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## Using the Social Media to Reinforce Binge Drinking Normative Behaviors: A Comparison of American and Australian College Students

Kyle Jones

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**Abstract:** The central purpose of this study shows how the overestimation of the perceived normative behavior of binge drinking is the focused behavior reinforced by social networking sites (SNS), which the modern college students have incorporated into socialization. With a cross-cultural comparison, this study shows how this phenomenon of normative behavior of binge-drinking, social drinking, and non-drinking varies between undergraduates from America and Australia. The online surveying tool, Qualtrics, was used to gather information using the Alcohol Use Disorders Identification Test (AUDIT) and questions from the Pew Research center focusing on the social media. There were 119 combined undergraduate participants surveyed, from which the resulting data were used to correlate responses with the AUDIT test as well as cross culturally compare results. The results were valid with each schools results coinciding with AUDIT binge drinking test. The normative behaviors were also analyzed showing that there are different social media behaviors being in the two countries.

**Keywords:** *binge drinking, college students, social drinking, social media*

Over the past several years' modern young adult generations have increased their use of social networking sites (SNS); these sites have skewed perspectives on behaviors. People tend to adopt group attitudes and act in accordance with group expectations and behaviors based on affiliation needs, social comparison processes, and the formation and acquisition of reference group norms (Perkins, 2002). These attitudes and expectations are communicated in part through social media because SNS have been incorporated into the socialization process of the modern college student. The growing use of social networking is changing the perception of 'normal' behavior.

The bulk of the literature on SNS has studied the personal image expressed through social media or the widespread binge drinking prevention programs on college campuses. However, social media can also reinforce the social deviant behavior of binge drinking as an expected norm in the U.S and Australian culture. Binge drinking refers to 5 or more consecutive drinks for men and 4 or more consecutive drinks for women (Reifman & Watson, 2010). Harvard School of public health has shown the prevalence of binge drinking is considered to be high with 45% of students reporting binge drinking episodes

(Reifman & Watson, 2010). Binge drinkers consume 91% of all alcohol used among college population (Saylor, 2011). Rubington (1999) looked at "binge drinkers" in dorms to determine whether binge drinking is more prevalent now than a generation ago. Ridout, Campbell, and Ellis (2010) suggest that intense internet use is associated with harmful alcohol use. Instead of binge drinking prevention programs Ridout et.al (2010) suggests the new focus is the relationship between problem drinking and communications technology that is emerging. The study represents that some teenagers present themselves as drunks on SNS creating this 'intoxigenic digital space' that normalizes excessive consumption of alcohol.

Norms shape the behavior of binge-drinking, social drinking, and non-drinking alike in the United States and Australia. Although drinking norms are always changing, they are reinforced by the social media in both countries to show how binge-drinkers social media norms are interpreted different on both campuses. It would be valuable to study this information on these college campuses to test the effects of conforming to the deviant act of binge-drinking. For future research, the study 'Off your Face (book)' from the *Drug and Alcohol Review*, would be a great emphasis for this particular area of studies because it attracts the attention of identity construction based

on SNS. This is future research that can be applied to the social control theory and the perceived misconceptions about SNS.

The overestimation of the perceived normative behavior of binge drinkers' normative SNS behavior is most emphasized. This behavior is reinforced by the SNS that the modern college students have incorporated into socialization. The social media reinforces binge drinkers to use SNS more frequently and in different ways, which can be correlated between universities. The normalization of college students binge drinking behavior is through SNS modern perceived norms.

## LITERATURE REVIEW

Structural functionalists use key definitions to help explain individuals' behaviors in a particular society. Interactionism assumes that individuals decide to maintain (or break) social norms and standards during everyday interactions. Individuals who break social norms and standards are considered deviant. "Deviance is a means of acting out of sync with society to achieve what someone wants. Several different typologies classify certain actions as deviant. Merton's (2008) typology classifies deviant individuals as conformists, innovators, ritualists, and rebels. In college settings, students fit the main category of rebellion where "individuals challenge either the traditional goals or accepted means of that society" (Rohall, Milkie, & Lucas, 2007). All of these classifications overlap and relate to specific individuals behaviors and will be more generalized when gathering data. This is significant because in modern society it is how people define themselves by the way they socially act.

Another theory Merton mentions is the social control theory, where ties are weakened from conformity people feel free to deviate from norms and are not concerned with how people will respond to their actions (Rohall et al., 2007). When people are not concerned with their actions this is how societies become dysfunctional. This dysfunction brings up the risky social drinking, which is one of those misperceptions of norms in

a particular relationship among groups. For example, what college students see as risky could mean adventurous and fun; on the other hand a professor could see risky as dangerous and deviant. The risky behavior can be reinforced by the SNS as individual's blog, post, comment, tweet, and chat about these behaviors. It is argued that lighter drinking can be analyzed as deviance in many contexts. This is a consequence of the normative theory of deviance, "under consumption is the term used to refer to the violation of minimum drinking norms" (Paton-Simpson, 2001, p. 137).

"Overestimations of others' involvement in a behavior increase an individual's likelihood of engaging in that behavior and underestimations decrease that likelihood," (Robertson & Forbes, 2011, p. 197). For example if an event or page is specifically created to throw a party or event and many people join, like, or follow this then the percentage of binge drinking goes up based on the theory of overestimation of others. If more people on the SNS join or say they are attending a party then the likelihood on engaging in a deviant behavior gets higher. The image of binge-drinking linking with SNS is what Merton would classify as the typology of rebellion considering that it focuses mainly on relationships more than our material well-being (Rohall et al., 2007). The social media is the independent variable that is affecting the binge-drinking among college students in this research. The affect of influence and pressure it puts on the college students is enough for them to give in and be classified as a conformist according to Merton. The social media allows parties to be created, the option to like or follow those who seem to be acting deviant with their binge drinking behaviors.

## Role-Sets and Structural Functionalism

The use of social systems introduces role-sets, which state how someone should act in a certain situation in that society. A role set is how people form groups and act in those groups in a certain situation and how they assign social roles to each other (Rubington, 1999). In addition, "The social impact theory states, that students may be more

likely to be influenced by the perceived behaviors of groups of students who are in closer proximity and familiarity to themselves” (Pedersen, LaBrie, and Hummer, 2009, p. 925). For example, the physical proximity of person does not always matter, but the intended SNS image and behavior on that site can provoke further binge drinking behavior. Binge drinking groups can be created on SNS as an event, or a house party, which ultimately brings the students closer together and more influenced.

### **Binge Drinking and Influence**

Another study tested several predictors of binge drinking such as: Close friends’ disapproval; perception of positive effects of alcohol; with whom they are living; pre-college drinking history; marital status; and perception of risks of binge-drinking (Sun, Maurer, & Ho, 2003). In particular, close friends’ disapproval captures Parson’s idea of role-sets because an individual’s image is prominent while socializing with friends. Public deviant acts such as binge drinking enhance social acceptability. This study does not examine SNS as a positive indicator of partying or binge drinking.

The deviant acts may vary between groups. For example, groups who receive more supervision, such as student athletes engage in less drinking. Likewise, groups on campus receive less supervision, such as members of fraternities and sororities, may be deviant more often in a college setting. This is a significant piece of information that shows how people adopt attitudes, which are captured through SNS usage, frequency, and content displayed. The groups mentioned form cohorts within the SNS based off of overestimation of groups students are likely to follow, or incorporate themselves with what the group is doing.

The SNS allow for modern generations to stay up to date with their intended social image and their behavior of their usage may depict higher binge drinking behaviors. Another study demonstrates the patterns that once binge drinking prevalence is learned in the freshman year, the consistency is likely to maintain for years on

campus (Reifman, 2010). Cultural differences, such as legal limit to drink, can play into binge drinking behaviors. The binge drinking influences can be directly brought upon an individual or indirectly via the social media’s reinforcement of normative behaviors in a college scene.

### **Binge Drinking in Australia**

What counts as socially deviant varies in every society? In Australian culture acceptable binge-drinking consumption for males was 13.11 drinks and for women considered to be 9.46 drinks (Robertson & Forbes, 2011). The studies from Australia report on extreme drinking habits with the assessment based on standard drinks in one night. “Past research on an Australasian University revealed extreme drinking was high with 33.6% of males and 7.3% of females self-reporting drinking 16 or more drinks on any one occasion” (Robertson & Forbes, 2011). This research primarily focused on gender based extreme drinking habits compared to other universities in Australasian universities.

In one study, the factors that influence study abroad students are examined and applied to cross cultural norms. “Beyond increased access, studying abroad represents a developmental transition for students where there is limited family involvement and increased independence, similar to other transitory periods associated with increased drinking. Novel social situations with direct pressure to drink with newly established peers might emerge. “Alcohol may serve as a bonding agent between study-abroad students’ immersed in a foreign culture” (Pedersen, LaBrie, and Hummer, 2009, p. 924).

### **Social Media and Binge Norms**

Social media and social networking sites are ways to express ones’ self on a limitless profile describing emotions, attitudes. Facebook is the leading site for college students, has more than 7.5 million registered members who join groups based on common interests (Peluchette & Karl, 2010, p. 30). By posting pictures or comments, blogs, and tweets, individuals represent their social image.

Much of the combined research shows how the social media presents norms and what it means to do right and wrong in a particular setting (Kenrick, et al., 2010, p. 206). Because of the transmission of norms through social media, SNS may depict binge drinking attitudes. Australian researchers looked at the participants 'alcohol identities' measured by the number of photographs containing alcohol or alcohol-related references (Ridout et al., 2011, p. 2). In their study of 200 Facebook profiles, they found that 42% had comments regarding alcohol and 53% had photos involving alcohol use (Peluchette & Karl, 2010, p. 30).

Universities use social media for prevention programs, educational programs, and binge drinking awareness seminars. One article focuses on describing social norms campaigns that are intended to reduce risky health behaviors by 'de-biasing' perceptions of behavioral norms. The authors point out practical problems and faulty theoretical assumptions of such interventions (Blanton, Koblitz, and McCaul, 2008). Social norming campaigns are the only prominent area of focus when college binge drinking is mentioned which is biasing the perception already. There is bias because the campaigns only mention the prevention of binge drinking, not the possible causes and motivators.

These messages may be overpowered in a setting where the norm of binge drinking is most prominent. Peluchette and Karl (2010) found undergraduates view of alcohol as playing a central part in student life, with excessive drinking being the norm. Ridout, Campbell and Ellis (2011) cite research on how adolescents openly present themselves as 'drunks' on social network sites, indicating they like to be thought of at least capable of binge drinking behavior.

The authors Ridout, Campbell and Ellis (2011), show that the relationship between problem drinking and communications technology has increasingly emerged. Compared to the other Facebook studies, increase in alcohol consumption by adolescents has coincided with a

substantial rise in the use of mobile phones and the internet (Ridout, Campbell, and Ellis, 2011).

The studies on social media enabling and reinforcing are scarce. Additional research is needed to show how SNS promote binge drinking through virtual socialization, instant messaging contact, and party event promotions on these college campuses. The SNS would show reliable data if usage frequency was looked at and combined with content displayed for their public friends or 'followers.' This means that the number of times is compared to the types of information students post on their sites to create their image.

The future research needed for my directed study must be more aware of social media and how it is able to reinforce the deviant behavior of binge drinking. In addition, it would be appropriate to look at all of Robert Merton's norms and typologies and include them in correlation with social media to show a connection and rank what category a particular respondent fell under.

This research is intended to show how the usage of social media reinforces binge drinking normative behaviors on two different campuses. The gaps in the research show the preventative measures that can be taken to avoid binge drinking, but what about the factors that contributes to the deviant behavior? This is what the data has filled up in this research, in addition to comparing two different cultures and their behaviors on binge drinking.

## METHODS

My proposed hypothesis and purpose was to see if the data collected within the AUDIT survey of binge drinking was significant to when acted upon by the social media. A quantitative approach was used to understand what factors, influence the outcome of my hypothesis. After IRB approval, I distributed a survey to undergraduate students from an American University (U.S) and, Australian University (AU) using Qualtrics online survey software. I used a large sample to ensure the most accurate results with the least sample error when calculate comparative data.

Of the 119 respondents, 43 were from the Australian University and 76 from the American University. All the participants were over the age of 18, as determined by the demographic survey question. The sample consisted of undergraduates enrolled full-time at their particular universities.

My sample size was 119 participants combined from each University where I collected data. With the larger sample size I was able to reduce sample error and get more reliable and valid data. However, my sample size was slightly skewed with only 36% of respondents being from the Australian University compared to a higher 65% of the U.S. I collected data in the U.S. with individuals 18 and older, non-institutionalized citizens; combined with Australian undergraduate students, 18 and older. The particular age for the majority of respondents from AU was 22+ at 32% and from U.S. the age was 21 years old at 36%. As mentioned before, there were 64% of the students from U.S. and the other 36% were from AU, which created some reliability issues because of the lesser amount of AU respondents. Samples were compared to one another and totaled up to show the concurrent validity of the question poses. The reliability of the results skewed the data a bit with the majority of respondents being from the U.S. University.

### **Instruments**

The survey consisted of 24 items from a variety of questionnaires and demographic questions (Appendix A). The survey was conducted with four sections: (a) demographic questions with items such as: age, school name, year in school, sex; school groups i.e. (sports, academic probation, Greek Life, etc.) (b) AUDIT to measure binge drinking behaviors (Babor et. al, 1993) (c) social distance scales to determine how participants communicate with friends and associates (PewResearchCenter.Org 2011), and (d) questions to determine social media use and attitudes about social media. Question types included Likert scale, demographic, and semantic differential stages all grouped as such to easily organize data.

### **Procedures**

The survey was conducted anonymously online. Participation was voluntary and respondents could quit at any time if questions seemed to be invasive. Teachers, advisors, and staff members distributed an e-mail version of the survey with an attached link to take the survey. The survey was sent to a wide variety of groups including students on academic probation, student athletes, fraternities, and sororities, honors students, and members of organizations and clubs on campus. The results were collected over one month's time.

### **Data Analysis**

Only fully completed surveys were used for the data analysis. The AUDIT test was re-coded as the dependent variable in the ANOVA as a comparison between various independent groups. The "Social Media Alcohol," as it is labeled, Age, University, Greek, and Gender were all measured as the independent variables in the ANOVA test. To conduct cross-cultural comparisons, each variable was examined in SPSS data collection software and compared to the AUDIT survey. The two countries were also compared using the Chi-Squared test to test the continuous relationships of the variables in the data that would adequately show a significant relationship. Through my data analysis, I was able to cross culturally compare many different normative behaviors with other influential factors. Individuals were studied based on their use of SNS to broadcast themselves, which proved to be a great way to gather information on different normative behavior perceptions. From the overall analysis, the results showed that no matter the number of respondents the cultural behaviors could change.

Since the survey consisted of closed-ended questions, the data collection was able to measure participant's attitudes, which were then correlated to the AUDIT survey in the ANOVA test using different response groups. These answers were then formed into statistical bar graph skeletons to give a representative data cluster for each independent variable. The charts also depicted the significance of the variables from each test run between the variety of groups and variables. A

disclosure statement was placed at the end of the survey to inform the participants of why the information is useful and where to possibly get treatment if they think they have a serious problem. The information will be useful to the participants because it involves undergraduate students who can look at binge drinking similarities and differences and cogently relate them to their home institutions.

### RESULTS

Using the entire sample, 33% of the participants report drinking alcohol 2-4 times a month, and 28% of respondents answered 2-3 times per week.” These results are generalizable in the fact that they show between the two universities the mean was 2.97 indicating that the frequency of drinking only happens 2-3 times a month. The 2.97 was re-coded to indicate the third response of 2-3 times a month. The variability between the results of the average number of drinks on a typical day when drinking was generalizable to an extent. From the results, 29% of students from the American University said they have anywhere from 1-2 and 3-4 drinks. In contrast, students from the Australian University had 28% that responded that most tend to have 5-6 drinks on a typical day when drinking. The

variability between the values of number drinks on a typical day between the two universities had a p-value of 0.01, lower than the  $p < .05$  value, making it significant. The two-way ANOVA test best examines multiple groups compared to the constant dependent AUDIT variable in Table 1 below.

### ANOVA Results

A two-way ANOVA test was run to examine a relationship between the independent categories and dependent AUDIT binge drinking variable. The dependent variable remained the same throughout the whole entire for each analysis. In contrast, the independent variables were chosen by their validity and correlation and are as follows: Social Media Alcohol Portrayal, Gender, University, Greek (sorority and fraternity), and Age. All of these independent variables were run in relation to test the hypothesis of which influencing factors influence the behavior of binge drinking (Table 1). Participants were divided into five independent categories (Group 1: Gender: Male or Female, Group 2: “SocialMediaAlcohol”: No or Yes SocialMediaAlcohol; Group 3: University: Australian or USA, Group 4: Age: 18-22+; Group 5: Greek: Not Greek or Greek).

**Table 1**  
**Two-Way ANOVA**

Source I.V	Sum Squares	Df	Mean Square	F	Sig.
Q3Gender*	174.542	1	174.542	9.979	0.002*
SocialMedia Alcohol*	233.942	1	233.942	13.374	0*
Q2 University	28.102	1	28.102	1.607	0.209
Q4 Age	118.199	4	29.55	1.689	0.161
Greek	57.174	1	57.174	3.269	0.074

\* $p < .05$

The two most significant results for the data collected in this particular test were gender, and

Social Media Alcohol. [F (1, 80) = 13.374, p.002] for the SocialMediaAlcohol to be significant to

the AUDIT outcome results. In addition, for Gender [ $F(1, 80) = 9.979, p = .002$ ]. However, there were data that did not end up being significant and University fell under that category [ $F(1, 80) = 1.607, p = .209$ ]  $Df = 1$ ; showing no significant relationship to the AUDIT outcome scores. In addition, Age was not significant with [ $F(1, 80) = 1.689, p = .161$ ]  $Df = 4$ ; consequently, showing no significant relationship to the AUDIT when the ANOVA test was run for this particular data set. These results yielded interesting data conclusions, but most importantly allowing us to accept the null hypothesis of social media influencing the binge drinking. However, the university did not play a significant part in this data for showing the relationship between school and AUDIT responses, which was unique to the data.

From the data, it shows that when cross-culturally compared Australian respondents typically have more drinks per day on a day when drinking or socializing than American college respondents. The U.S student's had a mean number of drinks on one typical occasion at 2.84; after recoding, this represents nearly 3 drinks, which is more along the lines of social drinking. However, the majority of AU students responded that they had a drink containing alcohol at least 2-3 times a week at 38%. This is in contrast to the U.S 38.16% that showed when they had a drink it was only 2-4 times a month.

### Social Media Usage Results

The results between both universities combined show that participants use SNS several times a day at 65%. The Australian University has a higher percentage of usage of SNS at 72% compared to the U.S 61% for several times a day usage. The SNS usage for both schools compared goes to show that each University uses SNS 23% of the time at least once a day. The main social media usage for each university consisted of connecting with friends to make plans and socialize. The category, 'other' was mentioned 19% of the time by respondents and suggested that they use SNS for the following: keep in touch with old friends and family, business/work,

promoting events around campus, and get news. The overall census for SNS usage is to connect with friends and make plans to socialize and 62% of the time for U.S respondents and 38% for AU respondents.

Facebook was favored by the populations at 97% with Twitter following at 36% and Linked-In being at 11%. The 'other' category at 8% mentioned the site Pinterest as a top favorite left out of the data. The leading SNS for each university was Facebook; each university used this SNS several times a day, 98.7%, Twitter 48%, MySpace and Linked-in at 10.39%. This data shows that respondents are on SNS virtually several times a day and frequently use SNS more often to fit in and socialize. On these SNS the two universities showed valid and reliable data at 92% showing the majority of just posting messages to a friend's page or wall.

Each University 66% of the time used SNS, several times a day. At this level, it shows that the social media is used to reinforce behaviors such as: creating events about social gatherings, reconnecting with friends, posting comments, posting alcohol related comments, posting alcohol related photos and posting alcohol related posts to their SNS. When comparing the two universities to show how often they updated their SNS status and have a drink containing alcohol the results are valid. SNS are used in alongside drinking results to show the comparison; the AU respondents showed they use SNS 74% of the time and have a drink containing alcohol 39% of the time. As for U.S, the SNS usage is at 61.3% several times a day, but respondents regularly only have a drink containing alcohol 2-4 times a month at 37.3%.

### Chi-Square Results

For the data collected in this study, two categorical relationships were tested for goodness of fit and significance. The continuous relationships tested were: (Group 1: "Gender and Binge Drinking;" Group 2: "University and Binge Drinking"). This test was used to measure the significant difference between the proportions of the categorical values within the sample. For the first group Gender and Binge Drinking (1,  $n =$



119) = .954<sup>a</sup>,  $p = .329$ ; showing that the relationship between the two categorical values is not significant (Table 2). The  $p$ -value for the categories exceeds .005 range and is therefore, not relational to one another when looking at the chi-squared two tailed test. In the cross tabulation table it was ambiguous to notice these data were not significant because of the distribution of the categorical variables. However, after running the test it was apparent that the two were disproportional to one another and therefore, not significant to this data.

The second group, University and Binge Drinking (1,  $n = 119$ ) = 4.839<sup>a</sup>,  $p = .028$ ; thus, showing a significant categorical relationship between the two (Table 3). It can be inferred from that data that the higher the chi-square value the more likely the data cross tabulation is to be significant. The second group proved to be significant with a two-sided  $p$ -value of .028 indicating a significant relationship for these continuous categorical variables. The cross tabulation was more proportionally relational, therefore making it easier to predict which relationships were continuously significant and which were not significant.

## DISCUSSION

This research intended to show how the social media reinforces the binge drinking norms on these college campuses in order to show correlation in each culture. The predicted normative behavior of binge drinking for college undergraduates was explored with social networking sites reinforcing those behaviors. The AUDIT test was used to compare results of binge drinking attitudes such as typical amount of drinks per day and how often. The Australian respondents scored above the U.S respondents in regards to the AUDIT test in measuring binge drinking. On a typical day when drinking, 29% of Australian University students had a consumption rate of 5-6.

Based off the data collected for this particular research the original hypothesis was to analyze if the social media reinforced binge drinking norms in each country. From the data it is cogent to

accept the null hypothesis when looking at the social media and alcohol compared to the AUDIT survey used. The ANOVA test allowed us to accept this hypothesis when there were multiple relational correlations tested. The results from the ANOVA were unique in the sense that relationships that seemed apparently relational through frequency, but were not significant when matched up to the AUDIT outcome scores. For example, the future predictions between university and AUDIT scores seemed evident to binge drinking relationship, however when the ANOVA test was run the  $p$ -value was .209 indicating no significance. While collecting data the university seemed to be significant when looking at the frequencies based off of patterns of answers to the AUDIT questions. In addition, there were several indicators that pointed to age as a possible reinforcement of binge drinking, but the data concluded that with a  $p$ -value of .161 there was no constant relationship between variables.

“Consumption measures also corroborate past findings in relation to Australian student’s high levels of alcohol use” (Ridout et al, 2011, p.5). Binge drinkers were more common Australian campuses than American campuses and this may have been brought out by the legal drinking age and cultural differences. The drinking age of 18 is also the age when Australian students get their full license and attend University, which could all have contributed to the deviant behavior. The independent variables were correlated with the dependent AUDIT test to show group differences with the outcome variable. The data collected was more generalizable and supported the original null hypothesis that the social media alcohol portrayal reinforces respondent’s behavior to socialize and binge drink. Thus, the research is consistent with Robertson and Forbes (2011) results on binge drinking frequency in relation to culture.

**Table 2**  
**Chi-Square Analysis: Gender and Binge Drinking**

		<b>Binge Drinking</b>				
		0	1	Total		
<b>Q3Gender</b>	<b>Male Count</b>	11	26	37		
	Expected Count	13.4	23.6	37.0		
	% within					
	Q2University	29.7%	70.3%	100%		
	% within					
	BingeDrinking	25.6%	34.2%	31.1%		
	% of Total	9.2%	21.8%	31.1%		
	Std. Residual	-0.6	0.5			
	<b>Female Count</b>	32	50	82		
	Expected Count	29.6	52.4	82		
	% within					
	Q2University	39.0%	61.0%	100%		
	% within					
	BingeDrinking	74.4%	65.8%	68.9%		
	% of Total	26.9%	42.0%	68.9%		
Std. Residual	0.4	-0.3				
<b>Total Count</b>	43	76	119			
Expected Count	43	76	119			
% within						
Q2University	36.1%	63.9%	100.0%			
% within	100.0					
BingeDrinking	%	100.0%	100.0%			
% of Total	36.1%	63.9%	100.0%			
		<b>Chi-Square</b>				
		Value	Df	Asymp. Sig (2-sided)	Exact Sig (2-sided)	Exact Sig. (1-sided)
Pearson chi-Square		0.954	1	0.329		
Continuity Correction		0.594	1	0.441		
Likelihood Ratio		0.971	1	0.324		
Fisher's Exact Test					0.411	0.221
Linera-by-Linear Association		0.946	1	0.331		
N of Valid Cases		119				

\*  $p < .05$

**Table 3**  
**Chi-Square Analysis: University and Binge Drinking**

Q2 University	Australian Count	Binge Drinking		Total
		0	1	
	Count	10	33	43
	Expected Count	15.5	27.5	43
	% within Q2University	23.3%	76.7%	100%
	% within BingeDrinking	23.3%	43.4%	36.1%
	% of Total	8.4%	27.7%	36.1%
	Std. Residual	-1.4	1.1	
	<b>USA Count</b>	33	43	76
	Expected Count	27.5	48.5	76
	% within Q2University	43.4%	56.6%	100%
	% within BingDrinking	76.7%	56.6%	63.9%
	% of Total	27.7%	36.1%	63.9%
	Std. Residual	1.1	-0.8	
	<b>Total Count</b>	43	76	119
	Expected Count	43.0	76.0	119.0
	% within Q2University	36.1%	63.9%	100%
	% within BingeDrinking	100%	100%	100%
	% of Total	36.1%	63.9%	100%

**Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.839	1	0.028		
Continuity Correction	4.005	1	0.045		
Likelihood Ratio	5.016	1	0.025		
Fisher's Exact Test				0.031	0.021
Linear-by-Linear Association	4.789	1	0.028		
N of Valid Cases	119				

\*  $p < .05$

To reiterate the hypothesis associated with the ANOVA test it was testing to see if there were group differences with the outcome variable being the AUDIT? In one of the groups the social media and alcohol, along with gender were the only independent variables significantly related to the dependent AUDIT outcome score variable. The Greek variable was also test, unfortunately was disproportionately represented at the Australian university lacking that specific group. The Greek representation p-value was .074 extremely close to being significant relationship, but not generalizable to the data. It is not generalizable because of the fact that the Greek variable group did not exist at the Australian university; therefore, no correlation could be drawn. The participants in the survey were also able to choose other groups such as athletics, academic probation and honors, but the Australian university lacked those groups as well. It could be easily conferred that the Greek variable was not going to be significant based on the ratio of students from the American university led groups to the Australian university groups.

There was also another hypothesis drawn from the data based on relationships between two categorical values to see the continuous relationships. The two relationships analyzed through the chi-squared test were gender and binge drinking and university and binge drinking. The reason for choosing these two variables to hypothesize was the frequency relationships associated with them. The binge drinking is still the dependent variable and the independent variables initially show the most significant continuous relationships. The chi-square test was most adequate and proved that the two tailed significance test was used to analyze the most relational independent variables. Since previous data from the ANOVA test proved that social media and alcohol was significant there was no need to run further correlations. The university and binge drinking was the only significant relationship established from the two tailed test. The continuity of the test shows that the 2-sided p-value was .028 not exceeding the .05 limit and therefore showing a significant relationship. It is

also noticed from the data that the higher the chi-squared value, in this case 4.839<sup>a</sup> the more likely the data is to be significant and create a continuous relationship. However, this was not the case for gender and binge drinking, which was astounding to research because the data was centered on the genders at each university and their binge drinking habits. From the cross-tabulations there seemed to be some significance between genders and binge drinking, but the chi-squared test nullified that. The chi-squared value was only representative at .954<sup>a</sup> with a p-value of .329 making the relationships highly insignificant. The degrees of freedom were not a factor in this data set, as they were both at one representing the most valid and generalizable data. From the data, it was interesting to see the continuous and categorical relationships between the variables tested and prove that the original hypothesis of social media reinforcing binge drinking to be accepted. The only limitations throughout the data collection were the representative groups from each university being disproportionate to one another.

This research is intended to show how the social media reinforces the binge-drinking norms on these college campuses in order to show correlation in each culture. The predicted normative behavior of binge drinking for college undergraduates was explored with social networking sites reinforcing those behaviors. The AUDIT test was used to compare results of binge drinking attitudes as well, such as typical amount of drinks per day and how often. The Australian respondents scored above the U.S respondents in regards to the AUDIT test in measuring binge drinking. On a typical day when drinking, 29% of Australian University students had a consumption rate of 5-6. This supports the hypothesis because U.S data reports that 28% have only 3-4 drinks on a typical day when drinking and drank less frequently than AU respondents. The AU population was more prone to drink 38% of time 2-3 times a week compared to the American University of 22% of the time.

This research is intended to show how the social media plays a pivotal role in changing

normative behaviors while binge drinking on American and Australian campuses. This pivotal role of the social media was accurately compared and contrasted using the AUDIT and PEW tests to interpret the data. The diversity between these two universities makes this study unique. The stratified sampling data showed how the perceptions change and are reinforced by the social media. Based off the data analyzed from the PEW research center this data are true and supports the stratified sampling in a significant aspect for some groups. In addition, there were also normative behaviors that were not significant based on the data analyses run and relationships analyzed in each test.

### Limitations

There were limitations to this study that could not be avoided based on culture, respondents, and nature of the questions that invaded that comfort zone of the respondents. The subjects were forced to answer on a single closed ended descriptive data, which may have limited responses. Binge drinking behaviors in clustered groups were a subgroup that was included in the data, but there were not enough groups at the Australian university for reliable results. In addition, the significant variations in percentage of respondents from each university were significantly skewed. The several groups represented on the U.S campus were not generalizable to AU population, therefore; could not be significant to the dependent AUDIT variable. AU campus did not include fraternities or, sororities, nor did they have any athletic teams that represent their school, therefore; the analysis by groups was tested but not significant. Because AU did not have such groups, it was difficult to find undergraduate participants. The other limitations were the categories of 'other,' which appeared in questions 5, 6, 8 and 9 seemed to reveal some diverse results that were included in the data collection analysis. Open-ended questions allowed respondents to provide greater detail, and respond more truthfully, compared to responses when they were forced to choose a particular answer.

The limitations should be noted that they did not hinder the research process only allowed for further interpretation and for more gaps to be filled. There just needs to be more knowledge and further analysis into cultural normative behaviors.

### CONCLUSION

The overall analysis of the data has proven the two hypotheses to be accepted in order to satisfy binge drinking normative behavior on these two campuses. The decision to accept the original hypothesis of social media reinforcing binge drinking is supported from the AUDIT outcome survey results being compared between groups in the ANOVA test. In addition to the chi-squared test, measuring two continuous relationships being binge drinking and university showed significance relationships between one another. The AUDIT responses favor Australian undergraduates and their binge drinking behavior more than the American undergraduates in the chi-squared analysis. The implications for this study conclude that since the Australian undergraduates have a high social media alcohol portrayal they significantly were generalizable to the dependent AUDIT outcome variable. This possibility could be a matter of legal age to drink in each particular country, or a bigger sample size needs to be thoroughly researched more to get those results.

The two universities compared had the same SNS usage and frequency, but it would have been better to go further in depth into the profiles of the respondents to gain more information for further data collection. The article by Ridout, 'Off your Face (book)' studies identity construction via the social media in relation to problematic drinking, done at the University of Sydney. Previously mentioned, further research could clear up some muddled up data results that happened with this research and independent variables this time around. The contrast between the universities came from two aspects while analyzing the data. First, the different subgroups for U.S were immensely larger than that AU, which skewed the distribution of the cluster sampling and ultimately resulting in not being significant. Second, the

respondents drinking consumption was in congruity with their SNS alcohol portrayal and how they exploit the social media.

### Directions for Future Research

Use of SNS seems to be a common element associated with the normative behavior of binge drinking at the Australian University; both behaviors occurred at a high level. On the other hand, the exact opposite happened with the undergraduates from U.S. The binge drinking behavior is highly related to culture. A possibility could be to examine another culture and their normative behaviors for another comparison. The sub-populations at the U.S University may have created a more controlled response to the survey questions. The controlled responses may come from the supervision of the particular sub-populations. The sub groups as mentioned would have given further insight into how normative behaviors are acquired and how prevalent. The validity of this study requires a more in depth analysis of both universities and their cultures. The auto-photographic approach is very intensive study; that is why I think presenting a survey to more participants made for more reliable data. The alcohol identities would be good for further research on a topic such as this to delve into more of the characteristics between binge drinking college students and their usage of SNS. The study from the *Drug and Alcohol Review* (Ridout et., al. 2011) is a more in-depth analysis and of binge drinking, but it includes constructed identities, which can be altered to represent the reinforcement of the social media. There were only a select few limitations that were not able to be generalizable to the whole population, but there is room for future research to be done.

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### Appendix A: Survey

#### 1. What University do you attend?

- 1) Canberra University
- 2) University of Northern Colorado

#### 2. Gender

- 1) Male
- 2) Female

#### 3. Age

- 1) 17
- 2) 18
- 3) 19
- 4) 20
- 5) 21
- 6) 22+

#### 4. Grade level as an undergraduate:

- 1) Freshman
- 2) Sophomore
- 3) Junior
- 4) Senior

#### 5. Are you affiliated with any of the following (check all that apply)

- 1) Fraternity
- 2) Sorority
- 3) Athletic Sport
- 4) Academic Probation
- 5) Student Sponsored Club or Organization
- 6) Other

#### 6. (We're interested in the kinds of things you do when you use the internet. Not everyone has done these things. Please tell me whether you ever do each one, or not.) Do you ever... use an online social networking of the following?

- 1) Facebook
- 2) Twitter
- 3) MySpace
- 4) Linked-in
- 5) Other

#### 7. About how often do you use social networking sites?

- 1) Several times a day
- 2) About once a day

- 3) 3-5 days a week
- 4) Every few weeks
- 5) Less than once a month
- 6) Never

#### 8. What are the different ways you use social networking sites? Do you ever use those sites to...

- 1) Connect with friends to make plans – Socialize
- 2) Make new friends
- 3) Flirt
- 5) Other

#### 9. (When you meet someone new at a party or social gathering, you might share information about yourself as part of getting to know someone. Please tell me if you think it is ok to share some kinds of personal information with someone you just met.)

- 1) Your cell phone number
- 2) Facebook name
- 3) Address
- 4) School name
- 5) Other

#### 10. Thinking about all the different ways you socialize or communicate with friends... About how often do you spend time with friends in person doing activities outside of school?

- 1) Everyday
- 2) Several times a week
- 3) At least once a week
- 4) Never

#### 11. We'd like to know the specific ways you communicate with your friends using social networking sites Do you ever... (Check all that apply)

- 1) Post messages to a friend's page or wall
- 2) Post comments to a friend's blog
- 3) Post events about events or social gatherings
- 4) Post alcohol related comments
- 5) Post alcohol related posts
- 6) Post alcohol related pictures

**12. How often, if ever, do you comment on other people's status, wall, or links on Facebook?**

- 1) Several times a day
- 2) About once a day
- 3) 3-5 days a week
- 4) 1-2 days a week
- 5) Every few weeks
- 6) Less often
- 7) Never

**13. How often, if ever do you change or update your status on Facebook?**

- 1) Several times a day
- 2) About once a day
- 3) 3-5 days a week
- 4) 1-2 days a week
- 5) Every few weeks
- 6) Never