

Social Media for Smoking Cessation among Adult Smokers in the United States: Evidence from the Health Information National Trends Survey

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Abstract

Tobacco smoking is a leading preventable cause of mortality in the United States, and accounts for about 480,000 deaths annually. Despite widespread availability of behavioral and pharmacological treatment options for tobacco smoking cessation, it is estimated that 40 million adults in the United States continue to smoke cigarettes. Social media has emerged as a potential avenue to deliver smoking interventions; however, evidence so far has been mixed and inconclusive.

Methods and materials

Using data from the 2017 to 2020 edition of the Health Information National Trends Survey (HINTS), we evaluated differences between smokers and the general population with respect to health-related usage of social media platforms. Multivariable logistic regression was performed to evaluate the association between social media usage with intentions and attempts to quit smoking.

Table 1. Prevalence and odds of social media use by smoking status (N = 15,423)

Social Media Variable	All, N = 15,423; weighted %	Non-Smokers, N = 13,560; weighted %	Smokers, N = 1,863; weighted %	Unadjusted Odds Ratio, 95% C. I	p-value	Adjusted Odds Ratio, 95% C. I	p-value
Visit social network site	71.1	71.4	69.4	0.91 (0.75, 1.10)	0.324	1.12 (0.89, 1.40)	0.338
Share health information on social network sites	14.4	14.6	13.2	0.89 (0.71, 1.13)	0.335	0.84 (0.64, 1.11)	0.224
Online support group	7.6	7.9	6.1	0.77 (0.56, 1.05)	0.097	0.90 (0.64, 1.27)	0.546
Watch health-related YouTube videos	35.9	36.6	31.3	0.79 (0.65, 0.95)	0.014	0.83 (0.66, 1.04)	0.106

Analysis was adjusted for age, gender, race, educational level, household income, body mass index, having a regular provider, presence of comorbidities, and rural-urban residence.

Table 2. Multivariable Logistic Regression of Association between Health-related Social Media Utilization with smoking cessation behavior among Smokers (N = 1,863)

Outcomes	Unadjusted OR (95% C.I.)	p-value	Adjusted OR (95% C.I.)	p-value
Intention to quit smoking ***				
Social media non-users (Reference)	1.00	----	1.00	----
Social media users	1.65 (0.94, 2.88)	0.080	1.81 (0.98, 3.34)	0.059
Attempts to quit smoking ***				
Social media non-users (Reference)	1.00	----	1.00	----
Social media users	2.05 (1.21, 3.46)	0.008	1.68 (0.90, 3.12)	0.100

***: data only available for 2017 and 2019

Analysis was adjusted for age, gender, race, educational level, household income, body mass index, having a regular provider, presence of comorbidities, and rural-urban residence.

Results

The study sample included 1863 current smokers. Of these, 967 (43.8%) were women and 1054 (56.6%) were non-Hispanic Caucasians (66.8%). Overall, 69.2% of smokers reported general use of social media. About 13.2%, 6.1% and 31.3% of smokers endorsed sharing health information on social networking sites, using online support groups, and watching health-related YouTube videos, respectively. Health related social media usage was not associated with intentions (OR 1.81, 95% CI 0.98–3.34; p = 0.059) or attempts to quit cigarette smoking (OR 1.68, 95% CI 0.90 –3.12; p = 0.100).

Conclusion

Although general social media use among smokers was substantial, the use of social media for health-related purposes has not increased to the same extent. We also found that while social media use can potentially reach a large audience, usage of social media alone may not directly influence smoking behavior changes.

References

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