

# Alcohol-related social media content and alcohol consumption: Alcohol-related posting and drinker stereotypes as mediators

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## ABSTRACT

Studies have suggested that exposure to alcohol-related content influences drinking behavior through its impact on alcohol-related cognition. In this study we investigated whether exposure to alcohol-related content presented on social media influences alcohol consumption by stimulating viewers to post alcohol-related content. Using a dataset ( $N = 203$ ) from a cross-sectional survey conducted in the United States, we assessed respondents' alcohol-related posting, drinker stereotypes, and alcohol consumption. The results showed that exposure to alcohol-related content on social media was positively associated with posting alcohol-related content. Further, posting alcohol-related content was positively associated with positive drinker stereotypes, which were positively associated with alcohol consumption. These findings contribute to understanding of the influence of social media on alcohol consumption, and provide insight into strategies to limit alcohol consumption.

## KEYWORDS

alcohol consumption, social media, drinker stereotype, alcohol-related cognition, posting content

## ARTICLE HIGHLIGHTS

Exposure to alcohol-related content was found to be linked to alcohol consumption, as was posting such content on social media.

Posting alcohol-related content on social media was associated with positive drinker stereotypes.

Positive drinker stereotypes mediated the link between posting alcohol-related content on social media and alcohol consumption.

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With the development of social media, photographs and video recordings of people drinking alcohol have become prevalent online (Beullens & Schepers, 2013). The ubiquity of alcohol-related content on social media has prompted considerable research regarding the role that social media use plays in people's consumption and use of alcohol (Alhabash et al., 2022). Research has shown that exposure to alcohol-related content on social media sites is positively associated with alcohol consumption (Boyle et al., 2016; Davis et al., 2019; Geusens & Beullens, 2023; Nesi et al., 2017). Additionally, researchers have found that such exposure is related to alcohol-related cognition, such as descriptive and injunctive norms, suggesting alcohol-related content posted on social media sites may influence alcohol consumption by affecting how individuals think about alcohol and drinking behavior (Boyle et al., 2016; Geusens & Beullens, 2018; Nesi et al., 2017).

In addition to shaping alcohol-related cognitions, exposure to alcohol-related content may influence alcohol consumption in other ways. For example, in the O1-S-R1-O2-R2 model Cho et al. (2009) extended earlier research on communication effects (Markus & Zajonc, 1985), which posited that individuals' pre-existing orientations (O1) determine their exposure and attention to certain stimuli (S), which leads to the formation of postorientations (O2) and, eventually, to an influence on their responses (R). Cho et al. extended this by proposing the O1-S-R1-O2-R2 model, suggesting that the effects of message stimuli (S) on individuals' postorientations (O2) are largely mediated through reasoning (R1) processes that take place after exposure to the stimuli; that is, communication behaviors that take place after exposure to stimuli, such as interpersonal discussion and online expressions, can shape relevant orientations and subsequent responses to the stimuli. Posting alcohol-related content on social media sites is a prevalent practice that could happen after exposure to alcohol-related posts (Geusens & Beullens, 2021). However, there is little evidence of the impact of exposure to alcohol-related content on subsequent alcohol consumption via stimulating the posting of alcohol-related content online.

In this study we applied the O1-S-R1-O2-R2 model to investigate the relationships among exposure to alcohol-related content on social media, posting alcohol-related content on these sites, drinker stereotypes, and alcohol consumption. *Drinker stereotypes* are the images and impressions formed of the typical drinker (Gibbons et al., 1991), and are a significant factor in determining the individual's willingness to engage in drinking behavior (Dillard et al., 2018). Our research will contribute to the literature by advancing understanding of the effects of social media on alcohol consumption.

## The Effect of Exposure to Alcohol-Related Content

Research has consistently shown that exposure to alcohol-related content on social media is positively related to drinking behavior (see, e.g., Boyle et al., 2016, 2021; Geusens & Beullens, 2017, 2023; Hendriks et al., 2021; Nesi et al., 2017). Meta-analyses of relevant studies have shown a significant positive relationship between exposure to alcohol-related content on social media and alcohol consumption (Cheng et al., 2024; Curtis et al., 2018). Social learning theory (Bandura, 1977) and social cognitive theory (Bandura, 1986) are theoretical frameworks that are frequently used to explain the effects of information exposure. According to these theories, people observe others' behaviors and the outcomes and use this information to guide their own behaviors (Bandura, 2008). As a high proportion of posts referring to alcohol on social media portray alcohol consumption and drinking behaviors in a positive light (Moreno et al., 2010), exposure to such information may induce positive expectations of alcohol consumption and encourage individuals to engage in drinking behaviors.

In the current research we posited that exposure to alcohol-related content on social media sites might lead to posting alcohol-related content, which can further affect alcohol consumption. The prediction is based on the O1-S-R1-O2-R2 model (Cho et al., 2009). Reasoning can take a variety of forms, such as cognitive reflection, expression, and interpersonal conversation. Cho et al. (2009) suggested that engaging in these processes allows individuals to organize their thoughts and learn others' perspectives, which are consequential to postorientations (O2) and subsequent responses (R2).

Applying the O1-S-R1-O2-R2 model, we proposed that exposure to alcohol-related content would serve as the external stimulus (S) that prompts individuals to engage in posting alcohol-related content on social media, which would act as a reasoning (R1) process. Posting behavior would then contribute to the development of drinker stereotypes, representing a subsequent orientation (O2). This orientation would influence alcohol consumption as the final behavioral response (R2).

## Exposure to and Posting of Alcohol-Related Content on Social Media

Exposure to alcohol-related content on social media may motivate individuals to share alcohol-related and drinking behaviors on their own platforms. Posting content on social media is a highly social activity, often engaged in as a response to peer behavior to enhance one's social acceptance (Manago et al., 2008). Individuals have been found to post alcohol-related content when their friends do so (Geusens & Beullens, 2017). Thus, it is reasonable to suggest that exposure to alcohol-related content on social media may prompt individuals to share similar content online.

**Hypothesis 1:** Exposure to alcohol-related content on social media will be positively associated with posting alcohol-related content.

## Posting Alcohol-Related Content and Drinker Stereotypes

Posting alcohol-related content may further shape impressions formed of drinkers (i.e., drinker stereotypes). The literature indicates that posting content can influence both the audience and the creator (Pingree, 2007). The self-effects of posting align with self-perception theory, in which it is suggested that individuals infer their attitudes and beliefs by observing their own behavior (Bem, 1972). From this perspective, as posts often highlight specific characteristics of a subject, individuals may form perceptions of that subject by reflecting on their own posts. For example, researchers have shown that posting about a brand can foster more positive attitudes toward it (Johnson & Rosenbaum, 2023). In the context of alcohol-related posting, drinking behavior is frequently portrayed positively, with drinkers often depicted as socially desirable and attractive (Moreno et al., 2010). As a result, individuals may more broadly associate the positive traits depicted in their posts with all drinkers. Accordingly, we proposed the following hypothesis:

**Hypothesis 2:** Posting alcohol-related content will be positively associated with positive drinker stereotypes.

## Drinker Stereotypes and Alcohol Consumption

Drinker stereotypes can, in turn, influence engagement in the behavior of alcohol consumption. Researchers have suggested that how people perceive those who take risks is linked to their own willingness to engage in similar risky behaviors (Gerrard et al., 2008). Specifically, the more favorably individuals view a person engaging in a behavior, the more likely they are to accept the consequences associated with the behavior and engage in that behavior (Gerrard et al., 2008). Further, positive drinker stereotypes have been found to be positively associated with willingness to consume alcohol (Dal Cin et al., 2009). Thus, we formed the following prediction:

**Hypothesis 3:** Positive drinker stereotypes will be positively associated with alcohol consumption.

## Method

### Participants and Procedure

This survey was approved by the Ewha Womans University Institutional Review Board and launched in the form of an online survey. We recruited participants ( $N = 203$ ) through the Amazon Mechanical Turk (MTurk) platform. The respondents were evenly distributed across gender (103 men, 50.7%; 100 women, 49.3%), with 96 (47.3%) aged between 21 and 30 years, and 107 (52.7%) aged between 31 and 40 years ( $M = 30.94$ ,  $SD = 4.78$ ). As regards ethnicity, about two-thirds were White (76.8%,  $n = 156$ ), followed by Black or African American (7.9%,  $n = 16$ ), Asian (6.4%,  $n = 13$ ), Hispanic or Latino (5.9%,  $n = 12$ ), and multiracial (3%,  $n = 6$ ). Among the participants, 9.9% ( $n = 20$ ) had a high school education or less, 23.6% ( $n = 48$ ) had some college education, 54.2% ( $n = 110$ ) were college graduates, and 12.3% ( $n = 25$ ) had education beyond college.

Participants gave informed consent and provided their demographic information, including age, gender, ethnicity, and educational background. Next, they responded to items measuring their exposure to alcohol-related content on social media, their own alcohol-related posting, drinker stereotypes, and alcohol consumption.

### Measures

#### ***Exposure to Alcohol-Related Content***

Exposure to alcohol-related content on social media was measured by asking participants how often they saw content that referred to alcohol or alcohol consumption on social media sites on a 5-point scale (1 = *never* to 5 = *always*;  $M = 2.98$ ,  $SD = 0.89$ ).

#### ***Alcohol-Related Posting***

Alcohol-related posting was measured by asking participants how often they mentioned alcohol/alcohol consumption in their posts or comments on a 5-point scale (1 = *never* to 5 = *always*;  $M = 1.79$ ,  $SD = 0.85$ ).

#### ***Drinker Stereotypes***

Drinker stereotypes were assessed by asking participants to share their impression of a typical person who drinks alcohol (Dal Cin et al., 2009). Participants indicated their level of agreement with statements that a typical drinker is cool, self-centered (reverse coded), popular, immature (reverse coded), and attractive, using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The responses were summed and averaged to create a composite index, with higher scores reflecting a more positive drinker stereotype ( $M = 2.90$ ,  $SD = 0.68$ ,  $\alpha = .76$ ).

#### ***Alcohol Consumption***

Alcohol consumption was measured by asking participants to indicate how often they had any drink containing alcohol (1 = *never* to 5 = *daily or almost daily*) and how many alcoholic drinks they had on a typical day when they drank alcohol (1 = *one* to 5 = *five or more*). These items were adapted from the Alcohol Use Disorders Identification Test (Babor et al., 2001). Scores on each item were summed and averaged to form a composite index ( $M = 2.79$ ,  $SD = 1.09$ ).

## Results

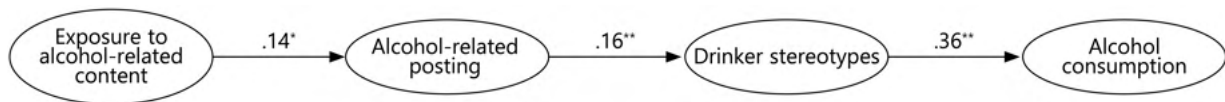
We tested the hypotheses using the PROCESS macro (Model 6; Hayes, 2018), with exposure to alcohol-related content as the independent variable, alcohol-related posting and drinker stereotypes as mediators, and alcohol consumption as the dependent variable. Demographic information, including gender, age, ethnicity, and level of education, was included as covariates. Table 1 displays correlations among these variables.

**Table 1.** Correlations Among Study Variables

Variable	1	2	3	4
1. Exposure to alcohol-related content	—			
2. Alcohol-related posting	.16*	—		
3. Drinker stereotypes	.10	.23**	—	
4. Alcohol consumption	.32**	.28**	.28**	—

Note. \*  $p < .05$ . \*\*  $p < .01$ .

We conducted a bootstrapping analysis with 5,000 resamples to obtain estimates. The results (see Figure 1) showed that exposure to alcohol-related content was positively associated with alcohol-related posting,  $b = 0.14$ ,  $t = 2.17$ ,  $SE = 0.07$ ,  $p = .03$ . Alcohol-related posting was positively associated with drinker stereotypes,  $b = 0.16$ ,  $t = 2.97$ ,  $SE = 0.05$ ,  $p = .003$ . Drinker stereotypes were positively associated with alcohol consumption,  $b = 0.36$ ,  $t = 3.33$ ,  $SE = 0.11$ ,  $p < .001$ . The direct association between exposure to alcohol-related content and alcohol consumption was significant,  $b = 0.33$ ,  $t = 4.17$ ,  $SE = 0.08$ ,  $p < .001$ . The indirect association between exposure to alcohol-related content and alcohol consumption via alcohol-related posting and drinker stereotypes was significant,  $b = 0.01$ , Boot  $SE = 0.006$ , 95% confidence interval [0.006, 0.02]. Thus, Hypotheses 1, 2, and 3 were all supported.



**Figure 1.** Results of Path Analysis of Proposed Model

Note. \*  $p < .05$ . \*\*  $p < .01$ .

## Discussion

In this study we examined the associations among exposure to alcohol-related content on social media, posting alcohol-related content, drinker stereotypes, and alcohol consumption. The findings have implications for theory and practice.

## Theoretical Implications

We found that exposure to alcohol-related content on social media was positively associated with posting similar content, which was linked to positive drinker stereotypes and increased alcohol consumption. Researchers have previously demonstrated the potential effects of exposure to alcohol-related content on alcohol consumption (e.g., Boyle et al., 2016; Geusens & Beullens, 2018; Hendriks et al., 2021), and explored the explanation of such effects through examining the relationship between exposure to alcohol-related content and alcohol-related cognitions, such as descriptive and injunctive norms (Boyle et al., 2016; Davis et al., 2019; Nesi et al., 2017). Our research contributes to the literature by illustrating the potential influence of exposure to alcohol-related content on alcohol consumption through stimulating alcohol-related posting

and shaping positive drinker stereotypes. Given that social media platforms enable individuals to easily generate and disseminate content (Castells, 2007), in today's digital environment it is essential to consider the role of posting behavior when examining media effects. This perspective contributes to a more comprehensive understanding of how media use influences behaviors and perceptions.

Moreover, our findings revealed that posting alcohol-related content was associated with more positive drinker stereotypes, which, in turn, were associated with greater alcohol consumption. Compared with the substantial body of work on exposure to alcohol-related content on social media sites, there has been relatively limited research on the effects of posting such content, particularly regarding the underlying mechanisms. Our findings suggest that posting alcohol-related content on social media may affect drinking behavior by shaping perceptions of drinkers, highlighting a potential mechanism through which social media posting exerts its effects.

## **Practical Implications**

Our results revealed that exposure to alcohol-related content on social media was positively associated with posting alcohol-related content online. Posting alcohol-related content on social media increases the amount of alcohol-related content on the internet. As a result, individuals are more likely to be exposed to alcohol-related content, more likely to post alcohol-related content, and more likely to drink alcohol. The potential cumulative effects on alcohol consumption of exposure to and posting alcohol-related content on social media and the negative consequences of excessive drinking imply the importance of finding effective ways to control the dissemination of alcohol-related content online. For example, on social media platforms clear guidelines could be implemented to restrict the promotion and glamorization of alcohol, especially in content targeting groups such as minors. Use of artificial intelligence tools to detect alcohol-related posts and flag them with health warnings may help raise awareness of the risks associated with excessive drinking and reduce the spread of such content.

## **Limitations and Future Research**

This study has several limitations. First, the use of a cross-sectional design means it was not possible to establish causal relationships among exposure to alcohol-related content, alcohol-related posting, drinker stereotypes, and alcohol consumption. In future studies, researchers could use longitudinal datasets to unpack the indirect influence of exposure to alcohol-related content on alcohol consumption, specifically through prompting alcohol-related posting. Second, we measured exposure to and posting of alcohol-related content using single-item scales. Although it has been empirically demonstrated that single-item scales are as valid as multiple-item scales (Bergkvist & Rossiter, 2007), future researchers could use multiple-item scales to establish whether the findings can be replicated. Third, we recruited participants through MTurk, which has been shown to be a reliable source of high-quality data; however, people who participate through MTurk exhibit low attentiveness (Goodman et al., 2013). Further research could be conducted to address this limitation by incorporating attention checks or other measures to enhance data quality. Moreover, we conducted the study with a small number of participants drawn from a particular region. As people from different cultural contexts and with different beliefs may have varying levels of alcohol consumption and posting patterns (Park et al., 2023), further research could be conducted among people in multiple countries to compare the potential differences across cultures in the effects of exposure to alcohol-related content on social media on drinking behaviors.

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