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Patterns and correlates of workplace disclosure among professionals and managers with psychiatric conditions

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Abstract. *Objective:* This study identifies patterns and correlates of disclosure among professionals and managers with serious psychiatric conditions.
Design: A national mail survey of such respondents was conducted.
Results: A large proportion (87%) of study participants reported having disclosed their mental illness. About half of the disclosers reported unfavorable circumstances leading to disclosure while one third disclosed when they felt comfortable. Most frequently, respondents disclosed to supervisors; one third made their disability known when applying for the job. About half of the respondents had no regrets about disclosing. Multivariate analysis showed that correlates with the occurrence, timing, and choice of disclosure converge around constructs related to job confidence, empowerment, and recovery. We also describe those who chose not to disclose.
Conclusion: Higher rates than previously reported and better experiences with disclosure were evident and may be related to this population's greater recovery as well as to occupational factors.

Keywords: Psychiatric disability, mental illness, disclosure, occupations, Americans with Disabilities Act, professionals, managers, competitive employment

1. Introduction

In the vocational rehabilitation field the term "disclosure" refers generally to the deliberate informing of someone in the workplace about one's disability. While there is little empirical evidence on patterns of disclosure on the job by people with psychiatric disabilities, there is ample discussion in the literature about whether one should "tell" and the risks and benefits associated with disclosure. The benefits that may accrue largely pertain to the legal aspect of disclosure, i.e., the ability to exercise one's rights under the Americans with Disabilities Act (ADA). Telling an employer about the existence of a psychiatric disability is essential to be afforded protections against discrimination in employment and acquire reasonable accommodations under the ADA [1,3].

Disclosure may also have personal and social benefits. For some individuals with psychiatric conditions, disclosure relieves the stress in hiding information about oneself and provides the opportunity to be accepted [12,24,26]. Disclosure may also educate others and address stigma [12,26,31]. For other mental health consumers working with job coaches in supported employment positions, disclosing one's disability in the hiring phase provides the opportunity to become employed and to receive support services on the job [26]. There are also circumstances in which the job opportunity is specifically designated for consumers of mental health services (e.g., certain case management or peer

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support positions) or positions in which one's status as a mental health consumer is given preference [26,31]. In these cases disclosure is necessary to the job but still voluntary.

As for other benefits, Akabas and Gates [2] report that adjustment to work is enhanced when there is communication about the impact of the disability on work. Gates [14] concluded that disclosure and a related request for accommodation led to positive outcomes due to better self-advocacy for needed assistance at work. Granger [17] found that those who disclosed during the hiring process had fewer difficulties than those who did not.

In spite of these benefits, disclosure of one's psychiatric disability may come with significant risks including stigma; differential treatment by interviewers, supervisors or coworkers after a disclosure; and the potential for discrimination in the hiring process, on the job, in opportunities for promotion, and in other benefits and privileges of employment [29]. Studies have validated the potential risks of disclosure, showing that employers have a variety of concerns about hiring people with psychiatric disabilities [8,33]. Other studies have shown that employers rate applicants less highly and are less likely to offer them a job if they are given information about past mental illness [5,10,20,22]. In another study [15], individuals who did not disclose experienced stress by hiding their disability. In one small study disclosure was a dilemma for most employees, having both benefits, but also risks of discrimination, differential treatment, and defining oneself as 'disabled' [26].

If a person decides to disclose, there is further debate in the literature about when in the employment process one should disclose, what should be said, and who should be told [7,27,34]. Guidelines for disclosure are provided by the ADA and the related Equal Employment Opportunity Commission (EEOC) Enforcement Guidance. This act requires a person to disclose their disability to their employer if they are seeking a reasonable accommodation or if they want to claim other protection under the law. The EEOC [1] states that the person can use plain language to disclose their disability, and need not use special words or technical jargon. The EEOC [1] also states that an individual may disclose a disability at any time e.g., during the hiring process, after a job offer, after starting the job, or at any time once on the job. The ADA prohibits requiring disclosure of psychiatric conditions on employment applications, or in the interview process. Further, the individual is only required to tell those who need to know.

Apart from the literature cited above, there is very little empirical documentation available about disclosure patterns. The information that does exist is often derived from studies of vocational rehabilitation outcomes. Since supported employment settings tend to involve placements in entry-level jobs in service and retail industries [23,25] there is a scarcity of data on the patterns of disclosure among professionals and managers with psychiatric disabilities. Further, many studies with information about disclosure utilize qualitative techniques and very small samples [14,15,22,26].

Regarding the frequency or degree to which employees disclose their psychiatric disabilities and the circumstances that lead to disclosure, researchers report that nearly all who used vocational rehabilitation services or job coaches have disclosed their disability to employers [15,17]. Jobs obtained through vocational programs are often developed through the rehabilitation provider's direct contact with the employer, and often the applicants/employees themselves have little role in disclosing their disability [17,18,22,26]. In one study people without job coaches were more hesitant to disclose, and many did not choose to do so [17]. Similarly in another study, most who found jobs independently did not disclose their disability [15]. This study further reported that nondisclosers worked in higher level jobs, had fewer ongoing symptoms, and had higher levels of education and training.

Related studies found that supervisory support affects the decision of whether or not to disclose at work [2]. Others suggest that the decision to disclose is based upon one's power, status, and position [12] as well as one's acceptance of disability and strength to defend against stigma and prejudice [21].

Some data are available about objects of disclosure. In one study, the direct supervisor was most frequently the person to whom disclosure was made, and immediate coworkers the least frequent recipients of this information [18]. Goldberg et al. [15] found that when disclosure was not made to supervisors, it may have been made instead to a select group of co-workers. While there is little information about the effect of occupational setting on disclosure, there is considerable discussion about the impact of disclosure for those working in mental health positions specifically designated for consumers. High disclosure rates are reported here [15,26] and there is discussion about how disclosure should be handled in these settings [11,31,32,34]. Such consumer-providers also must decide whether and when to disclose to their clients [4,13].

The purpose of this study was to obtain an understanding of how disclosure is approached by profes-

sionals and managers with psychiatric disabilities and was part of a larger survey research study. Specifically, we examine information on the occurrence of disclosure, the timing of disclosure, the circumstances leading to disclosure, the objects of disclosure, and experiences of regret about disclosure. Correlates with disclosure are also examined, i.e., whether any demographic, occupational, attitudinal or mental health characteristics are associated with disclosure outcomes. While the primary purpose of the survey was descriptive in nature, several hypotheses guided the analyses. Overall we expected a low to moderate percentage of occurrence of disclosure among professionals and managers. We also expected that those employed in business and technical settings would report lower rates and greater regrets about disclosure. Further, we expected that more severely disabling conditions may lead to greater occurrence of disclosure due to the related need to acquire job accommodations.

2. Method

2.1. Participants

Eligibility criteria for the study included: 1) being employed in a professional or managerial position for at least 6 months in the past 5 years (subsequent to a mental illness); and 2) having a serious mental illness. Professional/managerial employment was operationalized using criteria synthesized from the occupational literature [6,19,28,30,36] and according to definitions provided by the U.S. Department of Labor (1993). To establish the presence of a serious mental illness, a diagnosis, dysfunction, and duration formulation [16] was drawn upon.

The complete set of respondents to the survey numbered 495 (see Procedures section regarding response rate), however for these analyses some respondents were excluded as follows. Those who worked in occupational settings for mental health self-help and advocacy (in both consumer run and non-consumer run settings) were excluded because these positions necessarily involved the public revelation of one's status as a mental health consumer. These respondents did not actively choose to disclose, and so their responses were deemed inapplicable for these analyses. By a similar logic, all those who reported being self-employed were also excluded because disclosure was assumed to be unnecessary. Additionally, there were some respondents who answered both sections pertaining to disclosure and non-disclosure; their responses were considered ambiguous and they too were excluded.

2.2. Measures

An extensive mail survey was created that primarily used closed-ended items, Likert scales and checklists. Each job reported by respondents was classified by industry or type of work using federally developed job categorizations [35]. In addition, the first two authors developed a classification for occupational setting that served to distinguish occupations in the mental health self-help and advocacy field from other occupations. This was necessary because of the over sampling in these fields resulting from the recruitment strategies used.

This article reports on findings for the disclosure section of the survey. This section had two parts. Skip patterns in the survey asked respondents to either complete a section if they had disclosed their psychiatric condition to some people at their job, or to complete the section on non-disclosure. When necessary, open-ended responses were reviewed by the first two authors and recoded where appropriate into applicable responses and/or new response options.

2.3. Procedures

A non-representative, purposive sampling strategy was employed given the inability to locate a universe of people with psychiatric conditions who had obtained professional or managerial positions. Recruitment methods relied on announcements, anonymous survey distribution, snowball sampling techniques, and direct solicitation of professionals who had publicly disclosed having a mental illness. Given the sensitive nature of the information requested, respondent confidentiality was protected and no outside verification of self-reported information was solicited. Data were collected from 1997 through 1999. A response rate of 66.5% was calculated by dividing the number of all completed eligible surveys returned ($N = 495$) by the total number ($N = 812$) of surveys sent out to known or referred potential participants less the number of ineligible surveys received ($N = 68$) [9].

2.4. Data analysis

To provide an overall description of the results for patterns of disclosure, descriptive statistics of sample size, mean, standard deviation, minimum and maximum were examined for continuous variables. For categorical variables, the distribution of participants in each category by number and percent was examined.

Because of missing data, the N used in the analysis does not always equal the total N of either study sub-group.

Three dependent variables were selected for modeling correlates of disclosure using multivariate techniques. These outcome variables were: 1) the occurrence of disclosure (whether a respondent had disclosed or not), 2) the circumstances of disclosure (disclosure by choice versus disclosure compelled by circumstances) and 3) the timing of disclosure (how long into employment the disclosure occurred). Given the very exploratory nature of this survey, with limited prior studies to guide our analyses, a host of independent variables were selected to test for univariate relationships with these outcomes. These included demographic, mental health, occupational and attitudinal characteristics. The sample size permitted testing of over 20 such variables. The relationship of independent variables to the disclosure outcomes was assessed as follows. For the continuous dependent variable (timing of disclosure), either simple regression (for continuous independent variables) or one-way analysis of variance (ANOVA for categorical independent variables) was used. For the categorical dependent variables (occurrence and circumstances of disclosure) either logistic regression or chi-square tests were used. Multivariate linear regression or multivariate logistic regression were used to find the best set of variables related to each outcome variable. All multivariate analyses were performed using a backward stepwise approach with a cut-off alpha level of 0.10. In all analyses, $p \leqslant 0.05$ was considered statistically significant.

3. Results

Two sets of results using two different sub-samples are presented below. The first describes patterns of disclosure. The sub-sample ($N = 350$) used in this analysis included individuals in three occupational settings: a) health and social services, b) business/technical/educational settings, and c) traditional mental health services. The latter group was included because of the valuable information acquired on disclosure in this occupational setting. However, for certain analyses this last group was excluded as discussed below. Statistics were generated for disclosure patterns and tests were conducted to examine differences among the three occupational settings for all relevant variables.

The second set of results presents a multivariate analysis of correlates for various outcomes of disclosure. This analysis used a partial sample ($N = 209$) that only included individuals in: a) health and social services and b) technical/education/business settings. Those in traditional mental health services were eliminated from these analyses because a number of individuals in these settings were employed as peer support specialists or related positions, where status as a consumer was known and necessary to the position. We wished to be able to understand the choice of disclosure with a sample that most clearly represented those who had the freedom to disclose or to withhold disclosure. Table 1 displays the demographic, diagnostic and occupational characteristics of these two study sub-groups.

Reviewing this table for the sample of 350 (similar findings are present for the sample of 209), we see a predominantly white, largely female, and older aged sample (with 67.5% over age 40). They are well educated (with 46.4% having graduate education) and have a good income (with 57.3% earning more than $30,000) per year. There is a range of mental health diagnoses reported with mood disorders capturing the majority (73.4%). The majority had never received federal disability benefits. There is a somewhat even distribution of respondents across the three occupational settings.

Other demographic data show that a large proportion of this sample is presently married ($N = 158$, 45.3%). Mental health characteristics show that most had had a prior psychiatric hospitalization ($N = 274$, 78.7%) and of the 272 respondents with prior hospitalizations over half ($N = 161$, 59.2%) had three or more hospitalizations over their lifetimes. A very large majority is currently taking psychiatric medication (82.6% of 344 replies). Taken together, the hospitalization data and data on medications would suggest that this sample of respondents has experienced significant impairment due to their psychiatric condition.

Occupational data show that the majority is employed as professionals or in technical occupations ($N = 218$, 62.3%) and the next largest proportion is employed as executives, managers and administrative personnel ($N = 99$, 28.3%); the remaining respondents are employed in other occupational areas. Other data on how jobs were obtained show that most frequently jobs were obtained through personal contacts ($N = 98$, 28.0%) or the newspaper ($N = 69$, 19.7%). Very few people reported using a vocational rehabilitation or career development program to acquire their job ($N = 9$, 2.6%). Other methods accounted for the remainder: hired from within ($N = 34$, 9.7%), developed oneself ($N = 32$, 9.1%), was contacted by a future employer ($N = 34$, 9.0%), or a previous employer informed them about a job ($N = 19$, 5.4%).

Table 1
Demographic, mental health, and occupational characteristics of study groups

	Sample for analysis of patterns of disclosure ($N = 350$) n (%)	Sample for analysis of correlates of disclosure ($N = 209$) n (%)
Age	$N = 348$	$N = 208$
< 29	15(4.3%)	9(4.3%)
30–39	98(28.2%)	60(28.8%)[a]
40–49	160(46.0%)	96(46.2%)
> 50	75(21.5%)	43(20.7%)
Gender	$N = 348$	$N = 208$
Female	234 (67.2%)	140(67.3%)
Male	114(32.8%)	68(32.7%)
Educational level	$N = 350$	$N = 209$
Completed H.S or some college	50(14.3%)	29(13.8%)
College degree	62(17.7%)	34(16.3%)
Some graduate school	76(21.7%)	50(23.9%)[b]
Master's degree	114(32.6%)	64(30.6%)
Completed doctoral level	48(13.7%)	32(15.3%)
Income	$N = 346$	$N = 207$
Under $10,000	18(5.2%)	7(3.4%)
$10,000–19,999	39(11.3%)	18(8.7%)
$20,000–29,999	91(26.3%)	45(21.7%)
$30,000–39,999	67(19.4%)	37(17.9%)
$40,000–49,999	54(15.6%)	39(18.8%)
Above $50,000	77(22.3%)	61(29.5%)
Race	$N = 347$	$N = 207$
White	320(92.2%)	192(92.8%)
Non-white	27(7.8%)	15(7.2%)
Ever received SSI/SSDI	$N = 343$	$N = 204$
Yes	91(26.5%)	45(22.1%)
No	252(73.5%)	159(77.9%)
Diagnosis	$N = 339$	$N = 203$
Schizophrenia	38(11.2%)	21(10.3%)
Bipolar disorder	150(44.2%)	98(48.3%)
Major depression	99(29.2%)	63(31.0%)
PTSD/DID	39(11.5%)	16(7.9%)
Other	13(3.8%)	5(2.5%)
Occupational setting	$N = 350$	$N = 209$
Mental health services	140(40.0%)	0(0%)
Health and social services	76(21.7%)	76(36.4%)
Business, educational and technical services	134(38.3%)	133(63.6%)

3.1. *Patterns of disclosure*

3.1.1. *Frequency of disclosure*

In the sample used for describing patterns of disclosure ($N = 350$), a very large majority ($N = 303$, 86.6%) reported that they disclosed their psychiatric condition. The remaining 13.4% ($N = 47$) reported that they did not disclose to anyone at their job, although a few of them ($N = 10$) reported that their condition may be suspected by some on the job. This rate of disclosure varied significantly by occupational setting ($\chi^2 = 14.30$, df= 2, $p = 0.001$). The percentage of disclosure was highest for those employed in mental health settings ($N = 133$, 95.0%) relative to those in health/social services ($N = 61$, 81.3%) or technical/business/educational settings ($N = 109$, 86.6%).

3.1.2. *Timing of disclosure*

Of all respondents who disclosed their disability at work ($N = 303$), 33.3% indicated they disclosed when applying for the job ($N = 101$). Fifty people (16.5%) reported that they disclosed within one year's time of obtaining the job. Another 74 respondents (24.4%) revealed their condition to someone more than one year later. Overall, 225 (74.3%) people chose one of the above time-periods, with 78 people (25.7%) indicating an "other" time period. Of those who chose "other", thirty-nine people indicated that their condition was already known at the time of obtaining the job. There was

a significant difference in timing of disclosure for those who reported having to disclose because of a hospitalization or upon diagnosis of their condition ($N = 90$, 40.0%) versus those who disclosed under more positive circumstances ($N = 135$, 60.0%). On average, the first group disclosed their condition at a later point in time, generally after having the job for six months and presumably subsequent to a hospitalization or diagnosis. The second group did so at an earlier point of time, after having the job on average for one month ($F = 35.640$, df $= 1$, $p < 0.001$).

We also compared respondents who disclosed when applying for or when given the job ($N = 106$, 47.1%) versus the ones who disclosed after that ($N = 119$, 52.9%), using logistic regression. This dichotomous version of the timing of disclosure was significantly related to diagnosis, with 79.2% ($N = 19$) of those diagnosed with schizophrenia disclosing when applying or given the job versus 49.5% or less ($N \leqslant 45$) in every other diagnostic category (Wald $= 12.995$, $df = 4$, $p = 0.011$). Income played a role in the timing of disclosure: those with lower income were more likely to disclose when applying for or given the job than those with higher income (Wald $= 11.246$, $df = 1$, $p = 0.001$).

3.1.3. The nature of the disclosure

The most frequently noted recipient of disclosure was the individual's supervisor ($N = 245$, 80.1%). Co-workers were also frequently told ($N = 221$, 72.9%). More than half ($N = 187$, 61.7%) of respondents disclosed to both supervisor and co-workers. Customers were told much less frequently ($N = 103$, 34.0%) as were human relations departments ($N = 85$, 28.1%) and subordinates, ($N = 68$, 22.4%) although it is unknown whether these categories were applicable to all respondents.

Respondents were asked to report on the nature of the disclosure made on the job. Most respondents revealed their diagnosis ($N = 195$, 64.4%), or that they had a psychiatric disability or a mental illness ($N = 180$, 59.4%). The nature of their symptoms was also frequently revealed ($N = 154$, 50.8%). Discussing needed modifications occurred less frequently ($N = 93$, 30.7%), as did discussing problems experienced in keeping the job ($N = 57$, 18.8%). Four people (1.3%) wrote that they indicated what steps they took to take care of themselves on the job, and six individuals (2.0%) wrote that they described their medications when disclosing.

3.1.4. Circumstances of disclosure

The survey questioned respondents about favorable and unfavorable circumstances that led to disclosure. Overall, about half of disclosers ($N = 153$, 50.5%) reported at least one unfavorable circumstance leading to disclosure. These circumstances were (among several): experiencing symptoms and needing to explain them ($N = 98$, 32.3%) and having experienced a hospitalization while employed ($N = 61$, 20.1%). Hospitalizations leading to disclosure varied significantly by occupational setting ($\chi^2 = 12.352$, df $= 2$, $p = 0.002$) with those in business/technical/educational settings reporting this most frequently ($N = 34$, 33.3%) relative to other settings. Eight respondents (2.6%) wrote in that they disclosed when they received a diagnosis of mental illness. Three individuals (1%) wrote in that they were compelled to disclose because of the nature of the application process. One person described how her psychiatric condition was revealed to her company by her insurance agency after a hospitalization.

About one third of disclosers reported that they disclosed when they felt comfortable doing so ($N = 115$, 38.0%). Favorable circumstances that led to disclosure included feeling that employment was secure ($N = 96$, 31.7%) and that disclosure would not lead to negative consequences ($N = 88$, 29.0%). Feeling appreciated by their boss was instrumental to the disclosure of 20.5% ($N = 62$), and feeling respected by colleagues led to the disclosure by 14.9% ($N = 45$). Five people (1.65%) wrote in that a supportive work environment facilitated their disclosure.

3.1.5. Regrets about disclosure

More than half those who disclosed their condition reported having no regrets about letting people on the job know about their psychiatric condition ($N = 184$, 60.7%). Some regrets were reported by 27.7% ($N = 84$). Another 6.6% ($N = 20$) had a lot of regrets or completely regretted their disclosure, 7 (2.3%) reported that they were not certain. Treating this variable continuously from 1 (no regrets) to 4 (complete regret), on average, respondents were closer to no regrets $\overline{\chi} = 1.44$, $sd = 0.0655$). However, a comparison was made between individuals who disclosed under unfavorable circumstances ($N = 130$), and those disclosing under more favorable circumstances ($N = 158$). This difference reached marginal significance ($F = 3.763$, $df = 1$, $p = 0.053$) with those who were compelled to disclose showing on average more regrets about doing so $\overline{\chi} = 1.52$, $sd = 0.67$) than those who were not compelled to disclose $\overline{\chi} = 1.37$, $sd = 0.63$).

Table 2
Univariate and multivariate analyses for occurrence of disclosure among professionals and managers with psychiatric conditions

Univariate analysis of independent variables	N	Measure of association	Statistic	df	p-value
Ever received SSI/SSDI/RSDI		% disclosed			
No	159	86%	$\chi^2 = 8.238$	1	0.004**
Yes	45	67%			
Level of familiarity with ADA (Scale of 1=not familiar, 4=very familiar)	207	Beta = 0.643	Wald = 11.728	1	0.001**
Multivariate analysis final model		**Measure of association**	**Chi-square value**	**df**	**p-value**
Ever received SSI/SSDI (Yes=1, No=2)		Beta = 0.9940	4.2622	1	0.0390*
Level of familiarity with ADA		Beta = 0.8088	11.0040	1	0.0009**
Learned how to manage psychiatric condition and have satisfying life		Beta = 0.9162	3.119	1	0.0688

*Significance at 0.05 level.
**Significance at 0.01 level.

3.1.6. *Understanding non-disclosure*

Among all 47 non-disclosers, 57.4% ($N = 27$) did not plan to disclose at any time in the future. Future disclosure was anticipated by 29.8% ($N = 14$) of non-disclosers. Five people (10.6% of non-disclosers) were unsure. Reasons for non-disclosure revealed that most non-disclosers ($N = 38$, 80.1%) reported a general concern that disclosure would create problems for them. Most non-disclosers felt that they could keep their job without having to disclose ($N = 33$, 70.2%), and most ($N = 33$, 70.2%) felt that they wanted to be perceived like everybody else and disclosure would make that improbable. Concerns that disclosure would lead to biased work evaluations were reported by 55.3% ($N = 26$) of non-disclosers, and 36.2% ($n = 17$) thought disclosure would negatively impact future promotions. Concerns that co-workers would gossip about them if they disclosed was reported by 37.4% ($N = 16$) of respondents and 25.5% ($N = 12$) was also afraid that people would start avoiding them. Twelve people (25.5%) also reported that their therapist advised them not to disclose.

A survey question on conditions that might facilitate disclosure showed that for 36.2% ($N = 17$) of non-disclosers there are no conditions that would encourage them to disclose. However, confidence that there would be no negative consequences resulting from disclosure might lead 46.8% ($N = 22$) of non-disclosers to disclose. Eighteen individuals (38.3%) would consider disclosing when their employment is secure and 29.8% ($N = 14$) would disclose if they were feeling appreciated by their supervisor at work.

3.2. *Correlates of disclosure outcomes*

Univariate and multivariate analyses for occurrence, circumstances and timing of disclosure were performed using the sample for these analyses described above ($N = 209$). Overall, 80.9% ($N = 169$) of that sample disclosed their psychiatric disability. The average time to disclosure was close to 6 months after starting the job. Of those who disclosed, 33.1% disclosed when they felt comfortable doing so, the remaining had at least one unfavorable circumstance that led them to disclosure (e.g. hospitalization, symptoms, diagnosis). Results of the univariate and multivariate analyses are presented in Tables 2, 3 and 4.

Both univariate and final multivariate models for occurrence of disclosure (Table 2) suggest that people who never received federal disability benefits and people who are more familiar with the ADA are more likely to disclose their psychiatric condition. Having "learned how to manage one's psychiatric condition and to have a satisfying life" was also marginally associated with having disclosed in the multivariate model. The final multivariate model (Table 3) for choosing to disclose when comfortable versus being compelled by other circumstances, suggests that people who reported no present concerns about losing their job due to their psychiatric condition choose to disclose their psychiatric condition when they are comfortable more often than did people who did report having concerns about losing their job. In addition to the variable indicated above, the univariate model also suggests that those who more frequently choose to disclose when they were comfortable doing so were those: who have a job in the health/social services field, who feel less pressure to fit in and be like everyone else, who feel more confident about maintaining professional status, who were taking psychiatric medications longer, and those with a reported higher level of capacity to regulate their work with their psychiatric condition. The final multivariate model for timing of disclosure (Table 4) suggests that those who tended to disclose their condition at a

Table 3
Univariate and multivariate analyses for circumstances of disclosure among professionals and managers with psychiatric conditions[1]

Univariate analysis of independent variables	N	Measure of association	Statistic	df	p-value
Field of occupation		% Choosing disclosure			
Health/Social Services	56	46%	$\chi^2 = 4.392$	1	0.036*
Business and technical	101	30%			
Concerned about losing job		% Choosing disclosure			
No	71	49%	$\chi^2 = 9.323$	1	0.002**
Yes	76	25%			
Feeling the pressure to fit in and be like everyone else		% Choosing disclosure			
No	83	42%	$\chi^2 = 4.167$	1	0.041*
Yes	62	26%			
Level of confidence about maintaining professional status (scale from 1 to 10, 1=very low confidence)	154	Beta = 0.160	Wald = 4.322	1	0.038*
Length of psychiatric medications intake (1=less than a year, 4=more than 5 years)	153	Beta = 0.727	Wald = 5.163	1	0.023*
Level of capacity to regulate work in accordance with psychiatric condition (scale from 1 to 10, 1=very limited capacity)	154	Beta = 0.240	Wald = 7.219	1	0.007**
Multivariate analysis final model		**Measure of association**	**Chi-square value**	**df**	**p-value**
Concerned about losing job (0=No, 1=Yes)		Beta = −0.9061	5.2634	1	0.0218*
Level of capacity to regulate work in accordance with psychiatric condition (scale from 1 to 10, 1=very limited capacity)		Beta = 0.1740	3.0406	1	0.0812

[1]Circumstances of disclosure occurrence grouped as following: 1 = person chose to disclose when feeling comfortable, 0 = disclosure was compelled due to other circumstances (e.g., hospitalization, symptoms at work, needed accommodations right away, etc.).
*Significance at 0.05 level.
**Significance at 0.01 level.

later time were people who: had never received federal disability benefits, had longer job tenure, report lower capacity to regulate work in accordance with their psychiatric condition, and who feel socially isolated at work. In addition to the variables indicated above, the univariate model also suggests that later disclosure is associated with use of psychotherapy and with reported difficulty with accepting one's psychiatric condition. On the other hand, earlier timing of disclosure is associated on the univariate model with: supervisory responsibilities on the job, part time employment, and with ability to manage one's psychiatric condition and have a satisfying life.

3.3. Complexity of disclosure

There were several unanticipated findings that merit description. First, as reported in the methods section, people employed in self-help or mental health advocacy positions were excluded from the analysis. Nonetheless, closer examination of these data revealed that disclosure was still a meaningful and consequential act for them as well. For example, individuals who worked as advocates in non-consumer run organizations (such as state departments of mental health) also wrestled with the consequences of having their history known by others in their every day work life in addition to deciding to whom and what to reveal about themselves. Those employed in self-help and advocacy reported on the emotionally complex subject of public knowledge of one's status as a mental health consumer. For those who were self-employed, we found that while they did not have to disclose to supervisors in order to explain problems or acquire modification, disclosure was again a charged issue, e.g., do they tell their customers, how does that knowledge affect relationships with business colleagues, and what does disclosure mean to them. Another unanticipated finding dealt with the extent of disclosure, i.e., whether it was "partial" or "full". Several respondents (who were not included in the analysis) completed both disclosure and non-disclosure sections of the survey, because while they may have disclosed to someone (e.g. a co-worker on the job) or some part of the organization (e.g. Employee Assistance Program) they did not disclose to others (e.g. their supervisor, their local office). Hence they experienced both the impact of disclosure (to some) and of non disclosure (to others). It was apparent that disclosure can be partial in nature and full disclosure cannot be assumed. Clarifying the circumstances of disclosure also led to new understandings. As before, disclosure was not necessarily a deliberate act. Numerous people reported that someone in their workplace already knew about their disability before starting the job, some people were

Table 4
Univariate and multivariate analyses for timing of disclosure among professionals and managers with psychiatric conditions[1]

Univariate analysis of independent variables	N	Measure of association	S.D.	Statistic	df	p-value
Ever received SSI/SSDI						
No	104	$\overline{\chi} = 4.07$	2.28	$F = 11.411$	1,122	0.001**
Yes	20	$\overline{\chi} = 2.25$	1.74			
Having supervisory responsibilities over others						
No	44	$\overline{\chi} = 4.34$	2.21	$F = 4.753$	1,121	0.031*
Yes	79	$\overline{\chi} = 3.42$	2.27			
Employment status						
Full-time	106	$\overline{\chi} = 3.93$	2.33	$F = 3.584$	2,123	0.031*
Part-time	16	$\overline{\chi} = 2.38$	1.75			
Temp employment	4	$\overline{\chi} = 4.50$	1.29			
Current use of psychotherapy						
No	29	$\overline{\chi} = 2.83$	2.00	$F = 6.091$	1,119	0.015*
Yes	92	$\overline{\chi} = 4.00$	2.30			
Feeling socially isolated						
No	79	$\overline{\chi} = 3.48$	2.30	$F = 7.141$	1,115	0.009**
Yes	38	$\overline{\chi} = 4.66$	2.08			
Learned how to manage psychiatric condition and have satisfying life						
No	66	$\overline{\chi} = 4.14$	2.22	$F = 4.864$	1,123	0.029*
Yes	59	$\overline{\chi} = 3.25$	2.25			
Having difficulties accepting my psychiatric condition						
No	69	$\overline{\chi} = 3.36$	2.28	$F = 3.925$	1, 123	0.050*
Yes	56	$\overline{\chi} = 4.16$	2.20			
Length of job tenure	126	Beta = 0.688		$F = 14.850$	1,124	< 0.001**

Multivariate analysis final model (R2 = 0.3052)	Measure of association	F value	p-value
Ever received SSI/SSDI (Yes = 1, No = 2)	1.44822	6.23	0.0143*
Length of job tenure	0.49842	6.83	0.0104*
Level of capacity to regulate work in accordance to psychiatric condition (scale from 1 to 10, 1=very limited capacity)	−0.19399	4.59	0.0349*
Feeling socially isolated	1.21007	7.30	0.0082**
Current use of psychotherapy	0.92661	3.30	0.0725

[1]Time to disclosure grouped as following: 1 = when applying for the job, 2 = when given the job, 3 = about a month after starting the job, 4 = after having the job for about 6 months, 5 = after having a job for about a year, 6 = after having the job for 2 to 3 years, 7 = after having the job for 4 to5 years, 8 = after having the job for more than 5 years. All means in the table reflect these values of time of disclosure.

compelled to disclose, and some were "revealed" by circumstances beyond their control.

3.4. Study limitations

The non-representative sampling techniques used in this new and sensitive area of research limit the generalizability of the results. There is an unknown impact of self-selection for the responders, despite an acceptable response rate. Likewise, those more likely to disclose and with better experiences about disclosure may be more apt to complete a mail survey on this topic. In addition, the survey relied on self-report and misrepresentation in responses is possible. However, numerous checks on the internal consistency of the data showed expected variations lending more confidence in the accuracy of the replies. Finally, it must be noted that the results presented for patterns of disclosure included data for those employed in traditional mental health settings. However, because a small number of these were employed as peer specialists the results may be skewed toward higher rates, earlier timing, and wider network of disclosure. This limitation is not present for the multivariate analysis where all individuals employed in mental health settings were excluded.

4. Discussion

This article presents some of the first data available on a large number of persons with psychiatric conditions employed as managers and professionals. Findings show a remarkably high rate of disclosure even for those employed in business/technical/educational settings. This is contrary to our hypothesis and to earlier findings with smaller samples, which suggested that

those in professional occupations tended to not disclose. The fact that most in this sample did not utilize supported employment providers to get their job, unlike those who reported higher disclosure rates in earlier studies, makes these findings more unique. A review of the impact of occupational setting on disclosure patterns shows that being employed in business/technical/educational settings is related to being compelled to disclose but there are few other significant differences by occupational setting.

It is also evident that while disclosure rates were high, many did not choose to disclose. About half were led to disclosure due to a variety of unfavorable circumstances. Choosing to disclose was clearly related to feeling confident in the security of the workplace. Generally, disclosure happened early in the job. The findings that those with schizophrenia and those with part time employment and former benefit recipients tend to disclose earlier in their job process suggest that a need for accommodations may play a role in earlier disclosure patterns. Individuals with schizophrenia may also feel that they are less likely to be able to conceal their disability. Similarly, findings that those who feel socially isolated and less able to accept their condition or to regulate their work tend to disclose earlier, confirms our hypothesis that severity of the psychiatric condition will impact disclosure outcomes. Consistent with existing literature, disclosure was made most often to supervisors. Regarding the content of the disclosure, it is interesting that although having knowledge of ADA was important to the occurrence of disclosure in the multivariate model, and those with more severe conditions disclosed earlier, fewer people reported disclosing any needed modifications. This suggests that factors other than the need for accommodations may drive disclosure. Such factors may be a need to be understood or to explain circumstances. The overall positive experience with disclosure (as shown by the lack of regrets), whether chosen or brought about, may help vocational rehabilitation providers to have greater confidence in recommending disclosure when weighing its risks and benefits.

When considering the results of the multivariate analysis for correlates of disclosure, it must first be pointed out that numerous variables (demographic, mental health, and certain occupational and attitudinal characteristics) were not significant on the univariate level. This could mean that these variables are not important for understanding the occurrence, timing and circumstances of disclosure, that there was not enough power to attain statistical significance for these variables, or that the results observed with this self-selected sample are different than would be the case with a representative sample. Further study is required to draw definitive conclusions in this matter.

5. Conclusions

Taken together the findings converge into a larger picture that confidence in the job, capacity to regulate one's condition on the job, having learned how to manage one's illness, knowledge of ADA, and feeling socially connected, emerge as meaningful factors across the three disclosure outcomes studied. These factors may be less concrete than some demographics; however, they are pliable to vocational rehabilitation efforts.

The findings on the impact of receiving federal disability benefits are surprising. On the one hand, this suggests that those disabled enough to have once qualified for benefits might be less likely to disclose their disability. On the other hand, of those who received benefits that do disclose, they will do so earlier in the job process. The overall lower rate of disclosure among this subsample may be explained by reticence born of lived experience with stigma. The earlier timing of disclosure may be related to the need for accommodations due to greater severity of condition.

The unanticipated findings in this study lead to the recognition that disclosure requires careful definition. There are nuances to the concept including whether disclosure is chosen or brought about, whether it is partial or full, and whether it refers to the broader but equally meaningful and important concept of simply having one's psychiatric condition known on the job, and the corresponding impact of that knowledge.

In conclusion, a promising portrait was found for disclosure among professionals and managers with psychiatric disabilities in this study. Continued empirical investigation is needed to replicate these findings and to further explore the areas suggested by the analysis.

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References

[1] ADA Division Office of Legal Counsel, *Equal Employment Opportunity Commission* (*EEOC*) *enforcement guidance on the Americans with Disabilities Act and psychiatric disabilities*, Washington, DC: Equal Employment Opportunity Commission, 1997.

[2] S.H. Akabas and L.B. Gates, A social work role: Promoting employment equity for people with serious and persistent mental illness, *Administration in Social Work* **23**(3/4) (2000), 163–184.

[3] Americans with Disabilities Act, L:No. 101-336; 42 USC 12211, 1990.

[4] N.M. Barrett, C.W. Pratt, P.M. Basto and K.J. Gill, Integrating consumer providers into a service delivery system: The role of education and credentials, *Psychiatric Rehabilitation Skills* **4**(1) (2000), 82–104.

[5] N.L. Berven and J.H. Driscoll, The effects of past psychiatric disability on employer evaluation of a job applicant, *Journal of Applied Rehabilitation Counseling* **12**(1) (1981), 50–55.

[6] T. Caplow, *Managing an organization*, New York: Holt, Reinhart and Winston, 1983.

[7] R.S. Dalgin, Impact of Title I of the Americans with Disabilities Act on people with psychiatric disabilities, *Journal of Applied Rehabilitation Counseling* **32**(1) (2001), 45–50.

[8] E. Diksa and E.S. Rogers, Employer concerns about hiring persons with psychiatric disability: Results of the employer attitude questionaire, *Rehabilitation Counseling Bulletin* **40**(1) (1996), 31–43.

[9] D. Dillman, *Mail and telephone surveys: The total design method*, New York: Wiley, 1978.

[10] A. Farina and R.D. Felner, Employment interviewer reactions to former mental patients, *Journal of Abnormal Psychology* **82**(2) (1973), 268–272.

[11] S.M. Fishbein, E. Manos and J. Rotteveel, *A unique collegueal support system: Supporting mental health professionals who may also be consumers or psychiatric survivors*, Paper presented at the Rehabilitation of children, youth, and adults with psychiatric disabilities conference, Tampa, FL, January, 29, 1993.

[12] D.B. Fisher, Disclosure, discrimination and the ADA, *The Journal of CAMI* **6**(4) (1995), Published by the California Alliance for the Mentally Ill.

[13] D. Fisk, M. Rowe, R. Brooks and D. Gildersleeve, Integrating consumer staff members into a homeless outreach project: Critical issues and strategies, *Psychiatric Rehabilitation Journal* **23**(3) (2000), 244–252.

[14] L.B. Gates, Workplace accommodation as a social process, *Journal of Occupational Rehabilitation* **10**(1) (2000), 85–98.

[15] S.G. Goldberg, B. O'Day and M. Killeen, *How persons with severe mental illness are denied full benefit of the ADA in the employment arena*, Unpublished manuscript, 2002.

[16] H. Goldman, A. Gatozzi and C.A. Taube, Defining and counting the chronically mentally ill, *Hospital and Community Psychiatry* **35**(1) (1981), 45–50.

[17] B. Granger, The role of psychiatric rehabilitation practitioners in assisting people in understanding how to best assert their ADA rights and arrange accommodations, *Psychiatric Rehabilitation Journal* **23**(3) (2000), 215–224.

[18] B. Granger, R. Baron and S. Robinson, Findings from a national survey of job coaches and job developers about job accommodations arranged between employers and people with psychiatric disabilities, *Journal of Vocational Rehabilitation* **9** (1997), 235–251.

[19] E. Greenwood, Attributes of a profession, in: *Man, work, and society*, S. Noson and W.H. Form eds, New York: Basic Books, 1962.

[20] B.J. Jones, B.J. Gallagher, J.M. Kelley and L.O. Massari, A survey of fortune 500 corporate policies concerning the psychiatrically handicapped, *Journal of Rehabilitation* (October/November), 31–35.

[21] S.M. LaPolla, Disclosure, *The Journal of CAMI* **6**(4) (1995), 53–54. Published by the California Alliance for the Mentally Ill.

[22] K. MacDonald-Wilson, *Disclosure issues of people with psychiatric disabilities: Perspectives of caregivers, employees, and service providers*, Paper presented at the Vocational Research Conference on People with Psychiatric Disabilities, National Research and Training Center at the University of Illinois, Chicago, Illinois, April, 13–15, 1998.

[23] K. MacDonald-Wilson, E.S. Rogers, J.M. Massaro, A. Lyass, and T. Crean, An investigation of reasonable workplace accommodations for people with psychiatric disabilities: Quantitative findings from a multi-site study, *Community Mental Health Journal* **38**(1) (2002), 35–50.

[24] K. MacDonald-Wilson and A. Whitman, Encouraging disclosure of psychiatric disability, *American Rehabilitation* **21**(1) (1995), 15–19.

[25] K.L. MacDonald-Wilson, W.G. Revell, S. Nguyen and M.E. Peterson, Supported employment outcomes for people with psychiatric disability: A comparative analysis, *Journal of Vocational Rehabilitation* **1**(3) (1991), 30–44.

[26] L.L. Mancuso, *Case studies on reasonable accommodations for workers with psychiatric disabilities*, Goleta, CA: The California Department of Mental Health/California Department of Rehabilitation, 1993.

[27] J. Marrone, C. Gandolfo, M. Gold and D. Hoff, Just doing it: Helping people with mental illness get good jobs, *Journal of Applied Rehabilitation Counseling* **29**(1) (1998), 37–48.

[28] H. Mintzberg, The manager's job: Folklore and fact, *Harvard Business Review* **53** (1975), 49–61.

[29] K. Moss and M.C. Johnsen, Employment discrimination and the ADA: A study of the administrative complaint process, *Psychiatric Rehabilitation Journal* **21**(2) (1997), 111–121.

[30] R. Pavalko, *Sociology of occupations and professions*, Itaska, IL: Peacock, 1998.

[31] M. Roberts, J. Rotteveel and E. Manos, Mental health consumers as professionals: disclosure in the workplace, *American Rehabilitation* **21**(1) (1995), 20–23.

[32] S. Rogers, To work or not to work: That is not the question, *Journal of Psychosocial Nursing* **36**(4) (1998), 42–46.

[33] T.L. Scheid, Employment of individuals with mental disabilities: Business response to the ADA's challenge, *Behavioral Sciences and the Law* **17** (1999), 73–91.

[34] D. Schneider, When do I disclose? ADA protection and your job, *Occupational Therapy in Mental Health* **14**(1/2) (1998), 77–87.

[35] U.S. Department of Labor, *Occupational outlook handbook*, Indianapolis: JIST Works, 2000.

[36] P. Walker ed., *Between labor and capital*, Boston: South End Press, 1997.