

Impact of Social Media Health Communication on Public Awareness of Drug Abuse Prevention among University Students

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Abstract

This study aims to investigate how social media health communication affects among university students drug abuse prevention awareness. Data collection methods used were descriptive and analytical research design with a total of 300 university students who were used as respondents. The sampling method used was convenience sampling and the scale used was a 5-point Likert scale. Data analysis was performed using descriptive statistics, Pearson's correlation and regression analysis. The results showed that the level of the participants' awareness of drug abuse prevention was very high ($M = 3.83$). There was a strong positive correlation between social media health communication and awareness ($r = 0.612$, $p < .001$). The regression analysis indicated that social media communication was a significant predictor and accounted for 47.8 % of the variance in the awareness. The study finds social media a useful medium to improve students' drug abuse prevention awareness at university.

Keywords: Social Media, Health Communication, Drug Abuse Prevention, Public Awareness, University Students, Health Promotion, Digital Communication.

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Introduction

Drug abuse is a significant public health and social problem, especially within the youth population in various social environments, peer influence, high school graduation, and increased negotiation power. University students are a key group for the prevention of drug abuse as substance use behaviours acquired at the end of adolescence and in early adulthood could continue through adulthood. Outdated methods of prevention, such as teaching in classes and counselling, placing awareness campaigns in institutions, continue to be important; nonetheless, may not be effective because of limited student availability, willingness to engage in prevention and access to professional services. In this context, social media has become a vital health communication medium, as a rapid and interactive way to get health messages into the people's hands for relatively little cost.

Social networks can be used by universities, as well as health care organizations, and government agencies and NGO's to reach young people directly. In contrast to traditional single-way health communications, social media communications allows the participation of the users in commenting, sharing, discuss and produce content, which may increase the power of peer-to-peer communication, health awareness and knowledge building processes. Social networking has been found to have a high level of engagement among college students in regard to health-related information, and there is evidence that information sensitivity and perceived information credibility and privacy concerns impact students' willingness to engage with health information (Oh et al., 2016). Thus, social media may serve not only as a health

communication tool but as a health promotion setting in which citizens can interact.

However, the role of social media in drug-abuse prevention is especially important, because youths might simultaneously be exposed to substance-promoting content on these pages. Projections revealed in a review by Moreno et al. (2017) showed that substance-related posts are frequently encountered by college students' social-media environments, and may be linked with engaging in risky behaviours. Likewise, Roberson et al. (2018) found that peer-generated social-media content and alcohol marketing were related to drinking-related attitudes, perceived norm and drinking behaviours in 682 college students. This means social media can serve as a technology that spreads both danger messages and pro-substance norms, however it can additionally be a device utilized properly to deliver preventative health and wellness communication.

In this context, the effect of social media health communication on the awareness about drug abuse prevention from the perspective of university students was explored. The study is focused in particular on the effect of exposure to health-oriented communication via social media on students' knowledge, awareness of the possible consequences, and the understanding of prevention measures/recognition of available support mechanisms.

Literature Review

The academic literature has ample evidence that social media can affect the knowledge and attitudes and behaviours regarding the use of substances among youth. In this review of social media and college student risk behaviours, Moreno et al. (2017) noted that social-media posts about alcohol

and illegal drugs can act as a reinforcement of risk-taking norm. Meanwhile, the authors found that social media is a potential tool for prevention and intervention. This dual role creates an important conceptual landmark to analyze social media beyond its role as a risk environment and as a channel for health-communication interventions as well.

Evidence from studies of online health information continues to back up the value of social media in health awareness. College students seek and share health information on Facebook, though with varying degrees of participation, depending on sensitivity of the information, information source and privacy issue (Oh et al., 2016). The results of this research point to the importance of considering the credibility, framing and sensitivity to students' issues about stigma and confidentiality in effective drug-abuse prevention communication.

Peer influence plays an important role in Universities. Roberson et al. (2018) found that the drinking behaviours of college students could be linked to the norms and attitudes they gleaned in their online and offline surroundings of their peers. They conclude that peer norms-based social media prevention messages might be more effective than messages with just facts. Likewise, Boyle et al. (2017) highlighted the potential teen generated prevention messages by implementing a social-media substance-use prevention programme, 'Living the Example'. Similarly, youth were trained to create and share prevention messages through their own social networks.

There is support from intervention research to justify digital health communication. Ahmad et al. (2022) did a study on Nigeria in which they explored an intervention using social media to decrease the tendency of youths to be involved in drug abuse. The researchers applied a repeated-measures design to determine how much the group getting the social-media intervention showed a drop in drug-abuse propensity compared with the control group, and whether there were some effects that persisted through the follow-up. The study also makes specific contributions: it offers some relevance for findings that social media can be used to go beyond awareness raising to action, namely inducing preventive attitudes and intentions to behave.

Evidence specifically related to Indian college students is also gaining. In India, a pilot cluster randomized trial was conducted with a mix of methods that tested digital SBI for answering the query of "illicit drug misuse in college students. A Mixed Methods pilot C-R-T in India aimed to explore the impact of a digital SBI to address the issue of illicit drug misuse in college going population. The results demonstrated that adopting a DBI approach was feasible and acceptable in a low-resource setting and preliminary evidence to

support the effectiveness of reducing risky use of cannabis (Nair et al., 2023). Furthermore, we were able to find a study conducted in Bangalore which developed and piloted a skill-based intervention to prevent psychoactive-substance use among college students that focused on the development of practical skills and a health-promotion focus, in addition to providing information (Sarkar et al., 2022).

Digital interventions for the prevention of substance use also have demonstrated effectiveness with university students. Based on the findings of a meta-analysis of 23 studies (7,614 college and university students), Prosser et al. (2018) concluded that a small but significant decrease in alcohol use exists with e-interventions, with personalized interventions having relatively stronger effects. However, this process has also been shown to have an impact on alcohol-related behaviours among new university students when implemented via an online intervention including Theory of Planned Behaviour messages, self-affirmation and implementation intentions (Norman et al., 2018).

In more specific terms, a 2023 randomized-controlled trial of Social Media-BASICS, which integrated social-media identification of risky alcohol-related content into an existing online intervention, was tested. Among the community-college students, the study identified the approach as feasible and acceptable, underlining the potential of social media for at-risk student identification and linking to at-risk-engaging interventions (Bonar et al., 2023).

Consequently, based on the literature reviewed, social communication platform has a great potential in the context of drug abuse prevention among university students. The existing studies have, however, tended to focus on alcohol use, or on focused digital interventions or behavioural measures, with less research attention paid to public awareness of drug abuse prevention as a more general outcome of communication. In order to answer these and other questions, the purpose of the present study was to explore the relationship between exposure to social-media health communication and drug-abuse-awareness and understanding among university students.

Aim

To explore how social media health communication affects drug abuse prevention awareness speed, attention span, knowledge of hazards associated with drug abuse, knowledge of drug control, and perceived efficacy and credibility of social media as a drug abuse health communication medium among the university students.

Objectives

1. To check extent of exposure to social media health communication and awareness of drug addiction prevention among University students.

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- To investigate Association between Exposure to Social Media Health Communication and Drug Abuse Prevention Awareness among students from university.
- To assess learners' perceived credibility and effectiveness of social media health communication at promoting drug abuse prevention.

Methodology

The study will utilize descriptive research design and analysis research approach in order to find out the influence of social media health communication to the knowledge about drug abuse prevention among university students. The sample type for the study will be convenience sampling with 300 students from the University of Singapore. Structured questionnaire will be used to gather primary data covering the demographical characteristics, exposure to social media health communication, awareness of drug-abuse prevention, and perceptions of how credible and effective a social media-based health message is. The obtained data by questionnaire will be analyzed to explore the correlation between social media health communication and drug-abuse prevention awareness.

Results and Analysis

The study analyzed the effect of social media health communication to awareness of drug abuse prevention among university students. A sample of 300 respondents were interviewed. Its analysis consisted of the respondents demographic characteristics, social media health communication exposure, awareness of drug abuse prevention among the respondents, perception of social-media based health messages, correlation analysis and regression analysis.

Table 1 Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage
Gender	Male	156	52.0
	Female	138	46.0
	Other	6	2.0
Age	18–20 years	96	32.0
	21–23 years	142	47.3
	24–26 years	62	20.7
Education	Undergraduate	178	59.3
	Postgraduate	122	40.7
Social-media use	Less than 2 hours/day	42	14.0
	2–4 hours/day	126	42.0
	4–6 hours/day	92	30.7
	More than 6 hours/day	40	13.3

The findings have revealed that 46.0% of the respondents were females while 52.0% were males. The largest age group was 21–23 years (47.3%). The highest class was undergraduate students, with 59.3% of the respondents. As far as the usage of social media platforms goes, 30.7% of students use them for 4–6 hours a day, and 42.0% use them for 2–4 hours a day. Thus, a large proportion of the respondents had regular usage of social media platforms.

Table 2 Exposure to Drug-Abuse Prevention Communication on Social Media

Exposure Indicator	Agree/Strongly Agree	Neutral	Disagree/Strongly Disagree
I frequently encounter drug-abuse prevention messages on social media.	208 (69.3)	42 (14.0)	50 (16.7)
Social media provides information about the harmful effects of drugs.	238 (79.3)	30 (10.0)	32 (10.7)
I have seen campaigns promoting drug-free lifestyles.	216 (72.0)	38 (12.7)	46 (15.3)
Social media has increased my knowledge about drug abuse.	221 (73.7)	40 (13.3)	39 (13.0)
I discuss drug-abuse prevention information encountered online.	174 (58.0)	58 (19.3)	68 (22.7)

Results indicate a significant amount of drug abuse prevention communication exposure. Some students categorically agreed that social media gives information about the negative effects of drugs (79.3%). In addition, 73.7% said that social media had raised awareness about drug abuse and 72.0% said that they had seen campaigns against drug use. Of those who discussed such information with others, however, it is worth noting that only 58.0% did so.

Table 3 Level of Awareness Regarding Drug-Abuse Prevention

Awareness Statement	Mean	SD	Awareness Level
Awareness of physical health consequences	4.18	0.72	High
Awareness of psychological consequences	4.05	0.76	High
Awareness of social/family consequences	3.91	0.81	High
Awareness of signs of drug abuse	3.64	0.89	Moderate
Awareness of drug-abuse prevention measures	4.02	0.74	High
Awareness of counselling/rehabilitation services	3.47	0.96	Moderate
Awareness of ways to seek professional help	3.52	0.91	Moderate
Overall Awareness	3.83	0.68	High

Note: Mean scores are based on a five-point scale, where 1 = strongly disagree and 5 = strongly agree.

The overall mean awareness score is 3.83 (high), which means that the current scenario level of awareness is very high. The most salient findings are that the subjects were most aware of the physical side effects of drug abuse ($M = 4.18$) and the psychological side effects ($M = 4.05$). Comparatively, the awareness about counselling, rehabilitation and professional help was lower, however. This suggests that social media can be a platform for more general risk information but not so effective in conveying information about formal risk support services.

Table 4 Perceptions of Social Media Health Communication

Statement	Mean	SD	Rank
Social-media messages are easy to understand.	4.12	0.71	1
Social media makes drug-abuse information easily accessible.	4.08	0.75	2
Visual content makes prevention messages more memorable.	4.03	0.79	3
Social-media campaigns are relevant to young people.	3.96	0.82	4
Messages from credible organisations are trustworthy.	3.89	0.84	5
Social media motivates students to adopt preventive behaviours.	3.71	0.91	6
Overall Mean	3.97	0.64	—

The respondents generally had positive evaluation on the SMHC with their mean score being 3.97. The result which received the highest rating ($M = 4.12$) was Ease of understanding, indicating that students can access the messages that are sent via social media. Overall results indicate that motivation to engage in preventive behaviours ($M = 3.71$) is less than the other sub-scales, suggesting that a change in awareness gained from social media may not inevitably lead to behavioural change.

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Table 5 Relationship Between Social Media Health Communication and Drug-Abuse

Prevention Awareness			
Variables	Pearson's r	p-value	Result
Social-media exposure and awareness	0.612	< .001	Significant
Message credibility and awareness	0.548	< .001	Significant
Message usefulness and awareness	0.573	< .001	Significant
Message engagement and awareness	0.491	< .001	Significant

Pearson's correlation analysis shows that the social media health communication has positive and statistically significant relationship with drug-abuse prevention awareness ($r = 0.612$, $p < .001$). This implies that the more health-related positive social media communication students have experienced, the more positive their attitudes are toward drug abuse prevention. Additionally, message credibility ($r = 0.548$), usefulness ($r = 0.573$) and engagement ($r = 0.491$) were statistically significant in predicting awareness.

Table 6 Regression Analysis: Impact of Social Media Health Communication on Awareness

Predictor	β	t-value	p-value
Social-media exposure	0.426	7.84	< .001
Message credibility	0.218	3.96	< .001
Message usefulness	0.193	3.51	< .001
Message engagement	0.126	2.31	.022
$R^2 = 0.478$			
Adjusted $R^2 = 0.471$			
$F = 67.72$, $p < .001$			

Using multiple regression analysis, the study results showed that the total variance of social media health communication explains the awareness of drug-abuse prevention. The amount of variance accounted for by the model in predicting students' awareness was 47.8% ($R^2 = 0.478$). Social-media exposure emerged as the strongest predictor ($\beta = 0.426$, $p < .001$), followed by message credibility ($\beta = 0.218$, $p < .001$) and message usefulness ($\beta = 0.193$, $p < .001$). The whole regression model was statistically significant ($F = 67.72$, $p < .001$).

Based on the analysis, it is concluded that social media is an important medium of information about the prevention of drug use among university students. A large number of the respondents said that they were exposed to prevention messages, and that they felt "enhanced" their knowledge through social media. The awareness score was quite high ($M = 3.83$), and the favorability regarding social-media health communication also was high ($M = 3.97$). A significant positive correlation was obtained between social-media health communication and drug-abuse prevention awareness ($r = 0.612$, $p < .001$) from the correlation analysis. Further analysis using regression showed that there was a significant relationship between social media communication and awareness when 47.8% explained the variance of awareness. The results highlight the role of credible, accessible and engaging social-media health communication on enhancing university students' drug-abuse prevention awareness.

Discussion

According to the results of the study, drug-abuse prevention awareness among university students is related to the use of social media health communications. Many respondents indicated that they see preventive messages often, and they also see messages about the negative effects of drugs and campaigns against using drugs often. Interpersonal awareness ($M = 3.83$) and students' attitudes to social media health communication ($M = 3.97$) were both high, with media ranging from positive to very positive. There was a very significant positive correlation between social-media communication and drug-abuse prevention awareness ($r = 0.612$, $p < .001$), indicating that high levels of exposure to messages about drugs and drug abuse correlate significantly with high levels of awareness. Overall, the findings are in line with the prior reports of the effectiveness of social media and digital interventions that offer convenient and engaging opportunities for substance-use prevention with youth.

The regression results also indicate that the exposure of social media, the credibility of messages, the use, and the social involvement of students significantly affects the awareness of students with 47.8% of variance explained. This underlines the need for promoting health messages which are comprehensible, credible, relevant and appealing. However, a relatively low awareness towards counselling and rehabilitation and professional support indicates that present communication could mostly stress on the facts of drug abuse rather than on active preventive and help-seeking information. Universities, health professionals and public-health institutions should utilize social media strategically to package awareness messages alongside information on early intervention, counselling centres, rehabilitation centres, ways to access professional help, etc.

Conclusion

The study findings indicated that the social media health information has a meaningful and positive impact on increasing awareness of drug abuse among college students. There was a positive association between higher levels of social media exposure of health messages and more awareness among students about harmful effects, prevention, and consequences of drug abuse. The results show that social media is a readily available, engaging and powerful tool for delivering preventive health education to the university students. However, there is a need to focus more on concrete counselling, rehabilitation, professional and help seeking information.

Recommendations

Drug abuse prevention campaigns via social media platforms that are popular among students should be planned by Universities and public-health institutions on a regular basis based on evidence. It's important to keep the messages simple, but also

draw the audience in, both visually and verbally, to be credible, youth-friendly, and interactive, including testimonials, short videos, infographics, quizzes, and peer-led content. Social media campaigns can also be used to disseminate clear messages about counselling and rehash offering and prompt early assistance seeking. Cooperation and partnership can enhance the outreach and effectiveness of such programs in health facilities, government and student organizations. A periodic assessment should be considered to evaluate whether social-media communication positively affects not only knowledge, but attitudes towards prevention and healthy behaviours, too.

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