Full length article

Substance use, recovery, and linguistics: The impact of word choice on explicit and implicit bias

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ABSTRACT

Background: The general public, treatment professionals, and healthcare professionals have been found to exhibit an explicit negative bias towards substance use and individuals with a substance use disorder (SUD). Terms such as "substance abuser" and "opioid addict" have shown to elicit greater negative explicit bias. However, other common terms have yet to be empirically studied.
Methods: 1,288 participants were recruited from ResearchMatch. Participants were assigned into one of seven groups with different hypothesized stigmatizing and non-stigmatizing terms. Participants completed a Go/No Association Task (GNAT) and vignette-based social distance scale. Repeated-measures ANOVAs were used to analyze the GNAT results, and one-way ANOVAs were used to analyze vignette results.
Results: The terms "substance abuser", "addict", "alcoholic", and "opioid addict", were strongly associated with the negative and significantly different from the positive counterterms. "Relapse" and "Recurrence of Use" were strongly associated with the negative; however, the strength of the "recurrence of use" positive association was higher and significantly different from the "relapse" positive association. "Pharmacotherapy" was strongly associated with the positive and significantly different than "medication-assisted treatment". Both "medication-assisted recovery" and "long-term recovery" were strongly associated with the positive, and significantly different from the negative association.
Conclusions: Results support calls to cease use of the terms "addict", "alcoholic", "opioid addict", and "substance abuser". Additionally, it is suggested that "recurrence of use" and "pharmacotherapy" be used for their overall positive benefits. Both "medication-assisted recovery" and "long-term recovery" are positive terms and can be used when applicable without promoting stigma.

1. Introduction

Substance use disorder (SUD) is a major public health concern in the United States, with over 21 million individuals aged 12 and older having a diagnosable SUD, yet fewer than 3.8 million of these individuals receive treatment each year (Center for Behavioral Health Statistics and Quality, 2017). An estimated 28% of the individuals who do not receive treatment but perceive a need for treatment, report reasons related to stigma for not accessing or engaging in care (Center for Behavioral Health Statistics and Quality, 2017). In addition to the impact on help-seeking behaviors, stigma is also thought to impact the quality of healthcare services delivered by medical professionals (van Boekel et al., 2013), as well as the services suggested in a treatment plan by substance use treatment professionals (Kelly and Westerhoff, 2010). Thus, stigma presents as a formidable barrier to engaging with

SUD treatment (Stringer and Baker, 2015; Clement et al., 2015; Stone, 2015), the recommendation of SUD treatment services (Kelly and Westerhoff, 2010), and the quality of services delivered once engaged (van Boekel et al., 2013).

The general public also has been found to hold stigmatizing perceptions of individuals with substance use and mental health disorders. McGinty et al., (2015) and Barry et al. (2014) found that public support of policy initiatives, funding levels, and desired social distance were impacted when describing behavioral health disorders as either treated or untreated. Not surprising then, that of the specific reasons related to the stigma that individuals do not seek out treatment annually, the negative perception of neighbors and co-workers is often given (Center for Behavioral Health Statistics and Quality, 2017). Thus, stigma interacts with three different stakeholder groups in the substance use arena: 1) those individuals with substance use concerns or disorders, 2)

treatment and healthcare professionals, and 3) the general public.

Stigma is a multidimensional construct that can manifest in myriad ways (Goffman, 1963). Link and Phelan (2001) define stigma in such a way that involves two primary components - a label and a stereotype. The label (e.g., addict) links the person to a set of undesirable characteristics that work to form the stereotype (i.e., beliefs held about a group of people with a substance use disorder). When people link a certain label to a person, and they believe the stereotype, they react negatively to the person which in turn leads them to place a more social distance from the person, engage in discriminatory ways, or support potentially harmful activities to the stereotyped individual.

Previous research has identified commonly used labels that have been used to stereotype individuals with a SUD. For instance, substance abuser has been found to invoke negative explicit behaviors in treatment professionals (Kelly and Westerhoff, 2010), while "opioid addict" elicited greater explicit bias among those in the general population (Goodyear et al., 2018). Positive counter-terms were also examined, with "person with a substance use disorder" and "person with an opioid use disorder" eliciting more positive explicit bias. Other terms have been put forth as likely to elicit stigma, though they have yet to be empirically explored. These terms, such as "clean", "dirty", "medication-assisted treatment", "medication-assisted recovery", "untreated", and "alcoholic", also have the potential to invoke greater explicit bias (Kelly et al., 2016; Kelly, 2004; Wakeman, 2017).

Stigma is not only experienced and exerted through explicit mechanisms; implicit bias mechanisms are also present. Implicit bias is rooted in the assumption that subconscious associations exist towards the characteristics of individuals (e.g., race (Greenwald et al., 1998), body type (Buhlmann et al., 2011), gender (Lemm and Banaji, 1999), and sexual orientation (Morrison and Morrison, 2008). These characteristics can also be seen as the same characteristics that make up the stereotype described by Link and Phelan (2001). Within the substance use field, implicit bias remains a largely unexplored concept. Two pilot studies completed by the authors (Ashford et al., 2018a, 2018b), pioneered the use of the Go/No-Go Association Task (GNAT; Nosek and Banaji, 2001) in an effort to capture the negative and positive implicit associations with the term "substance abuser" and "addict". Results mirrored the previous explicit bias work, with both "substance abuser" and "addict" being strongly associated with the negative, and the positive term "person with a substance use disorder" being less associated with the negative and significantly different than the negative terms.

The use of public awareness and educational campaigns has been found to reduce bias related to mental health (Clement et al., 2013), suicide (Dumesnil and Verger, 2009), and SUD (Livingston et al., 2012). For substance use bias interventions, Luty et al., (2008) found that depicting individuals with an opioid use disorder or alcohol use disorder in positive ways resulted in decreased social stigma among the general public. Though public awareness and educational interventions can have a positive effect on stigma, it is likely they can be improved through the modification of language used within the campaign. Though currently not empirically validated, campaigns that aim to reduce SUD social stigma through positive depictions of humanity may be of increased benefit from showing individuals as having an alcohol use disorder, rather than alcoholism. Thus, identifying the language that should be targeted for change is then an important next step.

Building upon the work of the methodology in the two previously completed pilot studies on implicit bias (Authors, In Press; Authors, In Review), the objectives of the current study are to capture the explicit and implicit bias elicited in commonly used negative (substance abuse, addict, alcoholic, opioid addict, relapse, medication assisted-treatment, and medication-assisted recovery) and positive terms (person with a substance use disorder, person with an alcohol use disorder, person with an opioid use disorder, recurrence of use, pharmacotherapy, and long-term recovery) related to substance use, misuse, and disorders among members of the general public.

Table 1

Participant demographic characteristics.

	(N = 1288)	
	N	(%)
Age *(years)*		
M = 43.18, SD = 16.16		
Gender		
Male	312	(24.2)
Female	976	(75.8)
Race / Ethnicity		
White	1144	(88.8)
Other	144	(11.2)
Marital Status		
Single	609	(47.3)
Married / Domestic Partnership	679	(52.7)
Education Level		
Associates Degree or less	286	(22.2)
4-year degree	480	(37.3)
Post-graduate degree	522	(40.5)
Employment Status		
Employed	837	(65.0)
Unemployed	451	(35.0)
Household Income		
Less than $10,000	65	(5.0)
$10-29,999	165	(12.8)
$30-49,999	233	(18.1)
Over $50,000	825	(64.1)

2. Methods

2.1. Participants

A total of 1,288 participants enrolled in the study. Participants were mostly female (75.8%), white (88.8%), and had a mean age of 43.18 years (SD = 16.16 years). Most participants were married (52.7%), had post-graduate degrees (40.5%), were employed (65.0%), and had a household income of over $50,000 (64.1%). Full demographic characteristics are available in Table 1. Of the 1288 participants enrolled, 1126 completed all portions of the study (demographics, vignette and social distance, GNAT); 162 participants completed all portions of the study except the vignette and social distance portion. Participants that completed all portions of the study and those that did not complete all portions of the study did not differ on any demographic variable.

2.2. Procedure

Following institutional review board from the lead author's university, participants were recruited through ResearchMatch, a national health volunteer registry that was created by several academic institutions and supported by the U.S. National Institutes of Health as part of the Clinical Translational Science Award (CTSA) program. ResearchMatch has a large population of volunteers who have consented to be contacted by researchers about research studies that they are eligible for. An initial interest email was sent to 98,000 random volunteers from the ResearchMatch registry. Volunteers that elected to receive more information about the study (N = 7500) were then provided a separate email that described the study in detail and provided a URL link to the informed consent. Participants that consented to participate in the study were sequentially placed into 7 groups representing each word pair option of the study (e.g., substance abuser and the person with a substance use disorder, addict and person with a substance use disorder, etc.). Each group of participants then completed a Go/No Go Association Task, vignette-based social distance measure, and provided basic demographics in a randomized order. In addition to the randomized order of study tasks, each participant was randomly assigned to one of three vignettes within their group; a control vignette, a stigmatizing word vignette, and a non-stigmatizing word vignette. All