



## An investigation of stigma in individuals receiving treatment for substance abuse

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### Abstract

This study examined the impact of stigma on patients in substance abuse treatment. Patients ( $N=197$ ) from fifteen residential and outpatient substance abuse treatment facilities completed a survey focused on their experiences with stigma as well as other measures of drug use and functioning. Participants reported experiencing fairly high levels of enacted, perceived, and self-stigma. Data supported the idea that the current treatment system may actually stigmatize people in recovery in that people with more prior episodes of treatment reported a greater frequency of stigma-related rejection, even after controlling for current functioning and demographic variables. Intravenous drug users, compared to non-IV users, reported more perceived stigma as well as more often using secrecy as a method of coping. Those who were involved with the legal system reported less stigma than those without legal troubles. Higher levels of secrecy coping were associated with a number of indicators of poor functioning as well as recent employment problems. Finally, the patterns of findings supported the idea that perceived stigma, enacted stigma, and self-stigma are conceptually distinct dimensions.

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### 1. The role of stigma in individuals receiving treatment for substance abuse

There can be little doubt that substance abusers in recovery face stigma in its various forms, including enacted, perceived, and self-stigma (Link, Yang, Phelan, & Collins, 2004). Enacted stigma refers to

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directly experienced social discrimination such as difficulty in obtaining employment, reduced access to housing, poor support for treatment, or interpersonal rejection. Perceived stigma refers to beliefs that members of a stigmatized group have about the prevalence of stigmatizing attitudes and actions in society (cf., Link, Cullen, Streuning, Shrout, & Dohrenwend, 1989). Self-stigma refers to negative thoughts and feelings (e.g., shame, negative self-evaluative thoughts, fear) that emerge from identification with a stigmatized group and their resulting behavioral impact (e.g., avoidance of treatment, failure to seek employment, avoidance of intimate contact with others).

In general mental health areas, enacted stigma is associated with multiple negative outcomes such as unemployment (e.g., Link, 1987; Penn & Martin, 1998), housing problems (Page, 1983, 1993; Penn & Martin, 1998), and difficulty in social adjustment (e.g., Perlick et al., 2001). Self-stigma in the seriously mentally ill, many of whom also have substance use disorders, is associated with delays in treatment seeking (Kushner & Sher, 1991; Scambler, 1998; Starr, Campbell, & Herrick, 2002), diminished self-esteem/self-efficacy (Corrigan & Watson, 2002; Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Wright, Gronfrein, & Owens, 2000), and lower quality of life (Rosenfield, 1997). Samples of substance abusing individuals self-report fear of stigma as a reason for not seeking treatment (Cunningham, Sobell, Sobell, Agrawal, & Toneatto, 1993; Hingson, Mangione, Meyers, & Scotch, 1982; Klingeman, 1991; Sobell, Sobell, & Toneatto, 1992; Tuchfeld, 1981; Tucker, Vuchinich, & Gladsjo, 1994). Because the work on stigma towards mental illness is more advanced (Corrigan, 2004; Link, Struening, Rahav, Phelan, & Nuttbrock, 1997; Wahl, 1999), we drew on this work as a source of measures to adapt for use with substance abuse stigma, and as a conceptual guide in researching this area.

The present study is an initial attempt to examine the role of stigma toward substance abuse in people in recovery from substance use problems. While a number of studies have documented the existence of various forms of stigma relating to substance use (Fulton, 1999), few studies have examined the relation between stigma and treatment for substance use (Semple, Grant, & Patterson, 2005), or the relationship between substance use stigma and other outcomes of interest such as patient functioning or substance use. Now that stigma is fairly well documented as a phenomenon, it is important that research begin to examine the relationship between stigma and functional outcomes in substance abuse.

Five questions were examined. The first assessed the degree to which persons in recovery experienced stigma in its various forms. Second, we examined evidence for stigma as a multidimensional concept in the substance abuse area (Corrigan, 2004; Link et al., 2004). We assessed whether our conceptually distinct measures of stigma (self-stigma, perceived stigma, and experienced stigma) are in fact empirically distinct and associated in predictable ways with each other and with outcomes of interest. The third question was suggested by Link et al.'s (1989) modified labeling theory of stigmatization, which holds that the stigma process does not primarily begin to impact an individual until the person has entered the treatment system and has received a diagnostic label. Thus, we examined whether experienced stigma would be higher for those with more prior episodes of treatment.

The fourth question examined the impact of secrecy as a method of coping with stigma. Stigma researchers have made a distinction between concealable stigmas, such as substance abuse, and public stigmas, such as race or certain diseases (Goffman, 1963; Smart & Wegner, 1999). Little evidence exists whether it is generally helpful or hurtful to conceal substance abuse as a method of regulating stigma. The issue was examined empirically in the present study. The fifth area we examined was whether intravenous (IV) drug use or involvement with the legal system predicted higher levels of stigma. Researchers have documented that stigma toward substance abuse is usually seen in a benign or even positive light among those working in the criminal justice system (Fulton, 2001; Room, 2004), raising the possibility that drug

use may be even more actively stigmatized in people having contact with the criminal justice system. Research has also suggested that IV drug users form a distinct subculture that is more heavily stigmatized by both providers of services and other substance users (Fulton, 1999).

## 2. Methods

### 2.1. Participants

This study included 197 patients (108 men, 89 women), averaging 35 years old ( $SD=10.3$ , range 14–73), at 15 different substance abuse treatment sites, representing 11 different public treatment agencies in Nevada. All 15 sites provided both alcohol and drug treatment services, seven providing outpatient services, five providing residential services, and three providing both residential and outpatient services. Although we were unable to obtain exact census figures, estimates from treatment center staff suggested that our sample represented a fairly small proportion of those participating in treatment at the time of assessment, probably 20% or less. The sample was fairly evenly distributed across sites (ranging from 4 to 23 participants, mean = 13.1,  $SD=5.7$ ).

Participants self-identified as 8% American Indian, 3% Asian/Pacific Islander, 10% African American, 68% Caucasian, 7% other, with 6% not responding. When asked about Latino/Hispanic origin, 11% identified as Mexican, 6% as “other Hispanic”, 34% as “not Hispanic”, with 50% not responding. When asked about marital status, participants reported: 41% never married, 18% married, 11% separated, 24% divorced, 2% widowed, with 5% not responding. Participants reported participating in an average of 1.9 previous episodes of treatment ( $n=195$ ;  $SD=2.4$ ). On average, participants ( $n=178$ ) reported a longest prior period of abstinence of 14.3 months ( $SD=29.1$ ). Participants reported using a wide range of drugs, with 79% ( $n=139$ ) reporting use of alcohol for a mean of 17 years ( $SD=10.3$ ), 73% ( $n=130$ ) marijuana for a mean of 13 years ( $SD=8.8$ ), 68% ( $n=121$ ) methamphetamines for a mean of 9.7 years ( $SD=7.5$ ), 55% ( $n=97$ ) cocaine for a mean of 6.7 years ( $SD=7.5$ ), 42% ( $n=74$ ) hallucinogens for a mean of 6.0 years ( $SD=6.9$ ), 29% ( $n=52$ ) amphetamines for a mean of 9.1 years ( $SD=8.2$ ), 14% ( $n=25$ ) heroin for a mean of 6.6 years ( $SD=8.2$ ), 15 ( $n=26$ ) barbiturates for a mean of 7.1 years ( $SD=8.9$ ), 14% ( $n=24$ ) inhalants for a mean of 4.3 years ( $SD=7.4$ ), 14% ( $n=25$ ) benzodiazepines for a mean of 5.5 years ( $SD=7.4$ ), 7% ( $n=12$ ) methadone for a mean of 5.6 years ( $SD=10.1$ ), and 22% ( $n=39$ ) other opioids for a mean of 6.6 years ( $SD=8.0$ ), and 66% ( $n=118$ ) other (mostly cigarettes) for a mean of 17 years ( $SD=10.5$ ).

### 2.2. Procedure

Participants were recruited, over one summer, through postings at the fifteen substance abuse treatment facilities described above and through flyers handed out by treatment staff to patients at those facilities. Experimenters arrived on a predetermined day and assessed all interested participants in a group room at their treatment agencies. The experimenters gave a brief description of the study and emphasized that participation was completely voluntary. Experimenters reviewed the consent forms, allowed for questions, collected the signed consent forms, and gave a copy to each participant. Participants then completed questionnaire packets, typically taking about one hour. Participants anonymously placed completed questionnaires in a box and were reimbursed with \$10 gift cards to a national department store chain. Questionnaires in the packet were in the order presented in the Measures section.

### 2.3. Measures

#### 2.3.1. Demographics

The first few pages of the questionnaire contained 34 face valid questions regarding personal characteristics, substance use, social functioning, education, and employment. Five yes–no questions asked if participants had experienced specific forms of enacted stigma. These were treated as individual items, not as a separate scale.

#### 2.3.2. Quality of life

The Quality of Life Scale (QOLS; Flanagan, 1978) measures several aspects of functional status, including tasks of daily living, work, social activity, and family contact. Participants respond to this 16-item scale on a seven-point Likert scale ranging from *terrible* (1) to *delighted* (7). Higher scores reflect higher quality of life. The coefficient alpha obtained in the present study was .93.

#### 2.3.3. Overall mental health

The General Health Questionnaire-12 (GHQ-12; Vieweg & Hedlund, 1983) available in several forms, is a widely used self-report questionnaire designed to measure general mental health and stress. The 12-item version, used in this study, asks participants to respond based on a four-point Likert scale. Higher scores indicate poorer mental health. The GHQ-12 has been shown to have high internal consistency. The current study obtained a Cronbach's alpha of .91.

#### 2.3.4. Perceived stigma

The Substance Abuse Perceived Stigma Scale (SAPSS) is a 12 item questionnaire that assesses the construct of perceived stigma. The SAPSS was adapted for use with participants with reported substance abuse problems from a measure of perceived stigma in mental health patients (Link, 1987). The term “mental health patient” was changed to fit individuals with reported substance abuse problems, and items were scored on seven point Likert-type scale where 1=never and 7=always with agreement indicating non-stigmatizing behavior or attitudes. The scale was scored by reverse scoring each item, summing the items, and dividing by 12, thus higher scores indicate more perceived stigma. Example items include, “Most people would hire someone who has been treated for substance use to take care of their children” or “Most people do not think less of a person who has been treated for substance use.” The original mental health measure by Link (1987) showed adequate reliability (alphas=.73–.82), as did substance abuse version in the current study (obtained coefficient alpha=.89).

#### 2.3.5. Secrecy coping

A four item scale was created based on the scales from Link et al. (1997) that attempted to measure secrecy as a method of coping with stigma. Item content was modified to focus on substance abuse. An example item is “Do you think it is a good idea to keep your history of substance use a secret?” Items were rated as yes or no. Higher scores indicate higher secrecy and total scores ranged from 0 to 4. The present study obtained a Cronbach alpha of .57.

#### 2.3.6. Stigma-related interpersonal rejection

The Stigma-Related Rejection Scale (SRS) is a survey of mental health consumer's ongoing experiences of enacted interpersonal stigma that was originally developed by Wahl (1999). The term “mental health

consumer” was changed to fit individuals with reported substance abuse problems, and items were scored on seven point Likert-type scale where 1 = never and 7 = always with agreement indicating higher rejection. The scale includes nine statements asking about experiences such as being treated as less competent, hearing others say unfavorable things about people with substance abuse problems, and worrying that others will view one unfavorably. Reliability and validity data are not reported by Wahl (1999); the data were presented descriptively. A coefficient alpha of .79 was obtained in the current study.

### 2.3.7. *Internalized Shame Scale (ISS)*

The ISS is a highly reliable (alpha of .95) 30-item test that asks subjects to report how often they find themselves experiencing a variety of shame-related thoughts and feelings (Cook, 1987). It has 24 negatively worded “shame” items and 6 positively worded “self-esteem” items. For the original instrument, subjects rated each item on a five-point scale ranging from 0 (never) to 4 (almost always). Due to a clerical error, the present study used a seven-point scale ranging from 1 (never) to 7 (always). Estimates of internal consistency were excellent (coefficient alpha = .96).

### 2.3.8. *Experiential avoidance and psychological flexibility*

The Acceptance and Action Questionnaire (AAQ; Hayes, Bisset et al., 2004; Hayes, Strosahl et al., 2004) is a nine-item measure of the willingness to accept undesirable thoughts and feelings, while acting in a way that is congruent with values and goals. Participants respond on a seven-point Likert scale ranging from never true (1) to always true (7). Lower scores reflect greater experiential willingness and ability to act in the presence of difficult thoughts and feelings. Hayes, Bisset et al., (2004), Hayes, Strosahl et al., (2004) found that scores of 42 and 38 represented upper quartile scores on experiential avoidance in clinical and non-clinical populations. The AAQ has good convergent and discriminant validity (Hayes, Bisset et al., 2004; Hayes, Strosahl et al., 2004) but its internal consistency is just adequate (.72). A coefficient alpha of .52 was obtained in the current study.

## 3. Results

### 3.1. *To what extent do people with substance problems experience stigma?*

Five items from the demographic questionnaire assessed enacted stigma. The most commonly reported experience was believing they people treated them unfairly because they knew about their substance use (60%,  $n=118$ ), 46% ( $n=90$ ) felt that others were afraid of them when they found out about their substance use, 45% ( $n=88$ ) felt some of their family gave up on them after they found out about their substance use, 38% ( $n=75$ ) felt that some of their friends rejected them after finding out about their substance use, and 14% ( $n=27$ ) felt that employers paid them a lower wage because of knowing about their substance abuse history. Approximately 39.5% ( $n=75$ ) reported three or more of these experiences. The mean number of endorsements was 2.05 (SD=1.43); 17.4% of the sample ( $n=33$ ) reported experiencing none of these forms of enacted stigma.

On the SRS, our measure of stigma-related rejection, the mean item score was 3.0 (SD=1.0), which corresponds to a “seldom” on the scale (Table 1). On average, across each item, 17% of respondents reported “frequently,” “almost always” or “always” experiencing the various forms of rejection listed in the scale. Participants were least likely to report that they had been advised to lower their expectations as a result of their

Table 1  
Frequency of responses to items regarding experiences with stigma-related rejection

Items	Never	Very rarely	Seldom	Sometimes	Frequently	Almost always	Always	Mean	SD
1. I have worried that others will view me unfavorably because I have been in treatment for my substance use. ( <i>N</i> =195)	34	30	26	66	21	7	11	3.4	1.6
2. I have been in situations where I have heard others say unfavorable or offensive things about people who have been in treatment for their substance use. ( <i>N</i> =193)	24	24	20	68	36	7	14	3.8	1.6
3. I have seen or read things in the mass media (e.g., television, movies, books) about people who have been in treatment for their substance use that I find hurtful or offensive. ( <i>N</i> =195)	35	27	36	59	26	8	4	3.3	1.5
4. I have avoided telling others outside my immediate family that I have been in treatment for my substance use. ( <i>N</i> =194)	47	31	20	47	18	16	14	3.3	1.9
5. I have been treated as less competent by others when they learned I have been in treatment for my substance use. ( <i>N</i> =193)	55	28	29	52	20	6	3	2.9	1.6
6. I have been shunned or avoided when it was revealed that I have been in treatment for my substance use. ( <i>N</i> =192)	66	33	26	45	11	6	4	2.7	1.6
7. I have been advised to lower my expectations in life because I have been in treatment for my substance use. ( <i>N</i> =192)	102	27	20	28	9	3	3	2.2	1.5
8. I have been treated fairly by others who know I have been in treatment for my substance use. ( <i>N</i> =192)	34	42	38	46	13	4	15	3.2	1.7
9. Friends who learned I have been in treatment for my substance use have been supportive and understanding. ( <i>N</i> =193)	72	41	26	35	6	6	7	2.5	1.6

Items were numbered 1–7 with 1 = “never” and 7 = “always”.

drug use and that friends who learned of treatment for drug abuse were supportive and understanding (i.e., friends were not very supportive). The stigmatizing experience they were most likely to report was hearing others say unfavorable or offensive things about people who have been in treatment for substance use.

On the SAPSS, our measure of perceived stigma, participants showed a mean item score of 4.21, which is significantly above a neutral score (4) on the scale,  $t(194)=3.17$ ,  $p=.002$ . Although scores varied across items, this could be interpreted to mean that the average participant believes that most people with substance abuse problems are devalued or discriminated against; 59% had a mean score over the midpoint of the scale, with 44% of individual item responses indicating a perception that most people devalue/discriminate and 30% indicating disagreement (Table 2). The most strongly endorsed forms of stigma were that most people would not trust someone who had been in treatment for substance use to teach young children (59%) or take care of young children (69%). The least strongly endorsed forms of stigma were evidenced by agreement that most employers will hire someone who has been treated for substance use if he or she is qualified for the job (49%), most people believe that a person who has been treated for



Table 2  
Frequency of responses to items regarding perceived stigma

Item	(1) Very strongly disagree	(2)	(3)	(4) Neutral or don't know	(5)	(6)	(7) Very strongly agree	Mean	SD
1. Most people would willingly accept someone who has been treated for substance use as a close friend. ( <i>n</i> =197)	7	14	34	63	55	8	16	4.2	1.4
2. Most people believe that a person who has been treated for substance use is just as intelligent as the average person. ( <i>n</i> =197)	8	11	64	27	46	21	20	4.2	1.6
3. Most people believe that someone who has been treated for substance use is just as trustworthy as the average citizen. ( <i>n</i> =197)	20	21	81	26	23	16	10	3.5	1.6
4. Most people would accept someone who has been treated for substance use as a teacher of young children in a public school. ( <i>n</i> =197)	35	21	60	52	11	11	7	3.2	1.5
5. Most people feel that entering treatment for substance use is NOT a sign of personal failure. ( <i>n</i> =197)	13	16	45	35	51	20	17	4.1	1.6
6. Most people would hire someone who has been treated for substance use to take care of their children. ( <i>n</i> =197)	34	27	75	41	10	4	6	3.0	1.4
7. Most people do NOT think less of a person who has been in treatment for substance use. ( <i>n</i> =197)	18	17	59	44	37	14	7	3.7	1.5
8. Most employers will hire someone who has been treated for substance use if he or she is qualified for the job. ( <i>n</i> =197)	6	10	32	52	73	13	11	4.3	1.3
9. Most employers will NOT pass over the application of someone who has been treated for substance use in favor of another applicant ( <i>n</i> =197)	15	12	64	67	26	9	4	3.6	1.3
10. Most people in the community would treat someone who has been treated for substance use just as they would treat anyone else. ( <i>n</i> =195)	11	12	71	37	49	10	5	3.8	1.3
11. Most people would NOT be reluctant to date someone who has been treated for substance use. ( <i>n</i> =195)	10	6	54	70	43	9	3	3.8	1.2
12. Once they know a person has been treated for substance use, most people will NOT take his or her opinions less seriously. ( <i>n</i> =195)	4	10	64	58	49	8	1	3.9	1.1

Items were numbered 1–7 with 1=“Very Strongly Disagree”, 2=“Strongly Disagree”, 3=“Disagree”, 4=“Neutral or don't know”, 5=“Agree”, 6=“Strongly agree”, and 7=“Very Strongly Agree”. Average scores are not reverse scored, so lower scores indicate more perceived stigma.

substance use is just as intelligent as the average person (49%), and most people would willingly accept someone who has been treated for substance use as a close friend (50%).

### 3.2. Are measures of stigma conceptually distinct?

Generally, analyses conformed with the predicted pattern of results, suggesting that these measures are conceptually distinct. Internalized shame was moderately correlated with reports of past stigma-related rejection ( $r = .503$ ) and to a lesser level with perceived stigma ( $r = .248$ ). Perceived stigma was moderately correlated with experienced stigma-related rejection ( $r = .423$ ), but less with internalized stigma (.248).

Internalized shame was moderately correlated with other variables related to psychological functioning, namely the AAQ ( $r = .564$ ), quality of life ( $r = -.487$ ), and global mental health ( $r = -.487$ ), with stigma-related rejection less so ( $r = .292$  with AAQ,  $r = -.282$  with QOL,  $r = .293$  with global mental health) and perceived stigma the least ( $r = .119$  with AAQ,  $r = -.290$  with QOL,  $r = .152$  with global mental health). Perceived stigma had about the same level of correlation with quality of life as stigma-related rejection. Interestingly, perceived stigma was correlated with both years of education ( $r = .294$ ) and with weeks of employment in the last year ( $r = -.224$ ), while the other two scales were not.

### 3.3. Is reported stigma related to the number of previous episodes of treatment?

In order to examine the possibility that the stigma process does not primarily begin to impact an individual until the person has entered the treatment system and has received a diagnostic label (Link et al., 1989), we ran a linear regression predicting the number of previous treatment episodes from our three stigma scales (experienced rejection, perceived stigma, and shame). In order to determine which statistical controls to use, we examined the matrix of zero-order correlations between the number of previous episodes of treatment and possible correlates including gender, age, ethnicity, previous education, number of drugs of use, number of years of use of most typical drug, secrecy coping, quality of life, and overall mental health (see Table 3). Those variables with a significant zero-order correlation with number of previous episodes of treatment were included in the final regression model (Table 4).

Preliminary analyses to examine violations of regression assumptions identified two problems. The first analysis identified two outliers using the rule of thumb of those cases having standardized residuals greater than 3.3 (corresponding to an alpha of .001). These two cases were excluded from the regression analysis (the cases had standardized residuals of 3.47 and 4.03). Inspection of the data from these two subjects showed means well within 2 standard deviations of the mean on all variables except the number

Table 3  
Zero-order correlations between variables used in the linear regression described in Table 4 ( $n = 161$ )

	# of Treat.	QOL	GHQ	Max years	# of drugs	Age	Perc. stigma	Intern. shame	Rejection
# of prev. episodes of treatment	1	-.22**	.16*	.17*	.21**	.22**	.24**	.19	.30***
Quality of Life (QOL)	-.22**	1	-.63***	-.05	-.06	-.09	-.26**	-.48***	-.31***
Overall Mental Health (GHQ)	.16*	-.63***	1	-.04	.01	.01	.14	.48***	.30***
Max years, all drugs	.17*	-.04	-.04	1	.14	.70***	-.04	.07	-.001
# of drugs in lifetime	.21**	-.01	.06	.14	1	-.11	.11	.03	.002
Age	.22**	-.08	.01	.70***	-.11	1	-.04	-.02	.02
Perceived stigma	.22**	-.26**	.14	-.14	.11	-.04	1	.23**	.48***
Internalized shame	.19*	-.48***	.48***	.07	.03	-.02	.23**	1	.53***
Stigma-related rejection	.31***	-.30***	.31***	-.001	.002	.02	.48***	.53***	1

Note: Number of previous episodes of treatment refers to the correlation between the  $\log_e$  of the number of previous episodes of treatment and other variables. This table refers does not include the two outliers removed for the purposes of the regression analysis and was created using listwise exclusion of missing variables. Low scores on the perceived stigma scale indicate greater stigma; high scores on the internalized shame, and Secrecy scales indicate greater stigma. For the well-being measures; higher scores on the QOL indicate greater well-being; low scores on the GHQ indicate better well-being.

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .



Table 4

Summary of hierarchical regression analysis for variables predicting number of previous episodes of treatment ( $N=169$ )

Variable	<i>B</i>	SE <i>B</i>	$\beta$
Step 1			
Quality of Life	-.005	.003	-.144
Overall Mental Health	.007	.007	.087
Max years, all drugs	.001	.006	.014
# of drugs in lifetime	.036	.014	.196*
Age	.010	.006	.195†
Step 2			
Quality of Life	-.002	.003	-.078
Overall Mental Health	.004	.007	.055
Max years, all drugs	.002	.006	.037
# of drugs in lifetime	.033	.014	.178*
Age	.010	.006	.184
Perceived stigma	.058	.048	.099
Internalized shame	-8.42E-006	.002	.000
Stigma-related rejection	.013	.006	.202*

Note:  $R^2=.128$  for step 1 ( $p<.001$ ),  $\Delta R^2=.059$  for step 2 ( $p=.01$ ). \* $p<.05$ , † $p=.064$ .

of previous treatments for which they reported values that were approximately 9 and 10.5 SDs above the mean. The second analysis of assumption violations showed that the number of previous treatment episodes was positively skewed, so this variable was transformed using the natural log of the number of previous episodes plus one. Finally, a standard diagnostic check for multicollinearity was performed, showing an absence of high correlations between variables (all with  $r<.8$ ) and tolerance values of more than .4 for all variables, both of which suggest an absence of multicollinearity.

A test of the full model with all predictors, compared to the model with only the control variables was statistically significant, indicating that the three stigma variables added significantly to the prediction, above and beyond the controls (Table 4). We then examined the ability of individual variables to predict episodes of previous treatment by examining the significance of individual regression coefficients. We found that the level of stigma-related rejection experiences and number of drugs used in life continued to predict number of previous treatment episodes, even after controlling for all other variables.

### 3.4. Is secrecy as a coping method associated with different levels of functioning?

Higher levels of secrecy coping were associated with (see Table 5) lower levels of psychological flexibility, lower quality of life, more experiences of stigma-related rejection in the past, higher internalized shame, poorer global mental health, and most strongly with perceived stigma. Secrecy coping was not correlated with weeks of employment in the past year or educational level. Those reporting problems with employment in the past 30 days also reported higher levels of secrecy coping than those without employment problems,  $t(182)=2.86$ ,  $p=.005$ .

### 3.5. Do IV drug users experience higher levels of stigma than non-IV users?

We examined the association between IV drug use and stigma by conducting  $t$ -tests on the variables reported below, comparing those participants who reported having ever used IV drugs ( $n=32$ ) and those

Table 5  
Correlations between major outcome measures

	AAQ	QOL	Stigma-related rejection	Internalized shame	Perceived stigma	Global mental health	Secrecy coping
Acceptance and Action (AAQ)		-.34***	.29***	.56***	.12	.40***	.23**
Quality of Life (QOL)	-.34***		-.28***	-.49***	-.29***	-.61***	-.23*
Stigma-related rejection	.29***	-.28***		.50***	.42***	.29***	.39***
Internalized shame	.56***	-.49***	.50***		.25*	-.49***	.32***
Perceived stigma	.12	-.29***	.42***	.25*		.15*	.42***
Global mental health	.40***	-.61***	.29***	-.49***	.15*		.15*
Secrecy coping	.23	-.23*	.39***	.32***	.42***	.15*	
Weeks employed in last year	-.03	.05	-.03	-.14	-.22**	-.13	.02
Years of education	-.11	-.08	.09	-.01	.29***	.02	.14
No. of days of employment problems in last 30	-.02	-.13	.08	.08	.17*	.08	.20**
Enacted stigma item: rejection by friends	-.07	.08	.28***	.08	.28***	-.04	.19**
Enacted stigma item: family gave up	.04	.04	.23**	.05	.18*	-.06	.11
Enacted stigma item: people were afraid	-.03	.01	.20**	.02	.17*	-.11	.14
Enacted stigma item: people treated him/her unfairly	.11	-.11	.27***	.21**	.30***	.12	.23**
Enacted stigma item: employers paid lower wages	.04	-.13	.30***	.20**	.27***	.12	.23**

Note: numbers above are Pearson Correlations (with pairwise exclusion of missing data) subjected to two-tailed tests. For the stigma scales: low scores on the Perceived stigma scale indicate greater stigma; high scores on the internalized shame, and Secrecy scales indicate greater stigma. For the well-being measures: low scores on the AAQ-9 indicate higher psychological flexibility; higher scores on the QOL indicate greater well-being; low scores on the GHQ indicate better well-being.

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

who reported no prior IV drug use ( $n=165$ ). There were no significant differences on measures of psychological flexibility, global mental health, quality of life, number of previous treatments, internalized shame, or age. IV users more often reported using secrecy as a method of coping,  $t(193)=2.07$ ,  $p=.04$ . They also reported higher levels of perceived stigma,  $t(193)=2.24$ ,  $p=.03$ . The measure of stigma-related rejection approached significance,  $t(189)=1.96$ ,  $p=.051$  with IV drug users reporting more rejection.

### 3.6. Do people with current contact with the legal system report higher levels of stigma?

Our sample was split into two groups, those who were currently uninvolved in the legal system ( $n=93$ ) and those who were currently on bail ( $n=2$ ), on parole ( $n=23$ ), probation ( $n=54$ ), or awaiting trial ( $n=11$ ). No information was collected about past legal involvement. Results were, if anything, the opposite of what was hypothesized. There were no between-group differences in level of perceived stigma,  $t(180)=.126$ ,  $p=.90$ , secrecy as a coping method,  $t(179)=.206$ ,  $p=.84$ , quality of life,  $t(177)=.171$ ,  $p=.86$ , general mental health,  $t(181)=1.79$ ,  $p=.076$ , or number of prior episodes of treatment,  $t(144)=.29$ ,  $p=.77$ . Those with current legal problems actually reported less internalized shame,  $t(178)=3.28$ ,  $p=.001$ , less stigma-related rejection,  $t(176)=2.21$ ,  $p=.028$ , and higher psychological flexibility,  $t(180)=3.55$ ,  $p<.001$ .

## 4. Discussion

### 4.1. Presence of stigma

Participants reported fairly frequent contact with various forms of enacted stigma and interpersonal rejection related to their substance abuse. Participants believed that stigmatizing attitudes and behaviors towards people with substance abuse were fairly common. Overall, about 60% of participants scored above the midpoint on our scale measuring perceived stigma. Averaging across individual items, about a third of the time participants agreed that most people held individual stigmatizing attitudes or behaviors. Overall, these levels of endorsement were somewhat lower than [Ritsher and Phelan \(2004\)](#) found in their sample of seriously mentally ill and [Link et al. \(1997\)](#) found in their sample of the dually diagnosed. One interpretation of these results is that our sample of substance abusing participants perceive less stigma than the seriously mentally ill participants in her sample. This interpretation is weakened by the differences in response options between our scales and theirs, with our scale including a “neutral” option and the other author’s scale not including this option, potentially reducing the rate of participants acknowledging stigma in our study. In addition, these measures were originally developed for use in seriously mentally ill population and thus some of the items may not apply particularly strongly to a substance abuse population, thus limiting our ability to make generalization about mean *levels* of stigma across populations.

### 4.2. Multiple dimensions of stigma

Our results supported the idea that the different measures of perceived stigma, stigma-related rejection, and internalized shame (self-stigma) are conceptually and empirically distinct ([Link et al., 2004](#)). They correlated with each other and non-stigma measures in a coherent fashion. One explanation of our pattern of results is that experiences with stigma-related rejection might produce both higher levels of perceived stigma and higher levels of internalized shame. This explanation could account for the pattern of findings in which past stigma-related rejection was moderately correlated with both perceived stigma and internalized shame, while the former two were only slightly correlated with each other. Determining whether any of these hypotheses are correct cannot occur from our cross sectional data and we thus await studies that include a longitudinal component.

This study also found that internalized shame was more highly related to measures of psychological functioning and quality of life than experienced rejection and perceived stigma. This result suggests that self-stigma might be a more appropriate target for stigma-related interventions in a substance abusing sample than perceived stigma or teaching them how to avoid rejection.

### 4.3. Relationship between stigma and previous treatment

Our sample demonstrated that experiences with stigma-related rejection continued to be related to number of previous episodes of treatment even after controlling for other explanatory variables. These results are supportive of the [Link et al’s \(1989\)](#) modified labeling theory which holds that stigma begins to impact people with behavioral disorders once they have officially received a label from the treatment establishment. Our results are similar to those of [Semple et al. \(2005\)](#) who found that in their sample of methamphetamine abusers, those who had previously been in treatment reported higher levels of stigma-

related rejection than those who had never been in treatment. In general, our data are suggestive of the idea that stigma-related rejection may occur with increasing frequency with greater numbers of treatment episodes. One alternative hypothesis is that those with the most serious problems are those most likely to return to treatment and also those most likely to suffer from stigma. However, our data argue against this hypothesis in that stigma-related rejection continued to predict number of treatment episodes even after controlling for current severity. Another alternative hypothesis is that greater levels of stigma-related rejection make it more difficult to succeed in recovery, which in turn leads to a greater chance of relapse and return to treatment for those experiencing more enacted stigma. This hypothesis conforms somewhat with the results of Sirey et al. (2001), who found in their sample of 92 depressed patients that those over 65 years old who reported higher levels of perceived stigma were more likely to prematurely discontinue treatment and a second study by Sher, McGinn, Sirey, and Meyers (2005) who showed that stigma-related attitudes of primary caregivers predicted adherence to antidepressant medication. Longitudinal research is necessary to disentangle these alternative explanations.

#### 4.4. *Secrecy coping*

Higher levels of secrecy coping were related to lower levels of psychological flexibility, lower quality of life, more experiences of stigma-related rejection in the past, higher internalized shame, and most strongly with perceived stigma. Particularly interesting was the finding that those reporting employment problems in the last 30 days reported higher levels of secrecy coping. One reasonable explanation is that these people who were engaging in a behavior (job seeking) at a rate that required fairly high levels of concealment. In our sample, secrecy coping was positively correlated with a number of negative variables. These results need to be interpreted in light of the probable limited psychometric properties of this measure of convenience which only demonstrated an alpha of .57 in this study. More research is needed to examine the adaptiveness of disclosure in relation to context. For example, in supportive environments, where one is likely to obtain help because of disclosure, perhaps disclosure would be more helpful. In other situations, such as job interviews, where one is likely to be the subject of enacted stigma for disclosure, concealment might be more adaptive. Future studies might usefully examine whether disclosure level might interact with the general level of social support, or whether context specific (e.g., workplace) disclosure might be more or less adaptive.

#### 4.5. *IV drug users and those with legal problems*

IV drug users in our sample reported more secrecy coping, more perceived stigma, and marginally more experiences of stigma-related rejection. A factor further strengthening the idea that IV drug status may be directly related to greater experience of stigma was the finding that while the two samples did vary on some stigma variables, they did not significantly differ on variables suggestive of overall functioning (such as psychological flexibility, global mental health, or quality of life). While our results are suggestive of the idea that IV users may be more often the targets of stigma than other drug users, it is not clear what the impact of this stigma has on their functioning, because this was not also associated with lower functioning. The primary behavioral impact of greater levels of experienced stigma in this population may be greater concealment of their drug using status, an interpretation which would be consistent with our findings.

Our data were not supportive of the idea that people with current contact with the legal system encounter more stigma. In fact, in this sample, those with current legal problems actually reported less

internalized shame, higher psychological flexibility, and less stigma-related rejection. We do not have an adequate explanation for these findings. Besides the obvious interpretation that people with legal involvement do not experience more stigma, another possible interpretation is that participants in with legal problems may have tended to minimize their level of distress or problems perhaps because of fear of this information being used in legal proceedings.

#### 4.6. *Measurement issues*

Our results, as well as the general lack of literature on stigma in this population, demonstrate a need for several new scales related to substance abuse stigma, as well as refinement of existing scales. As a result of the lack of previous measure development work, probably the largest weakness in this study is the lack of information on the psychometrics of our measures of perceived stigma, stigma-related rejection, and secrecy coping, all previously unstudied scales. These items were taken directly from Link et al. (1989) whom also did not report psychometric properties of these items. Additionally, the AAQ, while usually demonstrating adequate alphas in most studies had a poor alpha in this study of .52, thus making questionable the unidimensional character of this scale in our study.

Our stigma scales may also suffer from problems with content validity. These measures were directly adapted from scales specifically created for use with a seriously mentally ill population. Thus, we may not have documented the existence of some forms of stigma on our scales or included some forms which, while relevant to the seriously mentally ill, might not be very relevant for those with substance abuse problems. Qualitative research could help determine what items might be usefully added or removed from our measures of perceived stigma and stigma-related rejection.

Perusal of individual items from the stigma-related rejection scale adapted from Wahl (1999) seems to suggest that this scale may not be a unidimensional measure of experiences with stigma-related rejection. For example, the scale includes items such as “I have worried that others will view me unfavorably because I have been in treatment for my substance use,” which while probably being linked to experiences with rejection, does not directly report on experiences of rejection. The scale could probably use development of new items measuring other forms of rejection and removal of items that do not clearly measure the central construct.

No measure specific to self-stigma has been created, so we were required to use a measure of internalized shame. We believe that the notion of internalized shame overlaps considerably with the construct of self-stigma, but it does not measure it exactly. The need for a direct measure of self-stigma appears strong, particularly in light of the data which show that our measure of internalized shame was highly related to outcomes of interest. Another paper examining early outcomes from an open trial of an intervention targeting self-stigma suggests that treatment can reduce self-stigma as measured by this internalized shame scale (Luoma, Kohlenberg, Hayes, Bunting, & Rye, in preparation). Also needed is a scale focused on additional forms of enacted stigma besides interpersonal rejection, such as employment-related discrimination, discrimination in social services, and housing discrimination.

An additional measurement issue brought to light in this study is the difference between reports of ongoing, regularly experienced stigmatizing events, and lifetime prevalence of these events. For example, our scale of stigma-related rejection measures ongoing rejection experiences, rather than total past experiences. It could be that these two measures could relate quite differently to outcome. For example, as a result of past stigma-related rejection, someone might now be concealing their current or past use of substances so that they do not experience further enacted stigma. This person might report having a

relatively high lifetime prevalence of enacted stigma, but report little ongoing stigma. However, the concealment that resulted from past experiences with enacted stigma may continue to have effects on the person's functioning.

A weakness of this study is the complete reliance on self-report. In the area of stigma this is particularly difficult due to the social desirability of the relevant domains. Future studies would usefully include measures of the context in which the person lives, such as attitudes of staff at the treatment centers, or perhaps measures of the attitudes of a sample of the population in the area where the person lives or their family members. Additionally, measures such as the Implicit Attitudes Test (Greenwald, Nosek, & Banaji, 2003) might be useful to get around the problems of social desirability. Finally, it is possible that because measures were not presented in a counterbalanced order, there may have been systematic, unexplained error due to participant tiredness or boredom.

#### *4.7. Other weaknesses*

Another issue is that in conducting analyses for this study, a large number of individual statistical tests were conducted, thus increasing the risk of type I error. We decided to take this risk, rather than reducing the alpha to something below .05 because at this beginning state of this area of research we would prefer to have a variety of leads to track down and eliminate as possibilities rather than make type II errors and conclude that possible relationships are not there and thus have fewer leads for future studies. Our best estimates suggested that only 20% or less of the potential population (those in treatment at the time of the study) completed our survey, leaving the possibility of a recruitment selection bias. This limits our ability to confidently generalize these results to the whole population of those in treatment.

This study presents a first, limited investigation into the experiences of stigmatization in a group of people in recovery from substance abuse. As there was no comparison group, this limits our ability to speak to which experiences of stigmatization might be at particularly high rate in this population versus other stigmatized populations (e.g., mentally ill, HIV+ individuals). Future studies would usefully include multiple stigmatized groups to allow for examination of processes of stigmatization that might be shared versus divergent across groups.

#### *4.8. Implications for practice*

While preliminary, the results of this study suggest that stigmatization is commonly perceived by people in recovery. As the primary organizational point of contact for people in recovery, it may be important for addictions treatment centers to attend to the impact of stigma on their clients. Policies and procedures could be examined for the possibility of their contributing to stigma towards clients. There may also be room for intervention with service providers, who unfortunately are not immune to stigmatizing their own clients. One study (Hayes, Bisset et al., 2004; Hayes, Strosahl et al., 2004) has even found preliminary evidence for an intervention based on Acceptance and Commitment Training that may successfully reduce stigmatizing attitudes and behavior in counselors.

This study presents a unique, but limited addition to an underexamined area of research: stigma in substance abuse. As a beginning study, it brings up more questions than answers, but it may open a pathway for other researchers to follow. We hope that others will pick up the challenge and begin to answer some of the questions brought up by this study and help us understand how generalizable these results are to other people in recovery.



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