



National Institute  
on Drug Abuse

# Novel Substance Use and Support Themes on Reddit: Lessons for Researchers and Practitioners

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## Introduction

- Digital recovery networks have become increasingly popular for substance use (SU) discussions, providing anonymous information and support for people who use substances (PWUS).<sup>1</sup>
- Studies have categorized discussion posts using small samples of SU forums<sup>2</sup> or SU posts within general forums.<sup>3</sup>
- However, little is known about the range of SU experiences and peer support on Reddit.

## Objectives

- Leverage big data on Reddit to discover SU and support themes in popular SU subreddits
- Assess discussion patterns and identify relevant subreddits to facilitate future research

## Methods

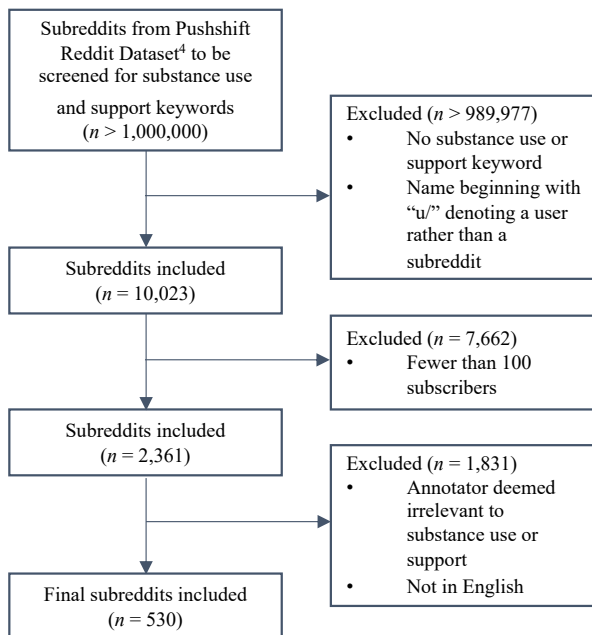
- Extracted subreddit names and descriptions: Pushshift Reddit Dataset<sup>4</sup> (01/2006 - 04/2020)
- Used Drug Enforcement Administration (DEA) keywords to compile subreddits on SU and support topics
- Created a codebook and annotated subreddits by discussion type, SU, and support themes

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## Fig. 1 Subreddit Inclusion Criteria



## Results

### Table 1. Top 10 Subreddit Types

Advice	58.5%
Stories	39.2%
Photos	20.9%
Paraphernalia	12.6%
Reviews	12.6%
News	12.5%
Entertainment	11.1%
Business	10.6%
Cultivation/Production	6.8%
Research	6.0%

### Table 2. Top 10 Substance Use Themes

Cannabis	39.2%
Depressants/Anxiolytics	18.1%
General/Poly-Substance Use	15.7%
Nicotine	12.5%
Psychedelics	9.1%
Stimulants	5.3%
Opioids	2.5%
Steroids	1.5%
Kratom	1.1%
Dissociatives	0.9%

### Table 3. Cannabis Themes

Vaporizer/Dab	7.7%
CBD	2.3%
Edibles	2.1%
Smoking	1.7%
Synthetic Cannabinoids	0.8%

### Table 4. Support Themes

<b>Recovery</b>	<b>8.5%</b>
Stories	6.8%
Religiosity/Spirituality	0.8%
SU Medications	0.6%
Twelve-step	0.4%
Narcotics/Alcoholics Anonymous	0.4%
<b>Harm-reduction</b>	<b>5.3%</b>
Overdose prevention	1.3%
Testing/Identification	0.8%
<b>Abstinence</b>	<b>2.6%</b>
<b>General Support</b>	<b>1.9%</b>
<b>Families/friends of PWUS</b>	<b>1.1%</b>

\*Note: All percentages are with respect to total annotated subreddits (n=530).

- Examples of lesser-known substances: mescaline (0.8%), ayahuasca (0.6%), kava (0.4%)
- Subreddits were also notable for slang terms (39.1%), locations (9.4%), and mental health themes (1.9%).

## Discussion/Conclusions

- Discovery of fast-evolving SU and harm-reduction patterns can improve practitioners' understanding of personal SU experiences.
- The annotated subreddit dataset will help researchers immediately identify relevant online communities.
- Future work should leverage these findings to monitor emerging substances and routes of administration, identify benefits of digital recovery networks, analyze SU and support language, and develop targeted secondary prevention strategies.

## References

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