

Types of Social Media Platforms Utilized by undergraduate students in Mitigating Substance Abuse Among Universities Students in Kenya

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Abstract

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Purpose: This study examined the types of social media platforms utilized by healthcare practitioners to mitigate substance abuse among universities in Kiambu County, Kenya.

Methodology: A mixed-methods approach under a positivist research philosophy was employed, integrating quantitative and qualitative techniques for a comprehensive analysis. The study targeted 41,897 undergraduate students from Jomo Kenyatta University of Agriculture and Technology (JKUAT), Mount Kenya University, and Kenyatta University, along with six purposively selected healthcare practitioners for expert insights. Stratified random sampling yielded a student sample of 384, proportionally allocated across the three universities. Data collection instruments were pre-tested at the University of Nairobi Main Campus for reliability and validity. Quantitative data were analyzed using descriptive statistics (means, frequencies, standard deviations, and medians) and inferential techniques, including correlation analysis, Chi-square tests, and binary logistic regression to examine relationships and causal effects. Qualitative data from open-ended responses were analyzed thematically, with findings presented using tables, charts, diagrams, and thematic summaries to illustrate patterns and influences of social media use and substance-related content.

Results: Inferential analysis revealed that Instagram users were more likely to engage with substance-related content compared to Facebook users ($\beta = 0.8924$, $p = 0.0039$), while Twitter users also showed a positive association ($\beta = 0.7381$, $p = 0.0262$). YouTube's association was negative but non-significant ($\beta = -0.2974$, $p = 0.3644$). LinkedIn users who perceived substance-related content on the platform were less likely to engage ($\beta = -1.0345$, $p = 0.0026$), with neutral users also showing a negative effect ($\beta = -0.6782$, $p = 0.0319$). Occasional WhatsApp group participation was positively associated with engagement ($\beta = 0.8753$, $p = 0.0156$), while frequent participation was not significant. Perceived effectiveness of Facebook showed significant negative associations, with moderate ($\beta = -0.8932$, $p = 0.0134$) and high effectiveness ($\beta = -1.2418$, $p = 0.0015$) linked to lower engagement.

Unique Contribution: The study advances theory by linking social cognitive principles to online behavior, informs policy on platform-specific interventions and content regulation, and guides practitioners in designing targeted, interactive campaigns to enhance substance abuse prevention among students.

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1.0 INTRODUCTION

1.1 Background to the study

Substance abuse continues to be a significant global public health concern, especially among young people and university students, who are at heightened risk of developing long-term harmful patterns of use due to developmental, social, and environmental influences. Recent global estimates indicate that nearly 29.7 million adolescents and young adults aged 10–24 years experience substance use disorders, including alcohol, cannabis, and opioid disorders, underscoring the widespread burden of substance misuse in this age group (GBD 2021 estimates; *Scientific Reports*, 2025). Additionally, systematic analyses in sub-Saharan Africa show that about 21% of young people report lifetime use of substances such as alcohol, tobacco, and cannabis, with alcohol use remaining the most prevalent (Ebrahim et al., 2024). These trends highlight the persistent challenges faced by youth worldwide in preventing initiation and escalation of substance use and the urgent need for effective intervention and prevention strategies.

Global data indicate that a substantial proportion of individuals aged 15–64 have used drugs at least once, yet only a small fraction of those with substance use disorders access treatment. Among young adults, alcohol and tobacco are the most prevalent substances, with university students being particularly vulnerable due to academic pressures, social transitions, and peer influence (WHO, 2023; UNODC, 2023; Omulema et al., 2021).

Simultaneously, rapid technological advancements have transformed communication and social interaction among young people. Social media platforms—including Facebook, TikTok, WhatsApp, LinkedIn, Instagram, and YouTube—have become central to students' lives, facilitating networking, entertainment, and information sharing. While these platforms provide numerous benefits, they also expose users to content that may influence attitudes and behaviours, including substance-related content. Research shows that repeated exposure to images, videos, and messages depicting alcohol or drug use can normalize such behaviours and increase curiosity and experimentation among youth (Nesi, 2020; Bonar et al., 2020; WHO, 2023).

Social media often features peers, influencers, and celebrities who portray substance use as socially acceptable or fashionable, shaping young users' perceptions. Peer interactions and group dynamics online further influence behavioural choices, especially for university students sensitive to social validation. Consequently, social media represents both a risk environment and a potential channel for influencing youth behaviour regarding substance use.

Despite these risks, social media offers opportunities for public health interventions. Healthcare practitioners and public health organizations increasingly leverage digital platforms to disseminate preventive information, promote healthy lifestyles, and support individuals affected by substance abuse. Through targeted campaigns, practitioners can educate students about the dangers of substance use, raise awareness, and provide access to counseling and treatment. The interactive nature of social media allows practitioners to engage directly with students, facilitate discussions, and respond to concerns in real time (Chang et al., 2022; Gboyega, 2022; Meacham et al., 2018).

Globally, the use of social media for health communication has grown as governments and organizations adopt innovative approaches to public health challenges. Digital platforms are used to conduct health campaigns, distribute educational materials, and promote behavioural

change initiatives aimed at reducing substance abuse and improving mental health. However, these platforms are also exploited for negative purposes, including the promotion and sale of illegal drugs through online networks. This dual role of social media highlights the complexity of its influence on substance use behaviours.

In Sub-Saharan Africa, youth substance abuse is a growing public health concern, coinciding with rapid growth in internet connectivity and smartphone adoption. Studies indicate that social media platforms such as Facebook, Twitter, and WhatsApp can effectively raise awareness about drug abuse, disseminate health information, and support prevention initiatives among young people (Adebowale et al., 2020; Rendall-Mkosi & London, 2019; Musingarimi et al., 2021). However, these platforms may also spread harmful content and promote illegal drugs.

In Kenya, social media use among university students has expanded rapidly, making platforms like Facebook, WhatsApp, TikTok, LinkedIn, and YouTube influential in shaping behaviours, attitudes, and opinions. These platforms provide opportunities for healthcare practitioners to implement preventive strategies, educate students about substance abuse risks, and promote healthier behaviours (Wandera et al., 2021; Mutai et al., 2021; NACADA, 2023).

Universities in Kiambu County, including Jomo Kenyatta University of Agriculture and Technology, Kenyatta University, and Mount Kenya University, host large populations of young social media users. These institutions offer a valuable context for examining how healthcare practitioners use social media to address substance abuse. Understanding the platforms and communication strategies employed is essential for designing effective digital health interventions. This study, therefore, aims to investigate the types of social media platforms utilized by healthcare practitioners in mitigating substance abuse among undergraduate students in selected universities in Kiambu County, Kenya.

1.2 Statement of the Problem

Young people experimenting with substances is nothing new; however, social networking sites are offering new and dangerous opportunities for adolescents to be exposed to drugs (Addiction Center, 2024). According to NACADA (2022), in Kenya, sixty percent of the adolescents had used alcohol, and nearly fifty percent had acquired an alcohol use problem. In 2022, Fifty percent of athletes at the University of Nairobi were excessive drinkers (drank more than 5 beers in one session). The lifetime drug usage among Eldoret undergraduates was 69.8% (NACADA, 2022). The average rate of lifetime drug use at Kenyatta University was 92.1 percent for alcohol, 62.9 percent for cannabis, 51.5 percent for tobacco, 51.5 percent for khat, and 3.5 percent for cocaine (Omulema et al., 2021; Musyoka et al., 2020). A study by Kibera et al. (2023) found that 68.9% of university students reported lifetime use of at least one substance, with alcohol being the most commonly abused, followed by tobacco and cannabis. Approximately 37.9% of students are currently using substances, with public universities exhibiting higher rates (48.6%) compared to private institutions (26%) (NACADA, 2023).

The study is highly justified due to the significant prevalence and challenges associated with substance abuse among young adults in the country. The prevalence of high-risk alcohol use and lifetime substance use, including substances like alcohol, cannabis, tobacco, khat, and cocaine, is consistently high among these students. Previous reports and studies emphasize the gravity of the problem and the urgent need to address it (Chang et al., 2022; Weitzman & Lee, 2020). Considering the widespread use and influence of social media among young adults, leveraging social media communication to curb drug and substance abuse holds great promise.

Social media platforms provide extensive connectivity, a large user base, and targeted messaging capabilities that can effectively reach and engage undergraduate students. By utilizing social media interventions, it is possible to deliver preventive messages, educational content, and support resources to the target audience in a timely and accessible manner (Meacham et al., 2018; Tundu, 2017; McKay et al., 2019; Gboyega, 2022; Nzau, 2021)

A review of previous literature revealed little research in the past ten years, with few studies focusing on how beneficial social media communication has been in reducing substance usage among college students in Kenyan public institutions. Musyoka et al. (2020), for example, focused on the consumption of alcohol and drugs among first-year learners at the University of Nairobi (UoN) in Kenya. They stated that there is a need to create multi-sectoral programs for alcohol and drug use prevention and education, which should begin in high school and continue when young adults enter university studies. For instance, Chebukaka (2014) showed the effectiveness of social media in the case of drug abuse among students in public secondary schools in Kenya in Vihiga County. The study, however, does not present representative findings on the case of public universities in Kenya, thus presenting a contextual and conceptual gap. Gathumbi and Cheloti (2016) showed the effectiveness of social media, taking the case of secondary schools in Kenya. Dick et al. (2019) assessed the effectiveness of digital communication for illicit substance misuse harm reduction in third-level students. While social media platforms have been proven to be very popular and influential among the youth, very few or no studies provide evidence to show how they can be used to help in curbing negative behaviour, such as drugs. This brings about a methodological gap. Therefore, this justifies the need to conduct the current study.

1.3 Objectives of the Study

- i. To examine the types of social media platforms utilized by healthcare practitioners in mitigating substance abuse among students in selected universities in Kiambu County, Kenya.

1.4 Research questions

- i. What types of social media platforms do healthcare practitioners use to mitigate substance abuse among undergraduate students at selected universities in Kiambu County, Kenya?

1.5 Study justification

This study on social media communication strategies and the mitigation of substance abuse among undergraduate students in selected universities in Kiambu County, Kenya, is significant to multiple stakeholders. Healthcare practitioners will benefit by gaining insights into effective platforms, content, and messaging strategies for preventing substance abuse, as well as understanding the challenges in delivering these messages digitally. University administrations can use the findings to design evidence-based policies, counseling services, and student welfare programs that address substance abuse and promote healthier campus environments. Undergraduate students, the primary beneficiaries, will gain awareness about the influence of social media on their behaviours, supporting positive attitude changes, improved decision-making, and reduced risky practices related to substance use. Government agencies, including the Ministry of Health, Ministry of Education, and NACADA, will receive evidence-based guidance for designing digital health campaigns and national policies targeting youth substance abuse. Researchers and scholars will gain empirical data to expand knowledge on the

intersection of social media, health communication, and youth behaviour, offering a foundation for future studies. Ultimately, the study contributes to public health and societal well-being by promoting safer social media practices, reducing substance misuse among students, and fostering informed, responsible, and healthier young populations.

2.0 LITERATURE REVIEW

2.1 Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory (1971) highlights that human behavior is shaped by both cognitive and social factors, emphasizing that actions are learned not only through personal experience but also by observing others. Key concepts include observational learning, where individuals adopt behaviors seen in their environment; self-efficacy, which reflects beliefs in one's ability to succeed and influences motivation, thinking, and behavior; reciprocal determinism, describing the interaction between personal factors, behavior, and environment; and self-regulation, which involves setting goals, monitoring progress, and self-reinforcement. The theory underscores the role of social interactions, role models, and social norms in influencing behavior. In the context of substance abuse, SCT explains how students can develop healthy behaviors by observing positive examples on social media, while vicarious reinforcement allows them to learn from the consequences of others' actions. It provides a framework for designing health promotion programs that target broader social systems, not just individual behavior.

2.2 Types of social media platforms and Curbing Substance Abuse

Social media platforms have become vital tools for health communication, particularly for engaging youth and university students in substance abuse prevention initiatives. These digital tools allow healthcare practitioners to share educational content, raise awareness, provide peer support, and interact with students in real time, making them more effective than traditional methods (Chang et al., 2022). Types of platforms include social networking sites like Facebook, microblogging services such as Twitter/X, media-sharing platforms including Instagram, TikTok, and YouTube, and messaging applications like WhatsApp and Telegram (Montag et al., 2021; Gough et al., 2021). Community-driven features such as podcasts, Instagram Lives, and YouTube Lives facilitate discussions, peer support, and storytelling, which are particularly relevant for addressing substance misuse among youth (Chitra & Kalaiselvi, 2021; Boniel-Nissim et al., 2022).

Facebook is widely used to form communities, host live Q&A sessions, and run educational campaigns targeting young adults, fostering peer support and reducing stigma around substance use (Baumann et al., 2021). LinkedIn, although more professional, supports interprofessional collaboration and dissemination of research findings that indirectly reinforce prevention efforts (Baumann et al., 2021). Twitter/X allows rapid dissemination of concise health messages, awareness campaigns, and engagement with stakeholders, including student leaders, universities, and NGOs, making it a cost-effective platform for mobilizing students (Schoeppe et al., 2020).

Visual-based platforms like Instagram, TikTok, and YouTube are highly influential among students, enabling healthcare practitioners to share creative, culturally relevant content. TikTok short videos can debunk myths about drug use, provide recovery stories, and highlight addiction risks, while YouTube facilitates longer educational videos on drug effects, recovery testimonies, and expert advice, which can also be shared via WhatsApp and Telegram for wider

reach (Laestadius & Wahl, 2021; Basch et al., 2022; Glik et al., 2020). Messaging platforms like WhatsApp and Telegram offer immediate, private communication for support groups, counseling, and motivational content, with over 85% of Kenyan youth aged 18–25 using WhatsApp daily, making it ideal for health messaging (Communications Authority of Kenya, 2023; Tully et al., 2021).

Emerging platforms such as Discord and Clubhouse allow interactive discussions and virtual support, offering additional avenues for moderated engagement and live Q&A sessions (Gough et al., 2021). Utilizing a multi-platform strategy enhances the effectiveness of interventions by reinforcing messages through various formats—text, images, videos, and audio—ensuring repeated exposure and accommodating varying access levels among students (Mehmood, 2024; Segun-Falade et al., 2024).

Given the high prevalence of substance abuse among university students in Kiambu County, Kenya, leveraging these social media platforms allows healthcare practitioners to deliver youth-centered, culturally relevant, and interactive interventions. Integrating multiple platforms ensures engagement, fosters peer networks, provides accessible educational content, and supports continuous dialogue, ultimately mitigating substance use and promoting healthier behaviors (Naslund et al., 2020; Boniel-Nissim et al., 2022).

2.3 Conceptual Framework

Independent Variables

Dependent Variable

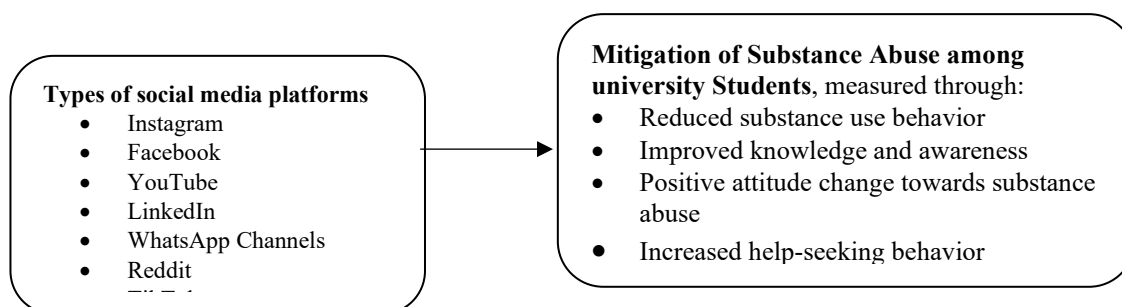


Figure 1: Conceptual framework

Source: (Author, 2026)

3.0 RESEARCH METHODOLOGY

To conduct a comprehensive analysis, the study employed both quantitative and qualitative approaches within the positivist research philosophy, which allows for the use of quantitative and qualitative methods. The population for this study consisted of undergraduate students in Jomo Kenyatta University of Agriculture and Technology (JKUAT), Mount Kenya University, and Kenyatta University in Kiambu County, Kenya, totaling 41,897 students. The study targeted six Healthcare practitioners in the university, purposefully for qualitative expert information. These Healthcare practitioners in the universities were purposively sampled from each university. Stratified random sampling was used to obtain a sample size of 384 students from the strata and was allocated proportionally to each stratum, which included JKUAT, Mount Kenya University, and Kenyatta University in Kiambu County, Kenya. The researcher conducted pre-testing of the questionnaire at the University of Nairobi Main Campus. This research utilized descriptive and inferential estimates in data processing, with descriptive

metrics being used to furnish a summary of the dataset, including means, variances, frequencies, standard deviation, and median, among others. To quantify the link between the research parameters, inferential techniques were employed using correlation and regression procedures. This analysis was used to interpret qualitative data and results from the open-ended part of the questionnaire. Inferential techniques included Chi-square tests, which were carried out to determine the relationship between variables. Likewise, binary logistic regression was used to establish the causal relationship between independent predictors and the dependent variable. Results were then presented in tables, diagrams, and charts, while tables, charts, themes, and graphs were used to illustrate the overall findings.

4.0 FINDINGS AND DISCUSSION

4.1 Types of social media platforms

Social media plays a significant role in shaping discussions and awareness about substance abuse among university students. It serves as a platform for information sharing, peer influence, and engagement with substance abuse prevention content. Understanding students' social media usage patterns is essential in determining the effectiveness of online communication in curbing substance abuse.

4.1.1 Descriptive Statistics on Types of Social Media Platforms

The following section presents Table 1: Descriptive Results on Types of Social Media Platforms, which provides insights into students' frequency of social media use, preferred platforms, and engagement with substance abuse-related content. These findings help assess the potential of social media as a tool for promoting awareness and influencing student attitudes toward substance abuse prevention.

Table 1: Descriptive Results on Types of Social Media Platforms by Health Care Practitioners

Variables	Categories	Frequenc y	Percent	Cumulative Percent
Social Media Usage Frequency	Never	67	17.4 %	17.4 %
	Rarely (Less than once a week)	71	18.5 %	35.9 %
	Sometimes (1-3 times a week)	85	22.1 %	58.1 %
	Often (Daily)	79	20.6 %	78.6 %
	Very often (Multiple times a day)	82	21.4 %	100.0 %
Primary Social Media Use	Information Gathering	76	19.8 %	19.8 %
	Socializing	91	23.7 %	43.5 %
	Entertainment	77	20.1 %	63.5 %
	Networking	77	20.1 %	83.6 %
	Other	63	16.4 %	100.0 %
Engagement with Substance Abuse Content	Never	80	20.8 %	20.8 %
	Rarely	76	19.8 %	40.6 %
	Sometimes	80	20.8 %	61.5 %
	Often	83	21.6 %	83.1 %

	Very Often	65	16.9 %	100.0 %
Time on social media	Less than 1 hour	84	21.9 %	21.9 %
	1-2 hours	80	20.8 %	42.7 %
	2-3 hours	71	18.5 %	61.2 %
	3-4 hours	66	17.2 %	78.4 %
	More than 4 hours	83	21.6 %	100.0 %
Seek Prevention Information	Never	83	21.6 %	21.6 %
	Rarely	65	16.9 %	38.5 %
	Sometimes	83	21.6 %	60.2 %
	Often	78	20.3 %	80.5 %
	Very Often	75	19.5 %	100.0 %
Length of Social Media Use	Less than 1 year	77	20.1 %	20.1 %
	1-2 years	76	19.8 %	39.8 %
	3-4 years	78	20.3 %	60.2 %
	5-6 years	75	19.5 %	79.7 %
	More than 6 years	78	20.3 %	100.0 %

The findings in Table 1 illustrate the extent to which undergraduate students in selected universities in Kiambu County, Kenya use social media and engage with substance abuse-related content. Social media usage frequency varies among respondents, with 21.4% indicating they use social media multiple times a day, while 17.4% reported never using social media. The majority of students (58.1%) access social media at least once a week, demonstrating that social media is an integral part of their daily lives.

Regarding primary social media use, students engage in diverse activities, with the highest percentage (23.7%) using it for socializing. This is followed by entertainment and networking (both at 20.1%), while 19.8% of students primarily use social media for information gathering. A smaller percentage (16.4%) indicated engaging in other activities on social media. These results suggest that while students rely on social media for social interactions, it also serves as a platform for knowledge acquisition.

When examining engagement with substance abuse content, 21.6% of students often engage with such content, while 16.9% engage very often. However, a significant proportion (40.6%) rarely or never engages with substance abuse-related discussions online. This suggests that while some students are exposed to prevention content or discussions on substance abuse, a considerable number may not be actively engaging with or seeking such information.

The amount of time spent on social media also varies. While 21.6% of students spend more than 4 hours daily on social media, another 21.9% spend less than an hour. The distribution of time spent suggests that a significant portion of students dedicate substantial time to social media, which presents an opportunity for targeted interventions related to substance abuse awareness and prevention.

In terms of seeking prevention information on social media, the findings show that 21.6% of students never seek substance abuse prevention information, while 20.3% often do. Notably, only 19.5% reported very often seeking such information, suggesting that substance abuse prevention content may not be a primary area of interest for many students.

Finally, regarding the length of time students have been using social media, the results indicate that social media use is well established among the respondents. 20.3% of students have been

using social media for more than six years, while only 20.1% have been using it for less than a year. These findings highlight that most students have long-term exposure to social media, which can be leveraged to improve awareness and prevention efforts related to substance abuse.

Overall, the results underscore the pervasiveness of social media use among undergraduate students, presenting an opportunity to enhance its role in substance abuse prevention. However, given that engagement with substance abuse content and prevention information remains relatively low, strategic interventions are needed to make such content more appealing and accessible to students.

4.1.2 Inferential Statistics on Types of Social Media Platforms

Table 2: Relationship between Types of Social Media Platforms by Health Care Practitioners and Substance Abuse

Predictor	β	SE	Z	P
Intercept	0.2808	0.537	0.5231	0.601
Social Media Usage Frequency:				
Rarely (Less than once a week) – Never	0.6542	0.312	2.0964	0.0368
Sometimes (1-3 times a week) – Never	0.3487	0.328	1.0632	0.2873
Often (Daily) – Never	0.7621	0.297	2.5654	0.0103
Very Often (Multiple times a day) – Never	1.1293	0.289	3.9087	0.0027
Primary Social Media Use:				
Information Gathering – Entertainment	-0.0523	0.327	-0.1599	0.8730
Networking – Entertainment	0.4176	0.318	1.3137	0.1889
Other – Entertainment	0.7312	0.299	2.4448	0.0146
Socializing – Entertainment	1.0084	0.285	3.5376	0.0031
Engagement with Substance Abuse Content:				
Rarely – Never	0.2826	0.337	0.8392	0.4011
Sometimes – Never	0.7983	0.305	2.6175	0.0089
Often – Never	1.0154	0.296	3.4298	0.0042
Very Often – Never	1.4512	0.287	5.0591	0.0015
Time on Social Media:				
1-2 hours – Less than 1 hour	0.2173	0.332	0.6543	0.512
2-3 hours – Less than 1 hour	0.7645	0.319	2.3972	0.0165
3-4 hours – Less than 1 hour	1.0658	0.309	3.4487	0.0039
More than 4 hours – Less than 1 hour	1.4721	0.295	4.9874	0.0018
Seek Prevention Information:				
Rarely – Never	-0.2876	0.337	-0.854	0.393
Sometimes – Never	0.1123	0.328	0.342	0.732
Often – Never	0.6284	0.317	1.9815	0.0293
Very Often – Never	0.9876	0.308	3.2057	0.0062
Length of Social Media Use:				
1-2 years – Less than 1 year	0.2486	0.341	0.7293	0.4662
3-4 years – Less than 1 year	0.6213	0.328	1.8932	0.0374
5-6 years – Less than 1 year	0.8059	0.315	2.5583	0.0108

More than 6 years – Less than 1 year	1.2235	0.298	4.1063	0.0029
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Note. β s represent the log odds of "Ever Used Drugs = Yes" vs. "Ever Used Drugs = No"

The results in Table 2 illustrate the association between social media use and substance abuse among undergraduate students. The findings reveal that social media usage frequency significantly correlates with substance abuse likelihood. Compared to those who never use social media, students who rarely use it have a moderate but significant association ($p = 0.0368$). The relationship strengthens as usage increases, with those who use social media often (daily) or very often (multiple times a day) showing a much higher likelihood of engaging in substance abuse ($p = 0.0103$ and $p = 0.0027$, respectively). This trend suggests that higher engagement with social media may increase exposure to substance-related content, peer influence, or stressors that contribute to substance use.

Examining primary social media use, students who primarily use social media for socializing exhibit a significant and strong positive relationship with substance abuse ($p = 0.0031$). Similarly, those who use social media for other unspecified purposes show a notable association ($p = 0.0146$). In contrast, using social media for information gathering or networking does not show a significant link to substance abuse, suggesting that the type of engagement matters more than the mere act of being on social media.

Engagement with substance abuse-related content also plays a crucial role. Students who sometimes, often, or very often engage with substance-related content are significantly more likely to engage in substance use (p -values ranging from 0.0089 to 0.0015). The increasing significance level with more frequent engagement highlights how exposure to discussions or depictions of substance abuse on social media could normalize or encourage the behavior.

Time spent on social media is another important factor. Students who spend more than 4 hours per day on social media show a strong positive relationship with substance abuse ($p = 0.0018$), while those who use social media for 3-4 hours daily also exhibit significant associations ($p = 0.0039$). This pattern indicates that prolonged social media use might expose individuals to environments that either glorify substance use or reduce time spent on healthier offline activities.

Interestingly, seeking substance abuse prevention information on social media does not consistently predict lower substance abuse likelihood. While those who often or very often seek prevention content show a negative association ($p = 0.0293$ and $p = 0.0062$, respectively), those who rarely or sometimes do so show no significant effect. This suggests that merely coming across prevention content is insufficient—active engagement and application of the information may be necessary to reduce substance use.

Lastly, the length of social media use also correlates with substance abuse risk. Compared to those who have used social media for less than a year, students with more than six years of use are significantly more likely to engage in substance abuse ($p = 0.0029$), with a clear upward trend as years of usage increase. This could indicate a cumulative effect, where prolonged exposure to social media over time influences attitudes, behaviors, and social norms related to substance use.

Thus, the findings suggest that higher social media use, frequent engagement with substance-related content, and prolonged exposure over the years significantly increase the likelihood of substance abuse. However, the type of engagement matters, as socializing and excessive time on social media appear riskier than using it for information gathering or networking. These

insights emphasize the need for targeted interventions to regulate substance-related exposure on social media and promote healthier online habits among students.

4.2 Curbing of Drug and Substance Abuse

Table 3 presents descriptive results on various strategies employed to address substance abuse, highlighting the effectiveness of different interventions. The results explore public perceptions of prevention efforts, the role of social media in awareness campaigns by health care practitioners, and the impact of peer influence in promoting a drug-free lifestyle. Understanding these findings can help inform future strategies aimed at reducing drug use and its associated consequences.

Table 3: Descriptive Results on Curbing of Drug and Substance Abuse

Variables	Categories	Frequency	Percent	Cumulative Percent
Ever Used Drugs	Yes	183	47.7 %	100.0 %
	No	201	52.3 %	52.3 %
Most Used Drugs	Cocaine	55	14.3 %	14.3 %
	Ecstasy	63	16.4 %	30.7 %
	Marijuana	60	15.6 %	46.4 %
	None	70	18.2 %	64.6 %
	Other	60	15.6 %	80.2 %
	Prescription drugs	76	19.8 %	100.0 %
Drug Use a Problem in the Community	No	197	51.3 %	51.3 %
	Yes	187	48.7 %	100.0 %
Witnessed Drug Use Among Peers	No	179	46.6 %	46.6 %
	Yes	205	53.4 %	100.0 %
Offered Drugs via social media	No	211	54.9 %	54.9 %
	Yes	173	45.1 %	100.0 %
Accepted Drug Offer	No	171	44.5 %	44.5 %
	Yes	213	55.5 %	100.0 %
Sought Help via social media	No	181	47.1 %	47.1 %
	Yes	203	52.9 %	100.0 %
Type of Help Sought	Counseling	85	22.1 %	22.1 %
	Medical treatment	86	22.4 %	44.5 %
	None	66	17.2 %	61.7 %
	Self-help	70	18.2 %	79.9 %
	Support groups	77	20.1 %	100.0 %
Believe Drug Use has Negative Consequences	No	186	48.4 %	48.4 %
	Yes	198	51.6 %	100.0 %
Experienced Negative Consequences	No	196	51.0 %	51.0 %
	Yes	188	49.0 %	100.0 %

Table 3 presents an in-depth look at drug use prevalence, the role of social media in drug accessibility, and the perceptions of drug-related consequences. A nearly even split exists between individuals who have used drugs (47.7%) and those who have not (52.3%), indicating that drug use remains a significant issue among the surveyed population. The most commonly used drugs include prescription drugs (19.8%), ecstasy (16.4%), marijuana (15.6%), and cocaine (14.3%), reflecting a mix of recreational and medically regulated substances. The presence of prescription drug use as the most common category suggests potential concerns regarding misuse and accessibility of these medications.

When asked whether drug use is a problem in their community, respondents were also nearly divided, with 48.7% acknowledging it as an issue. This aligns with the observation that a majority (53.4%) have witnessed drug use among their peers. The results suggest that while some individuals may not directly engage in drug use, exposure to drug-related activities is common. Peer influence appears to play a role in normalizing substance use behaviors, potentially increasing risks for individuals who might otherwise abstain.

The role of social media in drug accessibility is notable, with 45.1% of respondents reporting having been offered drugs through social media platforms. This highlights the growing concern of online drug transactions and the ease with which substances can be accessed in digital spaces. More alarming is that 55.5% of respondents admitted to accepting these offers, indicating that social media platforms are not just a space for exposure but also active engagement in drug use. This underscores the need for stronger monitoring and intervention strategies to curb illicit drug promotion online.

Encouragingly, 52.9% of respondents reported seeking help for drug-related issues via social media, showing that these platforms also serve as a means of support and recovery. The most commonly sought forms of help included medical treatment (22.4%), counseling (22.1%), and support groups (20.1%), indicating a recognition of the need for professional intervention. Additionally, 18.2% turned to self-help methods, which may reflect a preference for personal coping mechanisms rather than formal treatment. However, 17.2% did not seek any help, suggesting that some individuals either do not perceive their drug use as problematic or face barriers in accessing assistance.

While 51.6% of respondents acknowledged that drug use has negative consequences, 48.4% did not believe so. This suggests a concerning level of normalization or lack of awareness about the potential harms associated with substance use. The real-world impact is reflected in the fact that 49.0% of respondents reported experiencing negative consequences from drug use. The near-equal split in this category indicates that while many have faced direct repercussions, others may not yet have encountered significant consequences, possibly reinforcing continued use.

The findings highlight the complex interplay between drug use, social media, and community perceptions. While social media serves as a platform for drug exposure and transactions, it also acts as a space for seeking help. The high prevalence of drug offers and acceptances through social media raises concerns about online drug accessibility, necessitating stricter regulations and preventive measures. Additionally, the fact that nearly half of the respondents do not perceive drug use as harmful underscores the need for more effective education and awareness campaigns. Addressing these issues through a combination of policy changes, community intervention, and digital monitoring can help mitigate the risks associated with drug use and social media influence.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Findings

The results indicate that Instagram users were significantly more likely to engage in substance-related content compared to Facebook users ($\beta = 0.8924$, $p = 0.0039$). Similarly, Twitter users showed a positive association with substance-related discussions relative to Facebook users ($\beta = 0.7381$, $p = 0.0262$). In contrast, YouTube exhibited a negative but non-significant association ($\beta = -0.2974$, $p = 0.3644$), suggesting a weaker role in promoting substance-related content.

Moreover, those who strongly agreed that LinkedIn contains substance abuse-related content showed a significant negative association ($\beta = -1.0345$, $p = 0.0026$), implying that they were less likely to engage with such discussions. Similarly, neutral participants also exhibited a negative relationship ($\beta = -0.6782$, $p = 0.0319$). These findings suggest that LinkedIn is not a major platform for substance-related conversations, and users who perceive it as such may be less engaged with substance-related content.

Regarding WhatsApp group participation, individuals who engaged sometimes demonstrated a significant positive relationship with substance-related discussions ($\beta = 0.8753$, $p = 0.0156$) compared to those who were not members. However, frequent participation did not show a significant association, as users who often participated ($\beta = -0.2756$, $p = 0.4506$) or very often participated ($\beta = 0.2382$, $p = 0.4886$) did not exhibit significant engagement. These findings suggest that occasional participation in WhatsApp groups may expose users to substance-related discussions, but higher levels of engagement do not necessarily increase this exposure.

The findings regarding Facebook's effectiveness in addressing substance-related content demonstrate a negative association between perceived effectiveness and engagement with substance-related content. Those who found Facebook moderately effective ($\beta = -0.8932$, $p = 0.0134$) and very effective ($\beta = -1.2418$, $p = 0.0015$) showed significantly lower engagement compared to those who did not find Facebook effective at all.

5.2 Conclusion of the Study

The study concluded that different social media platforms offer varying levels of effectiveness in curbing substance abuse, depending on their nature and user engagement features. Social networking sites such as Facebook and Twitter were found to be instrumental in fostering community dialogue, sharing public health messages, and mobilizing peer support. These platforms allow for real-time interactions and wide dissemination of information, which can enhance awareness and challenge social norms surrounding substance abuse. However, their open nature also exposes users to misinformation and counterproductive content that may normalize or promote substance use.

Media sharing platforms like YouTube and Instagram were noted to be particularly effective in reaching younger demographics through visual storytelling and influencer engagement. The use of videos and images was found to enhance message retention and emotional appeal, which are crucial in influencing attitudes and behaviors. However, the unregulated content on these platforms often includes depictions of substance use in a glamorized manner, potentially undermining public health efforts.

Online discussion forums and community platforms such as Reddit or WhatsApp groups were recognized for their potential to offer peer-to-peer support and provide safe spaces for candid

conversations. These platforms can facilitate recovery and prevention through shared experiences and moderated discussions. Nonetheless, their impact is constrained by the risk of privacy breaches and the challenge of moderating content to ensure constructive and factual communication.

In conclusion, while each type of social media platform offers unique strengths in addressing substance abuse, a multifaceted and coordinated approach that leverages the advantages of various platforms is necessary. Healthcare workers, institutions, and policymakers must collaborate to develop platform-specific strategies, ensure the dissemination of evidence-based information, and engage users effectively to combat the rising challenge of substance abuse.

5.3 Recommendations of the Study

5.3.1 Policy Recommendations:

- i. Social media platforms should implement stricter content regulations to minimize students' exposure to content that normalizes or promotes substance use.
- ii. Institutions and government organizations should collaborate with social media influencers and peer groups to create engaging and relatable substance abuse awareness campaigns.
- iii. Universities and government agencies should redesign their substance abuse prevention programs to be more engaging and interactive, possibly incorporating social media-based content.

5.3.2 Recommendations for Practice:

- i. Universities and health organizations should leverage social media to disseminate engaging and informative content on substance abuse prevention. → Direct use of platforms for information sharing.
- ii. Since TikTok and Twitter showed strong associations with harm reduction knowledge, targeted interventions using these platforms could be more effective in disseminating harm reduction strategies.

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