

## The use of person-centered language in scientific research articles focusing on alcohol use disorder



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### ABSTRACT

**Aims:** Worldwide, alcohol use disorder (AUD) is one of the most common substance use disorders, yet often goes undertreated. One major barrier that prevents adequate treatment of AUD is the high stigmatization the disorder receives, including from the scientific community. Thus, we evaluated the current use of patient-centered language (PCL) among AUD-related, journal publications.

**Methods:** This cross-sectional analysis included a systematic search of PubMed AUD-related articles from May 2018 to April 2020. All journals with 20 or more AUD-related, PubMed indexed items with human subjects and available in English were included, resulting in 3445 articles from 49 journals. A random sample of 500 publications were screened and examined for inclusion of pre-specified, non-PCL terminology.

**Results:** After excluding editorials and commentaries, 292 were retained. We found 59 (20.1 %) publications adhered to PCL. Among articles with non-PCL, labeling occurred in 198 (67.8 %) articles, and emotional language implying helplessness was identified in 123 (42.1 %). We found no difference in PCL adherence with journal ranking nor authorship guidelines requiring AMA/ICMJE adherence.

**Conclusions:** Our investigation showed that a majority of current AUD literature does not conform to PCL standards. PCL carries a positive connotation and is recommended by multiple professional groups. In continuing the shift toward reducing stigma and increasing advocacy for individuals with AUD, it is necessary for the sources of information that guide clinical practice adhere to PCL. This study is not intended to impede the autonomy of individuals to label themselves or influence terms purposefully used in support programs.

### 1. Introduction

Alcohol is the third most common cause of preventable death in the United States (US) and its misuse is connected to over 200 comorbidities (World Health Organization, 2018). Despite the prevalence of alcohol use disorder (AUD)—affecting nearly 14.4 million adults in the US (SAMHSA, 2020)—it remains a commonly undertreated condition (American Psychiatric Association, 2018). One of the major barriers for individuals seeking treatment is the stigma associated with substance use (Kulesza et al., 2013); of which, AUD is one of the most stigmatized mental disorders worldwide (Ashford et al., 2019).

Stigma, a multi-level construct of labeling, creates a power imbalance between *us* and *them*, resulting in a devaluation of the latter, (Smith et al., 2016) subsequent social inequities (Room, 2005), and negative physical and mental health impacts (Kulesza et al., 2013).

Stigma at the systemic level signifies a majority social acceptance, reinforcing the diminished value and autonomy within the targeted population which can lead to policies or practices supporting this trend (Bos et al., 2013; Reeder and Pryor, 2008). Additionally, individuals with AUD also have their own narrative in which they often blame themselves, leading to reduced self-esteem and efficacy (Richter et al., 2019). Therefore, within the medical practice and medical research communities, it is imperative to minimize or eliminate labeling individuals or groups and extending stereotypes.

To reject the notion of systemic stigma within the scientific community, the American Psychological Association (APA) led the movement away from labeling individuals by their disease or condition (Granello and Gibbs, 2016). The Institute of Medicine later adopted the patient-centered approach to health care—“care that is respectful of and responsive to individual patient preferences, needs, and values and

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ensuring that patient values guide all clinical decisions,” (Institute of Medicine and Committee on Quality of Health Care in America, 2001) — which is often taught in educational programs; however, it may not be employed as a skill (Crocker, 2019). Unintentional use of subservient language by medical researchers can increase perceived stigma and anxiety between individuals needing treatment and providers (Stortenbeker et al., 2018). Conversely, the intentionality of using person-centered language (PCL) can reflect the researchers’ and research community’s acceptance of individuals beyond their condition (Bickford, 2004), which may empower them to follow-through in pursuing care.

Information disseminated from medical professionals and researchers should use PCL— where the individual with their preferences and values, holds presence before the conditions or disorders they have (Crocker, 2019)— especially regarding AUD (Smith et al., 2016). As research manuscripts are a unidirectional flow of information, researchers, especially from the medical community, must be intentional in their writing and discussions of individuals with disorders and diseases. Regarding research publications and PCL, the American Medical Association Manual of Style (AMAMS) (American Medical Association, 2007) requires authors to adhere to the following guidelines when referencing individuals with medical conditions:

“Avoid labeling (and thus equating) people with their disabilities or diseases (e.g., the blind, schizophrenics, and epileptics). Instead, put the person first. Avoid describing persons as victims or with other emotional terms that suggest helplessness (afflicted with, suffering from, stricken with, maimed). Avoid euphemistic descriptions such as physically challenged or special.”

Although PCL is standard practice in many organizations, government agencies, and scientific associations, we found no investigations that have explored the usage of PCL in scientific research journal articles focused on AUD. Thus, the primary objective of this study is to explore the use of PCL among the journals publishing the most articles in the field of AUD from May 2018, through April 2020. This timeframe follows the publication of *Facing addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health*, (Keane, 2016) which emphasized the need to minimize the stigmatization and shame among those with AUD and other substance use disorders. Secondly, we will examine the types of articles and characteristics of the research to determine any relevant factors that may provide insight for inclusion of non-PCL language.

## 2. Methods

### 2.1. Journal selection and article inclusion criteria

This study conformed to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines and the full predetermined methodology, including PubMed search strategy, is publicly available on Open Science Framework (<https://osf.io/ehfsw/>).

Using cross-sectional study methodology, we conducted a systematic search via PubMed on May 7th, 2020, from 05/01/2018–04/30/2020 for AUD publications using a search strategy adapted from the *Practice Guideline For The Pharmacological Treatment of Patients with Alcohol Use Disorder* from the American Psychiatric Association. (American Psychiatric Association, 2018) To assess journals with the most extensive output of alcohol research, journals were selected for inclusion if they had at least 20 publications focused on AUD including treatments, side effects of medication assisted therapies, lifestyle factors, recovery, and comorbidities. Searches were filtered and limited to studies related to humans and published in English. Search returns were then randomized and the first 500 articles were selected to be screened—original research articles, including research letters, brief reports, and case reports (including published poster presentations and abstracts) pertaining to AUD were included in our investigation. Due to the nature of content, editorials were excluded from our analysis.

Screening and data procedures were conducted in masked, duplicate fashion. Upon completion, conflicts were resolved through discussion, with MH and TR as arbiters, until 100 % inter-rater agreement was reached.

### 2.2. Data extraction

After article screening, data were systematically extracted from articles to assess adherence to or deviance from 2 of the 3 guidelines presented in the AMAMS—the use of labels and emotional language (American Medical Association, 2007). Our criteria for labeling, as outlined by the AMAMS, was the use of an adjective before the individual or the use of a descriptor as the noun, as opposed to putting the person first, otherwise known as person-first language. Labels assessed through our investigation included “addict(s)”, “user(s)”, “abuser(s)”, “consumer(s)”, “drinker(s)”, “alcoholic(s)”, and “sufferer(s)”. We categorized phrases that involved emotive terminology implying the person or group had an inherent flaw or weakness as emotional language. Thus, our search included the following phrases: “suffers from,” “afflicted with,” and “problem(s) with”. These recommended words and phrases to avoid regarding both labeling and emotional language were adapted from Substance Abuse and Mental Health Services Administration’s (SAMHSA) *Substance Use Disorders: A Guide to the Use of Language* (U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration’s (SAMHSA), 2004). We searched articles full text, including title and abstracts, as they pertained to participants. References to organizations, such as Alcoholics Anonymous, or measurement tools were not counted as non-PCL instances as the author would not be referring to individuals, populations, or patient groups. Other elements extracted from articles included the type of article, study method, and interventions involved, institution of origin, funding source, journal ranking (Scimago Journal Rankings, 2020), and mention of adherence to reporting guidelines for their respective methodology, and required adherence to AMA or the ICMJE authorship guidelines.

### 2.3. Data analysis

We calculated the proportion of articles without deviance from the AMAMS (American Medical Association, 2007) guidelines pertaining to PCL compared to the total number of articles retained for inclusion. Further, to evaluate the most common forms of deviance from PCL, we calculated frequencies and percentages from the listed terms and phrases to avoid. We used chi-square and Fisher’s exact tests to assess differences between the frequency of non-PCL terms by journal, study type, article type, funding type, and if the journal required adherence to AMA or ICMJE guidelines. A bivariate logistic regression was conducted to assess the association of journal ranking on adherence to PCL. Statistical analyses performed on May 19, 2020, using STATA 16.1. A flowchart of the methodology used in this study is presented in Fig. 1. Due to the nature of the investigation, this study was not subject to IRB approval.

## 3. Results

The systematic search provided 8880 results from 1867 journals—with 1497 journals having less than 5 returns in our search. From the search results, 49 journals were retained that produced 20 or more publications over AUD from 5/01/2018 to 4/30/2019 with a total of 3445 articles among them. After randomization, 500 articles were selected and screened, of which 292 met inclusion criteria. Articles were excluded due to being editorials, were of animal trials, were focused on other substances—cannabis, opioids, or cocaine, or were otherwise unrelated to the subject matter. Of the retained articles, a majority 290 (290/292, 99.3 %) were classified as original research articles, (214/292, 73.3 %) were cross-sectional, and 268 (of 292, 91.8 %) were

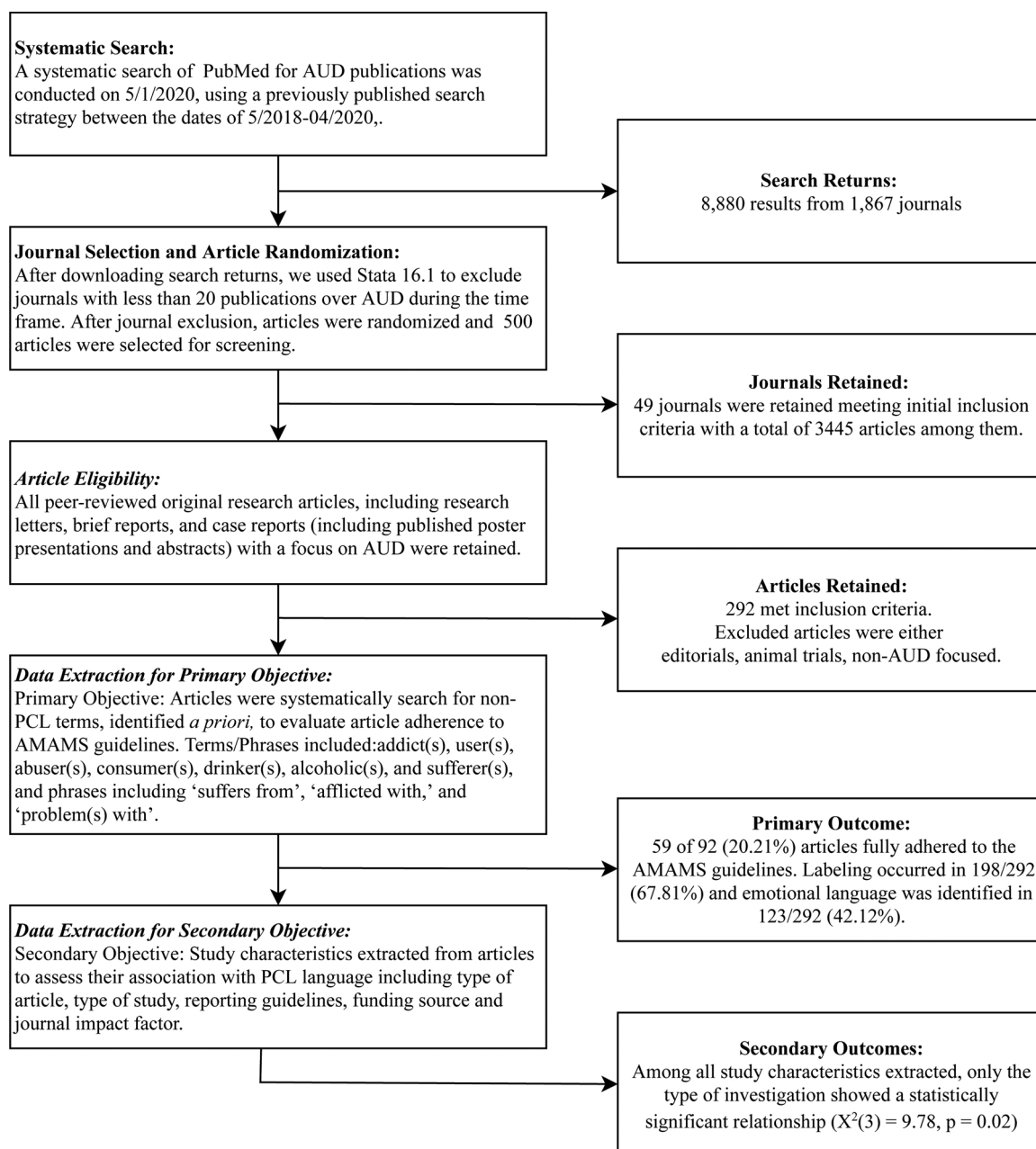


Fig. 1. Flow chart of systematic investigation and outcomes of person-centered language in accepted manuscripts focused on alcohol use disorder. according to the American Medical Association's Manual of Style (AMAMS) (American Medical Association, 2007).

published by journals not requiring adherence to any methodological reporting guidelines, such as STROBE for observational studies (Table 1).

After systematically searching for specified terms, we found that only 59 of the 292 articles fully adhered to the AMAMS guidelines for PCL (20.21 %). Labeling occurred in 198 (of 292, 67.8 %) of the articles of which “drinker” was the most common label (161/292, 55.1 %; Fig. 2). The use of emotional language was identified in 123 articles (42.1 %). PCL was not significantly associated with journals requiring adherence to AMA or ICMJE guidelines, the type of article or intervention, reported adherence to reporting guidelines, nor funding source of research (Table 1). Between research methodologies, there was a difference in article adherence to PCL guidelines in which observational studies adhered to PCL more often (52/162; 32.1 %). The logistic regression analysis showed no statistically significant association between journal ranking and adherence to PCL guidelines (OR = 1.02, 95 %CI:

0.81–1.30).

#### 4. Discussion

Our findings show that a majority of articles did not adhere to PCL when publishing literature focused on AUD. The labeling terms such as “drinker(s)” and “user(s)” appeared frequently in the literature, while “alcoholic(s)” and “addict(s),” were less common. Emotional language that implies helplessness occurred in more than 40 % of the studies we reviewed— most commonly expressed using the phrase “problems with” or a variant such as “problem drinking,” “alcohol problems,” and “problem drinker.” Our investigation of the occurrence of non-PCL within AUD publications adds to the foundational awareness which is key in the translation of research into the medical community (Hegy et al., 2020) and clinical practice (Green and Seifert, 2005).

Patient-provider relationships involve the bidirectional flow of

**Table 1**  
Characteristics from a random sample of peer-reviewed AUD-related publications from 2018-2020.

Article characteristics	Articles (n = 292)	Articles with Non-PCL (n = 234)	Articles adhering to PCL (n = 59)	Statistical Test
<b>Type of Article</b>				
Case report	1	1	0	*
Original research	290	231	59	
Research letter	1	1	0	
<b>Type of Research</b>				
Clinical trial	46	43	3	Fisher's exact = .01
Literature review	8	6	2	
Observational	214	162	52	
Systematic review/ Meta-analysis	24	22	2	
<b>Type of Intervention</b>				
Pharmacologic	13	12	1	Fisher's exact = 0.03
Non-pharmacologic	34	32	2	
No Treatment	245	189	56	
<b>Adherence to Reporting Guidelines (STROBE, PRISMA, CONSORT, etc.)</b>				
Yes	24	21	3	$X^2(1) = 0.96, p = .33$
No	268	212	56	
<b>Article funding</b>				
Yes	216	173	43	$X^2(1) = 0.05, p = .83$
No	76	60	16	
<b>Publishing journal recommends author adherence to AMA/ICMJE</b>				
Yes	97	73	24	$X^2(1) = 1.85, p = .17$
No	195	160	35	

\*Cell counts are inadequate for statistical analysis.

information and trust between parties. The use of non-PCL may impede communication and enact implicit and explicit negative bias (Ashford et al., 2018; Goodyear et al., 2018) from the provider towards the patients, seeing them as more deserving of the negative effects of the condition (Kelly and Westerhoff, 2010) which may affect quality of care (P Goddu et al., 2018). Conversely, the intentionality of using PCL may contribute to better communication between doctors and patients, especially when discussing the use of pharmacotherapy in the use of long term recovery efforts, as they hold positive connotations (Ashford et al., 2018). Previous studies evaluating provider use of inclusive versus exclusive language showed that patients were less willing to continue to see counselors who used non-inclusive language (Johnson and Dowling-Guyer, 1996), furthering the patient's own stigma of addiction— a barrier to seeking treatment in the first place (McNeely et al., 2018). This secondary exposure to stigma, from the provider, may lead to non-ideal treatment outcomes including addiction recurrence, even after prolonged recovery (Richter et al., 2019).

**Table 2**  
Recommendations of person-centered language in addiction research to reduce stigma.

Instead of this...	Use this...
Addict	Person with substance use disorder
Alcoholic, drinker	Person with alcohol use disorder
Drug abuser	Drug misuse, harmful use
Clean	Abstinent
Dirty	Actively using
Clean drug screen	Negative drug screen
Dirty drug screen	Positive drug screen
Former addict/alcoholic	Person in recovery
Opioid replacement, methadone maintenance	Medications for addiction treatment, Medication-Assisted Recovery

While several guidelines, such as the SAMHSA, AMAMS, and ICMJE directly address the use of PCL in medical literature, additional steps seem necessary in an effort to reduce non-PCL in research. We recommend that all journals adopt PCL guidelines, such as the AMA or ICMJE style guidelines, that require authors to adhere to PCL and that journals become stricter when reviewing articles. For authors and researchers investigating AUD, to prevent inadvertently furthering stigma through the use of non-PCL, we suggest using PCL and technical language in place of colloquialisms and avoiding sensational, fear-based or morally implied language. A list of recommendations is provided in Table 2. For both authors and copy-editors, employing the systematic strategy of searching each accepted manuscript for a list of predefined, non-PCL terminology, such as we have done here by using the Find feature in Adobe Acrobat Reader DC (Acrobat.adobe.com), would likely increase PCL adherence. Implementing these recommendations would likely lead to positive translation of PCL in research to health-care workers, researchers, journals, and all members of the scientific community embracing the importance of PCL and its use—which postulates advocacy and reduces barriers to therapy.

The more frequent occurrence of PCL adherence within observational research, as well as studies without intervention, may be due to the higher percentage of social-behavioral researchers that author those papers— who may be more well-versed in stigmatizing language— compared to medical researchers and clinicians involved in clinical trials. Further, experienced clinical trial researchers may have completed medical education prior to the completion of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) in 2013, which was the first version to use the term substance use disorder (American Psychiatric Association., 2013). Another explanation for the high amount of non-PCL in published articles related to AUD may be that current support programs are in direct opposition with PCL. For

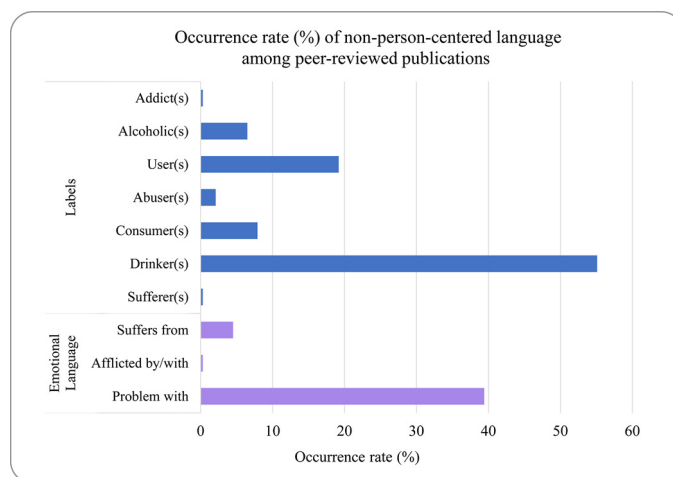


Fig. 2. Prevalence of non-PCL terminology used in AUD-focused research publications from May 2019 through April 2020.



example, the very title of these programs such as *Alcoholics Anonymous*, do not use PCL. Many organizations still begin group meetings with introductions having individuals state their name followed by, "I am an alcoholic" or "I am an addict." *Alcoholic Anonymous* groups are some of the most common peer support groups available (Tkach, 2018) and so this language continues to be embedded in the recovery community. While this is deemed purposeful within those contexts, authors of AUD research should adhere to up-to-date PCL guidelines set forth by many professional organizations.

Limitations of this study involve the potential subjectivity of human interpretation of euphemistic language and emotional language defined by the AMA. By training investigators charged with data extraction in PCL and methodology used in this study and through systematically searching publications for predefined terms, we attempted to mitigate this risk. Strengths include the randomization of the articles and publicly available protocol to ensure reproducibility. Future research should expand the advocacy of PCL in psychological and medical research by examining the effects of systematic reforms of language usage, such as Rosa's Law (Rosa's Law., 2010). Additionally, future research may explore the longitudinal effect of Rosa's Law, inclusion of PCL guidance in AMAMS, or other pertinent guidelines that may have affected PCL within AUD research.

## 5. Conclusion

This study is not intended to impede the autonomy of individuals to label themselves in whatever manner they choose, or influence terms that are purposefully used in recovery or support meetings (Mc et al., 2001); however, the use of non-PCL terms and phrases in regards to substance use disorder have negative connotations— which our study shows are prevalent within current research publications— while inclusive, PCL is viewed more positively (Ashford et al., 2018) and is recommended by the AMA, ICMJE, and APA. In continuation of the shift toward reducing stigma and increasing advocacy for the treatment of individuals with AUD, it is necessary the sources of information that guide clinical practice adhere to PCL.

## Author contributions

Dr Hartwell had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: Mr. Ottwell, Ms. Rogers, and Dr. Hartwell.

Acquisition, analysis, or interpretation of data: Mr. Naberhaus, Ms. Arnhart, and Dr. Hartwell.

Drafting of the manuscript: Dr. Hartwell, Mr. Ottwell, Mr. Naberhaus, Ms. Arnhart, Drs Dunn and Beaman.

Critical revision of the manuscript for important intellectual content: Drs. Dunn, Beaman, and Hartwell.

Statistical analysis: Dr. Hartwell.

Administrative, technical, or material support: Drs. Vassar and Beaman

Study supervision: Drs. Hartwell and Vassar

## Author disclosures

The authors have no disclosures to make.

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## Declaration of Competing Interest

We declare no conflicts of interest.

## Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.drugalcdep.2020.108209>.

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