# Stigma and Substance Use: A Methodological Review

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The examination of attitudes, beliefs, and stigma toward individuals with mental illness highlights a general pattern of negative attitudes/high stigma toward individuals with a wide range of mental illnesses (Link et al., 1997; Rao, Mahadevappa, Pillay, Sessay, & Luty, 2009). It seems that a false sense of rarity of mental illness exists in society, stigma prevails, and together these beliefs can result in individuals suffering from these conditions feeling isolated, alone, and unable to seek help. Examining these same attitudes, beliefs, and stigma in relation to substance use and substance use disorders reveals some interesting nuances that nonetheless leave individuals suffering from substance use disorders feeling paradoxically similar: isolated, alone, and unable to seek help.

The first contrast is that alcohol and use of various substances are overestimated by many individuals, especially young populations including adolescents and college students (Borsari & Carey, 2001, 2003). One of the most common techniques used in these populations to decrease alcohol and substance use is to correct over-estimated normative perceptions regarding use of these substances (Carey, Scott-Sheldon, Elliott, Garey, & Carey, 2012; Mallett, Varvil-Weld, Borsari, Read, & White, 2012; Miller et al., 2013). For example, in the college student literature, brief interventions typically include providing accurate normative information to college student drinkers, who appear to reduce alcohol use in response to such information in an attempt to adjust their behaviors to more closely match the norm (Larimer et al., 2007). Thus, despite the fact that the commonness of substance use tends to be overestimated, individuals with alcohol or substance use problems or disorders are branded as "alcoholics" or "drug addicts," and these populations are highly stigmatized, even more so than individuals with severe mental illness (Hengartner et al., 2012; Rao et al., 2009).

The fact is that negative attitudes towards individuals who have a substance use disorder prevail in society not only among individuals in the community but also among health care providers (Boekel, Brouwers, Weeghel, & Garretsen, 2013; Meltzer et al., 2013). The stigma associated with alcohol and substance use has several deleterious consequences ranging from the internalization of this stigma by substance using individuals (Luoma et al., 2007), which prevents honest communication and treatment seeking behaviors (Kushner & Sher, 1991), to stigma held by treatment providers, who provide less than optimal care given the range of negative attitudes and beliefs directed toward this population (Boekel et al., 2013).

In the United States, if a substance user seeks help for their addiction, chances are that they will receive 12-step treatment and will find themselves attending mutual help meetings (e.g., Alcoholics Anonymous, Narcotics Anonymous). The need and desire for anonymity in these meeting highlights the stigma associated with substance use. In order to reduce stigma in all of its forms, it is important to understand how to best assess stigma

**Types of Stigma**

Self-stigma can be defined as the "shame, evaluative thoughts, and fear of enacted stigma [i.e., experiencing prejudice/discrimination] that results from individual's identification with a stigmatized group that serves as a barrier to the pursuit of valued life goals" (Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008, p. 150). Social stigma, or public stigma, can be defined as "the prejudice and discrimination endorsed by the general population that affects a person" (Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012, p. 963), in this case, with a substance use problem. Structural stigma, or institutional discrimination, "includes the policies

of private and governmental institutions that intentionally restrict the opportunities of people" (Corrigan, Markowitz, & Watson, 2004, p. 481). Structural stigma tends to be inferred from the existence of disparities or specific examples are found in laws or media reports (Corrigan & Fong, 2014; Corrigan et al., 2004). Given that structural stigma tends not to be measured directly, the present review is focused on the assessment of self-stigma and social stigma, which have been assessed directly in the social sciences.

**Self-Stigma**

In the domain of substance use and substance use disorders, self-stigma is purported to be a major factor that prevents treatment seeking (Kushner & Sher, 1991). There are several measures of self-stigma that can be found in the literature (see Table 1); however, few have been used in multiple studies. Importantly, many of these measures of self-stigma appear to be tapping into distinct aspects of self-stigma, suggesting that the use of multiple assessments is preferable to the assessment of only one.

The most commonly used measures have been used by Luoma and colleagues across several studies examining Acceptance and Commitment Therapy (ACT) (Hayes, Strosahl, & Wilson, 1999) as a method of reducing self-stigma among substance users (Luoma et al., 2007, 2008; Luoma, Kohlenberg, Hayes, & Fletcher, 2012; Luoma, O'Hair, Kohlenberg, Hayes, & Fletcher, 2010). For example, the Internalized Shame Scale (Cook, 1996) is a 30-item measure that broadly assesses level of internalized shame, and demonstrates higher internal consistency and test-retest reliability across studies (Cook, 1987). The Internalized Stigma of Substance Abuse (ISSA) scale was adapted from the 29-item Internalized Stigma of Mental Illness scale (Ritsher, Otilingam, & Grajales, 2003), which assesses alienation, stereotype endorsement, perceived discrimination, social withdrawal, and stigma resistance. Alienation (i.e., degree to which individuals feel alienated given their membership in the stigmatized group), stereotype endorsement (i.e., degree to which individuals endorse common stereotypes directed toward the stigmatized group to which they belong), and (lack of) stigma resistance (i.e., the degree to which individuals resistance stigma) tap into constructs that could be described as self-stigma; the remaining subscales seem to assess perceived public stigma (described below).

More recently, Luoma et al. reported the development of the Substance Abuse Self-Stigma Scale (SASSS) (Luoma et al., 2013) designed to assess four specific facets of self-stigma based on Relational Frame Theory (Hayes, Barnes-Holmes, & Roche, 2001): Self-Devaluation (i.e., how much one has internalized derogatory stereotypes), Fear of Enacted Stigma (i.e., how much one fears encountering prejudice/discrimination), Stigma Avoidance (i.e., degree to which one attempts to reduce, avoid, or escape stigma), and Values Disengagement (i.e., interference with one's life goals). These four facets have been supported using both exploratory and confirmatory factor analyses, have demonstrated high internal consistencies (alphas > .82), and have shown theoretically consistent associations with a host of stigma-related constructs in substance using samples in residential or outpatient treatment (Brown et al., 2015; Luoma et al., 2013).

**Public Stigma**

Public stigma, or social stigma, can be defined as "the prejudice and discrimination endorsed by the general population that affects a person," (Corrigan et al., 2012, p. 963), in this case, with a substance use problem. In the substance use field, researchers have distinguished between public stigma in the general population and selected groups with more direct implications for substance users including health care providers (Boekel et al., 2013) and police officers (Bahora, Hanafi, Chien, & Compton, 2008). Further, one can distinguish between perceived public stigma (i.e., the degree to which one believes that others endorse stigmatizing beliefs) and actual public stigma (i.e., the degree to which individuals endorse stigmatizing beliefs).

To assess actual public stigma, Brown (2011) modified three measures from mental illness stigma research to assess dimensions of public stigma toward substance users in large sample of college students: the Social Distance Scale (SDS) (Link et al., 1987), Dangerousness Scale (DS) (Link et al., 1997), and Affect Scale (AS) (Penn, Dally, Garbln, & Sullivan, 1994). The 7-item SDS assesses the willingness to interact with a person (1=Definitely willing, 4=Definitely unwilling) with a "substance use problem (i.e., smokes marijuana, heavy alcohol use)". The 7-item DS assesses agreement (1=Strongly Agree, 7=Strongly Disagree) with statements regarding how dangerous individuals with a previous or current substance use problem are. The 10-item AS assesses individuals emotions about interacting with an individual with a substance use problem, measured using 7-point bipolar dimensions (supportive—resentful, relaxed—tense). Brown found that the SDS and AS had good internal consistency (alpha = .85 and .92, respectively), and individuals who reported being more comfortable spending time with individuals with a substance use problem and/or with higher previous contact with individuals with a substance use problem had lower scores on these measures. The DS had poorer internal consistency and did not demonstrate these significant group differences; further, DS for substance use was fairly highly correlated with DS for severe mental illness ($r$ = .59) leading to questionable validity of this scale.

In a sample of emerging adults (i.e., ages 18 to 25), Palamar and colleagues examined both perceived public stigma and actual public stigma (i.e., "stigmatization" factor) in a single instrument (1="strongly agree", 5="strongly disagree") across five illicit drugs: marijuana, cocaine, ecstasy, opioids, and amphetamines (Palamar, Kiang, & Halkitis, 2011). The actual public stigma factor (from the Stigma of Drug Users Scale) consisted of 7 items (e.g., "Using __ is morally wrong," "___ users are dishonest," "___ users are weak minded") for each of the five drugs. From a total of 10 possible items, the perceived public stigma factors (from the Drug Use Stigmatization Scale) included 5 to 9 salient items (based on salient factor loadings) across the five different drugs (e.g., "Most people believe ___ users cannot be trusted," "Most people feel that ___ use is a sign of personal failure"). The authors demonstrated that a two factor model fit the data well using confirmatory factor analysis across each of the five drugs, the internal consistencies were acceptable (alphas ranged from .77 to .88) , and these factors were negatively correlated with use of each of these drugs (i.e., higher perceived and actual stigma associated with lower use).

Luoma, O'Hair, Kohlenberg, Hayes, and Fletcher (2010) developed and tested the Perceived Stigma of Addiction Scale (PSAS) to assess perceived public stigma in a sample of individuals in treatment for substance use problems. Adapted from Link et al.'s (1997) perceived discrimination-devaluation measure, the PSAS contains 8 items (alpha = .73) related to how "Most people" would react to "someone who has been treated for substance use" (e.g.,

"…think less of a person…," "…will hire…," "…would be willing to date…"). The PSAS was found to be moderately correlated with measures of self-stigma including internalized shame and internalized stigma (reviewed above).

**Novel Measures of Stigma**

In the stigma toward mental illness literature, a wide range of questionnaire and vignette-based measures have been used to examine stigma-related phenomena. Only a subset of these measures has been applied to substance use specifically. However, both literatures have relied heavily on purely conscious measures of stigma-related constructs. In the broader prejudice and discrimination literature, the past two decades have seen a surge in the amount of work examining implicit measures of prejudice toward a wide range of social groups (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Although these measures have received minimal attention in the stigma toward mental illness literature (O'Driscoll, Heary, Hennessy, & McKeague, 2012), they hold much promise to examine aspects of both self-stigma and social stigma, which are not necessarily accessible to one's conscious mental processes. In other words, individuals may hold relatively automatic biases of which they are unaware, which can in turn result in discriminatory behaviors that place individuals with substance use at a disadvantage.

**Conclusion**

The assessment of stigma-related constructs in the field of substance use is quite variable. On the one hand, in the absence of standardized measures, each research team tends to create their own measures and the field undergoes a period of measure proliferation prior to settling on a set of common measures. On the other hand, stigma is better understood as a complex multilevel process rather than a single construct, thus stigma researchers will likely require the examination of several constructs in research designed to examine the etiological role of stigma-related constructs on substance users as well as in the evaluation of preventions and interventions designed to reduce the negative effects of stigma. Unfortunately, there tends to be an inverse association between the rigor of psychometric testing applied to measures and the degree to which the desired population is assessed. Stated plainly, the smallest samples tend to be of the populations that are of most interest (e.g., substance users) compared to the largest samples (e.g., college students). At present, the SASSS is a scale developed specifically to assess aspects related to self-stigma in substance using populations and has been validated in multiple samples of individuals in residential or outpatient treatment (Luoma et al., 2013). The Stigma of Drug Users and Drug Use Stigmatization Scales have undergone rigorous psychometric testing in a diverse sample of emerging adults and assessed both one's own perceptions (i.e., to assess public stigma) as well as perceptions regarding the beliefs of "Most people" (i.e., to assess perceived public stigma), and is the only scale to examine these stigma concepts related to five distinct illicit drugs (Palamar et al., 2011). Ultimately, the decision of the best scale to use for a specific project will depend on what will best answer a specific research question. As has been demonstrated previously (Brown, 2011), psychometric testing and validation of measures are needed in the populations of interest (e.g., substance users, health care providers) and cannot be taken for granted based on strong reliability/validity in other populations.

## References


Bahora, M., Hanafi, S., Chien, V. H., & Compton, M. T. (2008). Preliminary evidence of effects of crisis intervention team training on self-efficacy and social distance. *Administration and Policy in Mental Health and Mental Health Services Research, 35*(3), 159–167. doi:10.1007/s10488-007-0153-8

Boekel, L. C. Van, Brouwers, E. P. M., Weeghel, J. Van, & Garretsen, H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. *Drug and Alcohol Dependence, 131*(1-2), 23–35. doi:10.1016/j.drugalcdep.2013.02.018

Borsari, B., & Carey, K. B. (2001). Peer influences on college drinking : A review of the research, *13*, 391–424.

Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: A meta-analytic integration. *Journal of Studies on Alcohol*, *64*, 331–341.

Brown, S. A. (2011). Standardized measures for substance use stigma. *Drug and Alcohol Dependence*, *116*(1-3), 137–141. doi:10.1016/j.drugalcdep.2010.12.005

Brown, S. A., Kramer, K., Lewno, B., Dumas, L., Sacchetti, G., & Powell, E. (2015). Correlates of self-stigma among individuals with substance use problems. *International Journal of Mental Health and Addiction*. doi:10.1007/s11469-015-9559-9

Carey, K. B., Scott-Sheldon, L. A. J., Elliott, J. C., Garey, L., & Carey, M. P. (2012). Face-to-face versus computer-delivered alcohol interventions for college drinkers: a meta-analytic review, 1998 to 2010. *Clinical Psychology Review*, *32*(8), 690–703. doi:10.1016/j.cpr.2012.08.001

Cook, D. R. (1987). Measuring shame: The Internalized Shame Scale. *Alcoholism Treatment Quarterly*, *4*(2), 197–215.

Cook, D. R. (1996). Empirical studies of shame and guilt: The Internalized Shame Scale. In D. L. Nathanson (Ed.), *Knowing Feeling: Affect, Script, and Psychotherapy* (pp. 132–165). New York, NY: W W Norton & Co.

Corrigan, P. W., & Fong, M. W. M. (2014). Competing perspectives on erasing the stigma of illness: What says the dodo bird? *Social Science and Medicine, 103*, 110–117. doi:10.1016/j.socscimed.2013.05.027

Corrigan, P. W., Markowitz, F. E., & Watson, A. C. (2004). Structural levels of mental illness stigma and discrimination. *Schizophrenia Bulletin*, *30*(3), 481–491. doi:10.1093/oxfordjournals.schbul.a007096

Corrigan, P. W., Morris, S. B., Michaels, P. J., Rafacz, J. D., & Rusch, N. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services*, *63*, 963–973. doi:10.1176/appi.ps.005292011

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, *97*(1), 17–41. doi:10.1037/a0015575

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). *Relational frame theory: A post-Skinnerian account of human language and congition.* New York, NY: Kluwer Academic/ Plenum Publishers.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: An experiential approach to behavior change*. New York, NY: Guilford Press.

Hengartner, M. P., Loch, a. a., Lawson, F. L., Guarniero, F. B., Wang, Y.-P., Rössler, W., & Gattaz, W. F. (2012). Public stigmatization of different mental disorders: A comprehensive attitude survey. *Epidemiology and Psychiatric Sciences*, (2013), 1–6. doi:10.1017/S2045796012000376

Kushner, M. G., & Sher, K. J. (1991). The relation of treatment fearfulness and psychological service utilization: An overview. *Professional Psychology: Research and Practice*, *22*(3), 196–203. doi:10.1037/0735-7028.22.3.196

Larimer, M. E., Lee, C. M., Kilmer, J. R., Fabiano, P. M., Stark, C. B., Geisner, I. M., … Neighbors, C. (2007). Personalized mailed feedback for college drinking prevention: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, *75*(2), 285–93. doi:10.1037/0022-006X.75.2.285

Link, B. G., Cullen, F. T., Frank, J., Wozniak, J. F., Link, B. G., Cullen, F. T., … Wozniak, J. F. (1987). The social rejection of former mental patients: Understanding why labels matter. *American Journal of Sociology*, *92*(6), 1461–1500.

Link, B. G., Struening, E. L., Rahav, M., Phelan, J. C., Nuttbrock, L., Link, B. G., … Nuttbrock, L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, *38*(2), 177–190.

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., Bunting, K., & Rye, A. K. (2008). Reducing self-stigma in substance abuse through acceptance and commitment therapy: Model, manual development, and pilot outcomes. *Addiction Research & Theory*, *16*(2), 149–165. doi:10.1080/16066350701850295

Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., & Fletcher, L. (2012). Slow and steady wins the race: A randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. *Journal of Consulting and Clinical Psychology*, *80*(1), 43–53. doi:10.1037/a0026070

Luoma, J. B., Nobles, R. H., Drake, C. E., Hayes, S. C., O'Hair, A. K., Fletcher, L., & Kohlenberg, B. S. (2013). Self-stigma in substance abuse: Development of a new measure. *Journal of Psychopathology and Behavioral Assessment*, *35*(2), 223–234. doi:10.1007/s10862-012-9323-4.Self-Stigma

Luoma, J. B., O'Hair, A. K., Kohlenberg, B. S., Hayes, S. C., & Fletcher, L. (2010). The development and psychometric properties of a new measure of perceived stigma toward substance users. *Substance Use & Misuse*, *45*(1-2), 47–57. doi:10.3109/10826080902864712

Luoma, J. B., Twohig, M. P., Waltz, T., Hayes, S. C., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors*, *32*(7), 1331–1346. doi:10.1016/j.addbeh.2006.09.008

Mallett, K. A., Varvil-Weld, L., Borsari, B., Read, J. P., & White, H. R. (2012). An update of research examining college student alcohol-related consequences : New perspectives and implications for interventions, 1–8. doi:10.1111/acer.12031

Meltzer, E. C., Suppes, A., Burns, S., Shuman, A., Orfanos, A., Sturiano, C. V., … Fins, J. J. (2013). Stigmatization of substance use disorders among internal medicine residents. *Substance Abuse*, *34*(4), 356–362. doi:10.1080/08897077.2013.815143

Miller, M. B., Leffingwell, T., Claborn, K., Meier, E., Walters, S., Update, A., & Neighbors, C. (2013). Personalized feedback interventions for college alcohol misuse: An update of

Walters & Neighbors (2005). *Psychology of Addictive Behaviors*, *27*, 909–920. doi:10.1037/a0031174

O'Driscoll, C., Heary, C., Hennessy, E., & McKeague, L. (2012). Explicit and implicit stigma towards peers with mental health problems in childhood and adolescence. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *53*(10), 1054–62. doi:10.1111/j.1469-7610.2012.02580.x

Palamar, J. J., Kiang, M. V, & Halkitis, P. N. (2011). Development and psychometric evaluation of scales that assess stigma associated with illicit drug users. *Substance Use & Misuse*, *46*(12), 1457–1467. doi:10.3109/10826084.2011.596606

Penn, D. L., Dally, T., Garbln, P., & Sullivan, M. (1994). Dispelling the stigma of schizophrenia: What sort of information is best? *Schizophrenia Bulletin*, *20*(3), 567–577.

Rao, H., Mahadevappa, H., Pillay, P., Sessay, M., & Luty, J. (2009). A study of stigmatized attitudes towards people with. *Journal of Psychiatric and Mental Health Nursing*, *16*, 279–284.

Ritsher, J. B., Otilingam, P. G., & Grajales, M. (2003). Internalized stigma of mental illness: Psychometric properties of a new measure. *Psychiatry Research*, *121*(1), 31–49. doi:10.1016/j.psychres.2003.08.008

Table 1. Selected Measures of Stigma among Substance Users

| Measure | # of items | Type of Stigma | Strengths and Weakness | Citations |
|---|---|---|---|---|
| Internalized Stigma of Substance Abuse | 29 | Self/ Perceived Public | High αs, three subscales assessing aspects of self-stigma (Alienation, Stereotype Endorsement, Stigma Resistance) and two subscales assessing aspects of perceived public stigma (Perceived Discrimination, Social Withdrawal) | Ritsher, Otilingam, & Grajales, 2003 |
| Internalized Shame Scale | 30 | Self | High α, high test-retest reliability, validated with substance using populations<br>Not a direct measure of self-stigma | Cook, 1987; Cook, 1996 |
| Substance Abuse Self-Stigma Scale | 40 | Self | High αs, four subscales based on strong theory (Relational Frame Theory), two subscales assessing self-stigma directly (Self-Devaluation, Fear of Enacted Stigma) and two subscales assessing maladaptive reactions to self-stigma (Stigma Avoidance, Values Disengagement), validated with multiple samples of substance users in residential and outpatient treatment | Brown et al., 2015; Luoma et al., 2013 |
| Social Distance Scale | 7 | Public | High α, only validated among college students | Link et al., 1987 |
| Dangerousness Scale | 7 | Public | Acceptable α, unsuccessfully validated among college students | Link et al., 1997 |
| Affect Scale | 10 | Public | High α only validated among college students | Penn et al., 1994 |
| Stigma of Drug Users Scale | 7 | Public | High αs, validated among emerging adults across five drugs (marijuana, cocaine, ecstasy, opioids, amphetamines); | Palamar, Kiang, & Halkitis, 2011 |

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|---|---|---|---|---|
| Drug Use Stigmatization Scale | 5-9 | Perceived Public | High αs, validated among emerging adults across five drugs (marijuana, cocaine, ecstasy, opioids, amphetamines); contains different number of items across drugs, limiting comparability across drugs | Palamar, Kiang, & Halkitis, 2011 |
| Perceived Stigma of Addiction Scale | 8 | Perceived Public | Acceptable α, moderately correlated with measures of self-stigma | Luoma, O'Hair, Kohlenberg, Hayes, & Fletcher, 2010 |