



A Content Analysis of Social Media Posts Related to Alcohol Use: 2018-2019

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ABSTRACT

This project is an analysis of social media posts on a popular social media site, Instagram, related to alcohol from August 2018 through December 2018 and August 2019 through December 2019. Assessing the behaviors related to drinking on social media can help college communities create better interventions to reduce the occurrence of risky behaviors and improve health.

INTRODUCTION

Binge drinking is the most common, costly, and deadly pattern of excessive alcohol use in the United States (Sacks et al, 2010). This poses a huge public health concern, specifically when the issue is preventable. Binge or excessive drinking is not only an issue on a personal level; social factors can be attributed as well. Individuals are nested within their micro system (family, work, and school environments), which are nested in an even larger macrosystem. Macro level factors include marketing and policy changes related to alcohol. Macro level factors influence microsystem networks such as school attitudes and norms, which ultimately affect personal attitudes and behaviors (Sudhinaraset et al., 2016).

With the introduction of House Bill 389, which allows beer and wine sales at sporting events, there is concern that binge drinking could become a norm on East Carolina's campus. This change in a macro level factor may impact student behaviors and the amount that individuals drink and post alcohol related images on social media.

PURPOSE

The purpose of this poster is to enable the reader to understand the scope of demographics behind what is being posted to social media related to alcohol use. This research addresses two main research questions: (1) Does the implementation of House Bill 389 (allowing beer and wine sales at on-campus sporting events) influence the rate of alcohol related posts on social media and the social context around drinking? (2) What is the general context of images posted to social media?

MATERIALS & METHODS

This project sought IRB approval and received an exemption certification on November 11th, 2019.

Data Collection: Images were collected through the Instagram app by two investigators. Only public images using the selected hashtags between the approved dates were saved and coded individually by two parties.

Procedures: Data from the sample was collected using four hashtags related to ECU college football games per collection cycle. Those hashtags include: #ecufotball, #ecugameday, #ecutailgate, and #rollpirates. Each hashtag produced a main sample of posts and alcohol related posts/pictures were pulled from the sample and recorded. In order to assess interrater reliability of the data, two individuals interpreted the data and came to a consensus. The individuals coded the posts based on the alcohol presentation, type of alcohol, type of account, account owner's gender, caption, context, likes, and comments present.

Data Analysis: Using the Statistical Package for Social Sciences (SPSS) v25, descriptive statistics were computed to summarize sample characteristics, frequency statistics for context of posts, alcohol-related information for each post, and the type of Instagram account. Chi-square and t-test analyses were used to assess differences between year of posts (2018, 2019) and alcohol related information, and significance testing was conducted on these differences. Frequency tables are presented to summarize the sample characteristics. es. Frequency tables are presented to summarize the sample characteristics.

Image 1



RESULTS

- (1)There were no significant differences between alcohol-related posts from 2018 to 2019 ($t(5) = -0.11$, $p = 0.914$).
- (2)A t-test also indicated a significant difference between means of alcohol posts and non-alcohol posts with account type (business or personal, with business accounts having higher means of alcohol posts). ($t(2) = 4.7$, $p < .009$).
- (3)A chi-square test of independence showed that there was significant association between comments posted in 2018 and 2019 and account type, $\chi^2(2, N = 256) = 10.39$, $p = .006$. There were more comments that were non-alcohol related with business accounts than with personal/individual accounts.
- (4)The majority of posts displayed alcohol in a positive light (99.2%).
- The findings indicate roughly 76% of posts occurred under a personal accounts. Additionally, of that 76%, 56% of posts came from individuals who identify as female.
- 85% of all alcohol pictured was identified as beer.
- In 2018, 125 posts were related to alcohol out of 1591 total posts.
- In 2019, 131 posts were related to alcohol out of 1135 total posts.

Figure 1

Test			
Null hypothesis	$H_0: \mu_1 - \mu_2 = 0$		
Alternative hypothesis	$H_1: \mu_1 - \mu_2 \neq 0$		
T-Value	DF	P-Value	
-0.11	5	0.914	

Figure 2

ANOVA					
How many comments are present for the image?					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	974.342	2	487.171	4.777	0.009
Within Groups	25801.017	253	101.980		
Total	26775.359	255			

DISCUSSION

- The results of our study, using only the four hashtags listed, indicated there was no significant increase in images related to alcohol after the introduction of House Bill 389.
- Information from this study will help us better assess the perception of alcohol in a social setting and the demographics being influenced through modeling and perceived drinking norms via popular social media outlets.
- This research will help create a better understanding of the social norms associated with drinking and enables future discussions on ways to better prevent high risk alcohol behaviors and promote responsible drinking behaviors.

Figure 3

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.389 ^a	2	0.006
Likelihood Ratio	10.696	2	0.005
Linear-by-Linear Association	5.708	1	0.017
N of Valid Cases	256		

Figure 4

What is the overall context of the image?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	positive	254	99.2	99.2	99.2
	negative	1	.4	.4	99.6
	neutral	1	.4	.4	100.0
	Total	256	100.0	100.0	

Figure 5

Hashtags Used					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ECUGameday 2018	30	11.7	11.7	11.7
	Rollpirates 2018	54	21.1	21.1	32.8
	ECUTailgate 2018	3	1.2	1.2	34.0
	ECUFootball 2018	38	14.8	14.8	48.8
	Rollpirates 2019	59	23.0	23.0	71.9
	ECUFootball 2019	25	9.8	9.8	81.6
	ECUGameday 2019	42	16.4	16.4	98.0
	ECUTailgate 2019	5	2.0	2.0	100.0
	Total	256	100.0	100.0	

Figure 6

Year 2018 or 2019					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2018	125	48.8	48.8	48.8
	2019	131	51.2	51.2	100.0
	Total	256	100.0	100.0	

Image 2



REFERENCES

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