Facebook-Induced Friend Shift and Identity Shift: A Longitudinal Study of Facebook Posting and Collegiate Drinking

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Abstract

While research has indicated that perceiving alcohol-related posts on Facebook can be predictive of future alcohol consumption for college students, little research has considered the consequences of posting about alcohol on future behavior. The purpose of this study was to consider the pathways through which alcohol-related posts on Facebook may lead to increased drinking among the college students who make these posts. Incoming college freshmen (310 participants) from 2 universities were interviewed before their freshman year of college (T1) and again 1 year later (T2), and their Facebook profiles were evaluated for alcohol-related posts during the academic year. A positive attitude toward alcohol before freshman year was positively related to drinking activity before sophomore year. This relationship was mediated by alcohol-related Facebook posts during the academic year and the percentage of friends reported to be drinkers before sophomore year. Theoretically, this is evidence of identity shift online, as well as a Facebook-induced friend shift. These findings highlight the role that Facebook may play in both identity development and friendship cultivation for college freshmen, and offer insight into future collegiate drinking prevention and intervention initiatives.

Keywords: Facebook, alcohol, identity shift

Introduction

COLLEGE STUDENT ALCOHOL CONSUMPTION has long been an area of interest for academia. Since 1914, scholars have been beleaguered by the problem of excessive drinking in college¹; the fact that their students “labor under the illusion that they can’t enjoy themselves unless they’ve had a few.”² Hence, it is no surprise that over time researchers have identified a number of reasons why college students drink illegally and in excess. These reasons include liking the taste, to celebrating specific occasions, to simply getting drunk.^{3,4} However, with nearly ubiquitous use of social media across college campuses,⁵ the experience of college life has moved from being solely visceral to at least partly virtual. Scholars have recently developed heightened interest in one particular associate of collegiate drinking: Facebook.

A growing body of research has explored the relationship between collegiate drinking and Facebook use. Studies have documented the pervasiveness of alcohol-related posts^{6–8} and the variety of alcohol reference post types.⁹ This is noteworthy, as viewing Facebook profiles with alcohol predicts alcohol initiation among adolescents,¹⁰ likely because it

influences their perceptions of norms regarding alcohol use.¹¹ Hence, studies support a distinct relationship between exposure to alcohol content on social media and actual alcohol use.^{10–16}

To date, much research has focused on effects of *perceiving* alcohol posts on the social media of others. However, there is one additional component of this phenomenon worth considering: does the act of *posting* an alcohol reference on Facebook make one more likely to drink? While research has indicated that alcohol-related posts on Facebook are predictive of future alcohol consumption,¹⁷ little research has considered *the consequences of posting about alcohol on future behavior*. The aim of this research is to consider the pathways through which alcohol-related posts on Facebook may lead to increased drinking among college students.

Facebook, Collegiate Drinking, and Friend Shift

Specific behaviors can be predicted from measured positive attitude aligned with that behavior^{18,19} and attitude is one of the strongest predictors of drinking behavior.²⁰ Hence, while we would expect attitude to predict later

drinking, we also anticipate that a more favorable attitude toward alcohol leads to more alcohol-related posts by college students. Indeed, there is a robust body of work that suggests that college students are likely to post about alcohol on Facebook and that these references are related to actual drinking behavior.⁶⁻⁸ Just as these posts can influence viewers,^{10,11} it is likely that this activity is consequential for the profile owner themselves.

To examine the consequences of alcohol-related posts on Facebook, we first need to consider how college students utilize Facebook. Previous research has suggested Facebook is a useful tool for college freshman, as it allows both maintenance of precollege friendships and nonintrusive interaction with new acquaintances.²¹ In fact, status updates are reported as a frequent activity online for both high school and college students,²² which some hypothesize helps students this age advertise themselves and their interests to new friends.²¹ It is also common for teenagers to use online profiles to gather information about new acquaintances.²³ It is then unsurprising that socially competent college students describe Facebook as a useful tool, spend more time on it, and experience a better social adjustment in college.²⁴ By allowing individuals to project information about themselves and engage in communication, it serves to bring together those with shared interest.²⁵ Moreover, when online, students may be more likely to engage in adventurous forms of self-exhibition to reign in new friends.²⁶ Hence, Facebook plays an important role for freshman in the friendship formation process. If this platform is populated by alcohol-related posts, it is likely that such references will indeed affect how college freshmen form friendships. A student who posts about drinking will likely draw other drinkers closer—after all, similarity is a powerful predictor of friendship.²⁷

In turn, if a college student spends time with individuals who drink, that student is much more likely to drink. Outside of peer pressure, the simple act of being around drinkers is a “potent” indirect influence on behaviors.²⁸ Even if among a group of friends, where not everyone drinks, or some individuals drink at a reduced rate, a college student is most likely to drink at the rate exhibited by the majority of their peers.²⁹ Consumption continues even if the student is made aware they are likely being influenced by the presence of a drinker.³⁰ Thus, we have a series of events whereby a student who is already somewhat favorable to alcohol will post more alcohol content on their Facebook account during college, leading to a shift in their friend group to consist of more drinkers, in turn increasing their own drinking behavior. Hence, we hypothesize that:

H1: Alcohol Attitude before freshman year will be positively related to the consumption of alcoholic beverages one year later through the mediating influence of Facebook postings about alcohol during freshman year, and in turn, an increase in the percentage of friends that drink before sophomore year.

Facebook, Collegiate Drinking, and Identity Shift

While above we hypothesize that Facebook posting can lead to more drinking through the shifting of a friend group, there is also a second possibility: simply posting on Facebook is a powerful enough act to shift one's identity and

consequential drinking patterns even controlling for the influence of friends. The notion that Facebook posting is a pathway to increased drinking is precisely what previous research has suggested—having more Facebook alcohol displays is not predictive of increased intention to drink, but indeed predictive of greater binge drinking.¹⁷ This self-effect that bypasses intention might be evidence of identity shift online.³¹

Identity shift is a type of self-effect whereby one internalizes a trait that they have displayed publicly online.^{31,32} For example, couples who post more relationship cues publicly on Facebook were more likely to remain together after 6 months³³ and individuals who presented themselves online as loyal to a particular brand experienced a positively increased attitude toward that brand.³⁴ This identity shift can be more pronounced when others provide positive feedback to displays^{35,36} and especially strong if this feedback is both publicly displayed and comes from friends rather than strangers.³⁴ While this especially strong shift comes from truly public online displays (where strangers offer feedback), the research cited here shows that the relatively public domain of Facebook, where postings are seen by friends and friends of friends, also produces indicated shift.³³

It follows that collegiate freshmen posting about alcohol might be planting seeds in grounds fertile for identity shift. These posts are public, will likely receive positive feedback from peers in the form of “likes,” and this feedback will come from “friends.” However, no previous research to our knowledge has examined whether identity shift is able to change reported behavior, as opposed to conceptions of identity or relationship status. It is possible that Facebook is a mechanism for only shifting friend groups, as opposed to unique self-effects. Hence, we propose the following hypothesis regarding a particular pathway in the mediation model proposed above:

H2: Will alcohol attitude before freshman year indirectly influence alcohol consumption one year later through the Facebook alcohol-related posts during the first year of college?

Methods

Participants

Participants for the study were first year students attending one of two large universities. Potential participants who enrolled as a first-year student for the fall of 2011 and between the ages of 17 and 19 were recruited. Six hundred students were randomly selected from those deemed eligible from the complete registrars list of incoming students, with intent to recruit 300 students. Students were recruited throughout a 4-week period where they received a pre-announcement postcard, e-mails, phone calls, and Facebook messages. Students from this group were excluded if they had already arrived on campus for any reason, as Time 1 (T1) measures were intended to be before college experiences. Upon indicating interest, participants were required to Facebook “friend” the research team and asked to maintain open security settings so that the team could fully observe their profile throughout the study.

Coding

Facebook alcohol-related posts were collected according to an existing codebook during the students' freshman year of college (T1.5) during the 2011–2012 academic year. The codebook has been utilized and described in previous studies.^{37,38} Any instances of displayed alcohol content referring to attitudes, intentions, or behaviors regarding alcohol were considered alcohol-related posts. Such references might include personal photographs in which the owner was drinking from a beer bottle or text describing drinking whiskey at a party. For such references to be counted, the beverage had to be clearly identifiable as alcohol and/or the text had to explicitly indicate the profile owners attitude, intention, or behavior toward alcohol.

Facebook coding took place roughly every 28 days throughout the academic year. Any activity that took place on the user's Facebook Wall, Photograph section, like/interest, and groups was considered for coding. Coding reliability was established through testing a 20 percent random subset of profiles. The seven coders responsible for this project all coded this subset to establish interrater reliability. Inter-coder reliability was high regarding the presence of alcohol (Fleiss's $\kappa = 0.82$) and substantial regarding the total number of alcohol-related posts (Fleiss's $\kappa = 0.74$).

Interviews

Participants were interviewed at two separate instances for this study: in the summer before the start of their freshman year (T1) and the summer before their sophomore year (T2). As in previous similar studies, interviews were conducted over the phone.^{39,40} Phone interviews took place at a scheduled time, lasted 30–40 minutes, and included questions not reported in this study, but relevant to differing aims of this study. Participants were awarded \$30 for their participation in the first interview, and \$35 for their participation in the second interview.

Measures

Alcohol attitude

Alcohol attitude was measured during the Time 1 interview. Participants were asked "On a scale between 0 and 6, with 0 as very negative, 3 as neutral, and 6 as very positive, what would you say your own attitude toward alcohol is?" ($M = 3.08$, standard deviation [SD] = 1.24).^{41–43}

Facebook posting

Facebook alcohol-related posts were measured as described in the coding process above. Total alcohol-related posts were summed for the academic year ($M = 6.44$, $SD = 12.67$).

Alcohol quantity and frequency

Drinking activity was assessed during the interview. The number was obtained by using the TimeLine Follow Back method to determine quantity and frequency in the past 28 days.⁴⁴ In this procedure, the interviewer and participant review each day of the past 28 days to evaluate how many drinks were consumed. A single drink was defined as a 10- to 12-ounce can or bottle of 4–5 percent alcohol beer, a 4-ounce

glass of 12 percent alcohol table wine, a 12-ounce bottle or can of wine cooler, or a 1.25-ounce shot of 80-proof liquor either straight or in a mixed drink.⁴² Hence, this process allowed for a total number for 28 days before the phone call at Time 2, the summer after the participant's freshman year of college ($M = 14.25$, $SD = 23.90$).^a

Peer drinking activity

Peer drinking activity before sophomore year was also assessed by asking students what percentage of their friends at that time engage in alcohol consumption ($M = 71.26$, $SD = 24.24$).

Covariates

Two covariates were included in the first model. Time 1 total drinking activity was included in the model to isolate the variance in the outcomes of interest uniquely affected by Facebook posting.⁴⁵ This is important because past behavior is a strong predictor of drinking behavior.²⁰ As with Time 2, a total count of drinks was calculated for participants in the summer before their entrance to college ($M = 6.80$, $SD = 13.10$). We included the percentage of friends who used alcohol before freshman year ($M = 54.80$, $SD = 30.25$), again to better isolate the variance uniquely caused by peer drinking in the summer before sophomore year.

Results

A total of 338 participants were recruited for the study and completed the interview at T1. Of these participants, 310 completed the interview at T2, a 92 percent retention rate. Participants were between the ages of 18 and 19 at T1, and were 56 percent female and 75 percent Caucasian. Participants were distributed relatively evenly between the two universities (59–41 percent).

We predicted a serial mediation model whereby a more positive attitude toward drinking before the start of Freshman year (T1) leads to a higher occurrence of alcohol-related posting on Facebook during freshman year (T1.5), which leads to a greater percentage of friends who use alcohol in the summer before Sophomore year (T2), which in turn leads to more total drinking activity in the summer before Sophomore year (T2). The mediation analyses were conducted using model 6 of the PROCESS Macro in SPSS.⁴⁶ Confidence intervals (CIs) were based on 5,000 bootstrap samples. This indirect effect from alcohol attitude to alcohol use 1 year later, through both Facebook alcohol postings and percentage of friends who use alcohol, was significant, $B = 0.05$, standard error (SE) $B = 0.03$, $CI = 0.01–0.10$, providing support to H1. The partially standardized effect⁴⁷ was 0.002, 95 percent $CI = 0.0003–0.004$. This is a relatively small effect. Each point increase in attitude toward alcohol before freshman predicts an increase of 0.002 of a SD in total drinking the summer after freshman year, as a result of the effect of attitude on Facebook alcohol posting, which impacts peer drinking, and total participant drinking in turn.

H2 asked whether a significant indirect effect existed whereby Facebook posting alone mediates the relationship between alcohol attitude and drinking behavior. This indirect effect was also significant, $B = 0.48$, $SE B = 0.24$, $CI = 0.04–0.96$, partially standardized effect size⁴⁷ 0.02, 95 percent

CI=0.001–0.04. Hence, two individuals who differ by one point in their attitude toward alcohol before freshman year would be expected to differ by 0.02 of a *SD* in total drinking the summer after freshman year, as a result of the effect of attitude on Facebook alcohol posting, which turn affecting total drinking. Interpreted more practically, a one unit increase in attitude leads to around an additional half drink. The overall model was significant, $R^2=0.50$, $F(5, 304)=58.94$, $p=0.00$. (See Fig. 1 for the full model with individual pathways.)

Time 1 total drinking and Time 1 peer drinking were used on covariates on all downstream variables. Attending to these, neither freshman total drinking [$t(3, 306)=1.14$, $p=0.26$] nor freshman peer drinking [$t(3, 306)=0.93$, $p=0.35$] were related to posting on Facebook. While freshman total drinking [$t(4, 305)=0.15$, $p=0.88$] was not related to sophomore peer drinking, freshman peer drinking [$t(4, 305)=8.71$, $p=0.00$] was positively related. Finally, while freshman total drinking [$t(5, 304)=11.10$, $p=0.00$] was positively related to sophomore total drinking, freshman peer drinking [$t(5, 304)=0.91$, $p=0.36$] was not related.

Discussion

Like much of life, the college experience is no longer simply a visceral one. College students cultivate online identities where they post about themselves and their likes and use social media to explore social groups and confer with potential new friends. This study investigated what can occur when college freshmen post alcohol-related content to their own profile.

Our results showed that the relationship between alcohol attitude before freshman year and drinking before sophomore year is, at least in part, explained by Facebook-related alcohol posting and an increase in friends who drink. This suggests that posting about alcohol online can be nefarious for college students through two different unique pathways. First, posting more alcohol-related content on Facebook over the course of freshman year leads to a shift in the profile owner's make-up of friends to a group comprised of more drinkers. This in turn leads to greater alcohol consumption. Hence, there appears to be a Facebook-induced friend shift. Second, the results suggest that the act of alcohol posting is powerful even alone; Facebook alcohol posting mediates the

relationship between alcohol attitude and drinking, evidence of identity shift.

Theoretically, both of these findings offer distinct contributions. First, while researchers have suggested that Facebook is likely a tool for collegiate freshmen to find friends,^{21–26} this is one of the first studies to document how this process may work in a longitudinal fashion with reference to a specific trait, alcohol consumption. The power attributed to Facebook in the friendship formation process is granted empirical evidence here. Second, while previous research has documented identity shift in experimental settings and in self-reported identity and status ratings,^{31–36} this is one of the first studies to show identity shift with behavioral outcomes: posting about alcohol leads to consuming more drinks.

Practically, it must be noted that the effect sizes are small. However, this is not to say they lack meaning. The results in this study suggest that the difference between a slightly positive attitude and slightly negative attitude toward drinking before summer freshman year is enough to lead to a couple of more drinks the summer after freshman year, perhaps due to the identity shifting effect of posting about alcohol on social media. While this seems insignificant, three drinks in an evening can be the difference between social drinking and binge drinking, driving soberly or driving drunk, making smart decisions or dangerous, regrettable ones.

Taken together, these results suggest an important theme emerging: Facebook *posting* is consequential in the drinking process to both viewers and posters. While previous research has pointed the predictive ability of these posts and the effect on perceivers, this is one of the first articles to show different pathways through which posting can affect the profile owner himself or herself. The notion that Facebook posting is consequential also offers an important practical consideration: if Facebook does play a causal role in the drinking process, if it does indeed help explain the relationship between precollege attitude and future college drinking, any interventions aimed at reducing Facebook alcohol-related posts should be effective at reducing this potentially harmful activity. Previous collegiate drinking intervention efforts have been interested primarily in social norms^{48,49}; this research suggests a new and potentially effective intervention pathway.

It is equally noteworthy that these two pathways from attitude to behavior were theoretically predicted and continue to

FIG. 1. Serial mediation model with unstandardized coefficients.

build on established literature. Hence, this adds to the notion that the way we cultivate online identities, whether the identity emphasizes relationships, drinking, or some other hobby, can be uniquely impactful on our future friends and actions.

While this research does add evidence to the growing body of evidence that identity shift occurs in response to what individuals post online, there does exist an alternative explanation to our data. It is possible that first year college student friend groups are shifting anyway (on and offline) and Facebook just reflects that. While we cannot dismiss this possibility, our explanation here is consistent with prior research that suggests Facebook allows individuals to advertise themselves and their interests to new friends,²¹ thus initiating a friend shift.

Limitations and Future Directions

Naturally, there are limitations associated with our data collection. The drinking data and peer group data for the study were obtained through self-report, which can be subject to social desirability bias. Moreover, while participants indicated they would not block researchers from viewing any Facebook posts, there was no way to guarantee that these data are entirely complete for all participants. Future research can gain insight into the relationship between collegiate drinking, Facebook alcohol-related posts, and friend and identity shift, by potentially conducting an intervention on a subset of students, where they are asked to avoid alcohol-related posts. Such an experimental intervention would be beneficial both for practical purposes and to better help us understand the theoretical role of Facebook posting. Future research would also benefit from further exploring the relationship between the identity that is cultivated online and how it may affect one's future friends and behaviors. It is possible that publicly posting positive activities such as exercise or study habits can have distinct and positive effects on future personal and social lives. Additionally, although we identified two variables that may act as a mechanism in the collegiate drinking process—there are likely other causal agents that play important and superseding roles.

Conclusion

College students commonly post alcohol reference on Facebook. This research suggests that this posting activity is consequential as it can lead to greater drinking activity through a shift in the student's friend group, and potentially increase drinking behavior likely by shifting conceptions of identity.

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Note

a. While this outcome variable was non-normally distributed, with skewness of 2.89 ($SE = 0.133$), the distribution

did not take a Poisson form, $D(338) = 10.32$, $p < 0.001$, $M = 14.25$, variance = 570.84, thus leaving it appropriate for our planned analysis using OLS regression with bootstrapped samples.

Author Disclosure Statement

The authors have no competing financial interests to disclose.

References

1. Powell LP. The relation of college study of ethics to the character of students. *Religious Education* 1914; 9:584–588.
2. Barnett JH. College seniors and the liquor problem. *Annals of the American Academy of Political and Social Science* 1932; 163:130–146.
3. Klein H. Self-reported reasons for why college-students drink. *Journal of Alcohol and Drug Education* 1992; 37: 14–28.
4. Kuntsche E, Knibbe R, Gmel G, et al. Why do young people drink? A review of drinking motives. *Clinical Psychology Review* 2005; 25:841–861.
5. Rowan-Kenyon HT, Martínez Alemán AM, Gin K, et al. Social media in higher education. *ASHE Higher Education Report* 2016; 42:7–128.
6. Cavazos-Rehg PA, Krauss MJ, Sowles SJ, et al. “Hey everyone, I’m drunk” An evaluation of drinking-related Twitter chatter. *Journal of Studies on Alcohol and Drugs* 2015; 76:635–643.
7. Moreno MA, Parks MR, Zimmerman FJ, et al. Display of health risk behaviors on MySpace by adolescents prevalence and associations. *Archives of Pediatrics & Adolescent Medicine* 2009; 163:27–34.
8. Moreno MA, Cox ED, Young HN, et al. Underage college students’ alcohol displays on Facebook and real-time alcohol behaviors. *Journal of Adolescent Health* 2015; 56: 646–651.
9. Moreno MA, Briner LR, Williams A, et al. A content analysis of displayed alcohol references on a social networking web site. *Journal of Adolescent Health* 2010; 47: 168–175.
10. Litt DM, Stock ML. Adolescent alcohol-related risk cognitions: the roles of social norms and social networking sites. *Psychology of Addictive Behaviors* 2011; 25:708–713.
11. Beullens K, Vandenbosch L. A conditional process analysis on the relationship between the use of social networking sites, attitudes, peer norms, and adolescents’ intentions to consume alcohol. *Media Psychology* 2016; 19:310–333.
12. Ridout B, Campbell A, Ellis L. “Off your Face(book)”: alcohol in online social identity construction and its relation to problem drinking in university students. *Drug and Alcohol Review* 2012; 31:20–26.
13. Huang GC, Unger JB, Soto D, et al. Peer influences: the impact of online and offline friendship networks on adolescent smoking and alcohol use. *Journal of Adolescent Health* 2014; 54:508–514.
14. Stoddard SA, Bauermeister JA, Gordon-Messer D, et al. Permissive norms and young adults’ alcohol and marijuana use: the role of online communities. *Journal of Studies on Alcohol and Drugs* 2012; 73:968–975.
15. Pegg KJ, O'Donnell AW, Lala G, et al. The role of online social identity in the relationship between alcohol-related content on social networking sites and adolescent alcohol

- use. *Cyberpsychology Behavior and Social Networking* 2018; 21:50–55.
16. Westgate EC, Neighbors C, Heppner H, et al. “I will take a shot for every ‘like’ I get on this status”: posting alcohol-related Facebook content is linked to drinking outcomes. *Journal of Studies on Alcohol and Drugs* 2014; 75:390–398.
 17. D’Angelo J, Kerr B, Moreno MA. Facebook displays as predictors of binge drinking: from the virtual to the visceral. *Bulletin of Science, Technology & Society* 2014; 34: 159–169.
 18. Ajzen I, Fishbein M. (2005) The influence of attitudes on behavior. In Albarracin D, Johnson BT, Zanna MP, eds. *Handbook of attitudes*. New York: Psychology Press, pp. 173–221.
 19. Kim MS, Hunter JE. Attitude behavior relations—a meta-analysis of attitudinal relevance and topic. *Journal of Communication* 1993; 43:101–142.
 20. Bentler PM, Speckart G. Models of attitude-behavior relations. *Psychological Review* 1979; 86:452–464.
 21. Yang CC, Brown BB. Motives for using Facebook, patterns of Facebook activities, and late adolescents’ social adjustment to college. *Journal of Youth and Adolescence* 2013; 42:403–416.
 22. Reich SM. Adolescents sense of community on Myspace and Facebook: a mixed methods approach. *Journal of Community Psychology* 2010; 38:688–705.
 23. Courtois C, All A, Vanwynsberghe H. Social network profiles as information sources for adolescents’ offline relations. *Cyberpsychology Behavior and Social Networking* 2012; 15:290–295.
 24. Yang CC, Brown BB. Factors involved in associations between Facebook use and college adjustment: social competence, perceived usefulness, and use patterns. *Computers in Human Behavior* 2015; 46:245–253.
 25. Ellison NB, Steinfield C, Lampe C. Connection strategies: social capital implications of Facebook-enabled communication practices. *New Media & Society* 2011; 13:873–892.
 26. Aguiton C, Cardon D, Castelain A, et al. (2009) Does showing off help to make friends. In *Proceedings of the Third International ICWSM Conference*. Menlo Park: AAAI, 3: pp. 10–17.
 27. Verbrugge LM. Structure of adult friendship choices. *Social Forces* 1977; 56:576–597.
 28. Borsari B, Carey KB. Peer influences on college drinking: a review of the research. *Journal of Substance Abuse* 2001; 13:391–424.
 29. Dericco DA. Effects of peer majority on drinking rate. *Addictive Behaviors* 1978; 3:29–34.
 30. Caudill BD, Marlatt GA. Modeling influences in social drinking—experimental analogue. *Journal of Consulting and Clinical Psychology* 1975; 43:405–415.
 31. Gonzales AL, Hancock JT. Identity shift in computer-mediated environments. *Media Psychology* 2008; 11:167–185.
 32. Valkenburg PM. Understanding self-effects in social media. *Human Communication Research* 2017; 43:477–490.
 33. Toma CL, Choi M. The couple who Facebooks together, stays together: Facebook self-presentation and relationship longevity among college-aged dating couples. *Cyberpsychology Behavior and Social Networking* 2015; 18:367–372.
 34. Carr CT, Hayes RA. Identity shift effects of self-presentation and confirmatory and disconfirmatory feedback on self-perceptions of brand identification. *Media Psychology* 2017; 13:1–27.
 35. Carr CT, Foreman AC. Identity shift III: effects of publicness of feedback and relational closeness in computer-mediated communication. *Media Psychology* 2016; 19: 334–358.
 36. Walther JB, Liang YJ, DeAndrea DC, et al. The effect of feedback on identity shift in computer-mediated communication. *Media Psychology* 2011; 14:1–26.
 37. Egan KG, Moreno MA. Alcohol references on undergraduate males’ Facebook profiles. *American Journal of Mens Health* 2011; 5:413–420.
 38. Moreno MA, Egan KG, Brockman L. Development of a researcher codebook for use in evaluating social networking site profiles. *Journal of Adolescent Health* 2011; 49: 29–35.
 39. Fortney J, Mukherjee S, Curran G, et al. Factors associated with perceived stigma for alcohol use and treatment among at-risk drinkers. *Journal of Behavioral Health Services & Research* 2004; 31:418–429.
 40. Meyer IH, Rossano L, Ellis JM, et al. A brief telephone interview to identify lesbian and bisexual women in random digit dialing sampling. *Journal of Sex Research* 2002; 39:139–144.
 41. Benevene P, Scopelliti M. Building a multi-dimensional scale on attitude towards alcohol consumptions. *European Journal of Social Sciences* 2012; 34:58–69.
 42. Devos-Comby L, Lange JE. Standardized measures of alcohol-related problems: a review of their use among college students. *Psychology of Addictive Behaviors* 2008; 22:349–361.
 43. O’Callaghan FV, Chant DC, Callan VJ, et al. Models of alcohol use by young adults: an examination of various attitude-behavior theories. *Journal of Studies on Alcohol* 1997; 58:502–507.
 44. Sobell LC, Sobell MB. Timeline follow-back—A technique for assessing self-reported alcohol-consumption. *Measuring Alcohol Consumption: Psychosocial and Biochemical Methods* 1992; 41–72.
 45. Hayes AF. (2017) *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*. New York: Guilford Publications.
 46. Hayes AF. PROCESS macro for SPSS and SAS (version 2.16) [computer software]. <https://www.processmacro.org/download.html> (accessed October 30, 2018).
 47. MacKinnon DP. (2008) *An introduction to statistical mediation analysis*. New York: Routledge.
 48. Ridout B, Campbell A. Using Facebook to deliver a social norm intervention to reduce problem drinking at university. *Drug and Alcohol Review* 2014; 33:667–673.
 49. Westgate EC, Holliday J. Identity, influence, and intervention: the roles of social media in alcohol use. *Current Opinion in Psychology* 2016; 9:27–32.

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