

Descriptive Analysis of TikTok Videos Under the Hashtag #Sertraline: Insights for Healthcare Providers

¹Vedant Agrawal, BS; ¹Sydney McDaniel, BS; ¹Erica Beardsley, BS; ²Charlena Melnyk, MD
¹University of Texas Medical Branch, John Sealy School of Medicine, ²University of Texas Medical Branch, Department of Psychiatry and Behavioral Sciences



BACKGROUND

SOCIAL MEDIA AND HEALTH INFORMATION
The use of social media (SoMe) for health-related purposes has surged dramatically, with an estimated 90% of Americans using these platforms for medical information.

SERTRALINE AND SSRIs
Sertraline remains the most common antidepressant prescription for 18-25 year olds in the United States.

LIMITED INFORMATION
There is limited information on the accuracy and reliability of content regarding sertraline TikTok, a popular SoMe website.

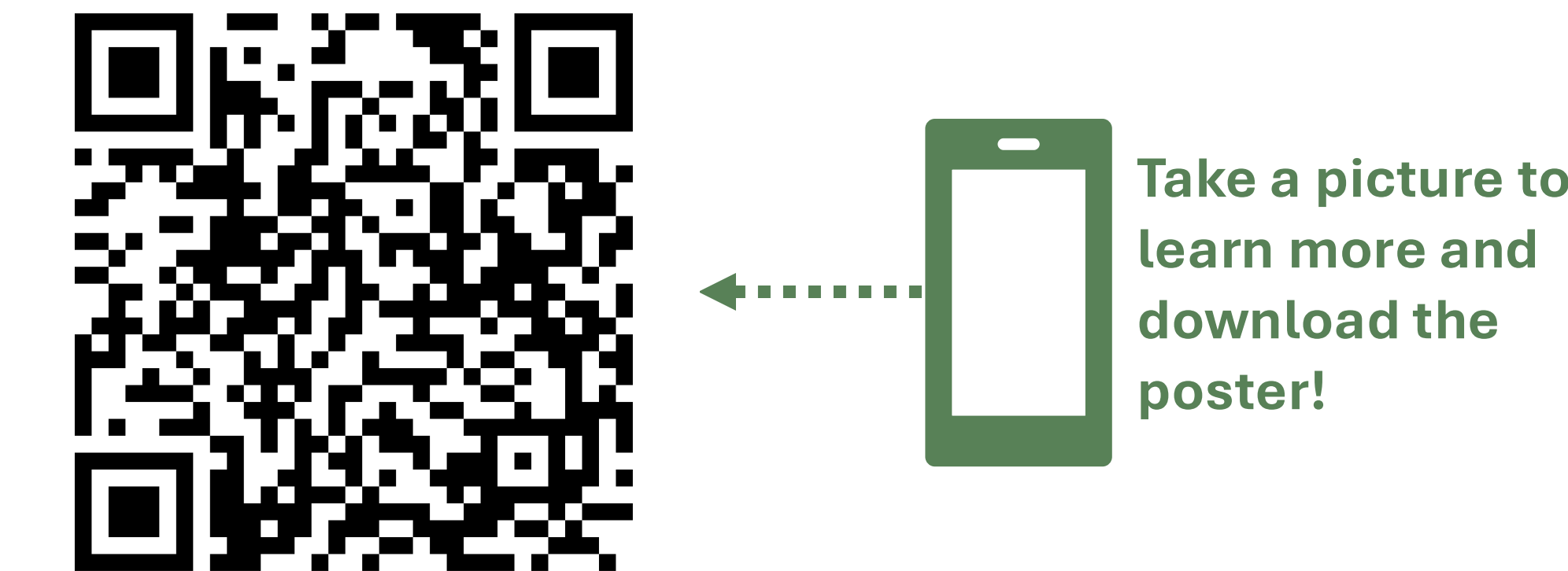
AIM

Conduct a descriptive analysis of videos under the #Sertraline on TikTok and evaluate themes and reliability of content

METHODS

- A **cross-sectional** analysis of **TikTok videos** was performed
 - A new TikTok account was created
 - A search was conducted on April 24, **restricted to the hashtag #sertraline**
- Videos were **filtered for detailed analysis** based on the following criteria:
 - Posted **after 2020**
 - Had **>10,000 likes**
 - Either **English** or **Spanish** language
 - Contained content that **discussed or provided details about sertraline** in the video title, video, video caption, or audio.
 - Duplicate videos were removed
- A **total of 90 videos** were identified for **detailed content analysis**
 - Detailed content analysis:
 - **Quantitative** information
 - Date published, views, shares, likes, comments
 - **Qualitative** analysis
 - Detailed in Table 1
 - Encoding determined through consensus between 3 reviewers

- Statistical Analysis**
- **Two sample t-test** was used to test between medical professionals and general users for quantitative variables
 - **Two proportion z-test** was used to test between medical professionals and general users for qualitative encoded variables



RESULTS

Table 1
Content featured in 90 TikTok Videos under #Sertraline

Content Category	N	Views, millions (%)	Likes, thousands (%)	Comments, thousands (%)
Created by general user	73	71 (71)	15197 (48)	85 (35)
Mentions side effects/toxicity	67	81 (82)	14977 (47)	93 (38)
Mentions personal sertraline use	55	52 (53)	13462 (42)	62 (26)
Used music	54	50 (50)	3126 (10)	59 (24)
Presents sertraline negatively	47	55 (56)	13432 (42)	63 (26)
Used humor	42	47 (47)	4067 (13)	47 (20)
Presents sertraline positively	38	43 (43)	2389 (7)	60 (25)
Mentions efficacy and outcomes	26	47 (47)	2426 (8)	59 (25)
Mentions depression	23	41 (42)	1885 (6)	56 (23)
Mentions before/after results	19	15 (15)	700 (2)	18 (8)
Mentions anxiety	18	29 (29)	1093 (3)	42 (17)
Shows sertraline or packaging	18	23 (23)	753 (2)	29 (12)
Created by medical professional	17	28 (29)	760 (2)	36 (15)
Mentions dose, frequency, timing	17	19 (19)	595 (2)	27 (11)
Mentions user credentials	14	22 (22)	621 (2)	28 (12)
Mentions sexual side effects	14	24 (24)	1796 (6)	23 (10)
Mentions sertraline mechanism	14	24 (24)	679 (2)	33 (14)
Video in Spanish	13	13 (13)	551 (2)	16 (7)
Mentions OCD	8	17 (17)	595 (2)	24 (10)
Mentions GAD	7	10 (11)	415 (1)	12 (5)
Mentions receiving prescription	7	8 (8)	134 (0)	14 (6)
Mentions video sources	6	5 (5)	163 (1)	9 (4)
Mentions PTSD	6	14 (15)	495 (2)	17 (7)
Mentions premenstrual dysphoria	2	5 (5)	316 (1)	7 (3)
Mentions costs/insurance	2	0 (0)	15977 (50)	121 (50)
Mentions psychotherapy	2	1 (1)	29 (0)	1 (0)
Mentions medication shortage	0	0 (0)	0 (0)	0 (0)

Figure 2a, 2b, 2c, 2d, 2e, 2f

Comparisons Between Videos created by Medical Professionals (MPs) and General Users (GUs) on Select Characteristics

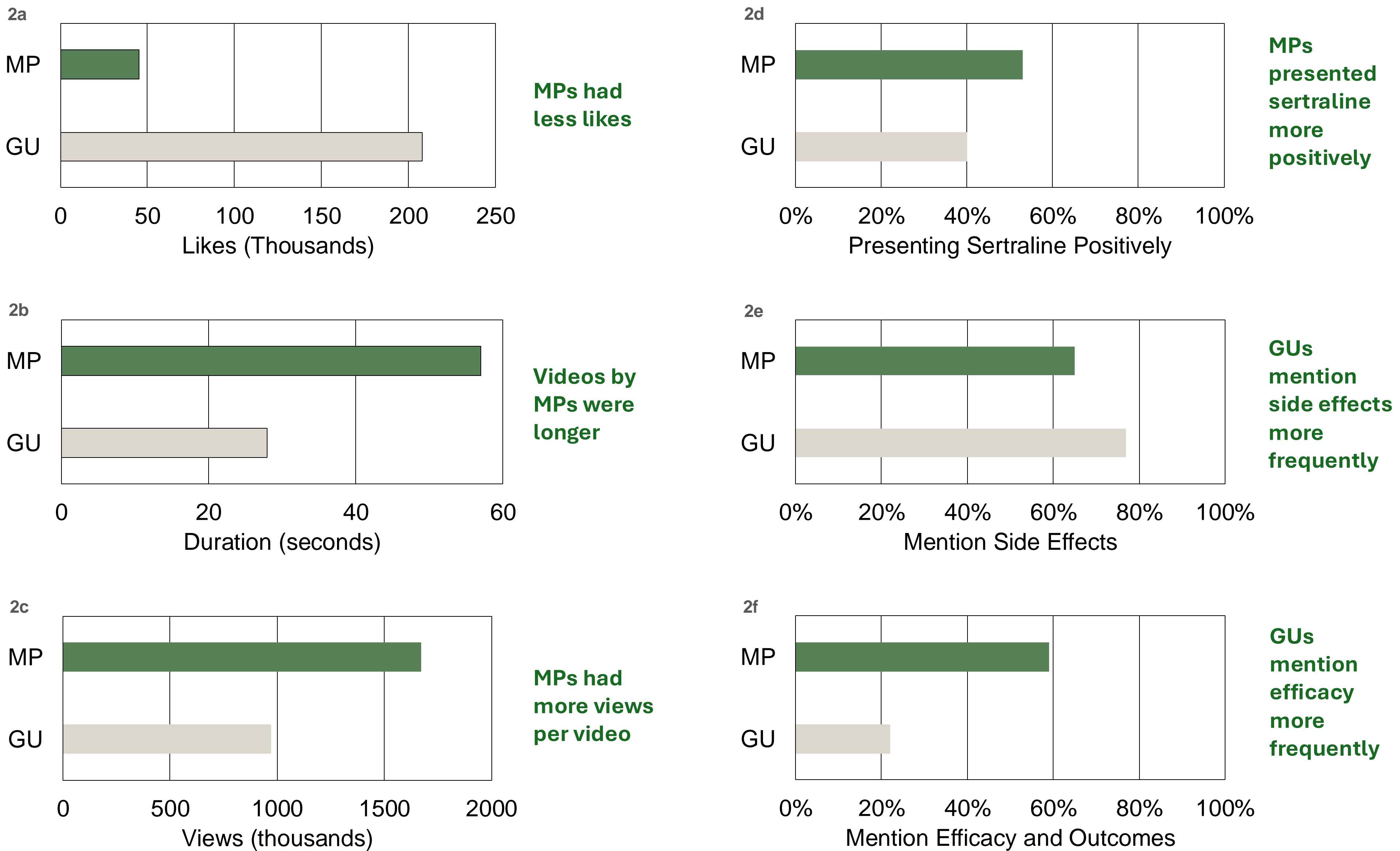


Figure 2a, 2b, 2c, 2d, 2e, 2f – Charts are respectively depicting mean likes per video, mean duration of video, mean views per video, % of videos with positive sentiment, % of videos mentioning side effects, and % of videos mentioning efficacy

DISCUSSION

- REACH AND INFLUENCE**
- **99+ Million Views** across analyzed TikTok videos.
 - **High Interaction:** view counts, shares, and comments indicate **TikTok as a key source of information**.
 - **36.2%** of TikTok users **are 18-24 year olds**.
 - This age group has the highest prevalence for **diagnosis of mental illness at 33.7%**.

- CONTENT STYLE**
- **Humor Usage:** GUs use humor more frequently than MPs.
 - **Music Usage:** GUs use music more frequently than MPs .

- FOCUS ON SERTRALINE**
- **77%** of videos discuss **medication side effects**.
 - **Only 22%** of video creators provided medical credentials.
 - **Only 12%** of videos by MP mention sexual dysfunction as a possible side effect, failing to inform patients on this side effect.
 - Corroborated by other studies **associating sexual dysfunction with discontinuation of therapy**.
 - This makes it **difficult to discern the validity** of stated information.
 - Several studies have found that **discontinuation** of antidepressant therapy is **largely due to medication side effects**.
 - Our study is **consistent with this finding**, revealing that side effects are a major topic of concern in the reviewed videos.

- IMPACT ON TRUST AND USAGE**
- **Credibility Issue:** Social media may affect patient trust in pharmacotherapy and sertraline usage.
 - **Potential Misinformation:** There is a lack of validated, sourced information from MPs.

- STRENGTHS OF STUDY**
- **Large Scale Engagement:** Analyzed videos garnered over **99 million views**, highlighting TikTok’s significant reach for disseminating information.
 - **Detailed Engagement Metrics:** Assessed **views, likes, and comments** across various content categories, offering insights into user interaction and content impact.

- LIMITATIONS OF STUDY**
- **Cross-sectional Design:** The study’s **cross-sectional** nature limits the ability to determine changes in content trends over time.
 - **Sample Size Constraints:** While analyzed content was widely viewed, the sample **does not fully represent** all TikTok content under **#sertraline**, potentially affecting generalizability.
 - **Language and Regional Limitations:** Predominantly analyzed content in English in Spanish, excluding relevant videos in other languages and regions.
 - **Potential Reviewer Bias:** **Subjectivity** in categorizing video content as positive, or negative could introduce bias, impacting objectivity of analysis

IMPLICATIONS

- FOR HEALTHCARE PROVIDERS**
- **Engage on Social Media:** Actively participate on platforms like TikTok to provide accurate, evidence based information about Sertraline and its use.
 - **Address Common Concerns:** Focus on prevalent side effects such as sexual dysfunction to support patient adherence and alleviate fears.

- FOR SOCIAL MEDIA PLATFORMS**
- **Enhance Content Credibility:** Implement measures to identify and promote content created by qualified medical professionals.

- FOR PATIENTS AND THE PUBLIC**
- **Critical Evaluation:** Encourage users to critically evaluate the credibility of medical information encountered on TikTok and other social media platforms.
 - **Seek Professional Advice:** Advise individuals to consult healthcare professionals before making decisions based on social media content.

ACKNOWLEDGMENT

Our thanks to the TikTok users who publicly shared their experiences and insights under the #sertraline hashtag, making this analysis possible.