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## Bipolar Disorder, Disclosure, and Their Effects on Employment Opportunities

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Bipolar Disorder, Disclosure, and Their Effects on Employment Opportunities

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People with psychological disorders often experience stigma and discrimination, which can impact their ability to gain and maintain employment (Goldberg, Killeen, & O'Day, 2005). The purpose of this study was to examine the impact of disclosure of a severe mental disorder (bipolar disorder) on employers' reactions. In addition, the study assessed the impact of diversity education on employers hiring recommendations for persons with severe mental disabilities. Participants listened to an interview of a student job applicant in one of three conditions (no disclosure, implicit disclosure, or explicit disclosure.) They rated the applicant on personal characteristics and likeability, as well as made employment recommendations. Next, participants read information about either mental disorders in the workplace (i.e., diversity education) or about work-study (i.e., control.) Finally, they re-evaluated the applicant on a variety of measures. There were no significant main effects of disclosure on personal characteristics or likeability. There was a significant interaction between job type and disclosure on employment recommendations, indicating that the effects of disclosure differed depending on the level of social interaction and responsibility that the job entailed. There were no significant intervention effects on job recommendations. Additional analyses revealed that participants felt significantly less prepared to supervise work-study students than people with mental disorders.

### Bipolar Disorder, Disclosure, and Their Effects on Employment Opportunities

Approximately one in four adults in the United States meets diagnostic criteria for a mental disorder. One in seventeen, or six percent, of Americans suffer from a serious mental illness such as bipolar disorder or schizophrenia (NIMH, 2006). Individuals coping with severe mental disorders face many potential barriers in employment, social interaction, and other major life areas that may interfere with leading a stimulating and fulfilling life (Markowitz, 2001; Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Thompson, Noel, & Campbell, 2004; Perlick, Rosenheck, Clarkin, Sirey, Salahi, Struening, & Link, 2001). Individuals with mental disorders must also cope with societal stigmas about the mental illness. When a person is labeled as “mentally ill,” others attribute certain negative stereotypes to that person, which can lead to social rejection and discrimination (Corrigan et al., 2003). Evidence suggests that family members, mental health workers, landlords, and employers all endorse relatively devaluing statements about persons with mental disorders. Employers appear reluctant to hire, retain, or promote mentally ill individuals because of the associated stigmas (Perlick et al., 2001). More specifically, Michalak, Yatham, Kolesar, and Lam (2006) found that many people who are diagnosed with severe mental disorders believe that dismissal from positions, demotions, or other serious ramifications are the result of their disorder in the workplace.

There are two key ways in which persons with severe mental disorders and employers may cope with the negative stigmas associated with mental conditions in the workplace: one of which is under the control of the individual with the condition and one which is under the control of the employer. First, the person with the mental disorder may choose to disclose, by telling others openly and directly about his or her condition. Because of the potential for ramifications in the workplace, however, some choose not to disclose their disorders. Second, diversity

training in work environments may alter the way employees think about and act toward one another. Diversity education programs help influence employee values and beliefs and help employees with different backgrounds better relate and provide social support for one another. Thus, diversity training has the potential both to help mentally ill persons cope better in a work environment and to facilitate growth and productivity in the workplace (Rynes & Rosen, 1995).

This study is an extension and modification of Fisher's (2006) unpublished study on mental disorders, disclosure, and implications for employment. The experiment has a dual focus: (a) on the degree to which potential discrimination toward persons with bipolar disorder can be influenced by disclosure and (b) on the extent to which workplaces can influence potential stereotyping and discrimination by providing employees with educational programs regarding tolerance of differences in the workplace. The study is grounded in an understanding of bipolar disorder and how it and other chronic mental illnesses are stigmatized. The study also draws on the literature regarding chronic mental illnesses in the workplace, how individuals with bipolar disorder cope in the workplace, and how diversity education in businesses can reduce stigma and discrimination.

### *Bipolar Disorder*

People with bipolar disorder make up 1% of the United States population and 14% of severely mentally ill individuals in the United States (NIMH, 2006). Bipolar disorder is an episodic illness that involves fluctuations in mood, from mania to depression. These fluctuations may occur concurrently, in rapid succession, or significant amounts of time (i.e., months) may pass between episodes (Hammen, Gitlin, & Altshuler, 2000). People with bipolar disorder spend 47% of their time actively experiencing symptoms of mania and depression, with the majority of that time spent in depression (Gaudiano & Miller, 2006). Mania consists of inflated self-esteem

or grandiosity, short attention span, decreased need for sleep, increased activity or restlessness, and/or distractibility. Mania often includes excessive involvement in activities that may have harmful consequences such as sexual indiscretions, buying sprees, or reckless driving (Egeland, 1986; Perugi, Micheli, Akiskal, Madaro, Socci, Quilicy, & Musetti, 2000). Depression consists of feeling sadness or hopeless, insomnia and fatigue, loss of interest in activities, persistent negative thoughts, and/or reduced ability to concentrate (Working, 2006). Bipolar disorder is a major cause of disability, but coping strategies can minimize its impact and chances of relapse (Ruessell & Browne, 2005; Perugi et al., 2000).

Individuals who are diagnosed with bipolar disorder often face social isolation, unemployment, little or no income, and poor housing conditions (Markowitz, 2001). More specifically, persons with bipolar disorder face a high unemployment rate and a low rate of competitive employment. Dickerson, Boronow, Stallings, Origoni, Cole, and Yolken (2004) found that of 117 persons with bipolar disorder, 49% were employed. Of those employed, only 27% held full-time competitive jobs.

Treatment for bipolar disorder is an ongoing process. Many bipolar individuals initially receive drug treatment as well as psychological therapy. Nonadherence to pharmacotherapy is a common and recurrent problem in bipolar disorder (Guadiano & Miller, 2006). Up to 47% of bipolar patients discontinue prescribed medication to treat their disorder against medical advice (Shaw, Stokes, Mann, & Manevitz, 1987).

Currently, 30 to 60% of people with bipolar disorder do not recoup full social or occupational functioning following the onset of their illness (Dickerson et al., 2004). Furthermore, of those who do recover from their symptoms, functional recovery often takes longer to occur (Dickerson, et al., 2004). Although bipolar disorder can be a debilitating

condition, individuals can rise above it and achieve (Goldberg, et al., 2005). Those who are most likely to surmount bipolar disorder have strong social support, are able to recognize warning signs that may lead to an episode, keep constant sleep cycles, and stay on pharmacotherapy (Russell & Browne, 2005).

### *Stigma and Chronic Mental Illness*

Individuals with bipolar disorder, similar to those with chronic mental disorders, experience *stereotyping*, *prejudice*, *stigma*, and *discrimination*. *Stereotyping* is a form of social categorization in which people hold shared beliefs about members of a particular group (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Hinshaw & Cicchetti, 2000). *Prejudice* takes stereotyping one step further. Prejudice is holding an unreasonable dislike sometimes derived from a negative stereotype (Hinshaw & Cicchetti, 2000). *Stigma* occurs when a personal characteristic automatically determines that a person will be perceived as flawed (Corrigan et al., 2003). *Discrimination* involves acting in unfair ways toward others, including those about whom someone holds negative stereotypes. Two subtypes of discrimination have been identified: overt and covert. *Overt discrimination* occurs when people who have negative stereotypes act on them in palpable forms of coercion, hostile behaviors, or segregation (Corrigan et al.). *Covert discrimination* is more subtle, generally nonverbal and may include social avoidance, withholding help, decreased smiling, decreased eye contact, and increased rudeness (King, Shapiro, Hebl, Singletary, & Turner, 2006).

Stigma and discrimination toward persons with mental illnesses have been documented among employers, mental health workers, family members, and communities (Perlick, et al., 2001; Thompson, et al., 2004). For example, many people believe that individuals with mental disorders cause their own mental conditions even if, in fact, those conditions have a biological

basis (Corrigan et al., 2003). Persons of stigmatized groups are at greater risk for being ignored, devalued, and rejected (Levin & van Larr, 2006). Individuals with mental disorders, and bipolar disorder in particular, are stigmatized by both uneducated and misinformed people (Perlick et al., 2001). Most often, people tend to covertly discriminate by creating social distance, which is the desire to avoid interaction with people with mental illness (Corrigan et al., 2003).

Unpredictability, lack of accountability of behavior patterns, and deviance are cited as why people create social distance between themselves and mentally ill individuals (Hinshaw & Cicchetti, 2000).

The influence of prejudice and discrimination on individuals with mental disorders has been increasingly researched over the past twenty years (Secharist, Swim, & Stangor, 2004). Targets of discrimination are quite aware of their stigmatized conditions. Just as society views people with mental disorders as second-class citizens (Hayward, Wong, Bright, & Lam, 2002), people with mental disorders perceive themselves to be stereotyped and discriminated against, and their abilities and roles devalued (Boyle, 1997). The strong consciousness that their disorder holds a certain stigma may be internalized and have debilitating effects (Pinel, 1999).

Stigmatized individuals may anticipate discrimination or rejection and develop certain coping strategies that may be detrimental to their overall well-being (Perlick et al., 2001). People who have mental disorders may be less able to cope with criticism than persons who do not have mental disorders (Hayward et al., 2002). Coping strategies to avoid discrimination and rejection may include withdrawing from social environments, including work (Perlick et al., 2001). This withdrawal may lead to self-esteem being negatively affected (Hayward et al., 2002). As experienced stigma increases, self-esteem and life satisfaction decrease. Secrecy and consequent withdrawal from social interactions due to anticipated discrimination appear to be



related to a tendency for mentally ill individuals to experience more severe and frequent symptoms (Goldberg et al., 2005). The coping strategy of limiting social contacts may hinder social adaptation and delay or prevent recovery. (Perlick et al., 2001). In contrast, an increase in social interactions can lead to increased self-esteem and life satisfaction, which consequentially leads to decreased symptoms (Markowitz, 2001).

### *Chronic Mental Disorders in the Workplace*

A key locale where many people with mental illnesses face stigma and discrimination is at their workplace. Although much research has been conducted about those with mental illnesses who *fail* in the workplace, very little research has shown *success* in the workplace (Russel & Browne, 2005). For example, persons diagnosed with bipolar disorder who leave the workplace may have difficulty reentering a work environment because they are afraid of increased stigma and its negative consequences (Hayward et al., 2002). As discussed earlier, employers, and people in general, tend to stigmatize persons with mental illnesses, and their behaviors reflect these stereotypes and misconceptions (Corrigan et al., 2003). Employers are often reluctant to hire potential employees who have physical or mental disorders (Thompson, et al., 2004). Psychiatric conditions are viewed with much greater stigma and suspicion than physical disorders, and these attitudes are often reflected in the workplace (Mechanic, 1998). Again, as indicated earlier, such rejection can have a snowball effect by interfering with an individual's recovery process (Thompson et al., 2004). Also, many people with mental illnesses fear disclosure in the workplace and feel that if others find out that they are bipolar, they will be shunned. They attribute denial of a job or promotion for discrimination and are more self-conscious and less productive than they would be otherwise (Ragins & Cornwell, 2001).

To even the playing field, both the United States and the United Kingdom passed disability nondiscrimination legislation in the 1990s (Bruyère, Erickson, & VanLooy, 2004). The Americans with Disabilities Act of 1990 (ADA) was passed in response to pervasive evidence of people with physical and mental disabilities being discriminated against in the form of unequal opportunity, unfairness, and intolerance in the workforce and in the community (Boyle, 1997; Hinshaw & Cicchetti, 2000; Goldberg, Killeen, & O'Day, 2005). It protects against discrimination toward people with mental or physical disabilities (Goldberg, et al., 2005). According to the ADA, employers are required to give people with both physical and psychological disabilities equal opportunity for jobs that they are qualified for.

Sadly, since the inception of the ADA, there has only been a small increase in the number of individuals who have reentered the workforce. In the first four years of the ADA being in effect, there was only a 0.3% increase in the number of persons with disabilities (both physical and mental) who were employed (Boyle, 1997). There are at least two reasons why this may be. First, employers often look for qualities that may be jeopardized by some symptoms associated with mental disorders, such as sensitivity and responsibility when dealing with customers, concentration and dedication to specific tasks, and effectiveness in working with teams. Sometimes an applicant with a mental disorder is rejected for a job because he or she does not possess the necessary skills, not because of the mental disorder per se (Mechanic, 1998). Second, some people with mental disorders *are* qualified but are discriminated against because of their mental disorders. The purpose of this study is to look at the second reason.

### *Coping in the Workplace*

Research suggests that most people with severe psychological disorders can recover to sufficiently and even successfully maintain employment, including competitive full-time

employment (Goldberg et al., 2005). The type of coping strategy used can influence how well a mentally ill individual performs in the workplace. Some mentally ill individuals develop negative coping strategies that can increase the severity of their symptoms which make them unable to perform tasks in a work environment (Perlick et al., 2001). Conversely, a number of coping strategies appear to be linked to more effective personal and occupational functioning (Goldberg et al., 2005). Bipolar individuals who obtain or maintain strong social support report less manic-depressive occurrences or less severe symptoms (Markowitz, 2001). Bipolar persons must also be able to identify triggers and recognize early warning signals that may set off mania and depression. Stress is a common trigger. Bipolar persons may learn to reduce stress by taking frequent vacations, working part-time instead of full-time, spending more time with family, seeking regular counseling, and staying on medication continuously (Russell & Browne, 2005).

Disclosure in the workplace is a pertinent issue relevant to coping with bipolar disorder and other mental disorders. On one hand, those who disclose are given the opportunity to take advantage of the ADA, whereas those who do not disclose are not awarded this privilege (Ragins & Cornwell, 2001). More specifically, disclosure makes it possible to obtain work accommodations and explain uneven employment histories (Goldberg et al., 2005). On the other hand, nondisclosure gives people a better opportunity to “blending in” than disclosure. Some individuals who choose to disclose report harsher treatment by supervisors as well as discomfort around co-workers. Nondisclosure provides protections from these both perceived and real stigmatizing experiences (Goldberg et al.).

There are at least three different ways in which individuals choose to disclose their disability. First, they may either fully disclose by letting management and other workplace

employees know about their disorder. Second, they may selectively disclose by disclosing on a person-by-person basis. Those who disclose on a person-by-person basis choose to disclose only to specific people who they trust or who need to know (Ragins & Cornwell, 2001; Michalak et al., 2006). Third, there are other, more indirect means of communicating a disorder and/or support for that condition, such as wearing ribbons on clothing. In this manner, others do not know if the individual has the condition or if he or she is simply supporting a cause.

Most individuals with stigmatizing conditions choose whether or not to disclose based upon multiple factors: situation, stage in life, familiarity, and necessity (Olney & Brockelman, 2003). A primary reason why people struggle with the decision of whether or not to disclose their disorder is because they fear that other people will act differently toward them, especially with regard to discriminatory behaviors (Dickerson et al., 2004). The current study was designed to assess whether and how potential employers reacted to disclosure of a mental condition. It is possible that disclosure can have negative effects because people will be more aware that a bipolar individual is different. However, disclosure can also have positive effects because co-workers would be more understanding of abnormal behavior because they would know the reason for those actions.

### *Diversity Education*

In order to address issues pertaining to negative attitudes and discrimination in work environments, many businesses are currently implementing diversity training programs. These programs address issues such as race, gender, ethnicity, age, national origin, religion, and disability (Wentling & Palma-Rivas, 1998). Diversity training programs are intended to influence employee values, attitudes, and ways of connecting to one another (Rynes & Rosen, 1995). They are also intended to enhance communication among employees, create more

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effective work teams, motivate employees, and create less conflict and misunderstandings among employees. These programs should not only help the employees but should also help companies run more effectively and prevent costly lawsuits (Wentling & Palma-Rivas, 1998). Rynes and Rosen (1995) performed an extensive questionnaire study in which Human Resources respondents from 735 companies in the United States gave input about their diversity training programs. From this, the authors derived that attendance to these programs should be mandatory for supervisory employees and must aim to increase consciousness about one's own beliefs about mentally ill individuals and improve or develop sensitivity toward the feelings and beliefs of others (Rynes & Rosen, 1995). Successful training programs require not only effective, high-quality information, but also reinforcement in workplace policies, activities, and incentives (Beale, 1998). Managers and supervisors must hold positive beliefs and translate those beliefs into active, evident support for diversity (Rynes & Rosen, 1995). Current research on diversity education does not specifically address mental health training programs. Most only touch on mental disorders and go into more detail about physical disability, race, and gender (Rynes & Rosen, 1995; Beale, 1988; Wentling & Palma-Rivas, 1998).

#### *Current Study*

The present study was designed to address the amount to which persons with bipolar disorder are stigmatized by potential employers. This study is an extension and modification of Fisher's (2006) unpublished study on discrimination and employment. Fisher recruited undergraduate in order to assess the effects of no, implicit, or explicit disclosure of a mental disorder (bipolar) or speech disorder (stuttering) on employment recommendations. The participants listened to a computer-based interview with an applicant for an on-campus work-study job. Participants were randomly assigned to one of six conditions (no disclosure, implicit

disclosure, or explicit disclosure) for an applicant with either a mental or speech disorder.

Playing the role of the “interviewer,” the participants were asked to rate the applicant on his personal qualities and what type of job he would, or would not, excel in. In addition, participants were asked to give their personal reactions to the applicant.

Fisher’s (2006) results suggested that participants gave the bipolar applicant who disclosed more negative ratings than the bipolar applicant who did not disclose, but gave the stuttering applicant who disclosed more positive ratings than the stuttering applicant who did not disclose. These results are consistent with interpretations that disclosure of a mental condition (i.e., bipolar disorder) yields discrimination and rejection from employers (Perlick et al., 2001).

Fisher’s (2006) study has limitations that will be addressed in the current study. First, the study used undergraduate students as participants. The current study instead recruited university staff and faculty who supervise student employees. These results should be more readily generalizable to work environments. Second, Fisher’s study only assessed the effects of one of the key strategies discussed earlier for coping with individuals with mental disorders in the workplace: disclosure. The current study assessed the effects of both disclosure and a second method: diversity training. More specifically, half of the participants were randomly assigned to read a diversity education fact sheet and half read a control fact sheet. The participants were then assessed a second time to see if the diversity intervention would influence employability ratings. Third, Fisher’s measures were self-report assessment measures which were subject to a social desirability response bias; therefore, the current study also used an indirect measure of perceptions of Supervisory Training. That is, it was hypothesized that individuals who received the mental health information would be more critical of the training they had received in the past than those who read the work-study (control) information.

The major hypotheses for the study were as follows. First, potential employers would have more negative affective reactions and form more negative general impressions of a job applicant when the applicant explicitly disclosed his bipolar condition. Second, there would be a significant interaction between disclosure and job type in that the effects of disclosure would differ depending on the type of job for which participant was recommending the applicant. More specifically, disclosure was predicted to negatively impact job recommendations if a job required a high level social responsibility, but have no or minimal impact if a job required a low level of social responsibility. Third, it was hypothesized that the responses of participants who read the diversity fact sheet versus the control group would display evidence of more tolerant attitudes. This would be shown as increased recommendations for employability and more critical responses to the diversity training that they received.

## Methods

### *Participants*

Participants were 52 male (N = 16) and female (N = 36) staff (N = 45, 86.5%), faculty (N = 5, 9.6%), and administrators (N = 2, 3.8%) from one small liberal arts university and one state university in the Midwest. The majority (94.2%) were white/Caucasian, while the remaining participants chose “other” or skipped the question on ethnicity/race. Approximately half of participants were over age 45 (51.9%), with a quarter between the ages of 31-45 (26.9%), and a fifth under age 31 (19.2%). Demographic information regarding relevant employment experiences is provided in Table 1. Overall, participants had a fairly high level of work experience, with 57.7% having been employed in higher education for over five years, 48% having been involved in hiring students for at least five years, and 61.5% involved in supervising one to five student workers per year. Only 5.8% of participants reported that they have never

been responsible for hiring student workers. In general, the majority of participants supervised zero to five ( $N = 33$ , 63.5%) students per year. Some supervised six to ten students ( $N = 8$ , 15.4%) and some supervised over ten students ( $N = 11$ , 21.2%).

The participants, for the most part, had a high degree of familiarity of people who have mental disorders, including bipolar disorder. Of the participants, 82.7% reported knowing someone with a mental disorder. 30.8% reported knowing an immediate family member with a mental disorder, and only 15.4% reported not knowing anyone who has a mental disorder. More specifically, 65.4% reported knowing somebody with bipolar disorder. Of those, 25.0% of participants knew an extended family member with bipolar disorder and 7.7% knew an immediate family member with bipolar disorder. (See Table 2).

Participants were widely recruited via e-mails, recruitment flyers, and personal contact. All participants were compensated with a \$5 coffee voucher. Because of the sensitive nature of the study and the small size of the campus, extra efforts were taken to ensure participants' anonymity. As a result, only minimal demographic information was collected and participants were given the opportunity to skip items.

### *Procedures and Experimental Stimuli*

*Procedures for Part I.* After signing an informed consent form, participants were instructed to sit down at a laptop computer with the MediaLab software program and follow the directions on the screen. The participants listened to recorded interview responses while viewing photographs of a college student applying for on-campus jobs. (These stimuli were the same as those used in Fisher [2006]). The participants were instructed to imagine that they were interviewing the depicted applicant for an on-campus job. Written interview questions appeared on the screen and verbal responses from the depicted applicant followed. The participants were



randomly assigned to view and listen to three versions of the applicant stimuli: Condition 1) no disclosure (i.e., the bipolar person appeared typical to the participant and did not disclose his disorder). Condition 2) indirect disclosure (i.e., stimuli were identical to Condition 1, but applicant wore a jacket with “National Bipolar Association” embroidered on it), Condition 3) direct disclosure (i.e., identical to Condition 1 but applicant told the listener that he had bipolar disorder).

After watching and listening to the applicant, the participants were instructed to fill out the General Impression Formation, Affective Reactions, and Employability items. These measures will be described in detail later.

*Procedures for Part II.* After completing the scales for Part I, participants were randomly assigned to one of two intervention conditions: 1) mental health intervention (i.e., read a three-page fact sheet about mental disorders in the workplace) or 2) control (i.e., read a three-page fact sheet about work-study jobs). The mental disorder tolerance fact sheet defined mental disorders and contained information about various mental disorders such as bipolar disorder, stuttering, aphasia, and major depression. In addition, it advised employers to be aware of the stigma associated with mental disorders and explained how to work more effectively with people with mental disorders and their colleagues. The work study fact sheet defined work study and gave examples of various work study jobs on university and college campuses. Additionally, it advised employers to be aware of the challenges that go along with students who need to both work and study, and explained how to work more effectively with work-study students. The participants then completed a measure of satisfaction with their respective institutions’ diversity training programs (Supervisory Training) and repeated the Employability measure. Finally,

participants had the option of filling out a Demographics form. These measures are explained in detail below.

### *Measures*

#### *Measures for Part I.*

*General Impression Formation.* This scale consisted of twelve semantic differential adjective pairs, each measured on an eight-point scale. Participants were asked to rate the applicant's personal qualities on the following pairs: 1) shy-bold, 2) friendly-unfriendly, 3) secure-insecure, 4) withdrawn-outgoing, 5) cooperative-uncooperative, 6) intelligent-unintelligent, 7) reliable-unreliable, 8) anxious-composed, 9) ambitious-unambitious, 10) emotionally stable- emotionally unstable, 11) relaxed-stressed, and 12) socially maladjusted- socially well-adjusted. Internal consistency for this scale was adequate (Cronbach's Alpha = .86).

*Affective Reactions.* This scale assessed the participants' personal reactions to the individual. Two of the questions measured how socially comfortable the participant would be with the applicant (e.g. "How comfortable would you feel with this person in real life?)." Two of the questions measured the participant's level of respect and admiration for the applicant (e.g. "To what degree do you respect this person?)." Two additional questions measured the general level of affect that the participant had towards the applicant (e.g. "Personally, how much did you like this person?)." The Cronbach's Alpha for this measure was .85.

*Employability.* Participants rated how strongly they would recommend for or against hiring the applicant for nine common on-campus jobs. The jobs were categorized into perceived levels of social interaction and responsibility on an a priori basis: low (data entry/filing, processing interlibrary loan requests, food preparation), moderate (coffee shop employee,

dormitory desk aide, person who checks out equipment at on-campus gym), or high (campus tour guide, person who works at the main information desk, resident assistant). A twelve-point likert scale was used to assess the strength of each recommendation, with “1” representing “strongly recommend against hiring” and “12” representing “strongly recommend for hiring.” The overall job scale had a Cronbach’s Alpha of .93.

### Measures for Part II

Employability. The same Employability scale from Time I was used to assess whether or not participants altered their recommendations after reading the diversity training information.

Supervisory Training. This measure was specifically created for this study as a more indirect measure of the participants’ recognition of need for mental health training, not as a direct measure of how well participants were prepared by their respective universities to contend with diversity. Participants rated how strongly they agreed or disagreed that faculty and staff were well prepared to supervise employees with mental disorders. They responded to statements regarding mental disorders (e.g., As an employee of an institution of higher education, I have been well prepared to hire and supervise employees with mental, psychological or cognitive disorders) and college students (e.g., As an employee of an institution of higher education, I have been well prepared to hire and supervise college students as employees). The measure also included a parallel scale assessing participants’ preparation for working with college students. The Cronbach’s Alpha was .63 for the mental disorder subscale and .63 for the college student subscale, both indicating that the subscales had poor internal consistency.

## Results

### *Time 1 Analyses*

*General Impression Formation.* A one-way ANOVA revealed no significant effect of

disclosure on the General Impression Formation measure,  $F(2, 49) = .42, p = .661$ . As demonstrated in Table 3, all of the group means for the General Impression scale were highly similar regardless of whether the applicant explicitly disclosed ( $M = 5.68, SD = .864$ ), implicitly disclosed ( $M = 5.98, SD = .975$ ), or did not disclose his bipolar condition ( $M = 5.87, SD = .915$ ). Thus, contrary to the hypothesis, disclosure did not appear to be a factor in impressions that participants formed about the applicant.

*Affective Reactions.* The one-way ANOVA for the Affective Reactions measure also failed to yield a significant effect of disclosure,  $F(2, 49) = .16, p = .854$ . Once again, group means for the Affective Reactions scale were highly similar regardless of whether the applicant explicitly disclosed ( $M = 5.89, SD = 1.11$ ), implicitly disclosed ( $M = 5.70, SD = .74$ ), or did not disclose ( $M = 5.82, SD = 1.21$ ; see Table 3). This was also contrary to the hypotheses that disclosure did not appear to be a factor in affective reactions that participants held about the applicant.

*Employability.* A 3 (disclosure) x 3 (job type) mixed factorial ANOVA was run with the Employability measure as the dependent variable. As hypothesized, the job type by disclosure interaction was significant,  $F(4, 96) = 3.92, p = .005$ , indicating that the effects of disclosure differed depending on the level of social interaction and responsibility that the job entailed. As can be seen by inspection of means and standard deviations in Table 4, participants highly recommended the applicant regardless of job level or amount of disclosure with one exception. When participants saw the applicant who explicitly disclosed, they were more likely to recommend *against* hiring him for jobs that required a high level of social interaction and responsibility. Beyond this interaction, the between-subjects main effect for disclosure was not significant,  $F(2, 48) = .457, p = .636$ , but the within-subjects main effect for job type was,  $F(2,$

98) = 9.45,  $p = .000$ . This significant main effect cannot be interpreted outside of the significant interaction effect discussed above.

To explore these results, the percent of participants who recommended the applicant for each job were calculated (see Table 4). On average, 55-80% of the participants recommended the applicant for any specific job regardless of disclosure condition. The most obvious exceptions were the relatively low percentage that recommended the applicant when the applicant explicitly disclosed for jobs that required a high level of social responsibility (e.g., only 21.4% recommended that he be hired as a Resident Assistant). In contrast, relatively high percentages of participants (92.9%) recommended the same applicant for jobs that are likely to be considered low social status by faculty and staff (i.e., food preparation and checking out equipment for the gymnasium (see Table 4).

#### *Time II Analyses*

Originally, the plan for analyzing Time II data was to use a 3(disclosure) x 2(intervention) ANOVA. There were less than ten participants in four of the six cells, however, so this complex analysis could not be done. Instead, separate ANOVAS were conducted to look at the effects of disclosure and intervention.

*Employability.* A 3(disclosure) x 3(job type) ANOVA was run to see if the Time I Employability findings would be replicated. The means and standard deviations (see Table 5) and ANOVA results are all parallel to those observed at Time I. Once again, the significant interaction revealed that when participants saw the applicant who explicitly disclosed, they were more likely to recommend *against* hiring him for jobs that required a high level of social interaction and responsibility. There was a significant main effect for job type,  $F(2, 92) =$

6.26,  $p = .003$ , the interaction between disclosure and job type was highly significant,  $F(4, 92) = 4.09$ ,  $p = .004$ , and there was no main effect for disclosure,  $F(2, 49) = .465$ ,  $p = .631$ .

A 2(intervention) x 3(job type) ANOVA was run to determine whether the intervention had an effect on employability. There was no significant interaction between intervention and job type,  $F(1, 46) = .054$ ,  $p = .817$ , no significant main effect for intervention  $F(1, 46) = .576$ ,  $p = .452$ , and no significant main effect for job type,  $F(1, 46) = 2.465$ ,  $p = .123$ . The means and standard deviations were all highly similar (see Table 6). In essence, there was no significant evidence that the intervention affected employment recommendations.

*Supervisory Training* A 2(intervention) x 2(subscale) ANOVA was run to assess whether the type of intervention influenced how well participants felt that they had been prepared by their institutions to hire and supervise people with mental disorders versus work-study students. There was no significant main effect for intervention,  $F(1, 46) = .014$ ,  $p = .907$  and no significant interaction effect for intervention by subscale,  $F(1, 46) = .805$ ,  $p = .374$ . Contrary to the hypothesis, the mental health intervention did not lead to more critical evaluations of participants' supervisory training regarding hiring and working with employees with mental disorders. There was a main effect for subscale,  $F(1, 46) = 64.11$ ,  $p = .000$ , meaning that staff and faculty felt significantly less prepared for working with persons with mental disorders than with work-study employees.

An additional 3(disclosure) x 2(subscale) mixed analysis of variance was run to determine how critical participants were of their supervisory training was based on their disclosure condition, with disclosure as the between-subjects variable and subscale as the within-subjects variable. There was no significant interaction between subscale and disclosure,  $F(2, 49) = 1.31$ ,  $p = .279$  and no significant main effects for disclosure:  $F(2, 49) = .512$ ,  $p = .603$ . There

was a main effect for subscale:  $F(1, 49) = 69.61, p = .000$ , which simply reflects the same data reported above (i.e., they felt less prepared to work with people with mental disorders than with work-study students; see Table 5).

### Discussion

Because 6% of Americans suffer from serious mental disorders (NIMH, 2006), it is important that members of the working community understand how to work with these individuals. Many people with mental disorders face barriers in employment because of societal stigmas and discrimination (Perlick et al., 2001; Thompson, et al., 2004). Individuals who have mental disorders are more likely to be unemployed, have less income, and experience more social isolation than the general public (Markowitz, 2001). This study examined two methods of reducing workplace stigma and discrimination: disclosure and diversity education. More specifically, it focused on the effects of disclosure on hiring decisions as well as the degree to which diversity education in the workplace affects hiring decisions when employers interview job applicants with mental disorders, especially with regard to competitive jobs.

#### *Hypothesis 1*

The primary hypothesis predicted that disclosure would influence employer reactions to a job applicant with a mental disorder. More specifically, it was hypothesized that disclosure would lead to more negative impressions and more negative personal reactions. Overall, there was no significant main effect for disclosure for these two dependent variables. In other words, there was no evidence that employees responded more negatively in terms of impression formation or affective reactions when they knew that the applicant had bipolar disorder. This was unexpected given previous literature. Prior literature has found that many groups of people, including employers, view individuals with mental disorders as second-class citizens (Hayward

et al., 2002), and this labeling and stereotyping causes them to be discriminated against and socially rejected by others (Corrigan et al., 2003).

Some possible reasons for this disparity between these results and prior literature are as follows. First, there could have been social desirability effects. Social desirability effects occur when participants anticipate that the researcher wants a particular response, so they respond accordingly, not how they would have responded otherwise. Because the majority of the participants came from a small campus and may have known the research team, they might have felt like their anonymity was not protected (although measures were taken to protect from us identifying them), which, in turn, may have increased the likelihood of social desirability effects. Also, increasingly tight reins on public policy in regards to non-discrimination in the workplace (Goldberg et al., 2005) may have increased the likelihood that participants may have expressed social desirability effects, especially as the data for most was collected in their places of employment (e.g., offices).

Second, a possible explanation is that the participants may have truly felt positively about the applicant, regardless of whether or not he disclosed his bipolar condition. This could be because public understanding of mental illnesses has improved (Johnson, et al., 2004). Understanding of mental disorders in a university setting may be greater because universities put an emphasis on diversity. Also, of the participants, a large percentage came from campus offices (e.g., residential life) and other offices that are proactive in increasing acceptance of diversity. Thus, staff and faculty in university settings may be able to better identify that mental disorders are caused by chemical imbalances and other factors, rather than blaming the disorder on the individual (Corrigan et al., 2003).



A related explanation may be that prejudice and discrimination regarding people with mental disabilities has become less overt, and potentially more covert. King et al. (2006), in his obesity study, states that although overtly prejudiced attitudes and major discriminatory acts have reduced considerably in the workplace, these overt attitudes have been replaced by covert and more difficult to detect forms of prejudice and discrimination. Covert prejudice and discrimination is much more subtle, but is frequent and potentially as damaging as overt prejudice and discrimination.

Finally, an alternative hypothesis for the lack of a disclosure effect may have been due to a manipulation failure. This might indicate that the participants, even those who saw the explicit disclosure condition, failed to recognize of the applicant's disorder. This is unlikely because data from a manipulation check in Fisher's (2006) study, of which this study is a replication and extension, indicated that nearly 100% of the undergraduate participants in her study noticed the applicant's disorder.

In sum, it is likely that multiple factors played a role in why the disclosure manipulation had no significant effect. The most likely explanation is that social desirability, growing acceptance and understanding of mental disorders, and covert discrimination were each part of the cause.

### *Hypothesis 2*

Previous literature suggests that people are less willing to offer jobs to individuals with mental disorders (Corrigan et al., 2003). Therefore, the second hypothesis was that disclosure would influence employability but that it might depend on the type of job. More specifically, it was predicted that the participants would be less likely to recommend the applicant who explicitly disclosed for jobs that required a high (rather than low or moderate) level of social

responsibility. In accordance with the hypothesis, a significant interaction between job type and disclosure was observed. In this interaction, there is evidence for possible covert discrimination. Participants were relatively willing to recommend the applicant who explicitly disclosed for jobs that required low to moderate levels of social responsibility but not for jobs that required high levels of social responsibility. Recommending him more for the lower-level jobs may indicate that they were trying to make up for not recommending him for the high level jobs, a potential sign of subtle but significant discrimination. This may best be understood as *benevolent discrimination*. Benevolent sexism is defined as members of the dominant group discriminating against women by trying to protect them from instances in which they might get hurt (Glick & Fiske, 1997). Similarly, in this study, participants may have discriminated against the applicant, not in hostility, but in concern for his well-being, thinking that the high-level jobs would be too trying for him.

### *Hypothesis 3*

The final hypothesis was that diversity education would influence participants' tolerance as seen in hiring decisions and perceptions of their own supervisory training. The prediction was that those who read the mental health intervention would recommend the applicant more highly for jobs than those who read the control information. In addition, participants who read the mental health intervention were predicted to be more critical of their institutional training than those who read the control. The intervention, however, had no impact on either measure. This could be for at least two reasons. First, social desirability again might have played a role, in that participants may have attempted to appear consistent in their responses from Time I to Time II. Second, the intervention probably was not powerful enough to change participant decision. The

intervention consisted of a three-page handout where as successful diversity training in the workplace typically involves reinforcement, interactive activities, and incentives (Beale, 1998).

### *Implications and Applications*

This study has several important implications. First, although overt forms of discrimination are less prevalent in recent years, the current subtle, covert, forms of discrimination remain difficult to protect against in organized settings (King et al., 2006). Perhaps employers should put a stronger focus on identifying covert discrimination and address it in the workplace.

Second, individuals with mental disorders may wonder whether they should disclose, or whether they should refrain from disclosing, at least at first. Because the results of this study imply that there is no effect for disclosure when applying for jobs that require low to moderate social interaction, this may suggest that disclosure an applicant would have an equal chance of obtaining a position regardless of disclosure level. Some would advise that disclosure would be the best option because individuals with mental disorders can then take advantage of the ADA, which protects against workplace discrimination (Goldberg et al., 2005). Contrarily, individuals should refrain from disclosing when applying for jobs that require more social responsibility, or competitive jobs. Goldberg et al. suggests that job applicants delay their disclosure. They should wait until they are respected by staff and supervisors and their work is valued to strategically and selectively disclose their disorder.

Third, companies should consider adding diversity education, with an emphasis on mental health diversity, into their mandatory employee programming. Although the diversity education intervention designed for the current study did not significantly influence potential employers' hiring recommendations, participants reported being less prepared to supervise

people with mental disorders than general work-study employees. This indicates that their supervisory training with regard to mental health issues is insufficient. Steps need to be taken to increase current or add new diversity training programming. Successful training programs may include seminars, in which instructors have expertise and are passionate about mental health diversity; discussion groups, in which employees with and without mental disorders are included; as well as incentives and quizzes (Rynes & Rosen, 1995).

### *Strengths and Limitations*

The two major limitations to the study were the relatively small sample size and the apparent social desirability effects. If the study had had more participants, there might have been enough data for more of the measures to be found significant. Future research should replicate this study with a larger sample size. In addition, future studies should attempt to reduce the possibility of social desirability effects by including more implicit measures. Further, if this study is continued or replicated, the participant population should be unfamiliar to the researchers to reduce social desirability effects.

The current research added some methodological advancements to the study of mental disorders, specifically bipolar disorder in the workplace. First, it included richer stimuli (e.g., an auditory recording of an interview, intervention materials formatted to look like human resource pamphlets) than has been used in much previous research on stigma and discrimination in the workplace. Second, this study made an important attempt to increase external validity because it assessed actual employers' and supervisors' reactions to a potential job applicant, rather than reactions of students who are not in supervisory positions. To expand external validity further, future research should address different employment contexts such as retail stores and business enterprises. In addition, because the current study depicted bipolar disorder only, future research

should concentrate on other psychological disorders as well as other stigmatized conditions such as HIV and AIDS, and specific diseases. Also, different methods recommended for reducing stigma and discrimination should be studied. A third methodological advancement of this study was that it examined both sides of the hiring process: how the applicant could influence the employer and how the employer could be influenced by mental health diversity training. Much research that has been conducted in the past only looks at disclosure and its effects on the individual who has a mental disorder and not the employer (Markowitz, 2001; Thompson et al., 2004; Perlick et al., 2001; Russell & Brown, 2005; Dickerson et al., 2004), while others only address diversity education without regard to mental disorders (Wentling & Palma-Rivas, 1998; Rynes & Rosen, 1995; Beale, 1988).

In conclusion, 30 to 60% of people diagnosed with bipolar disorder do not regain full social and occupational functioning after the onset of their illness (Dickerson et al., 2004). Employers may use this and other information to stereotype people with psychiatric conditions, neglecting to recognize that 40 to 70% of individuals with bipolar disorder *do* recover full social and occupational functioning. One challenge for future research will be to study whether job applicants with mental disorders are denied employment or promotion because of stereotypes or because the applicant does not possess the skills necessary for the job. For instance, researchers could design studies that induce negative stereotyping and present job applicants with differing skill levels which are more or less impacted by their mental disorder. In turn, researchers could assess the interactions of those variables with diversity training and disclosure. These studies will help employers and employees with mental disorders alike to understand and build employee-employer interactions, employee productivity, and workplace morale.

## **Appendix**

### **Measures used in Part I of the study:**

- Semantic Differential Items
- Affective Response Items
- List of Campus Jobs Used to Assess Employability

### **Educational Conditions**

- Informational Passage #1: Mental Health
- Informational Passage #2: Work Study

### **Measures used in Part II of the study:**

- Perceptions of Supervisory Training
- Manipulation Check Items
- Demographic Items

**Items for Measures Used in Part I of the Study**  
**(All items are formatted and presented in Media Lab software)**

**Semantic Differential Items**

shy	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	bold
reliable	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	unreliable
friendly	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	unfriendly
anxious	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	composed
secure	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	insecure
ambitious	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	unambitious
withdrawn-	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	outgoing
emotionally stable	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	unstable
cooperative	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	uncooperative
relaxed	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	stressed
intelligent	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	unintelligent
														socially maladjusted-
	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	----	<input type="checkbox"/>	socially well-adjusted

**Affective Response Items**

How comfortable would you feel with this person in real life? (Comfortable to uncomfortable)

How tense would you feel with this person in real life? (Very tense to very relaxed)

Personally, how much did you like this person? (Not at all to very much)

Overall, how did you feel toward this person? (Very positive to very negative)

To what degree do you respect this person? (Not at all to very much)

To what degree do you admire this person? (Not at all to very much)

**List of Campus Jobs to be Used in Assessing Employability**

All rated from "Strongly recommend" to "Strongly Not Recommend" (12 point likert scale)

***High Social Interaction***

Campus tour guide for prospective students and family

Main desk/information at Memorial center

Dormitory Resident Assistant

***Moderate Social Interaction***

Coffee shop employee

Dormitory desk aide

Checking out equipment at gymnasium

***Low Levels of Social Interaction***

Data entry/filing in registrar's office

Processing interlibrary loan requests at university library

Food preparation in cafeteria

## Informational Passage #1: Mental Health

**Introduction:** You will now be asked to read and reflect on some important information relevant to student employment. Please read the information on the next 3 screens carefully.

### Mental Health in the Workplace

The terms *mental, psychological, or cognitive disorder* encompass a range of mental health problems that may influence job performance. An estimated 26.2% of American adults have a diagnosable mental disorder (NIMH, 2006) such as:

- **Depression:** feeling sad or hopeless, loss of interest in activities; insomnia/fatigue; recurring negative thoughts; reduced ability to think or concentrate.
- **Bipolar Affective Disorder:** (also known as manic-depression) periods of severe depression (as described above) followed by periods of mania; which may include inflated self-esteem, decreased need for sleep, agitation, and distractibility.
- **Stuttering:** flow of speech is disrupted by involuntarily repeating sounds, syllables, words or phrases; as well as involuntary silent pauses
- **Aphasia:** impairment of the ability to use or comprehend words, generally resulting from stroke or other brain injury
- **Panic Disorder:** attacks of sudden and intense fear causing physical symptoms such as shortness of breath, dizziness, sweating, and nausea, as well as thoughts that one might die or do something uncontrolled.

The complex nature of mental disabilities makes generalizations difficult. A person with a mental condition may have multiple impairments that affect their mental abilities or behavior in the workplace. On the other hand, having a mental or cognitive disorder will *not* always affect a person's ability to work.

### Hiring and Working with a Person with a Disability

As the employer, be clear about your expectations and priorities about job responsibilities. Employees also have a responsibility to raise any problems or challenges as they arise. The social stigma and misinformation associated with mental, psychological or cognitive disorders, however, can make it very uncomfortable for an employee to disclose their disability or seek job accommodation.

Supervisors can help overcome this stigma by creating a work environment that includes:

- Positive, encouraging and welcoming behavior toward all employees
- A workplace culture where individual differences are not viewed negatively and individual strengths are recognized
- Diversity training for all employees; reinforcing the message that job accommodations are not simply preferential treatment
- Creating opportunities for you and your employee to discuss potential problems, work out strategies, and find appropriate solutions.

*Adapted from:* Working Together: An Employer's Resource for Workplace

Accommodation.<http://www1.servicecanada.gc.ca/en/on/epb/disabilities/onworking.shtml> (28 September, 2006)



## Informational Passage #2: Work-Study (Control condition)

**Introduction:** You will now be asked to read and reflect on some important information relevant to student employment. Please read the information on the next 3 screens carefully.

### Work Study

Work Study jobs are awarded to students in higher education institutions who demonstrate financial need through both the Free Federal Application for Student Aid (FAFSA) and through the specific university's financial aid application. Current federal budget for work study is \$980 million ([www.whitehouse.gov/obm/expectmore](http://www.whitehouse.gov/obm/expectmore)) which supports student employment in jobs such as:

- **Campus Tour Guide:** Give campus tours to prospective students while knowing and expressing numerous facts about the buildings, activities, academics, and campus events.
- **Data Entry:** Keying in text, entering data into a computer, operating office machines, and performing other clerical duties.
- **Resident Assistant:** Live in residence hall and work to create and maintain a sense of community through initiating hall programs, counseling residents, and interpreting University policies to the residents.
- **Food Preparation:** Assist chefs with preparation and clean up of meals.
- **Dormitory Desk Aide:** Assist people at the hall desk, sort mail, answer phone calls, and complete duties assigned by the Residence Hall Director.

The varied nature of campus work-study jobs makes generalizations difficult. Some parents and educators believe that students who hold jobs while at college are at a disadvantage because of the time commitment spent away from time that could be spent studying. On the other hand, work-study commitments will *not* always affect student academic progress.

### Hiring and Working with Work Study Students

As the employer, be clear about your expectations and priorities about job responsibilities. Your employees also have a responsibility to raise any problems or challenges as they arise. Because of the varied maturity levels of students in work study programs, however, some students may be less skilled at knowing when to seek assistance.

Supervisors can help overcome potential work-study related problems by creating a work environment that includes:

- Positive, encouraging, and welcoming behavior toward all employees.
- Asking work-study students how their employment is affecting their academic progress.
- Monitoring potential effects at the institutional level such as graduation rates of work-study students as compared to the general student population.
- Creating opportunities for you and your employees to discuss potential problems, work out strategies, and find appropriate solutions.

*Adapted from:* Pascarella, E., Bohr, L., Nora, A., Desler, M., & Zusman, B. (1994). Impacts of on-campus and off-campus work on first year cognitive outcomes. *Journal of College Student Development*. 35, 364-370.

### Items for Measures Used in Part II of the Study (cont.)

#### Perceptions of Supervisory Training

Directions: Please indicate how strongly you agree or disagree with each of the following statements, using the following scale

Strongly Agree [1] [2] [3] [4] [5] [6] [7] Strongly Disagree

Items (The 8 items will be formatted in and presented in a random order by the MediaLab software)

1. Universities do a good job hiring and supervising college students as employees.
2. Universities do a good job hiring and supervising employees with mental, psychological or cognitive disorders.
3. As an employee of an institution of higher education, I have been well prepared to hire and supervise college students as employees.
4. As an employee of an institution of higher education, I have been well prepared to hire and supervise employees with mental, psychological or cognitive disorders.
5. Institutions of higher education need to do a better job of training faculty and staff to effectively hire and supervise college students.
6. Institutions of higher education need to do a better job of training faculty and staff to effectively hire and supervise employees with mental, psychological or cognitive disorders.
7. My past and present places of employment have failed to provide me with the tools necessary for successfully hiring and supervising college students as university employees.
8. My past and present places of employment have failed to provide me with the tools necessary for successfully hiring and supervising employees with mental, psychological or cognitive disorders.

## Materials for Part II of the Study

### Manipulation Check Items

What do you think we are studying? \_\_\_\_\_

Did the applicant have any apparent disorders, disabilities or conditions? If yes, what

\_\_\_\_\_.

### Demographic Information

Directions: We will now ask you for some basic information about yourself. This information will allow us to accurately describe our respondents. Please remember that we are collecting information *anonymously* and will *not* be able to identify you as an individual. You may, however, skip any items that you feel uncomfortable answering.

1. Gender:        ☐ M   ☐ F
2. Age    ☐ Younger than 25   ☐ 25 – 34   ☐ 35 – 44   ☐ 45 – 54   ☐ Over 54
3. Race/Ethnicity \_\_\_\_\_
4. Employed by  
    ☐ Illinois Wesleyan University    ☐ Illinois State University  
    ☐ Bradley University                ☐ Heartland Community College  
    ☐ Milliken University                ☐ Lincoln Land Community College
5. Approximate years of employment at current institution \_\_\_\_\_
6. Position in which you are responsible for hiring or supervising student workers  
    ☐ Faculty   ☐ Staff   ☐ Administrator   ☐ Other
7. In an academic year, about how many students do you *directly* supervise? \_\_\_\_\_
8. In an academic year, for about how many positions do you help with the  
    interviewing/selection process (even if you don't make the final decisions)? \_\_\_\_\_
9. For about how many years have you been responsible for hiring or supervising student  
    workers? \_\_\_\_\_

For the following four items (all used in the prior version of the study) will be answered on the following scale:

☐ No, not at all   ☐ Acquaintance   ☐ Friend   ☐ Relative   ☐ Immediate Family Member/Self

10. Do you know anyone who has a speech disorder? Check all that apply.
11. Do you know anyone who stutters? Check all that apply.
12. Do you know anyone who has a mental disorder (e.g., depression, ADHD, anxiety disorder)? Check all that apply.
13. Do you know anyone who has manic-depression (i.e., bipolar disorder)? Check all that apply.

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Table 1

*Participants' Work and Supervisory Experience*


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<u>Item</u>	<u>Number (and Percent) of participants reporting each amount</u>
Years in Higher Ed	
0-5	21 (40.4)
6-10	9 (17.3)
Over 10	21 (40.4)
Years Hiring Students	
0-5	26 (50.0)
6-10	12 (23.1)
Over 10	13 (25.0)
Number of Supervisees	
0-5	33 (63.5)
6-10	8 (15.4)
Over 10	11 (21.2)

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Table 2

*Social Distance: Number (and Percent) of Participants Who Know Someone with a Mental Disorder*

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<u>Familiarity</u>	<u>Disorder</u>	
	<u>Mental Disorder</u>	<u>Bipolar Disorder</u>
Acquaintance	25 (48.1)	11 (21.2)
Friend	28 (53.8)	8 (15.4)
Extended Family	21 (40.4)	13 (25.0)
Immediate Family/ Self	16 (30.8)	4 (7.7)
Other	6 (11.5)	6 (11.5)
Nobody	8 (15.4)	18 (34.6)
Choose to Skip Question	1 (1.9)	-----

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Table 3

*Descriptive Statistics for Time 1 Measures by Disclosure Level: General Impression Formation, Affective Reactions, and Employability Scales*

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Measure	Disclosure Level		
	<i>Mean (Standard Deviation)</i>		
	None (N = 18)	Implicit (N = 20)	Explicit (N = 14)
General Impression	5.87 (.92)	5.98 (.98)	5.68 (.86)
Affective Reactions	5.82 (1.21)	5.70 (.74)	5.89 (1.11)
Employability (by Job Type)			
High	7.44 (2.83)	7.68 (2.68)	5.17 (3.11)
Moderate	8.04 (2.60)	7.97 (2.51)	8.07 (2.47)
Low	8.04 (2.66)	7.18 (2.79)	7.98 (2.71)

*Note.* Scales for the General Impression and Affective Reaction measures range from 1-8, with scores over 4.5 indicative of positive responses and scores under 4.5 indicative of negative responses. Employability subscales range from 1-12, with scores over 6.5 indicative of positive responses and scores under 6.5 indicative of negative responses.

Table 4

*Numbers and Percents of Participants Who Recommended Applicant for Specific Jobs (by Disclosure Level)*

Disclosure Level				
<i>Number (and Percent) of Job Recommendations</i>				
	Job	None (N = 18)	Implicit (N = 20)	Explicit (N = 14)
<u>Low</u>	Data Entry	11 (61.1)	13 (65.0)	8 (57.1)
	Food Preparation	13 (72.2)	12 (60.0)	13 (92.9)
	Library Processing	11 (61.1)	13 (65.0)	9 (64.3)
<u>Moderate</u>	Desk Aide	10 (55.6)	16 (80.0)	10 (71.4)
	Gym Checkout	15 (83.3)	17 (85.0)	13 (92.9)
	Coffee Shop	14 (77.8)	17 (85.0)	12 (85.7)
<u>High</u>	Tour Guide	11 (61.1)	15 (75.0)	6 (42.9)
	Dorm Assistant	7 (38.9)	10 (50.0)	3 (21.4)
	Main Desk	13 (72.2)	16 (80.0)	5 (35.7)

Table 5

*Descriptive Statistics for Time 2 Measures: Employability Scales and Supervisory Training*

Measure	Disclosure Level		
	<i>Mean (Standard Deviation)</i>		
	None (N = 18)	Implicit (N = 20)	Explicit (N = 14)
Job Type			
High	7.44 (2.83)	7.68 (2.68)	5.17 (3.11)
Moderate	8.04(2.60)	7.97 (2.51)	8.07 (2.47)
Low	8.04 (2.66)	7.18 (2.79)	7.98 (2.71)
Supervisory Training			
Mental Health	2.79 (0.96)	3.11 (1.15)	2.82 (0.91)
Work Study	4.32 (1.04)	4.18 (1.16)	3.84 (0.87)

*Note.* Employability subscales range from 1-12, with scores over 6.5 indicative of positive responses and scores under 6.5 indicative of negative responses. Supervisory subscales range from 1-7, with scores over 4 indicative of positive responses and scores under 4 indicative of negative responses.

Table 6

*Employability by Intervention Condition: Mental Health and Control*

Subscales	Job Type	
	<i>Mean (Standard Deviation)</i>	
	Mental Health (N = 24 )	Control (N =24 )
Job Type		
High	6.75 (2.84)	7.43 (3.16)
Moderate	7.97 (2.51)	8.29 (2.46)
Low	7.56(2.61)	8.03 (2.65)

*Note.* Employability subscales range from 1-12, with scores over 6.5 indicative of positive responses and scores under 6.5 indicative of negative responses.