

# Language Matters: A Critical Discourse Analysis of How Substance Use Disorders are Portrayed in a Primary Care Journal Over the Last 20 Years

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## Abstract

**Objective:** Negative narratives regarding substance use disorders (SUDs) are frequently used in medical literature. Such narratives often reinforce persisting negative themes, have long-lasting impacts, and affect how SUDs are viewed by society. This study sought to increase awareness of pejorative language use in medical journals and contribute to a more compassionate and effective approach to understanding and treating those with SUDs.

**Methods:** This study used Fairclough's 3-dimensional approach to critical discourse analysis (CDA) to explore the language used in substance use-related articles that were published in a general primary care medical journal. We retrieved 54 articles, published from 2003 - 2022, using key terms identified from National Institute on Drug Abuse language recommendations. Linguistic Inquiry and Word Count 2022 was then used to assess the frequency of stigmatizing terms and to analyze linguistic properties of the articles, including analytic thinking, clout, authenticity, and emotional tone.

**Results:** Findings showed that stigmatizing terms were used widely in 90% of articles, with an overall decrease in the use of stigmatizing terms over time (80% vs 66%,  $p = 0.10$ ). The language conveyed in most substance use-related articles was that of pretentiousness, detachment, guardedness, and negative tone.

**Conclusion:** Pejorative language can have negative implications for those with SUDs, an already marginalized population of individuals. It is therefore imperative that authors, reviewers, and readers make deliberate efforts to use language that conveys respect, minimizes judgment, and avoids perpetuation of stigma for those with SUDs.

## Keywords

Substance use disorder, Stigmatizing language, Negative perception, Critical discourse analysis, Linguistic analysis

## Introduction

The language used in medical literature about SUDs is important as it can shape identities of those with SUDs [1] and may intentionally or unintentionally propagate stigma. Negative narratives that permeate medical literature are often framed using pejorative language and stem from antiquated belief systems that treat SUDs as a moral failing rather than a chronic treatable condition [2].

Several scientific organizations and government agencies have proposed alternative language that discourages the use of stigmatizing terms and encour-

ages the use of person-first language that preserves dignity and reflects a medically accurate understanding of SUDs [3]; however, the change is slow. The continued use of stigmatizing language, especially in scientific publications, often has long-lasting impacts, becomes systemically ingrained within society, and precludes any deviation from the status quo [3].

There is currently a paucity of research exploring language used in scientifically published substance use-related articles. We therefore analyzed the use of stigmatizing terms and explored linguistic properties of the text within substance use-related articles published in a general primary care medical journal. In considering what this exploration may reveal about how SUDs are conveyed in medical literature, our goal was to increase awareness of pejorative language use in medical journals and contribute to a more compassionate and effective approach to understanding and treating those with SUDs.

## Materials and Methods

To maximize the representativeness of the medical literature, we selected articles related to SUDs that were published in a general primary care journal. This was done to reflect an expansive compilation of scholarly published work, include a broad training of clinicians and researchers, and a incorporate wide range of patient population and target audience. We retrieved 54 articles, published from 2003 - 2022, using key terms identified from National Institute on Drug Abuse (NIDA) language recommendations [4]. We conducted a CDA informed by Fairclough’s 3-dimensional approach to CDA which uses descriptive, interpretive, and explanatory analyses to understand how language reflects and influences practice [5]. We calculated the frequency of stigmatizing terms, identified the location and context of each term, evaluated the trend over time by calculating a normalized ratio (total number of articles using stigmatizing terms / articles published in a given year), and used Linguistic Inquiry and Word Count 2022 (LIWC-22) to analyze linguistic properties of the articles, including analytic thinking, clout, authenticity, and emotional tone [6].

## Results

Stigmatizing terms were used widely in 90% of articles, and were found within the titles, bodies of articles, and names of policies and national organizations. The most commonly used stigmatizing term was “abuse”, found in 69% of articles. When stratified by the time frame before 2013 vs 2013 or

after, which denotes the removal of the term “abuse” from the Diagnostic and Statistical Manual of Mental Disorders 5<sup>th</sup> edition (DSM-5) [7], there was an overall decrease in the use of stigmatizing terms over time (80% vs 66%,  $p = 0.10$ ).

We also performed a CDA of the text within the 54 articles, and results are presented in table 1. Analytic thinking had an average score of 89.57 (SD: 11.01), which reflected that of hierarchical thinking, power, and logic. The average clout score was 45.30 (SD: 18.13), which indicated indecisiveness and helplessness. Authenticity had an average score of 16.16 (SD: 9.59), suggesting pretentiousness, detachment, and guardedness. Finally, emotional tone had an average score of 24.87 (SD: 15.87), reflecting that of negative communication, sadness, anxiety, and hostility.

## Discussion

Our findings revealed a prevalence of stigmatizing language used in the primary care journal selected for this study. This was similar to other studies that showed that pejorative language and negative perceptions of SUDs permeate substance use discourse [2]. The professional use of stigmatizing terms, specifically in sources that are highly authoritative and influential, such as medical literature, often reinforces persisting negative themes about SUDs and affects how SUDs are viewed by society.

The unsettling reality of persisting negative perceptions of SUDs in scholarly work must be considered within historical context. Earlier versions of diagnostic manuals (i.e., DSM-IV) [8] and diagnostic billing codes (i.e., ICD) used stigma-inducing terms to characterize those with SUDs, specifically the term “abuse”, which was found in the highest prevalence among all articles in our study. With the exclusion of the term “abuse” from the DSM-5 [7] in 2013, we therefore expected to see a decreasing trend in the use of stigmatizing terminology after 2013, which was consistent with our findings. Despite this observed decreasing trend, our data showed that negative terminology continued to be used in medical literature as recently as 2022. This suggests that a greater challenge remains - changing the normative use of pejorative terms that have been used historically and clinically to label, stigmatize, and marginalize those with SUDs.

Our exploration of linguistic properties is novel and important. We found that the language used in the selected journal reflected that of pretentiousness, detachment, guardedness, and was communicated in a negative tone. These findings

**Table 1:** Linguistic elements from substance use articles published in the selected primary care journal from 2003 - 2022 (n = 54).

Linguistic summary variables		
Variable	Standardized scores	Interpretation
Analytic thinking	Range: 46.35 - 98.65 Average (SD): 89.57 (11.01)	Scores > 50 reflect hierarchical thinking, power, logic. Scores < 50 reflect personal thinking, intuitiveness.
Clout	Range: 14.84 - 96.44 Average (SD): 45.30 (18.13)	Scores > 50 reflect authority, social status, expertise, confidence. Scores < 50 reflect indecisiveness, helplessness.
Authenticity	Range: 2.11 - 47.7 Average (SD): 16.16 (9.59)	Scores > 50 reflect honesty, vulnerability, humbleness, self-revealing. Scores < 50 reflect pretentiousness, distance, detachment, guardedness.
Emotional tone	Range: 1 - 81.59 Average (SD): 24.87 (15.87)	Scores > 50 reflect positive or upbeat communication, happiness, optimism. Scores < 50 reflect negative communication, sadness, anxiety, hostility.

highlight the implications of not only the terms that are used regarding SUDs, but the potential for language and tone to reveal underlying biases [2]. These negative associations may be due to inadequate education, training, and support in working with individuals with SUDs [9], in addition to the misinformed perception of secondary gain and lack of motivation [9]. This combination of factors may explain the perpetuation of persisting negative themes, and may result in avoidant approaches to healthcare delivery, less empathy, and diminished engagement when caring for individuals with SUDs [9]. Authors, reviewers, and editors therefore need to intentionally consider the language used regarding SUDs, make conscious efforts to use people-first and medically accurate language that minimizes stigma, and disrupt negative perceptions of SUDs [10].

This study is subject to a few limitations. First, this study focused solely on articles sourced from a single primary care medical journal, with a modest sample size (n=54), which may limit the generalizability of our findings. Nevertheless, the exploratory nature of this study lays the foundational groundwork for future studies to investigate a wide array of journals, potentially demonstrating unique patterns in the presentation of information on SUDs. Second, it is important to note the limitations of linguistic analysis, such as interpretation of ambiguous language, contextualizing written text, understanding slang terms and colloquialisms, and navigating complex syntax structures. Despite these challenges, the reliability and validity of LIWC-22 software have been well-established and documented [6], lending support to the strength of our findings. Third, it is important to consider potential biases that result from articles published in a primary care journal. The lack of specialized training in substance use treatment among primary care clinicians may inadvertently narrow their awareness and usage of stigma-inducing terminology. However, this further underscores the importance of this study and its intent to highlight those gaps in awareness in an effort to enhance the quality of care for those with SUDs.

Despite these limitations, this study has several strengths for consideration. This study is a timely and relevant topic that will increase awareness about the impact of stigmatizing language, as well as contribute to more compassionate and effective approaches in treating patients with SUDs. Additionally, using Fairclough's 3-dimensional approach to Critical Discourse Analysis and LIWC-22 software ensured a comprehensive exploration of the linguistic properties within the selected text, as well as contributed to a robust understanding of the language used in the selected journal.

## Conclusion

Stigmatizing terms and negative narratives are frequently used in medical literature. Despite the decrease in the use of stigmatizing language over time, the language conveyed in most SUD-related articles is of pretentiousness, detachment, guardedness, and with a negative tone. It is therefore imperative that authors, reviewers, and readers make deliberate efforts to use language that conveys respect, minimizes judgment, and avoids perpetuation of stigma for those with SUDs.

Furthermore, both authors and editors need to pay more attention to how language is used in an effort to avoid any intentional or unintentional bias for those with SUDs.

Future directions should include the implementation of specific language guidelines in substance use-related discourse and publications, ensuring they convey person-centered and compassionate attitudes towards individuals with SUDs. An illustrative action would be the renaming of certain federal research institutions, such as the National Institute on Alcohol Abuse and Alcoholism, to better reflect this approach. Such measures are not limited to journals but extend to the entire spectrum of scientific communication. This commitment can significantly influence the promotion of respectful and inclusive language, reduce overall stigma, and shape policy and advocacy initiatives. Ultimately, this will contribute to positive societal perceptions, and enhance the quality of treatment, support, and outcomes for those with SUDs.

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## Conflicts of Interest

None.

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