual with a particular disability fits the job requirements. The observer's evaluation of fit serves as the basis for subsequent affective responses to working with the disabled individual.

Figure 1

Psychological Consequences for Observers of Disabilities (adapted from Stone & Colella, 1996)



People have many different images or subtypes of disabled persons with distinctly different stereotypic content (Stone & Colella, 1996). Each disability category evokes different stereotypic perceptions and job-related expectancies about the person. For example, when a disabled person is perceived to be responsible for his or her condition, as in the case of drug or alcohol abuse, observers are likely to infer that the disabled person lacks strength of character, integrity, and impulse control. Stone and Colella argue that stereotype-based assumptions are more likely to influence expectancies about disabled persons when there is ambiguity about their performance or when the person is a newcomer to the organization. Expectancies are extremely important, especially at the application stage of employment, because they are thought to bias personnel-related decisions.

Gender of the disabled person is also thought to influence the categorization of the disabled person, the inferences made about the individual's job-related attributes, and performance expectancies (Stone & Colella, 1996). However, results of research on whether a relationship exists between gender of the disabled person and reactions of others have been mixed (Farina, Felner, & Boudreau, 1973; Fichten & Amsel, 1986; Levy et al., 1993). Therefore, research is needed to assess the extent to which reactions to and treatment of disabled individuals is related to their gender.

Unfortunately, little is known about the impact of stereotypes on individuals in the substance abuse recovery process. It is not even clear if stereotypes regarding individuals in the recovery process exists, what the content of these stereotypes might be, how they might differ from stereotypes of current users, or whether these stereotypes are widely held in society. Also, little is known about the interaction of stereotypes about recovering substance users and gender stereotypes. Logic and anecdotal evidence suggests that the stereotype of a former drug user who

is male differs from the stereotype of a former drug user who is female. Resolving each of these issues is a necessary first step in determining the impact of stereotypes on individuals in the substance abuse recovery process. Based on Stone and Colella's (1996) model and previous research, we offer the following hypotheses:

Hypothesis 1: There will be a main effect of gender on ratings of trait and ability characteristics for job applicants. Specifically, ratings will be higher for female job applicants.

Hypothesis 2: There will be a main effect of substance use history on ratings of trait and ability characteristics for job applicants. Specifically, ratings will be lower for applicants with a history of substance use.

Hypothesis 3: There will be an interaction between substance use history and gender on ratings of trait and ability characteristics for job applicants.

STUDY 1

Study 1 Method

Participants

Participants were 150 introductory psychology students from a regional state-supported university who volunteered to participate in exchange for course credit. Participants ranged in age from 18 to 46 years with a mean age of 22 years ($SD = 5.43$). Seventy percent ($N = 105$) of the participants were female and 57 percent ($N = 85$) were in their first or second year of college. Seventy-nine percent ($N = 119$) of the participants identified themselves as Caucasian, 16 percent ($N = 24$) identified themselves as African-American, 1 percent ($N = 2$) identified themselves as Hispanic, 1 percent ($N = 2$) identified themselves as Asian-American, and 2 percent ($N = 3$) identified themselves as an other ethnic group.

Measures

Perceptions of Job Applicants Survey. According to Stone and Colella (1996), stereotypes ascribed to persons with disabilities may be divided into six specific dimensions: (a) social or interpersonal competence (e.g., shy, quiet, aloof, distant), (b) task competence (e.g., helpless, dependent, noncompetitive), (c) concern for others (e.g., nonegotistical, benevolent), (d) integrity (e.g. saintlike, honest), (e) emotional adjustment (e.g., bitter, unhappy, nervous, hypersensitive), and (f) potency or strength (e.g., unaggressive, submissive). The Perceptions of Job Applicants Survey consists of 20 adjective pairs designed to assess these dimensions with responses made using a five-point semantic differential scale. Calculations based on the current sample suggest that the instrument has adequate reliability, coefficient alpha = .86. Adjective pairs were selected from job-related personality trait descriptors (Barrick & Mount, 1991) and stereotypes that are commonly associated with substance users (Holcom, Lehman, & Lord, 1993; see Appendix A).

Design and Procedure

Participants read a description of a hypothetical job applicant and then rated the applicant using the Job Applicants Survey. Descriptions of the applicant were varied using a 2 (female vs. male job applicant) X 2 (no history of substance use vs. history of substance use) between-

subjects design. Participants were randomly assigned to conditions, and they also provided demographic information about themselves such as age, gender, and ethnicity.

Study 1 Results

Hypothesis 1 predicted a main effect of applicant gender on ratings of trait and ability characteristics for job applicants. Results showed a main effect for applicant gender, $F(1, 149) = 4.19, p = .042$ (see Table 1). A closer inspection of cell means revealed that female applicants were rated higher ($M = 74.39, SD = 1.19$) than male applicants ($M = 70.88, SD = 1.23$). Hypothesis 1 was supported.

Table 1
Study 1 Test of Between-Subjects Effects

Source	Sum of Squares	df	Mean Square	F	Sig.
Applicant Gender (AG)	382.187	1	382.187	4.192	.042
Substance Use History (SUH)	445.097	1	445.097	4.882	.029
AG X SUH	152.443	1	152.443	1.672	.198
S within-group error	13311.497	146	91.175		

Note. Dependent Variable: Job Applicants Survey. R Squared = .062 (Adjusted R Squared = .043).

Hypothesis 2 predicted a main effect of substance use history on ratings of trait and ability characteristics for job applicants. Results showed a main effect for substance use history, $F(1, 149) = 4.88, p = .029$. A closer inspection of cell means revealed that applicants with no history of substance abuse were rated higher ($M = 74.53, SD = 1.44$) than applicants with a history of substance abuse ($M = 70.74, SD = .928$). Hypothesis 2 was supported.

Hypothesis 3 predicted an interaction between applicant gender and substance use history on ratings of trait and ability characteristics for job applicants. Results showed that the interaction between applicant gender and substance use history was not statistically significant, $F(1, 149) = 1.67, p = .198$. Hypothesis 3 was not supported.

Post-hoc tests on the individual items of the Job Applicants Survey revealed that applicants with a history of substance use were rated as less obedient ($M = 3.30$ vs. $3.86, t(148) = 3.00, p = .003$), less dependable ($M = 3.50$ vs. $4.16, t(148) = 3.75, p = .000$), less reliable ($M = 3.51$ vs. $3.89, t(148) = 2.05, p = .042$), and worse for business ($M = 3.60$ vs. $4.11, t(148) = 2.81, p = .006$) than applicants without a history of substance use (see Table 2).

Table 2. Study 1 Item Means and Standard Deviations for Job Applicants Survey

Item	Substance Use History	N	Mean	SD	SE Mean	t
shy vs. outgoing	no past problem	44	4.05	.680	.103	-.014
pessimistic vs. optimistic	no past problem	44	3.77	.743	.112	-.458
uptight vs. laid back	no past problem	44	3.52	.849	.128	-.038
nervous vs. relaxed	no past problem	44	3.70	1.047	.158	1.119
serious vs. fun loving	no past problem	44	2.93	.950	.143	.138
rebellious vs. obedient	no past problem	44	3.86	1.133	.171	2.998**
unstable vs. stable	no past problem	44	4.02	1.151	.174	3.434**
unfriendly vs. friendly	no past problem	44	4.18	.995	.150	-.488
undependable vs. dependable	no past problem	44	4.16	1.033	.156	3.747**
sexually promiscuous vs. sexually conservative	no past problem	44	3.39	.970	.146	.418
unreliable vs. reliable	no past problem	44	3.89	1.017	.153	2.054*
messy vs. neat	no past problem	44	4.11	1.083	.163	.517
quiet vs. loud	no past problem	44	2.86	.668	.101	-1.856
dangerous vs. safe	no past problem	44	3.66	.987	.149	1.849
passive vs. assertive	no past problem	44	3.61	.920	.139	.003
emotional vs. reserved	no past problem	44	3.41	.816	.123	.855
always late vs. always on time	no past problem	44	3.75	1.102	.166	1.777
untrustworthy vs. trustworthy	no past problem	44	3.80	1.002	.15103	1.927
bad for business vs. good for business	no past problem	44	4.11	.970	.14618	2.807**
unsatisfied with job vs. satisfied with job	no past problem past problem	44 106	3.86 3.79	1.002 .848	.15107 .08233	.443

Note. * $p < .05$; ** $p < .01$.

Study 1 Discussion

Interpretation

Overall, the results from study 1 suggest that the job-related trait and ability characteristics of fictional applicants are rated lower when the applicants are male and when they have a history of substance use. When presented with an ambiguous stimulus person with or without a history of substance use, observers attributed more negative traits to applicants with a history of substance use. While these results are consistent with the hypotheses, the predicted interaction between history of substance use and gender did not emerge.

These findings are also consistent with Stone and Colellas' (1996) model of psychological consequences for observers of disabilities. Observers categorized individuals according to substance use history and made stereotypic personality and ability inferences. According to the model, these stereotypes are then used as the basis for observers' behavioral expectancies for disabled individuals.

STUDY 2

The purpose of study 2 was to examine the next linkage in the Stone and Colella (1996) model, the relationship between disability categorization and behavioral expectancies. Specifically, the goal was to determine if the same stimulus material would evoke job-related behavioral expectancies in observers that were biased against individuals with a history of substance use. A secondary goal was to determine if observers make distinction among substance use subtypes, to see if observers had different behavioral expectancies for individuals with a history of alcohol abuse as opposed to individuals with a history of drug use. Based on Stone and Colella's (1996) model and the results from study 1, we offer the following hypotheses: Hypothesis 4: There will be a main effect of applicant gender on ratings of behavioral expectancies for job applicants. Specifically, ratings will be higher for female job applicants. Hypothesis 5: There will be a main effect of substance use history on ratings of behavioral expectancies for job applicants. Specifically, ratings will be lower for applicants with a history of substance use.

Hypothesis 6: There will be an interaction between substance use history and gender on ratings of behavioral expectancies for job applicants.

Study 2 Method

Participants

Participants were 217 undergraduate students from a regional state-supported university who volunteered to participate in exchange for course credit. Seventy-six percent of the participants were female ($N = 165$) and 59 percent were in their first or second year of college ($N = 127$). Although participants provided additional demographic information such as age and ethnicity, this information was lost due to a computer error.

Measures

Behavioral Index of Troubled Employees (BITE; Bayer & Gerstein, 1988). The BITE is designed to measure supervisor and co-worker attitudes toward impaired workers. The instrument consists of 23 behavioral items. Respondent rate each behavior in terms of how

characteristic it is among impaired workers using a five-point Likert scale. In a factor analytic study, the instrument showed adequate reliability and internal consistency. The items of the BITE are summed to arrive at a composite score. The items of the BITE were modified slightly for the current study: The sentence stem, “[Sally, John] is likely to;” was added to each item.

Design and Procedures

Participants read a description of a hypothetical job applicant and then rated the applicant using the BITE. Descriptions of the applicant were varied using a 2 (female vs. male job applicant) X 3 (no history of substance use, history of alcohol use, history of meth-amphetamine use) between-subjects design. If the data shows support for hypothesis 6, then we will follow up the omnibus test with planned comparison of cell means to determine the rank ordering of substance use subtypes. Participants were randomly assigned to conditions.

Study 2 Results

Hypothesis 4 predicted a main effect of applicant gender on ratings of behavioral expectancies for job applicants. Results showed that the difference between ratings of male and female applicants was not statistically significant, $F(1, 209) = .695, p = .405$. Hypothesis 4 was not supported (see Table 3).

Table 3
Study 2 Test of Between-Subjects Effects

Source	Sum of Squares	df	Mean Square	F	Sig.
Applicant Gender (AG)	129.206	1	129.206	.695	.405
Substance Use History (SUH)	4360.733	2	2180.366	11.730	.000
AG X SUH	1326.864	2	663.432	3.569	.030
Error	38847.519	209	185.873		

Note. Dependent Variable: BITE. R Squared = .156 (Adjusted R Squared = .136).

Table 4
Study 2 Planned Comparisons

(I) Substance Use History	(J) Substance Use History	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
None	Alcohol	6.5632*	2.31480	.015	.9766	12.1497
	Drugs	13.8675*	2.51920	.000	7.7876	19.9473
Alcohol	None	-6.5632*	2.31480	.015	-12.1497	-.9766
	Drugs	7.3043*	2.19556	.003	2.0055	12.6031
Drugs	None	-13.8675*	2.51920	.000	-19.9473	-7.7876
	Alcohol	-7.3043*	2.19556	.003	-12.6031	-2.0055

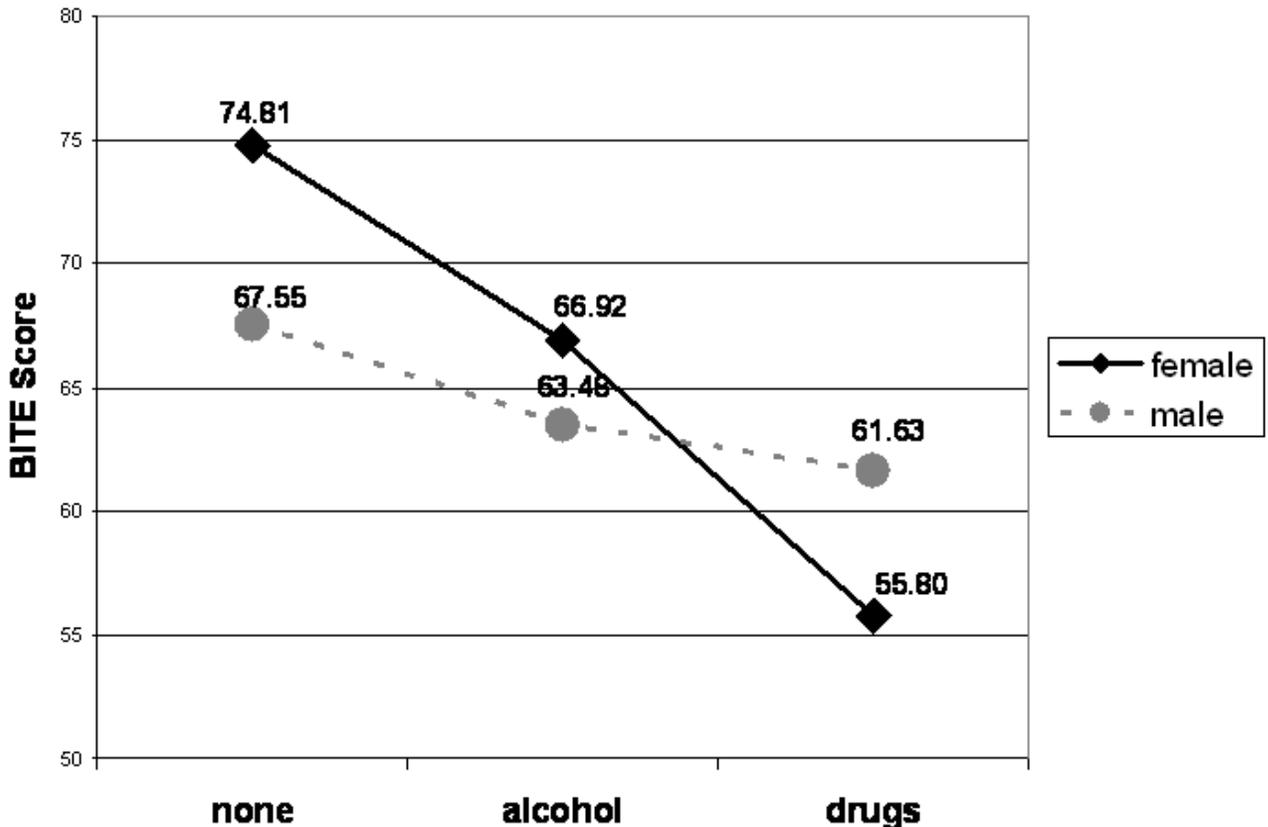
Note. Dependent Variable: BITE. Based on observed means. * The mean difference is significant at the .05 level.

Hypothesis 5 predicted a main effect of substance use history on ratings of behavioral expectancies for job applicants. Results showed that substance use history had a significant effect

on ratings of job applicants, $F(2, 209) = 11.730, p = .000$. Planned comparisons revealed that observers had the lowest behavioral expectancies for applicants with a history of drug use, higher behavioral expectancies for applicants with a history of alcohol abuse, and the highest behavioral expectancies for applicants with no history of substance use (see Table 4 above). Hypothesis 5 was supported.

Hypothesis 6 predicted an interaction between applicant gender and substance use history. Results showed that the interaction between applicant gender and history of substance use was statistically significant, $F(2, 209) = 3.569, p = .030$. Visual inspection of the cell means showed that observers had the highest behavioral expectancies for female applicants with no history of substance use and the lowest behavioral expectancies for female applicants with a history of drug use (see Figure 2). Hypothesis 6 was supported.

Figure 2
Study 2 Cell Means of Ratings of Behavioral Expectancies for Job Applicants that Differed by Gender and Substance Use History



Study 2 Discussion

Interpretation

Overall, the results from study 2 suggest that the job-related behavioral expectancies for fictional applicants are rated lower when the applicants have a history of substance use. Further,

job applicants with a history of drug use are rated lower than job applicants with a history of alcohol abuse. The predicted interaction between applicant gender and substance use history also emerged. Observers had the lowest behavioral expectancies for female applicants with a history of drug use and the highest behavioral expectancies for female applicants with no history of substance use. This finding suggests something akin to a pedestal effect; the ratings of female applicants are initially higher, but the ratings take a great fall when a history of drug use is revealed.

These findings are also consistent with Stone and Colellas' (1996) model of the psychological consequences for observers of disabilities. Observers categorized individuals according to substance use history, made stereotypic personality and ability inferences (study 1), and also used these inferences as the basis for behavioral expectancies (study 2). In addition, observers differentiated among disability subtypes (i.e., no history of substance use, history of alcohol abuse, and history of drug use).

GENERAL DISCUSSION

These findings show that undergraduate students rated job applicant descriptions with substance use history lower than the descriptions with no substance use history. Employment is the cardinal outcome measure of rehabilitation services (Tsang, Lam, Ng, & Leung, 2000), and researchers have identified employers' and co-workers' negative attitudes toward individuals with disabilities, like substance use disorders, as a contributing factor to the rate of unemployment among disabled individuals (King, 1993). The current results suggest that negative attitudes toward individuals with substance use history are widespread in the sample and that these attitudes have psychological consequences for observers that are consistent with Stone and Colella's (1996) model.

These negative attitudes and expectations from employers and co-workers may serve as a barrier to the recovery process. Substance use often disrupts an individual's employment history by causing termination or frequent job changes, by creating gaps in the employment timeline, and by causing other embarrassing situations. Reintegration into the workforce is an important and often difficult aspect of the recovery process, but part of the process of recovering from an addictive disorder is finding a job. If negative attitudes toward individuals with substance use history are widespread, being truthful when explaining employment history might make getting better by getting a job more difficult for former substance users. Clarifying the role of stereotypes and negative attitudes in the employment context may be an important step toward improving recovery and treatment outcomes.

Further, recent research suggests that taking a stereotyped-view of a group of people can actually bring about stereotypical behavior in members of that group (Steele & Aronson, 1995). In the context of addictive disorders, individuals in the recovery process are often expected to act like a typical individual in the recovery process. The threat of such a stereotype lies in the knowledge that a typical individual in the recovery process is expected to relapse, is expected to have interpersonal difficulties, is expected to have a low tolerance for stress, is expected to have problems at work, and is expected to be temperamental (Howard & Chung, 2000a, b, c; Miller, Sheppard, & Magen, 2001; Sparks, 1976). The pressure of trying not to confirm the stereotype

might actually contribute to the high rates of unemployment and relapse among former substance users.

Further, recovery programs such as Alcoholics Anonymous that encourage public self-identification as a recovering substance user may actually contribute to stereotype-confirming behavior (Franken, 2002). Moreover, recovering substance users do not have to self-stereotype or internalize a negative stereotype in order for negative attitudes of supervisors and co-workers to do damage. Mere salience of the stereotype can debilitate performance, sometimes precisely confirming the stereotype (Steele & Aronson, 1995). By defining oneself as a group member, one shares the group's collective representation of itself and other groups, which creates certain role demands.

Drug and alcohol abuse both on and off the job has long been associated with negative organizational outcomes such as absenteeism, accidents, lower job performance, and high turnover rates (Mangione & Quinn, 1975). To guard against these negative outcomes, many organizations have instituted drug testing programs with the intention of detecting current users and deterring future users. While drug testing seems like a reasonable solution to the problem of employee substance use, it may unintentionally create an uncomfortable environment for applicants and employees with a history of substance use (Truxillo, Normandy, & Bauer, 2001). Even if an organization does not employ drug testing, company policies that target current substance users may create an uncomfortable climate for individuals in the recovery process.

A punitive policy toward substance use could serve as a barrier to employment for individuals in the recovery process in several ways. For example, punitive company policies may encourage those who are recovering to self-select out of certain jobs if they perceive a (stereotypic) lack of fit with the organization or job (Carroll, 1995). Company policies may also encourage supervisors, decision makers, and co-workers to develop negative attitudes and stereotypes toward current and former substance users. Research shows that individuals in the recovery process often identify more closely with current users than with those who have never had a substance use problem (Truxillo, Normandy, & Bauer, 2001). Organizational messages suggesting that substance users are undesirable as employees might have a negative impact on the performance and commitment of employees with a substance use history.

Limitations

Several limitations of the current study are worth noting. First, the sample consisted of college students who may not have experience in a workplace setting or experience in hiring/evaluating employees. Further, paper-people manipulations of substance use history provide observers with limited information about the stimulus person, which may encourage them to use stereotypical beliefs when making ratings. Also, because participation was anonymous and recruitment efforts were not uniform throughout the country, it seems unlikely that the current sample is representative of the population of the United States. Finally, many potentially confounding variables were left unexplored and/or unmeasured by the current design. In particular, group differences in the inter-relationships among variables may exist by observer gender, observer ethnicity, and observer substance use history. As a result of these and other limitations, these findings may not generalize to other samples.

Future Directions

Future research should continue to probe the limits of Stone and Colella's model of psychological consequences for observers of disabilities. One need in this area is for methodologies that allow more direct measure of observers' attitudes and behaviors. The data from the current research suffers from the limitations of all self-reported data. Also, it would be interesting to see if demographic predictors such as gender and age of the observer predict incremental variance ratings of job applicants. It may also be important to determine if these relationships are similar for other populations such as real decision makers in organizations, counselors, and even recovering substance users. In addition, a logical next step in this line of research is to design an intervention that targets attitudes toward individuals in the recovery process. As a prelude to this initiative, it may be necessary to first examine how attitudes toward individuals in the recovery process develop and change with experience. Finally, these findings should be replicated using a larger and more representative sample.

REFERENCES

- Bayer, G. A., & Gerstein, L. H. (1988). An adaptation of models of prosocial behavior to supervisor interventions with troubled employees. *Journal of Applied Social Psychology, 18*(1), 23-37.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1-26.
- Carroll, J. (1995). Attitude of prison nurse officers to drug misusers. *Nursing Times, 91*(15), 36-37.
- Farina, A., Felner, R. D., & Boudreau, L. A. (1973). Reactions of workers to male and female mental patient job applicants. *Journal of Consulting and Clinical Psychology, 41*, 363-372.
- Fichten, C. S., & Amsel, R. (1986). Trait attributions about college students with a physical disability: Circumplex analyses and methodological issues. *Journal of Applied Social Psychology, 16*, 410-427.
- Franken, R.E. (2002). *Human Motivation*. Belmont, CA: Wadsworth/Thompson Learning.
- Griffiths, R., & Pearson, B. (1988). *Working with Drug Users*. Aldershot, United Kingdom: Wildwood House.
- Holcom, M. L., Lehman, W. E., & Lord, C. G. (1993). Social categorization and the influence of drug involvement on drug attitude structures: Implications for assessing drug use and tolerance in the workplace. *Journal of Applied Social Psychology, 23*(23), 1968-1988.
- Howard, M. O., & Chung, S. S. (2000a). Nurses' attitudes toward substance misusers. I. Surveys. *Substance Use and Misuse, 35*(3), 347-365.
- Howard, M. O., & Chung, S. S. (2000b). Nurses' attitudes toward substance misusers. II. Experiments and studies comparing nurses to other groups. *Substance Use and Misuse, 34*(4), 503-532.
- Howard, M. O., & Chung, S. S. (2000c). Nurses' attitudes toward substance misusers. III. Emergency room nurses' attitudes, nurses' attitudes toward impaired nurses, and studies of attitudinal change. *Substance Use and Misuse, 35*(9), 1227-1261.
- King, A. (1993). Doing the right thing for employees with disabilities. *Training and Development, 47*, 44-47.

- Levy, J. M., Murphy, B. S., Levy, P. H., Kramer, M. E., Rimmerman, A., & Botuck, S. (1993). Monitoring process and employment outcomes over time: The YAI employment project. *Journal of Developmental and Physical Disabilities, 5*, 167-179.
- Mangione, T. W., & Quinn, R. P. (1975). Dissatisfaction, counterproductive behavior, and drug use at work. *Journal of Applied Psychology, 60*(1), 114-116.
- Miller, N. S., Sheppard, L. M. & Magen, J. (2001). Barriers to improving education and training in addiction medicine. *Psychiatric Annals, 31*(11), 649-656.
- Najavits, L. M., & Weiss, R. D. (1994). Variations in therapist effectiveness in the treatment of patients with substance use disorders: An empirical review. *Addiction, 89*, 679-688.
- Rivers, P. C., Sarata, B. P., & Anagnostopoulos, M. (1986). Perceptions of deviant stereotypes by alcoholism, mental health, and school personnel in New Zealand and the United States. *The International Journal of Addictions, 21*(1), 123-129.
- SAMHA, U.S. Department of Human Services. (1997). An analysis of worker drug use and workplace policies and programs. Rockville, MD: Office of Applied Studies.
- Sparks, R. D. (1976). Attitudes in medicine toward alcoholism. *Man and Medicine, 1*(2), 173-180.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*, 797-811.
- Stone, D. L., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *Academy of Management Review, 21*(2), 352-401.
- Survey quantifies recovery community's attitudes, path to wellness. (2001, October 15). *Alcoholism and Drug Abuse Weekly, 13*(39), p. 5.
- Truxillo, D. M., Normandy, J. L., & Bauer, T. N. (2001). Drug use history, drug test consequences, and the perceived fairness of organizational drug testing programs. *Journal of Business and Psychology, 16*(1), 87-99.
- Tsang, H., Lam, P., Ng, B., Leung, O. (2000). Predictors of employment outcome for people with psychiatric disabilities: A review of the literature since the mid '80s. *Journal of Rehabilitation, 66*(2), 19-31.
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, National Institute on Disability and Rehabilitation Research. (2000). *Long-Range Plan 1999-2003*. Washington, DC: GPO.

Appendix A. Job Applicant Perceptions Survey

Directions. Imagine that you are the hiring manager for a local chain of home appliance stores. As part of the hiring process, you are required to fill out the following rating sheet for each person that you interview. Read the brief description below and then rate the job applicant using the scales provided.

Description. [Sally, John] is a 29-year-old [woman/man, former marijuana user, former methamphetamine user, recovering alcoholic] who has been out of the workforce for the last three years. [She, He] is seeking employment and recently placed an application with your home appliance company for the position of Customer Service Representative. Customer Service Representatives answer questions about your company’s products, process customer orders, deal with customer returns and refunds, assist in inventory management, and make cash transactions. Based on [her, his] application and interview, [Sally, John] appears to be qualified for the job. [She, He] has some previous work experience in the customer service field and is knowledgeable about the home appliance industry. [Sally, John] was well dressed for the interview, was well-spoken and alert, and gave intelligent answers to all of your questions. Rate the job applicant using the scales provided below.

		Very Much	Somewhat	Neither	Somewhat	Very Much	
1.	Shy						Outgoing
2.	Pessimistic						Optimistic
3.	Uptight						Laid Back
4.	Nervous						Relaxed
5.	Serious						Fun-loving
6.	Rebellious						Obedient
7.	Unstable						Stable
8.	Unfriendly						Friendly
9.	Undependable						Dependable
10.	Sexually Promiscuous						Sexually Conservative
11.	Unreliable						Reliable
12.	Messy						Neat
13.	Quiet						Loud
14.	Dangerous						Safe
15.	Passive						Assertive
16.	Trustworthy						Untrustworthy
17.	Emotional						Reserved
18.	Always late						Always on time
19.	Good for Business						Bad for Business
20.	Satisfied with Job						Unsatisfied with Job