



Research paper

Does it matter how we refer to individuals with substance-related conditions? A randomized study of two commonly used terms[☆]

John F. Kelly*, Cassandra M. Westerhoff

Center for Addiction Medicine, Department of Psychiatry, Massachusetts General Hospital, 60 Staniford Street, Boston, MA 02114, United States

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ABSTRACT

Objective: Stigma is a frequently cited barrier to help-seeking for many with substance-related conditions. Common ways of describing individuals with such problems may perpetuate or diminish stigmatizing attitudes yet little research exists to inform this debate. We sought to determine whether referring to an individual as “a substance abuser” vs. “having a substance use disorder” evokes different judgments about behavioral self-regulation, social threat, and treatment vs. punishment.

Method: A randomized, between-subjects, cross-sectional design was utilized. Participants were asked to read a vignette containing one of the two terms and to rate their agreement with a number of related statements. Clinicians ($N=516$) attending two mental health conferences (63% female, 81% white, M age 51; 65% doctoral-level) completed the study (71% response rate). A Likert-scaled questionnaire with three subscales [“perpetrator-punishment” ($\alpha=.80$); “social threat” ($\alpha=.86$); “victim-treatment” ($\alpha=.64$)] assessed the perceived causes of the problem, whether the character was a social threat, able to regulate substance use, and should receive therapeutic vs. punitive action.

Results: No differences were detected between groups on the social threat or victim-treatment subscales. However, a difference was detected on the perpetrator-punishment scale. Compared to those in the “substance use disorder” condition, those in the “substance abuser” condition agreed more with the notion that the character was personally culpable and that punitive measures should be taken.

Conclusions: Even among highly trained mental health professionals, exposure to these two commonly used terms evokes systematically different judgments. The commonly used “substance abuser” term may perpetuate stigmatizing attitudes.

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Substance-related conditions are considered to be the number one public health problem in the United States (Institute for Health Policy, 2001), and globally confer a massive burden of disease, huge social costs, and a financial impact which far exceeds that of highly prevalent medical disorders, such as heart disease or cancer (Gmel & Rehm, 2003; Harwood, 2000; Murray, Lopez, & Rogers, 2002). According to nationally representative surveys, approximately 23 million persons aged 12 or older are classified as having a past-year DSM-IV diagnosis of substance abuse or dependence (Substance Abuse and Mental Health Services Administration, 2008). However, while treatment is strongly associated with reducing the health and social impact of these disorders (Rehm, Taylor, & Room, 2006), only about 10% of these affected individuals receive treat-

ment (Substance Abuse and Mental Health Services Administration, 2008). Stigma surrounding the condition is cited as one of the major reasons why such individuals do not seek treatment (Substance Abuse and Mental Health Services Administration, 2008).

Stigma can be understood as an attribute, behavior, or reputation that is socially discrediting, and substance-related problems appear to be particularly susceptible to stigma. A cross-cultural study conducted by the World Health Organization (WHO) in 14 countries examined 18 of the most stigmatized conditions (e.g., being a criminal, HIV positive, or homeless) and found that alcohol addiction was ranked as the 4th most stigmatized, while other drug addiction was ranked as the most stigmatized (Room, Rehm, Trotter, Paglia, & Üstün, 2001). Many individuals who are affected by substance-related problems experience feelings of shame and guilt and often fear that personal disclosure or public knowledge of their condition would lead to negative effects on employment or to broader social disapproval (Ahern, Stuber, & Galea, 2007; Gmel & Rehm, 2003; Link & Phelan, 2006; Stafford & Petway, 1977). Furthermore, health care workers have been shown to hold negative views of individuals with substance-related problems. Physical health conditions, particularly Hepatitis C, because they often co-

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* Corresponding author at: Center for Addiction Medicine, Department of Psychiatry, Massachusetts General Hospital, Harvard Medical School, 60 Staniford Street, Suite 120, Boston, MA 02114, United States. Tel.: +1 617 643 1980; fax: +1 617 643 1998.

E-mail address: jkelly11@partners.org (J.F. Kelly).

occur with substance use have been associated with stigmatizing attitudes towards patients by health workers (Habib & Adorjany, 2003; Paterson, Backmund, Hirsch, & Yim, 2007), and health care workers have been shown to view individuals with substance-related conditions as irresponsible and more aggressive, dangerous, and untrustworthy (Hopwood, Treloar, & Bryant, 2006; Link & Phelan, 2006; McLaughlin, McKenna, & Leslie, 2000). This often translates into delays in help-seeking. Estimates suggest it takes 5–6 years on average from the onset of alcohol/drug dependence before individuals seek help (Wang et al., 2005). Such delays serve only to increase personal and social harms and undermine the prognosis for long-term recovery (Dennis, Scott, Funk, & Foss, 2005; Paterson et al., 2007).

Substance-related conditions may be particularly susceptible to stigma via attributions of personal culpability associated with attribution theory (Gilbert & Malone, 1995; Jones & Harris, 1967; Ross, 1977). Dimensions of attributional theories of motivation, for example, include locus (the extent to which the cause of the behavior is presumed to lie internally vs. externally), stability (the extent to which causes are presumed to change over time), and controllability (the extent to which the behavior is presumed to be under the individual's control; see Crocker, Major, & Steele, 1998; Hebl & Kleck, 2002). Observers may view an individual with a substance-related condition to be able to control their behavior if they wish, because the cause is attributed to stable and controllable factors that lie within the person (e.g., “Why don't they just stop?”). After all, alcohol and other drug use initially involve an individual's free choice to experiment. However, observers may continue to view alcohol and other drug use behavior as a personal choice long after functional dysregulation and structural alterations have materialized in brain areas and systems that regulate motivational impulses producing the characteristic self-regulatory inability to stop use despite harmful consequences (Edwards & Gross, 1976; Koob & Le Moal, 2006; West, 2006).

Because various ways used to describe individuals who experience substance-related problems (e.g., as “a substance abuser” vs. having “a substance use disorder”) carry with them implicit assumptions regarding attributions of personal choice and culpability they may potentially diminish or perpetuate stigmatizing attitudes (Graham & Schultz, 1998; Kelly, 2004; White, 2006). For instance, referring to an individual as a “substance abuser” may evoke perceptions of volitional, purposeful action and self-regulatory ability, conveying the notion that the individual is more of a “perpetrator” engaging in willful misconduct (Renaud, 1989). Alternatively, describing an individual as having a “substance use disorder” may evoke perceptions of the individual as more of a “victim” of a biomedical process, characterized by impaired control

over substance use behavior and therefore less personally culpable. From a policy standpoint, referring to an individual as a “substance abuser” may lead to perceptions of a greater need for punishment, whereas referring to an individual as having a “substance use disorder” may increase perceptions of a need for treatment (Kelly, 2004).

Terminology describing mental illness and addiction disorders in the medical field has been a contentious topic (Babor & Hall, 2007; Edwards, Arif, & Hodgson, 1981; Keller, 1982; Sparks, 2004; White, 2004), but debates over terms and their influence on attitudes and judgments have rarely been informed by rigorous empirical investigation. Given the stigma-related barriers to seeking treatment, and with terminology debates well under way in anticipation of DSM-V (Erikson, 2008; O'Brien, Volkow, & Li, 2006), we sought to determine to what degree these common ways of describing individuals with substance-related problems systematically elicit different judgments about culpability, social threat (i.e., social danger/distance), and whether more punitive vs. therapeutic measures should be taken.

Using a case vignette with one of these two terms inserted and randomly assigned to subjects, we hypothesized that compared to the “substance use disorder” term, the “substance abuser” term would elicit more agreement with the notion that the portrayed character was more personally culpable, able to self-regulate behavior, presented a greater social threat, and should receive punishment.

Method

Study population and protocol

The study population consisted of 728 mental health care providers attending two mental health/addiction-focused conferences in October, 2008. Conference attendees present at the start of two addiction-focused talks (there was only a single stream of conference presentations) were handed the study survey and asked if they would be willing to complete it. There were two survey forms representing the two levels of the independent variable (IV; i.e., “substance abuser” and “substance use disorder”). One of these two substance-related terms was embedded into the vignette, prepared specifically for this study (see Fig. 1), describing an individual with substance-related problems. The questionnaire distributed with the vignette asked participants to rate the extent to which they agreed with various causes of the character's substance-related problem and whether the character should receive more therapeutic or punitive action, was a social threat, and was capable of regulating his substance use behavior.

“Substance Abuser”

Mr. Williams is a substance abuser and is attending a treatment program through the court. As part of the program Mr. Williams is required to remain abstinent from alcohol and other drugs. He has been compliant with program requirements, until one month ago, when he was found to have two positive urine toxicology screens which revealed drug use and a breathalyzer reading which revealed alcohol consumption. Within the past month there was a further urine toxicology screen revealing drug use. Mr. Williams has been a substance abuser for the past few years. He now awaits his appointment with the judge to determine his status.

“Substance Use Disorder”

Mr. Williams has a substance use disorder and is attending a treatment program through the court. As part of the program Mr. Williams is required to remain abstinent from alcohol and other drugs. He has been compliant with program requirements, until one month ago, when he was found to have two positive urine toxicology screens which revealed drug use and a breathalyzer reading which revealed alcohol consumption. Within the past month there was a further urine toxicology screen revealing drug use. Mr. Williams has had a substance use disorder for the past few years. He now awaits his appointment with the judge to determine his status.

Fig. 1. Study vignettes.

The study materials were handed out alternately and sequentially by study staff so that the levels of the IV were evenly and randomly distributed throughout the auditoria. This even distribution eradicated any potential confounds from seating biases that might reflect levels of motivation or expertise (e.g., individuals sitting at or near the front might be more interested, motivated, or experienced). Completion took approximately 20 min after which time surveys were collected by study staff. The survey completion rate was 71% ($n = 516/728$).

There were no eligibility or exclusion requirements; participants consisted of all attendees who chose to complete and return the distributed surveys. Participants self-identified race, some professional background and interest information, and other demographics from a provided list.

Measures

The questionnaire consisted of Likert-scaled (1 = strongly disagree to 6 = strongly agree) items that addressed the level of agreement with various statements. Eight items were rationally derived by the authors, but with the majority obtained from the 1996 General Social Survey (Pescosolido, Martin, & Link, 1996), including the construct relating to help/treatment resources (e.g., PCP, family/friends, religious leader, therapist), causes (e.g., genetic, chemical imbalance), and social threat (e.g., likely to do something violent, willing to have as a co-worker). Questions regarding self-regulation (e.g., capable of overcoming problem) were adapted from research on stigma in mental illness/chemical dependence (Kloss & Lisman, 2003) (see Table 1).

The study protocol was approved by the Partners Healthcare Human Research Committee. All participants were first presented

with an informed consent and indicated their agreement with the statements in the consent by choosing to continue forward with the vignette and questionnaire. Participants were not offered monetary or other compensation for their participation.

Statistical analysis

Randomization checks across groups on demographic variables were conducted using Pearson Chi-square tests and independent samples *t*-tests. Groups did not differ on any measured variable ($ps > .17$). The primary outcome measure assessed perceived need for punishment vs. treatment, causal attribution, self-regulation, and social threat.

Due to the large sample size and ratio of participants to items (>16:1), we conducted factor analyses on the amalgamated measure in order to derive internally consistent subscales dramatically reducing the number of statistical comparisons and associated type I error rates (Tabachnik & Fidell, 2001).

In keeping with best practices in exploratory factor analysis (Costello & Osborne, 2005), we evaluated the influence of any multivariate non-normal distribution of residuals, by running both maximum likelihood and principal axis factoring extractions. Both methods produced identical results regarding the item composition of the extracted factors, and the variance accounted for by each extraction method was virtually identical. There was some very minor fluctuation in the magnitude of the factor loadings. Given the similarity, we present the results of the more robust principal axis factoring in Table 1 below. Also, although orthogonal rotation of factors is common in the social sciences (e.g., Varimax rotation) as they give more easily interpretable results, this method assumes that the factors are uncorrelated. Given that most phenomena are

Table 1
Extracted factor loadings—extraction method: principal axis factoring. Rotation method: Promax with Kaiser normalization.

Source		Promax factor matrix		
		Factor		
		1	2	3
III	In order to help Mr. Williams stay on track, the judge should initiate disciplinary action	.413	-.059	.033
I	I believe Mr. Williams will do something violent to himself	.350	-.030	.145
III	His problem is caused by poor choices he made	.506	-.105	-.036
III	Mr. Williams should be assigned 200 h of community service	.462	.046	.010
I	Mr. Williams should be referred to a religious leader	.498	.130	.066
III	His problem is caused by a reckless lifestyle	.691	-.041	-.130
II	Mr. Williams is responsible for causing his problem	.586	-.130	.017
I	Mr. Williams' problem is God's will	.378	.125	-.213
III	He should be given some kind of jail sentence as a "wake up" call	.525	-.112	.037
I	Mr. Williams should be referred to a spiritual or natural healer	.484	.270	.124
I	I believe he will do something violent to others	.434	-.170	-.056
III	The judge should increase the severity of the consequences for any further alcohol or drug use	.419	-.093	.085
I	His problem is caused by the way in which he was raised	.444	.100	.031
II	Mr. Williams could have avoided using alcohol and drugs	.435	.082	-.061
I	I would be willing to have Mr. Williams as an employee	-.022	.686	-.044
I	I would be willing to have Mr. Williams as a close friend	.003	.725	.033
I	I would be willing to have Mr. Williams as a neighbor	-.105	.811	.065
I	I would be willing to have Mr. Williams as a co-worker	.000	.848	.014
III	In order to help Mr. Williams stay on track, the judge should initiate more intensive treatment	.139	.020	.379
I	Mr. Williams should talk to family and friends about his situation	.211	.103	.450
I	His problem is genetic or inherited	-.062	.065	.425
I	Mr. Williams' problems are likely to be very severe	.122	-.256	.412
I	Mr. Williams should be prescribed medication	-.017	-.163	.443
I	Mr. Williams should be referred to therapist/psychologist/social worker	.197	.100	.438
I	Mr. Williams' problem is caused by a chemical imbalance in the brain	-.171	.093	.518
I	He should be referred to a self-help group (e.g., AA)	-.050	-.078	.401
I	Mr. Williams should be referred to a mental hospital	.200	-.044	.052
II	Mr. Williams is capable of overcoming his problem on his own	.307	.183	-.370
III	He should undergo urine/breathalyzer testing/transdermal monitoring	.313	-.101	.166
I	I believe Mr. Williams is able to make competent decisions about his treatment	.123	.284	-.042
I	Mr. Williams' problem is caused by stressful circumstances	.287	.146	.051
I	Mr. Williams should be referred to a primary care physician	.096	.171	.297

N = 516; I: Pescosolido et al., 1996; II: Kloss & Lisman (2003); III: Formulated by the authors.

correlated in the social sciences, oblique rotations are considered optimal, since they allow correlations among factors and result in more accurate and more reproducible results (Costello & Osborne, 2005). For this reason, we chose an oblique Promax rotation that allows for correlations among factors.

Spearman Rank correlations were computed to examine relationships between subscales. Independent *t*-tests were conducted to detect differences between terms on each of the three subscales. To help protect against type I error inflation for these tests, we set the significance level at .025 per comparison (Benjamini and Hochberg, 1995, 2000). Databases were constructed and analyses conducted using SPSS 17.0.

Results

The 516 individuals who completed the survey (71% response rate) had a mean age of 51, almost two-thirds were female (63.4%), four-fifths identified as “White” (81.0%); and almost two-thirds had a doctoral-level degree (64.5%). The majority indicated a professional focus in mood (66.9%) and anxiety disorders (59.9%), followed by psychosis (37%), and alcohol/drug problems (34.8%).

The principal axis factoring extraction and oblique Promax rotation yielded a solution with three interpretable factors accounting for 33% of the variance. With one exception items loaded unambiguously on factors (i.e., crossloadings were very low). One item, “Mr. Williams is capable of overcoming his problem on his own”, had a similar magnitude loading on factors 1 and 3 and was thus not included in either factor (Costello & Osborne, 2005). Consequently, a fourteen-item ($\alpha = .80$), four-item ($\alpha = .86$), and eight-item ($\alpha = .64$) subscale emerged using the factor loading threshold of .32 or greater (Afifi & Clark, 1996; Tabachnik & Fidell, 2001). Reflecting item loadings, subscales were labeled: “perpetrator-punishment”, “social threat”, and “victim-treatment”, respectively. Spearman correlations revealed no relationships between the “victim-treatment” and the other two subscales ($p > .05$), but the “social threat” and “perpetrator-punishment” subscales were negatively related ($r = -.27, p < .01$), such that those willing to spend time with, work with, or befriend the character, were less likely to agree that disciplinary measures be taken.

Independent samples *t*-tests revealed no significant differences between the “substance abuser” and “substance use disorder” groups on the “social threat” or “victim-treatment” subscales ($ps > .59$). However, a difference was detected on the “perpetrator-punishment” subscale: compared to subjects assigned the “substance use disorder” term ($M = 2.82, SD = 0.58$), those assigned the “substance abuser” term ($M = 2.92, SD = 0.57$) were significantly more in agreement with the notion that the character was personally culpable for his condition and more likely to agree that punitive measures be taken ($t = 2.05, 504 \text{ df}, p = .02$). This represents a small standardized effect size ($d = 0.20$) (Cohen, 1988). The items most highly correlated with the “perpetrator-punishment” subscale were “His problem is caused by a reckless lifestyle” (.69), “Mr. Williams is responsible for causing his problem” (.59), “He should be given some kind of jail sentence to serve as a wake-up call” (.53), and “His problem is caused by poor choices that he made” (.51). Other items loading on this factor convey the notion that the character was able to self-regulate behavior (“Mr. Williams could have avoided using alcohol and drugs”), is violent (“I believe Mr. Williams will do something violent to himself”, “I believe he will do something violent to others”), and the solution to his substance-related problems lie within the moral and not medical realm (“He should be referred to a spiritual or natural healer”, “Mr. Williams should be referred to a religious leader”). Overall, items associated with this subscale appear to convey internal causal attribution and personal culpability, a moral vs. medical solution,

suggesting the character has volitional control and might be viewed as a “perpetrator” who is willfully engaging in the behavior and thus more deserving of punishment.

Discussion

This study examined the effects of two randomly assigned substance-related terms on individuals’ perceptions about whether someone with alcohol/drug problems is personally culpable, a social threat, able to self-regulate substance use behavior, and should be subjected to more punitive vs. therapeutic measures. Exposure to the two terms was not found to evoke differential judgments regarding the individual being a social threat or whether he should be directed to various forms of treatment. However, exposure to the terms did evoke systematically different judgments in the hypothesized direction regarding the degree to which punitive action should be taken, and whether an individual with a substance-related condition has more personal culpability for causing his problems.

Referring to an individual as a “substance abuser” may elicit and perpetuate stigmatizing attitudes that appear to relate to punitive judgments and perceptions that individuals with substance-related conditions are recklessly engaging in willful misconduct. This bias may relate to the subject of controllability in stigma. In common vernacular this translates into “It’s their own fault” vs. “They can’t help it”. Compared to the SUD individual, the “abuser” may elicit greater perceptions of blame because they are perceived as more able to self-regulate behavioral impulses and, consequently, as bringing the problems on themselves, and more deserving of punishment. Because broad use of this term persists both in specialized addiction arenas (e.g., in contemporary published materials from the National Institute of Drug Abuse and the Substance Abuse and Mental Health Services Administration/Center for Substance Abuse Treatment) and in society more generally (especially in the USA), many individuals with substance-related problems may internalize these stigmatizing beliefs, thereby increasing their sense of shame and anxiety, creating a barrier to honest self-disclosure, and diminishing the likelihood of seeking treatment (Substance Abuse and Mental Health Services Administration, 2008). Of note, similar terminology has not been adopted in disorders that may also involve initial choice. Individuals suffering from eating-related problems, for example, are almost uniformly referred to as having an “eating disorder” rather than “food abusers” (Kelly, 2004).

Of note, differences were not detected on the social threat or treatment subscales. We anticipated that participants would also perceive the “abuser” as more of a social threat, because the individual would be perceived as having greater control and, thus, purposely engaging in “willful misconduct”. This null effect may be a function of the types of questions asked or specific to the sample under study (i.e., health care workers). Future research with other questions and other samples may reveal different findings. Regarding treatment, it may be that regardless of the term used to describe the individual, there is a general and consistent notion that individuals affected with these problems should receive some kind of therapeutic intervention. Again, this may be specific to a health care workforce sample and should be replicated.

Limitations

Findings from the current study should be viewed with caution in light of several limitations. The standardized effect size reflecting the difference between the two terms on judgments about cause and punishment was significant, but small in magnitude. Furthermore, the extent to which observed differences of any magnitude on these scales would translate into real-world decisions

or actions is unknown. Nonetheless, it is somewhat surprising that even a small difference was observed in the hypothesized direction among highly trained, practicing mental health clinicians where giving the “clinically desirable” response also may have been operating strongly. Arguably, one might expect this difference to be larger among less expert, but more influential, legislators or policy makers. Future research should examine this possibility. Also, the study response rate, while proportionately high for this type of research (i.e., 71%), was less than ideal and we do not know why the non-participants chose not to complete the survey. Consequently, generalizations to mental health care providers or other groups should be made with caution. Also, although we had a large sample, utilized what are considered to be “best practices” in exploratory factor analysis, and extracted three internally consistent and easily interpretable subscales, future research with other samples should confirm the robustness of the reliability and validity of these scales.

Conclusions

Results from this study suggest it may matter how we refer to individuals with substance-related conditions and that use of, and exposure to, the “abuser” label may inadvertently elicit and perpetuate stigmatizing attitudes. Because such a low proportion of individuals with these costly and harmful conditions access treatment and cite stigma as a major barrier (Substance Abuse and Mental Health Services Administration, 2008), a worthwhile public health policy goal would be to eradicate or minimize stigma-related obstacles wherever possible. One simple and inexpensive way to achieve this might be to refer instead to affected individuals as having a substance use disorder, as is done with eating disorders, or as individuals with a substance-related problem or condition. Furthermore, since the “abuser” label does not appear to confer any particularly unique advantage in descriptive precision, its nonuse would be unlikely to produce any detrimental results. National institutes, health care organizations, policy making bodies, and criminal justice systems may wish to reconsider the terms they commonly use to describe individuals affected by these problems in order to maximize the likelihood that chosen terms are consistent with the organizations’ goals. Ultimately, when all things are considered, the less stigma that affected individuals perceive, the more likely they will be to seek help and to seek it earlier. In turn, this is likely to diminish the prodigious personal and social harms associated with these pervasive conditions.

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