



Social Media and Clinical Trial Recruitment for HIV/AIDS

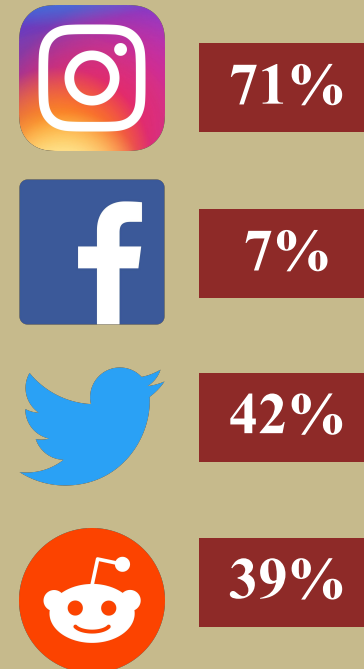
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Introduction

- Social media platforms can be utilized for clinical trial recruitment that targets specific at-risk groups.
- Targeted advertisement and community pages could bring a more targeted approach to recruitment. For HIV clinical trials in particular, studies targeting specific at-risk groups might benefit from targeted advertisements.
- The platform facilitates small, tight knit communities with conversations around HIV prevention and treatment for those seeking not only answers but also comfort.
- Most platforms have an easy-to-use share function that can improve the visibility and effectiveness of the advertisements.
- Through this project, applications of social media for HIV clinical trial recruitment were explored through existing data and studies from different sources in health informatics and surveys as well as observations of existing social media applications.

Percentage of 18-29 Year-Olds on Social Media



according to Auxier and Anderson and Statista 2021

Results

- In one study, Reddit showed the greatest success for recruitment (Figure 1) and showed the highest Cost-Per-Mille.
- Some additional factors in successful social media recruitment include marketing and advertising strategies, since placing advertisements on social media will not automatically increase recruitment.
- The literature review revealed that Facebook and Instagram skewed on the more expensive side while applications like Grindr and Snapchat maintained a much lower cost overall.
- Despite the higher cost of social media sites like Facebook, the platform does show a greater average number of recruited participants, after Reddit, and can be identified as an effective strategy of recruitment.
- Other strategies such as hashtag or captions with keywords (clinical trial, HIV/AIDS, HIV positive, HIV prevention, etc) will possibly increase the number of recruits and maximize advertising costs.
- Figure 1 and Figure 2 are a comparison of the number of recruited participants for specific platforms and frequency of the platforms in 8 of the papers reviewed.
- Platforms like Reddit, Facebook, Grindr, and Craigslist appeared more frequently than Twitter and Instagram (Figure 2). This correlated to the average number of eligible recruits in a select amount of the paper's reviewed (Figure 1).
- Despite the same number of paper's that used Twitter and Instagram (Figure 2), Instagram outperformed Twitter which happened to also be the lowest of all the platforms found more consistently among the papers (Figure 1). Additionally, Facebook was used more than other platforms (Figure 2) but Reddit had the greatest average recruits (Figure 1). This could be due to encouragement and existence of subcommunities on the platform.
- Figure 4 shows the topic modeling result.

Average Overall Eligible Recruited

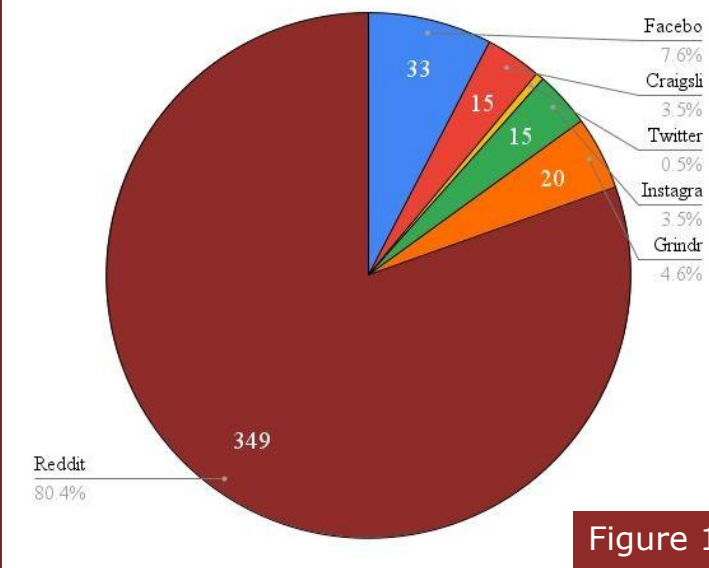


Figure 1

Types of Social Media Used From

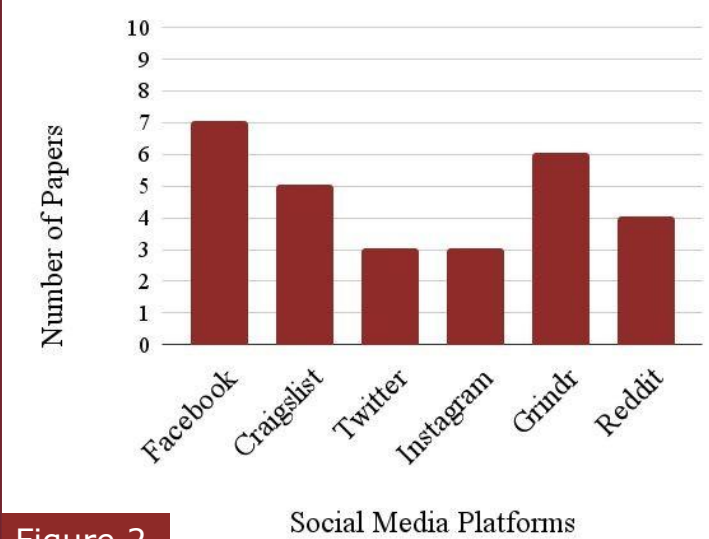


Figure 2

Cost-Per-Mille of Social Media Platforms

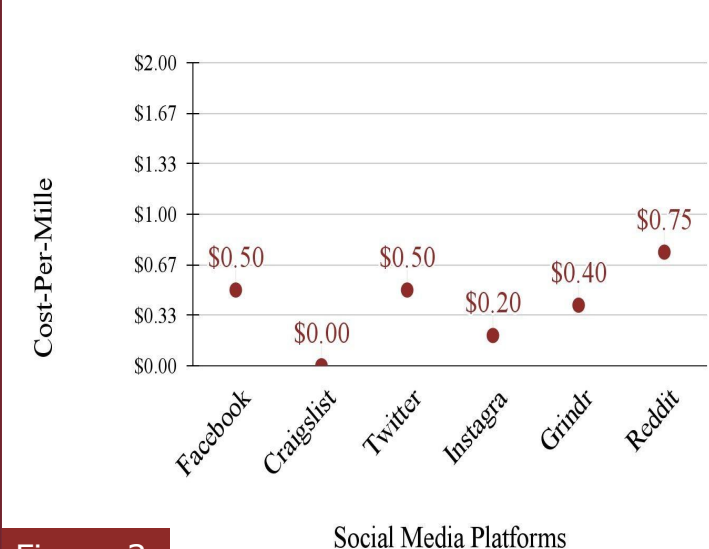


Figure 3

Discussion

- Overall, the literature review revealed many of the common research practices in studies conducted within the last decade. Facebook in particular showed up in the most of papers and had the greatest amount of success for a variety of studies (looking for HIV positives, HIV negatives, participants from specific demographics, etc.). In particular, the platforms helped researchers recruit from harder to reach populations as well as individuals from specific socioeconomic backgrounds.
- While a very small number of papers considered Reddit as a possible avenue for social media recruitment and only about 39% of young adults (18-29 year-olds) (Auxier and Anderson, 2021) with participants in past articles having a mean of 22 (Shatz 2014), Reddit has unique spaces for individuals to ask questions or talk about specific topics.
- Future research should be conducted on not only platforms like Reddit but also how much influence the content and presentation affects the number of recruited participants.

References



Methods

- A literature review of academic papers and grey literature was conducted. We examined the use of social media for recruitment or general usage, purpose for the trial (prevention or treatment of HIV/AIDS), overall costs and effectiveness of social media, and type of social media.
- A set of relevant papers previously identified were assigned to the UROP students for review with an emphasis on specific elements of the methods, results and conclusion: type of social media utilized, number of participants recruited through social media, goal of social media and trial, strengths and weaknesses in the study and financial costs. Other papers were identified through the fsu database and google scholar.
- Keywords were used including: social media, clinical trials, HIV positive, HIV prevention, etc.
- After identifying a potentially relevant paper, the abstract was read. After reading the abstract, the full paper was reviewed to identify important conclusions and results.
- Other reputable sources for review were also considered such as Pew Research center, websites discussing the costs of advertisements on social media. These sources were evaluated for their reliability through who authored the information, any sources they cited, date of publication, and what website it originated.
- We also performed topic modeling of the tweets from Twitter and posts on Reddit about HIV, AIDS, and PrEP.

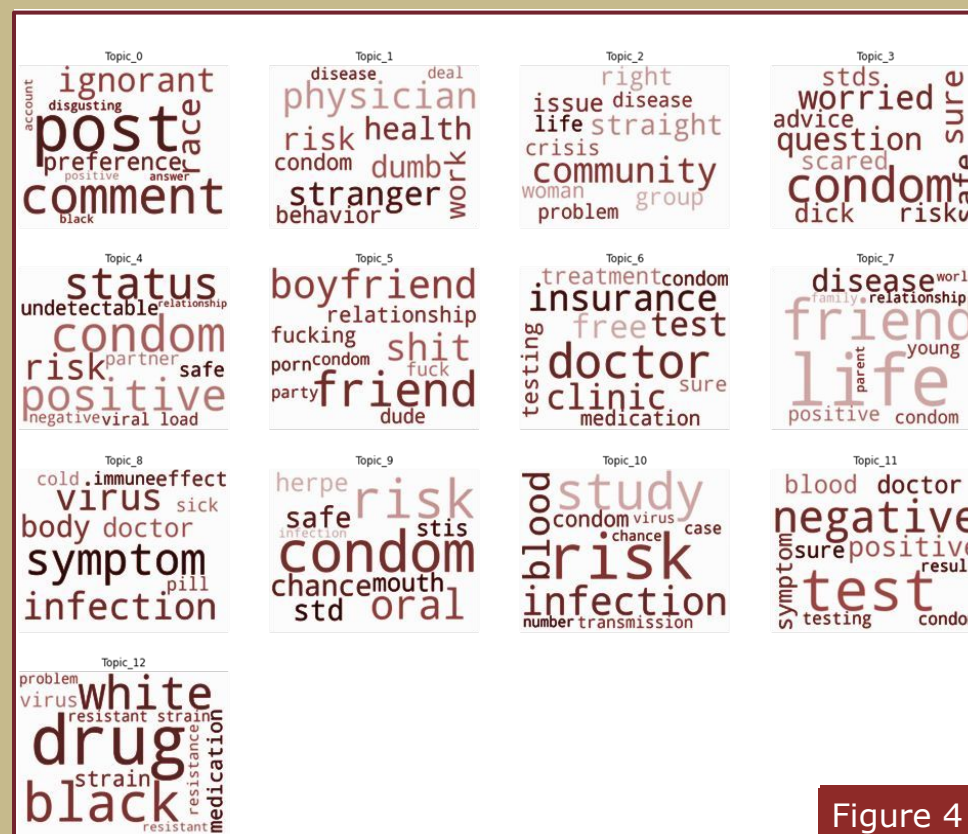


Figure 4

Acknowledgements

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