THE EFFECTIVENESS OF HUMOR IN SOCIAL MEDIA CAMPAIGNS IN INCREASING AWARENESS OF THE COMBINED EFFECTS OF VAPING AND ALCOHOL AMONG COLLEGE STUDENTS

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Abstract

The simultaneous use of vaping and alcohol among college students presents compounded health risks, yet awareness of these risks remains limited. Social media serves as a primary source of information for young adults, shaping their health perceptions and behaviors. This study examines how social media campaigns, particularly those on TikTok, influence college students' awareness, attitudes, and harm perceptions regarding vaping, alcohol use, and their combined effects. Using Social Cognitive Theory as a framework, the research explores how humor-based health messaging affects engagement with and receptiveness to health information. We will survey college students ($N = 155$) to assess their awareness of the combined health risks of vaping and alcohol use, their engagement with social media health messaging, their need for humor, and the influence of humor-based content on their perceptions. Furthermore, the research will also explore whether humor-related TikTok posts are associated with greater awareness of this combined health issue among students who are more likely to possess a need for humor. Overall, this study contributes to the broader discussion of digital health communication by examining how social media influences young adults' health behaviors and awareness of vaping and alcohol risks.

Keywords: Health communication, TikTok, Humor

The Effectiveness of Humor in Social Media Campaigns in Increasing Awareness of the Combined Effects of Vaping and Alcohol Among College Students.

In today's college landscape, where social pressures and mental health challenges intersect, students are increasingly engaging in risky health behaviors such as vaping and alcohol use. These behaviors, which are seen by many students as both socially acceptable and relatively safe, pose significant health risks (Yang et al., 2022). The rapid rise in e-cigarette (vaping) use and consistent alcohol consumption among college-aged individuals underscores a pressing need to address the combined health risks of these substances. Research shows that nearly 80% of college students who vape also report alcohol use, and many of these students engage in heavy drinking, which intensifies the health consequences of both substances (Yang et al., 2022).

What makes this trend particularly troubling is the perception among students that vaping is harmless or less harmful than traditional smoking, despite mounting evidence that highlights its dangers (Yang et al., 2022). Paired with alcohol use, the risks are not just doubled but amplified, creating a potentially toxic cycle of respiratory, cognitive, and mental health issues that could extend well beyond the college years (Yang et al., 2022).

Given that young people regularly use TikTok for entertainment, humor plays a major role in how content is consumed and shared on the platform. College students tend to favor funny or lighthearted content, making humorous messaging a potentially effective tool for delivering health information. Humor has been shown to enhance attention and create positive emotional experiences, which may help reduce resistance to serious topics when presented through social media (Barta et al., 2023). As a result, humorous health TikTok's may be one of the most effective ways to convey messages about the combined risks of vaping and alcohol use.

The awareness gap in understanding these compounded risks is both vast and dangerous, making it critical to implement effective promotional efforts that resonate with college students. By focusing on the dual risks of vaping and alcohol use, this study aims to examine whether TikToks discussing these behaviors are more effective when they use humor. The goal is to explore whether humor can make serious health messages more relatable and impactful for a college audience.

On TikTok, humor not only aligns with the platform's entertainment-focused ethos but also bolsters the credibility of health messages by making them feel approachable and relevant to everyday life. Studies have shown that when humor is integrated effectively into health communication on TikTok, it can help reduce resistance, encourage reflection, and make audiences more receptive to serious messages (Rosenholm, 2022). Together, TikTok's vast reach and humor's persuasive power create opportunities to influence behaviors and improve public health outcomes, particularly within younger demographics who are otherwise difficult to reach.

Literature Review

Background and Definition of E-cigarettes

E-cigarettes, which are also known as vaping devices, have grown quite popular among college campuses across the United States. According to recent studies, young adults aged 18 to 25 have higher e-cigarette usage rates compared to the general adult population, with one study finding that over 21% of college students had tried e-cigarettes, and 8.4% reported current use within the past 30 days (Yang et al., 2022). These devices typically contain a battery-powered heating element that turns a liquid, often containing nicotine and flavoring chemicals, into vapor, which users inhale (Bhatnagar et al., 2014). E-cigarettes are frequently marketed as a "safer"

alternative to traditional cigarettes, leading many students to perceive vaping as a less harmful habit (Bhatnagar et al., 2014; Fadus et al., 2019).

However, extensive research now points to a range of health risks associated with e-cigarettes, including respiratory issues, nicotine addiction, and potential mental health effects. A recent study using ecological momentary assessment among college students indicated that co-use of e-cigarettes and alcohol which is common among college-aged individuals, can intensify dependence symptoms, particularly when flavored e-cigarettes are used in social settings like parties (Yang et al., 2022).

The Combined Dangers of Vaping and Alcohol

The combination of vaping, which are also known as e-cigarettes, and alcohol use amplifies health risks, leading to a potentially toxic cycle of respiratory, cognitive, and mental health issues that far exceed the risks of each substance alone. The popularity of e-cigarettes among young adults has been driven by targeted marketing, which appeals to their tastes and social interests, alongside the novelty and variety of flavors available (Hefner et al., 2019; Reinhold et al., 2017). Both vaping and alcohol are often seen as socially acceptable, even normalized behaviors, leading many students to underestimate the dangers of using these substances together. Research shows that e-cigarette users are significantly more likely to engage in alcohol use, with data indicating that adolescents who vape are over six times more likely to consume alcohol and engage in binge drinking compared to non-users (Rothrock et al., 2020). This co-occurrence does not just add to the individual risks but also amplifies the harm.

The risks of combining vaping and alcohol extend beyond immediate effects like impaired judgment or an increased likelihood of risky behaviors. Studies have found that e-cigarette users, especially social users, are more prone to heavy drinking, which can lead to

alcohol use disorders (AUD) and hazardous drinking patterns (Roberts et al., 2018). For young adults who perceive vaping as a safer alternative to traditional smoking, this pattern of dual use can create a cycle of dependence, reinforcing both nicotine and alcohol use and leading to long-term health consequences. The nicotine in e-cigarettes may even counteract alcohol's sedative effects, prompting users to consume more alcohol to reach the same level of intoxication (Roberts et al., 2018).

Notably, the most troubling aspect of this trend is the misconception that vaping is harmless, fueled by targeted marketing and the appeal of flavored e-liquids (Sun et al., 2024). This misconception encourages students to start vaping and often leads to use in social settings where alcohol is prevalent. Without awareness of the compounded dangers, students are left vulnerable to lasting respiratory, cognitive, and mental health issues.

The Role of Social Cognitive Theory in Understanding Behaviors

SCT, developed by psychologist Albert Bandura, posits that people often mimic behaviors they observe in others, particularly when those behaviors appear socially acceptable or rewarding (Bandura, 1999). In the context of college life, vaping and alcohol use can be seen as normative behaviors, influenced by social networks, peer behaviors, and media. By applying SCT, this study will consider how health behaviors spread among college students, and particularly how young adults can be influenced by behaviors they perceive as popular, attainable or "cool." With social media amplifying these behaviors, it's increasingly important to understand SCT's principles as they relate to vaping and alcohol use among college students.

Furthermore, SCT highlights the role of motivation and perceived rewards in sustaining these behaviors. When college students see their peers receiving social acceptance or recognition

for vaping or drinking, they may view these behaviors and actions as desirable outcomes. This aligns with SCT's concept of outcome expectations, which suggests that people are motivated by the anticipated results of their actions (Schunk & DiBenedetto, 2020). Social media further reinforces these behaviors by creating a space where students can share and witness each other's experiences, making behaviors like vaping and drinking seem common and, in some cases, even beneficial for social status (Lin & Chang, 2018).

Additionally, SCT emphasizes the reciprocal influence of personal, behavioral, and environmental factors. In a college environment, students' actions (like vaping) are not only influenced by their social circles but also shape the behavior of others around them, creating a reinforcing cycle (Schunk & DiBenedetto, 2020). This dynamic of modeling and reinforcement within social groups underscores why understanding SCT is essential for addressing health behaviors in young adults. Effective health messages can disrupt this cycle by applying SCT principles to reshape outcome expectations and perceptions around vaping and alcohol use. Health campaigns, especially on social media, can leverage SCT by modeling healthier behaviors, emphasizing the real consequences of risky behaviors, and presenting positive outcomes associated with making safer choices. These SCT-informed messages have the potential to shift social norms and influence behavior change within college communities.

Social Media Campaigns and Awareness

This study explores how social media campaigns, particularly on TikTok, can help close the awareness gap surrounding the health risks of vaping and alcohol use among college students (Freeman et al., 2015; de Vere Hunt & Linos, 2022). With social media now a primary source of information and influence for young adults, as 62% of U.S. adults aged 18-29 actively use

TikTok, this platform has a unique potential to reach college students in ways that traditional health campaigns often cannot (Pew Research Center, 2024). Unlike conventional health messaging, TikTok's format encourages short, engaging videos that feel approachable and relevant. By utilizing a platform that young adults trust and interact with regularly, where around half of TikTok users (52%) now say they regularly get news (Leppert & Matsa, 2024), social media campaigns can better resonate with their target audience, creating relatable content that captures attention and prompts reflection on personal behaviors.

TikTok's algorithm also plays a critical role in broadening the reach and impact of health campaigns. The recommendation system tailors content to users' interests and viewing habits, meaning that messages about the risks of vaping and alcohol use can reach individuals who may not be actively seeking this information but are exposed to it passively. This passive exposure aligns with Social Cognitive Theory's concept of observational learning, which suggests that individuals are influenced by behaviors they observe in their social environment. By witnessing relatable figures, such as peers or influencers, discussing health risks or demonstrating healthier choices, young adults may be more likely to reconsider their own behaviors regarding vaping and alcohol use.

Furthermore, TikTok offers a unique medium for health awareness campaigns aimed at shifting social norms and promoting healthier choices within college communities. By providing an accessible and widely used platform, TikTok supports public health communication that reaches young adults in their daily social spaces. This approach presents a great opportunity for health awareness, particularly among young adults who engage with the platform regularly.

The Influence of Social Media and Humor in Health Messaging

TikTok has emerged as a powerful tool for health campaigns, particularly among younger audiences. With over 43% of its user base between the ages of 18 and 24, the platform offers unparalleled access to college-aged students which is a key demographic for health messaging (de Vere Hunt & Linos, 2022). TikTok's sophisticated algorithms and targeting capabilities allow health campaigns to craft tailored messages, ensuring relevance and resonance with specific populations. According to de Vere Hunt and Linos (2022), social media platforms like TikTok enable public health practitioners to use precision targeting and engaging content to reach communities in ways that traditional mass media cannot. This makes TikTok an ideal platform for addressing public health issues, such as the risks associated with vaping and alcohol use, through culturally and demographically relevant messaging.

Building on TikTok's potential for reach and engagement, humor is an equally vital element in effective health campaigns. Humor can break down barriers, transforming intimidating health information into accessible and relatable content. Research highlights humor's physical and psychological benefits, such as reducing stress, lowering blood pressure, and fostering a sense of connection (Osincup, 2020). In health and risk communication, humor also mitigates fear and tension, making it easier for audiences to engage with serious topics like vaping and alcohol use (Meyer & Venette, 2017). By creating a "pleasant psychological shift," humor can counteract emotional resistance often triggered by fear-based campaigns, enabling audiences to consider actionable solutions (Meyer & Venette, 2017). Humor also encourages trust and connection, making audiences more receptive to health messages and improving the likelihood of behavior change (AMA Journal of Ethics, 2020). These qualities position humor as an invaluable tool for capturing attention and fostering meaningful engagement in public health efforts.

The combination of TikTok's unique platform dynamics and humor offers a powerful tool for public health messaging. TikTok's algorithm prioritizes engaging, relatable content, making it an ideal space to deliver health information through entertaining formats. Humor enhances this process by capturing attention, increasing message retention, and fostering trust among young audiences (Rosenholm, 2022).

The Effect of Humor on Young People

Humor is a very effective tool in communication and helps shape how young people perceive information, especially from online platforms. Adolescents and young adults like and gravitate to more humorous content because it is relatable, engaging, and sharing it is socially rewarding. While traditional health communication may not always be funny or may feel overly serious, humor has been shown to lower resistance to difficult topics, making young audiences more receptive to health-related information (Borden & Suggs, 2019). This is especially useful when talking about vaping and alcohol use, as a large number of college students think and perceive these activities as socially acceptable and relatively harmless. By integrating humor into health messaging, public health campaigns can capture attention, enhance message retention, and encourage peer-to-peer conversations about risk behaviors (Campo et al., 2013).

Research shows that humor also sparks emotional responses that help with deeper cognitive processing. This means that when a message is humorous, it can act as a way of making people more open to new information when in a positive psychological state (Lister et al., 2015). This is particularly relevant for young people and audiences who tend to disengage from fear-based or overly serious health messages that are often used. Studies indicate that humorous health campaigns generate higher engagement, more positive attitudes toward the

message, and greater likelihood of sharing among peers (Borden & Suggs, 2019). On social media platforms like TikTok, humor enhances virality, ensuring that messages about vaping and alcohol risks reach a wider audience through likes, shares, and comments (Lister et al., 2015).

However, humor must be used strategically and thoughtfully to make sure it doesn't downplay serious health risks. If a message is too lighthearted or ambiguous, young people may focus on the entertainment aspect while dismissing the underlying health warning (Campo et al., 2013). Additionally, some forms of humor, such as satire or sarcasm, may inadvertently reinforce risky behaviors rather than discourage them. Research suggests that health campaigns must balance humor with clear, credible information to ensure that the intended message is understood (Borden & Suggs, 2019).

By using humor in a way that feels relevant and responsible, social media campaigns can grab young people's attention, challenge their perceptions of vaping and alcohol use, and spark real conversations. Since humor is already a huge part of digital culture, especially on TikTok, it makes sense to integrate it into health messaging, where its emotional and social appeal makes messages more engaging. When done right, it not only makes serious topics more approachable but also increases the chances that people will actually engage with and share the message. This approach has the potential to cut through the noise of traditional health campaigns and connect with college students in a way that actually sticks.

Research Objectives and Contribution of This Study

This study explores how social media campaigns, particularly on TikTok, can help close the awareness gap surrounding the health risks of vaping and alcohol use among college students. This research draws on Social Cognitive Theory (SCT) to examine how college

students may learn and reinforce these behaviors through observation and social influence. Through this research, I hope to demonstrate that social media campaigns, especially those leveraging SCT and humor on platforms like TikTok, can play an essential role in raising awareness among college students about the combined health risks of vaping and alcohol use. This study aims to contribute to public health communication by showing how these digital campaigns can make an impact in a field where traditional messaging sometimes falls short. By focusing specifically on the health challenges college students face or may not realize they face, this research will offer insights that not only enhance our understanding of e-cigarette and alcohol use but also highlight innovative strategies for reaching and educating young adults more effectively. Ultimately, my interest in this topic stems from a desire to bridge the gap between health risks and student perceptions, using new, engaging approaches that could lead to healthier choices on college campuses.

Hypothesis Development

Perceived Attitudes Toward Humorous and Non-Humorous TikTok Posts

Social media platforms, particularly TikTok, have become dominant spaces for health communication, often utilizing humor to engage young audiences (Engel et al., 2024). Humor has been shown to increase positive emotion, enhance perceived credibility, and reduce psychological reactance, making persuasive messages more effective (Skalski et al., 2009). The ability of humor to lower psychological resistance is particularly important in health messaging, where direct warnings about risky behaviors can sometimes provoke defensive reactions (Nabi et al., 2007).

Additionally, research on humorous social issue messaging suggests that humor can lead to greater engagement and reduced counterarguing, ultimately making messages more persuasive (Nabi et al., 2007). Skalski et al. (2009) found that humor not only enhances message recall but also contributes to greater acceptance of the message's credibility. Given that humorous content is often perceived as more engaging, enjoyable, and relatable than non-humorous content, it is expected that students who watch a humorous TikTok post about vaping and alcohol use will have a more positive attitude toward the post than those who watch a non-humorous version. Thus, we propose:

H1: Students who watched the funny TikTok post will have a more positive attitude towards the TikTok post than students who watched the non-humorous TikTok post.

Perceived Humor in TikTok Posts

Humor plays a significant role in shaping audience engagement with digital content, particularly on social media platforms like TikTok (Barta et al., 2023). Given TikTok's highly visual and entertainment-driven nature, humorous content is more likely to capture users' attention and enhance their overall enjoyment (Engel et al., 2024). This effect is particularly strong on TikTok, where humorous videos are designed to be short, shareable, and interactive, contributing to higher user retention and positive evaluations. Since humor is a defining feature of TikTok's most popular content, it follows that humorous posts will be perceived as funnier than non-humorous ones.

Beyond platform-specific effects, psychological research on humor perception supports this expectation. Studies suggest that individuals evaluate humor based on factors such as

surprise, incongruity, and playfulness (Ruch, 2001). The presence of humor in media content activates positive affect and enhances users' perception of fun. Research has shown that humor increases hedonic experiences, making content feel more engaging and enjoyable (Barta et al., 2023). Given that humor is designed to trigger laughter and amusement, it is reasonable to expect that TikTok users exposed to humorous videos will rate them as significantly funnier than those exposed to non-humorous ones. On TikTok, humor and fun are not just trends; they're central to how users connect, share, and experience the platform.

Thus, we propose:

H2: Students who saw the humorous TikTok posts will find the TikTok videos to be more humorous than the students who watched the non-humorous post.

Awareness of the Effects of Vaping and Alcohol Use

Humorous messaging in health communication has been shown to enhance risk comprehension and long-term message retention, making individuals more aware of potential health dangers (Blanc & Brigaud, 2014). Research on humor in preventive health campaigns suggests that humor increases attention, recognition, and persuasiveness of health messages. Blanc and Brigaud (2014) found that humor-based health advertisements received prolonged attention, higher recognition rates, and stronger persuasive effects compared to non-humorous ads. Since TikTok is a platform where humorous content is widely shared and consumed, humor in health messaging will likely make students more aware of the risks associated with vaping and alcohol use than non-humorous approaches.

In addition to increasing engagement, humor is particularly effective in risk communication by improving message retention and lowering resistance to health warnings (Demaria, 2020). Humor helps bridge the gap between expert knowledge and public understanding, making complex or serious health risks more accessible and memorable. This effect has also been observed in health care settings, where humor helps individuals process serious health information and retain key details (Wanzer et al., 2005). Since vaping and alcohol use are often framed as high-risk behaviors, humor may help reduce defensiveness, making students more receptive to the risks associated with combining these substances.
Thus, we hypothesize:

H3: Students who watched the humorous TikTok videos will report greater awareness of the combined effects of vaping and alcohol than students who watched the non-humorous videos.

Methods

Data Collection

This study utilized a cross-sectional survey design to assess the effects of humorous versus non-humorous TikTok health messages on college students' awareness of the combined risks of vaping and alcohol use. Data were collected online using a Qualtrics survey, which participants completed after viewing a set of three TikTok videos, either from the humorous or non-humorous condition. The study was conducted in the spring of 2025. Each participant completed one version of the survey that included either humorous or non-humorous TikTok content. All participants responded to the same questionnaire measuring their awareness,

attitudes, and behavioral responses related to the content. This process allowed for comparisons between groups based on exposure to different types of TikTok content.

Sample

A total of 155 East Carolina University (ECU) students participated in the study. The sample included 61.3% female participants, 36.1% male, 1.3% non-binary or third gender, and 1.3% who preferred not to say. In terms of race, the majority identified as White (74.8%), followed by Black or African American (16.1%), some other race (6.5%), Asian (1.9%), and American Indian or Alaska Native (0.6%). Most participants (94.2%) were not Hispanic or Latino, while 5.8% identified as Hispanic or Latino. Academic classification included 11.0% first-year students, 31.8% sophomores, 31.8% juniors, 24.0% seniors, and 1.3% graduate students. Ages ranged from 18 to 57 years old ($M = 22.39$, $SD = 7.02$). Participation was voluntary and anonymous, and the study was approved by the ECU Institutional Review Board.

Measures

Demographic Characteristics - Demographic information, including age, gender, and year in school (categorized as first-year, sophomore, junior, senior, or graduate student), was collected to provide context for the findings. This data was helped to identify potential trends or differences among specific groups of participants.

Vaping and Alcohol Use - To measure participants' patterns of vaping and alcohol use, this study adapted survey items from Lozano et al. (2021). Participants reported both lifetime and recent (past six months) use of vapes and alcohol using a 5-point frequency scale ranging from 1 = *never* to 5 = *daily*. This scale allowed for an assessment of both occasional and habitual

behaviors. Example items included, “How often have you used a vape (i.e., an electronic cigarette)?” and “How often have you ever consumed alcohol for reasons other than religious purposes?” These measures provided a foundational understanding of substance use behaviors among college students within the study.

Awareness of Combined Health Risks - Participants’ awareness of the health risks associated with vaping and alcohol use, both individually and in combination, was measured using items adapted from Katz et al. (2020), as cited in Vogel et al. (2021). A 7-point Likert scale was used, ranging from 1 (*not at all harmfu*l) to 7 (*extremely harmful*). Items asked participants to rate how harmful they believed each behavior was. Sample questions included “How harmful do you think vape use is for people,” “How harmful do you think alcohol use is for people,” and “How harmful do you think combining vaping use with alcohol is for people.” Higher scores reflected greater perceived awareness of health risks.

Perceived Social Norms - Perceived social norms surrounding the combined use of vaping and alcohol were measured using items adapted from Waters et al. (2017). These items were designed to capture the level of social approval or disapproval from friends and close peer groups, which are significant influences on health behaviors. Participants responded using 7-point Likert scales. Two of the items asked, “Friends who are important to me think that combining vaping use with alcohol is” and “My friends think that combining vaping use with alcohol is,” rated from 1 (*strongly unacceptable*) to 7 (*strongly acceptable*). Another item asked, “Among my friends, using vaping with alcohol is,” rated from 1 (*strongly discouraged*) to 7 (*strongly encouraged*). Higher scores reflected greater perceived social acceptance and encouragement of the behavior.

Perceived Behavioral Control - These items were adapted from Phipps et al. (2024) and designed in line with the Theory of Planned Behavior, as outlined by Ajzen (2006). Participants responded to two statements: “It is mostly up to me whether I engage in vaping (e-cigarettes) and/or alcohol use” and “I have complete control over whether I engage in vaping (e-cigarettes) and/or alcohol use.” Responses were scored on a 7-point Likert scale ranging from “*strongly disagree*” to “*strongly agree*.”

Frequency of TikTok Use - To assess how often participants engaged with the TikTok platform, items were adapted from Kirkpatrick and Lawrie’s (2024) study on health information and misinformation. Participants were asked, “How frequently do you use TikTok?” with response options ranging from “*never*” to “*more than once a day*.” Additional items measured intentional engagement with health content, such as “In the past three months, how often have you intentionally used TikTok to find advice or information about your health?” and “In the past three months, how often have you intentionally come across health information on TikTok?” These questions helped establish how often participants encountered or sought out health-related content.

Social Media Use - These items were adapted from Ellison, Steinfield, and Lampe’s (2007) study on social media use and social capital. To better fit the purpose of this study, the questions were slightly modified. The first item was adjusted to reflect participants’ general social media usage per day, and the second asked them to rank their most frequently used social media platforms. Participants responded to the following: (1) “How much time per day do you spend on social media?” with options ranging from “*less than 10 minutes*” to “*more than 3 hours*,” and (2) “Please rank the following social media platforms according to how frequently you use them,

from 1 (*most frequently*) to 5 (*least frequently*): TikTok, Instagram, Facebook, Twitter (X), Other."

Manipulation Check on Humor - A semantic differential scale adapted from Cline, Altsech, and Kellaris (2003) was used to measure how humorous participants perceived the TikTok video to be. Participants were asked to respond to the prompt, "Please indicate the extent to which you agree with the following statements about the TikTok you just saw," using a 7-point scale. The items included: *humorous* (7)/*not humorous* (1), *funny* (7)/*not funny* (1), and *amusing* (7)/*not amusing* (1). Higher scores on each item indicated a stronger perception of humor in the TikTok.

Attitude Toward the TikTok Videos - Participants' attitudes were assessed using a seven-point semantic differential scale adapted from Cline, Altsech, and Kellaris (2003). After viewing each TikTok, participants were prompted with, "The TikTok I just saw was:" and asked to rate their response on the following bipolar adjective pairs: *not funny* (1) to *funny* (7), *not amusing* (1) to *amusing* (7), and *not enjoyable* (1) to *enjoyable* (7). Higher scores indicated a more favorable attitude toward the TikTok content. After watching all three TikTok's, participants also responded to the item: "After seeing the TikTok posts, how harmful do you think vape use is for people?" using a 7-point scale ranging from *no harm* (1) to *extremely harmful* (7).

Need for Humor - Adapted from Picard and Blanc (2013), this measure assessed participants' preference for humor in social interactions. Participants rated their agreement with three statements on a seven-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). These statements included: "I prefer situations where people are free to express their sense of humor," "I enjoy being with people who tell jokes or funny stories," and "I need to be with people who have a sense of humor." See Appendix for the full scales.

Results

Results from the study showed that humor did not lead to more positive attitudes toward the TikTok videos, so Hypothesis 1 was not supported. Participants in the humorous condition did rate the videos as significantly funnier than those in the non-humorous condition, supporting Hypothesis 2. However, humor did not increase awareness of the combined health risks of vaping and alcohol use, so Hypothesis 3 was not supported. Although participants found the humorous TikTok's more entertaining, this did not translate into stronger health-related attitudes or greater risk awareness. Additionally, both groups scored similarly on the Need for Humor scale, suggesting that college students in general enjoy being around funny people and value humor in their social environments. These findings suggest that while humor increased engagement, it did not enhance the persuasive impact of the message.

Discussion

This study examined how humor in TikTok health messages might influence college students' awareness of the combined health risks of vaping and alcohol use. Participants were asked to watch three TikTok videos that were either humorous or non-humorous and then complete a survey measuring their reactions, attitudes, and perceptions of health risk. By comparing responses between the two groups, the study aimed to determine whether humor made the messages more engaging and effective. While there were some differences between the conditions, the results revealed that humor had a limited effect on shaping attitudes or increasing awareness of health risks.

These findings can be considered through the lens of Social Cognitive Theory (Bandura, 1999), which suggests that individuals learn behaviors by observing others, especially when

those behaviors are modeled by relatable or influential figures. TikTok is a platform built on short-form video content that often encourages imitation, making it a natural environment for observational learning. While the humorous videos did succeed in capturing attention and were perceived as more entertaining, they did not lead to increased awareness or more favorable attitudes toward the health message. This may suggest that attention alone is not enough to shift attitudes or perceptions of risk. In the context of Social Cognitive Theory, the results imply that simply modeling behavior or presenting health content in a humorous way does not guarantee that the audience will internalize or act on the intended message. Humor may enhance engagement, but on its own, it may not be sufficient to influence meaningful health-related attitudes.

Prior research has found that humor can increase receptiveness to health messages by lowering resistance and making the message feel less threatening. For example, Nabi et al. (2007) found that humorous social issue messages were often more persuasive and better received than non-humorous ones. This differs from the current study, where humor did not significantly improve attitudes toward the TikTok's or increase awareness of the health risks associated with vaping and alcohol use. One possible explanation is that the use of humor in the videos may have been too subtle or not aligned closely enough with the health message to shift perceptions. These differences suggest that while humor has potential in persuasive communication, its success may depend on how it is used and how well it connects with the target audience.

These results have implications for how health campaigns use social media to reach young adults. Although humor increased engagement with the videos, it did not appear to strengthen the health message itself. This suggests that humor alone may not be enough to

change attitudes or raise awareness about serious health risks. For communication professionals and public health organizations, finding the right balance between entertainment and message clarity is important, especially on platforms like TikTok where attention spans are short, and content is highly visual. This study highlights the importance of understanding how message design interacts with audience expectations and behavior in digital spaces.

Limitations and Future Directions

Limitations

One key limitation of this study is that it did not assess whether participants had previously seen TikTok's specifically about the combined health risks of vaping and alcohol use. Prior exposure to similar content could have influenced how participants interpreted or responded to the videos used in the study, making it harder to isolate the true effect of the content they viewed. While the survey included items about general exposure to health-related content on TikTok, it did not ask about prior exposure to messages on this specific topic or on other platforms.

Another limitation is that some participants may not have fully paid attention while watching the videos or completing the survey. Since the study was conducted online and participation was voluntary, it is possible that a few responses were rushed or less thoughtful, which could have affected the accuracy of the data.

Future Directions

Future research could include follow-up or open-ended questions to better understand how participants interpret humorous and non-humorous health messages. Including a tone check

question could also help confirm whether the videos are being received as intended. It may also be useful to test different types of humor such as exaggeration, parody, or sarcasm to explore which styles are most effective in health communication. Finally, expanding the participant pool to include students from different universities or age groups would help increase generalizability and offer more insight into how humor works in health messaging for diverse audiences.

Conclusion

This study explored how humor in TikTok health campaigns affects college students' awareness of the combined risks of vaping and alcohol use. While participants generally found the humorous videos entertaining, nearly all in the humor condition rated them as funny or amusing, this did not lead to significantly higher awareness of the health risks. Prior research has shown that humor can improve engagement and reduce resistance to health messaging, but our findings suggest that entertainment alone may not be enough to change health perceptions or increase risk awareness. Although humor successfully caught students' attention, it may have overshadowed the seriousness of the message, which could explain the limited impact on attitudes and awareness.

These results add to the conversation about using social media platforms like TikTok for health education among young adults. While previous studies have found that humor-based messages are more likely to be shared and remembered, our results suggest a need for balance between humor and informative content. Students may appreciate humor, but that doesn't automatically mean they will view the message as credible or act on the health information. Overall, the findings support the idea that humor can be an impactful strategy, but only when it is used strategically within a broader educational message.

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Appendix

Age- How old are you? _____

Ethnicity-What is your ethnicity? (1 = Hispanic or Latino" or "Not Hispanic or Latino)

Race- What is your race? (1 = White, 2 = Black or African American, 3 = American Indian or Alaska Native, 4 = Asian, 5 = Native Hawaiian or Other Pacific Islander, 6 = Some Other Race)

Sex/Gender-

- Male
- Female
- Non-binary
- Prefer not to say

Vaping and Alcohol Use-

Sample Items:

1. How often have you used a vape (i.e., an electronic cigarette)?

   Response options:

   (1) Never

   (2) Rarely

   (3) Occasionally

   (4) Weekly

   (5) Daily
2. How often have you ever consumed alcohol for reasons other than religious purposes?

   Response options:

(1) Never

(2) Rarely

(3) Occasionally

(4) Weekly

(5) Daily

3. In the past six months, how often have you used a vape?

   Response options:

   (1) Never

   (2) Rarely

   (3) Occasionally

   (4) Weekly

   (5) Daily

4. In the past six months, how often have you consumed alcohol?

   Response options:

   (1) Never

   (2) Rarely

   (3) Occasionally

   (4) Weekly

   (5) Daily

Awareness of Combined Health Risks-

1. “How harmful do you think vape use is for people?”

   (1) No harm

   (2) A little harm

(3) Some harm

(4) Moderate harm

(5) A lot of harm

(6) Very harmful

(7) Extremely harmful

2. "How harmful do you think alcohol use is for people?"

(1) No harm

(2) A little harm

(3) Some harm

(4) Moderate harm

(5) A lot of harm

(6) Very harmful

(7) Extremely harmful

3. "How harmful do you think combining vaping use with alcohol is for people?"

(1) No harm

(2) A little harm

(3) Some harm

(4) Moderate harm

(5) A lot of harm

(6) Very harmful

(7) Extremely harmful

Perceived Social Norms-

1. "Friends who are important to me think that combining vaping use with alcohol is:"

(1) Strongly unacceptable

(2) Unacceptable

(3) Slightly unacceptable

(4) Neutral

(5) Slightly acceptable

(6) Acceptable

(7) Strongly acceptable

2. "My friends think that combining vaping use with alcohol is:"

(1) Strongly unacceptable

(2) Unacceptable

(3) Slightly unacceptable

(4) Neutral

(5) Slightly acceptable

(6) Acceptable

(7) Strongly acceptable

3. "Among my friends, using vaping with alcohol is:"

(1) Strongly discouraged

(2) Discouraged

(3) Slightly discouraged

(4) Neutral

(5) Slightly encouraged

(6) Encouraged

(7) Strongly encouraged

Perceived behavioral control-

1. ‘It is mostly up to me whether I engage in vaping (e-cigarettes) and/or alcohol use.’
2. ‘I have complete control over whether I engage in vaping (e-cigarettes) and/or alcohol use.’

Frequency of TikTok Use-

1. How frequently do you use TikTok?

   1) Never

   (2) Less than once a month

   (3) Once a month

   (4) Once a week

   (5) A few times a week

   (6) Once a day

   (7) More than once a day
2. In the past three months, how often have you intentionally used TikTok to find advice or information about your health?

   (1) Never

   (2) Once a year

   (3) Every few months

   (4) Monthly

   (5) Weekly

   (6) Daily

   (7) Hourly

3. In the past three months, how often have you unintentionally come across health information on TikTok?

   (1) Never

   (2) Once a year

   (3) Every few months

   (4) Monthly

   (5) Weekly

   (6) Daily

   (7) Hourly

Social media use-

1. How much time per day do you spend on social media?

   Response options:

   1 = Less than 10 minutes

   2 = 10–30 minutes

   3 = 31–60 minutes

   4 = 1–3 hours

   5 = More than 3 hours

2. Please rank the following social media platforms according to how frequently you use them, from 1 (most frequently used) to 5 (least frequently used):

   - TikTok
   - Instagram
   - Facebook
   - Twitter

- Other

Manipulation Check on Humor-

1. “Please indicate the extent to which you agree with the following statements about the TikTok you just saw”. The items included: humorous (7)/not humorous (1), funny (7)/not funny (1), and amusing (7) /not amusing (1).

Attitude Toward the Ad-

1. “The TikTok I just saw was:” Not funny (1) - Funny (7), Not amusing (1) - Amusing (7), and Not enjoyable (1) - Enjoyable (7).
2. “After seeing the TikTok posts, how harmful do you think vape use is for people?” using a 7-point scale ranging from No harm (1) to Extremely harmful (7).

Need for Humor- (1= Strongly Disagree, 7= Strongly Agree):

1. I prefer situations where people are free to express their sense of humor.
2. I enjoy being with people who tell jokes or funny stories.
3. I need to be with people who have a sense of humor.