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**Colegio de Ciencias Sociales y Humanidades**

**Social norms intervention to reduce binge drinking at  
Universidad San Francisco de Quito  
Proyecto de Investigación**

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## RESUMEN

El consumo excesivo de alcohol en Ecuador es un problema social que se extiende a varios segmentos de la población y sobre todo tiene mayor prevalencia en estudiantes universitarios. Se ha encontrado que la mayoría de estudiantes universitarios sobreestiman el consumo de alcohol en sus compañeros y esto afecta su comportamiento.

Consecuentemente, la presente investigación tiene como objetivo implementar una intervención de normas sociales para corregir las percepciones erróneas y reducir el consumo de alcohol riesgoso en estudiantes de la Universidad San Francisco de Quito.

**Método:** La campaña de marketing de normas sociales se realiza por medio de mensajes de texto a los estudiantes en dos diferentes márgenes de tiempo. **Resultados:** Se encontró que la mayoría de los participantes tenían percepciones erróneas en cuanto al consumo de alcohol de sus compañeros. Por medio de la intervención se corrigieron estas percepciones en la mayoría de los participantes. En cuanto a los patrones de consumo, se encontró que la intervención con normas sociales realizada en el margen de tiempo de la noche de Jueves a Sábado resultó ser más efectiva en reducir el consumo de alcohol riesgoso en los participantes. Sin embargo, la intervención no resultó en la reducción de consumo de alcohol que se esperaba. **Conclusiones:** Las intervenciones de normas sociales por medio de mensajes de texto pueden ser una herramienta positiva utilizada en universidades para reducir el consumo riesgoso de alcohol. Sin embargo, es importante realizar investigaciones a mayor profundidad para poder incrementar la efectividad de la intervención.

Palabras clave: Intervención de normas sociales, consumo de alcohol riesgoso o “binge drinking”, campaña de marketing, estudiantes universitarios.

## ABSTRACT

In Ecuador, excessive alcohol consumption is a social problem that extends to various segments of the population, but it has a greater prevalence in university students. Studies have found that most students overestimate alcohol consumption patterns in other people, and this has an effect over their drinking behavior. Consequently, this investigation has the objective to implement a Social Norms Intervention in order to adjust misperceptions and reduce binge drinking of students in Universidad San Francisco de Quito. **Method:** The social norms marketing campaign is applied via text message in two different time frames. **Results:** It was found that most participants had significant misperceptions of their peers' alcohol consumption. The intervention adjusted the misperceptions in most participants. The social norms intervention applied in the nighttime from Thursday to Saturday, was more effective in alcohol consumption reduction in participants. However, the reduction of alcohol was not as great as expected. **Conclusions:** Social norms interventions via text messages can be a positive tool to reduce binge drinking in universities. However, more in depth studies are necessary in order to increase the effectiveness of such intervention.

Key words: Social Norms Intervention, binge drinking, marketing campaign, university students.

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## INTRODUCTION

Alcohol has been present throughout human history, and it has influenced practically every culture and civilization of the world. Alcohol consumption, production and trade, dates back to a time when hunter gatherers discovered by accident natural fermentation, and to the beginnings of agricultural settlements (Hames, 2012). Evidence implies that during the Neolithic period, humans were able to produce the first beers and wines (Hames, 2012). Later in time, alcohol was present and influenced the emergent civilizations all over the world in Egypt, Mesopotamia, India, China and America (Hames, 2012). “The consumption of alcohol structured everything from daily nutrition and medicine to social hierarchies and religious rituals” (Hames, 2012, p. 7).

History demonstrates that alcohol was also a part of great ancient empires. In Ancient Greece alcohol was present in many events and appears to influence the great thinkers of the time in their art and literature works (Blocker , Fahey, & Tyrrel, 2003). According to Blocker et al. (2003), drinking wine would play a central role in the epic writings of Homer. Furthermore, the love for wine was portrayed in the writings of Plato, Euripides, Epicurus, and more great philosophers (Blocker et al., 2003). Additionally, Hipocrates was the first to describe the consequences of alcoholism (Ortuño, 2010). On the other hand, the Roman Empire in the first century, not only consumed wine as a popular drink, but they also exported wine and as a result had an important source of income for the government (Chad Gann, 2008).

Nowadays, researchers have demonstrated that alcohol can be used both to benefit and endanger health. According to Standridge, Zylstra and Adams (2004) some of the health benefits of low to moderate consumption are “lower myocardial infraction rates, reduced



heart failure rates, reduced risk of ischemic stroke, lower risk for dementia, decreased risk of diabetes and reduced risk of osteoporosis” (p. 664). However, elevated alcohol consumption can negatively impact various organ systems and lead to significant health problems (Standridge et al., 2004). Alcohol consumption can be directly related to many health conditions such as: cancer, cardiovascular disease, liver failure and more (Organización Panamericana de la Salud , 2007). Furthermore, excessive and recurrent alcohol consumption can result in psychological and physical dependence to the substance.

Alcohol binge consumption and abuse is a recurrent health problem in many countries around the world. “Binge drinking is a significant problem even among moderate drinkers and is associated with particularly high social and economic costs” (Standridge et al., 2004). Given the legality of alcohol, its’ widespread availability, and the widely social acceptance of drinking, alcohol has become one of the most common substances to abuse by every social group and age group. Furthermore, most people believe that their levels of drinking are normal due to the perception that everyone is most likely drinking the same amount or more.

Throughout time alcohol consumption in Ecuador has been normalized to the extent of being part of the culture. Alcohol is now a part of every event, such as celebrations of baptism, first communions, marriage and graduations. Furthermore, alcohol has crept its way to form part of everyday life in small gatherings and parties. According to the World Health Organization, Ecuador ranks in the ninth country in the region with highest consumption of alcohol per capita (as cited in Organización Panamericana de la Salud, 2014).

“Social Norms Intervention” is a method that arises as a response to the alarming levels of binge drinking in college campuses around the world. The former is a promising

technique used to reduce alcohol, tobacco and drug consumption that has been studied recently. This intervention is based on the theories of social learning (Moore, Williams , Moore, & Murphy , 2013). It is founded on the fact that many people overestimate the prevalence of consumption of their peers. Therefore, when erroneous perceptions of the subjects are adjusted, the consumption will reduce in order to adjust to the norms (Moore et al., 2013). Most importantly, this intervention does not require restriction of consumption, but emphasizes the importance of influencing positively over peoples' decision making processes.

This study proposes the use of a "Social Norms Intervention" with a marketing campaign via direct text messages, as a possible solution to reduce binge drinking in a university population. The present study is aimed to explore the effects of the intervention in the students of Universidad San Francisco de Quito in Ecuador. The following paper addresses the most relevant research related to the topic, the methodology used to carry out the field experiment, anticipated results and a thorough discussion.

## LITERATURE REVIEW

### Alcohol consumption in Ecuador

#### Epidemiology.

In America, the amount of alcohol consumption is alarming. The fact is that the consumption of the region is 50% higher than the average consumption of the world (Organización Panamericana de la Salud, 2007). In the region, Argentina, Peru, Canada and Uruguay, lead the charts of alcohol consumption with 10.5, 9.9, 9.8 and 9.8 liters of pure alcohol per capita respectively (Organización Panamericana de la Salud, 2007). In the case of Ecuador, according to the World Health Organization, the country ranks as the ninth country in the region with highest consumption of alcohol per capita (as cited in Organización Panamericana de la Salud, 2014).

Alcohol consumption in Ecuador extends to every segment of the population. It is so embedded in the culture that it reaches every social group, and even underage kids find a way to drink. However, Ecuadorians in university age range have the highest levels of drinking. The *Instituto Ecuatoriano de Estadísticas y Censos* (2012), reports that the age group with the highest rate of alcohol consumption in the country is people from 19 to 24 years old. Likewise, the *Consejo Nacional de Control de Sustancias Estupefacientes y Psicotrópicas (CONCSEP)* (2014), indicates the results of a national survey in which they found that the highest prevalence of alcohol consumption (67.1%) is found in the age group of 18 to 28 years old.

In relation to other demographic characteristics it is important to consider gender, ethnicity and region as relevant factors in the prevalence of alcohol consumption in Ecuador. Considering gender, the CONCSEP (2012) found that men (56.2%) report higher rates of

consumption in comparison to women (43.8%). In relation to ethnicity, the INEC (2012) found that consumption levels of alcohol vary by group. The Montubio people have the highest levels of consumption and they are followed by Afroecuatorians, Caucasians, Mestizos, and the Indigenous people have the lowest intake. Finally, studies have found the levels of consumption according to region. INEC (2012) states that Galapagos is the province that reports the highest consumption with 12% of the population drinking alcohol. On the other hand, Bolivar is the province with the lowest quantities of drinking (Instituto Nacional de Estadística y Censos, 2012). Instead, the CONCSEP (2014) reports that the highest prevalence of alcohol consumption is found in the highlands region.

Finally, it is important to note the social aspect related to alcohol consumption. In Ecuador, most of the people report their consumption as social drinking. According to the national survey of the CONCSEP (2014) 71.5% of people report drinking in parties. Furthermore, 80.7% of the surveyed people report they drink primarily with their friends, and only a minority of 5.1% of the people reported they drink on their own (CONCEP, 2014). With these statistics in mind, it could be assumed that most of the drinking population in Ecuador has a primary motivation to drink in social environments. Consequently, the social aspects of drinking have a strong influence over the quantity and the situation of consumption.

### **Binge drinking**

Traditionally, alcohol and drug studies base their reports on the different types of prevalence in order to determine the epidemiology for each substance. This means that their results rely solely on the self-report answers given by people of how much alcohol they have consumed over a certain period of time. This type of methodology may be useful for

certain purposes, however, it doesn't take in account important factors that determine risky alcohol consumption patterns. For example, some important criteria that should be taken in account is the time, the frequency and the amount of substance ingested on each occasion. As a result, investigators defined characteristics that are important to identify risky heavy drinking and consequently described binge drinking.

Binge drinking is a term used to describe a heavy drinking pattern that is commonly defined as the consumption in one occasion of four or more drinks for women, and five or more drinks for men (Clinkinbeard & Johnson, 2013). The term was first used in the 1990s as part of an investigation of college students drinking, however, it has been refined over the years and also it is now commonly used in the media (Clinkinbeard & Johnson, 2013). The definition of binge drinking is developed from the premise that a certain amount of consumption of alcoholic beverages in one instance result in negative health and social consequences. However, most scholars using this definition found that it was too broad to differentiate students who presented a risky pattern of consumption to their health and those who didn't. Therefore, the definition of binge drinking was changed to "5+/4+ alcoholic beverages within a 2-hour time period" (Clinkinbeard & Johnson, 2013).

### **Epidemiology of binge drinking.**

The information previously exposed demonstrates that in Ecuador and in the rest of the world, the age range that presents higher levels of consumption of alcohol is from 18 to 24 years old. According to a national study conducted in the United States by Jones, Oeltmann, Wilson and Brener (2001), approximately "41.5% ( $\pm 3.0\%$ ) of college students reported current binge drinking" (p. 35). Similarly, Thombs et al. (2007) report that 44% of college undergraduates in the United States engage in binge drinking. Furthermore, studies

demonstrate that college students engage in higher levels of binge drinking than their counterparts who are not in college (Clinkinbeard & Johnson, 2013; Clinkinbeard & Rhodes, 2013).

In Ecuador, statistics of undergraduate students binge drinking are not available. However, in a national survey carried out by the CONCSEP (2014) they categorize drinking patterns by using two indicators, the frequency of consumption and the definition of binge drinking proposed by the World Health Organization. The categories that yield from this classification are demonstrated in Table 1 (CONCSEP, 2014, p.10).

Table 1

*Categories of drinking patterns*

	<b>Binge drinking in the last month</b>	
<b>Frequency of Consumption</b>	<p><b>Occasional use</b> Low frequency of consumption. Low binge drinking: 1 to 3 times in a month.</p>	<p><b>Regular use</b> Low frequency of consumption. High binge drinking: 4 times or more</p>
	<p><b>Frequent use</b> High frequency of consumption: 2 to 7 times a week. Low binge drinking: 1 to 3 times</p>	<p><b>Intense use</b> High frequency of consumption: 2 to 7 times a week. High binge drinking: 4 times or more</p>

With this methodology in mind, the CONCSEP (2014) found that 13.3% of the sample in the national survey had a pattern of occasional use, 0.06% frequent use, 0.1% regular use, and 0.04% report an intense use. The regular and intense users would be of concern due to the fact that high binge drinking has negative health and social consequences. Nonetheless, it is important to note that according to the results of the national survey of CONCSEP (2014), men report higher regular and intense use than women. Furthermore, the only age

groups that demonstrate regular and intense use is from 18-26 years old and from 26-35 years old (CONCSEP, 2014).

### **Consequences associated to binge drinking.**

Binge drinking has been associated with various negative health and social consequences. For example, studies have found that there is a direct relation between students who binge drink frequently and the likelihood of them using other types of drugs such as marijuana, cocaine, LSD, and tobacco (Clinkinbeard & Johnson, 2013; Jones et al., 2001) Also, students who binge drink are more likely to be involved in alcohol-related accidents, such as car crashes or injuries (Clinkinbeard & Johnson, 2013). Furthermore, it has been found that binge drinking in college students is associated with low academic performance and a greater amount of missed classes. Also, authors associate binge drinking with the probability of not practicing safe sex, and therefore being involved in risky sexual behavior, unplanned sexual encounters, being taken advantage sexually by others, unplanned pregnancies and more (Jones et al., 2001). Additionally, an alarming amount of suicides, rapes and crimes in college campuses are related to binge drinking (Jones et al., 2001). Finally, binge drinking is a dangerous pattern of consumption as it can lead to alcohol dependency (Chauvin, 2011).

### **Social Norms Intervention**

Binge drinking in young adults is common in university and college campuses around the world. Given the fact that in Ecuador alcohol is legal, the legal drinking age is 18 years old, and that alcohol has become a part of the culture, the levels of binge drinking in young adults are alarming. Therefore, psychologists have to turn to new strategies in order to reduce alcohol consumption and improve decision making in the population. The Social

Norms Intervention is a recent approach that is being applied in college campuses in order to reduce binge drinking of the students without the use of restriction and punishment, but encouraging better decision making. Next, the Social Norms Intervention will be described by its components, the theories of learning and behavior from which it develops, the methodology of an intervention, as well as the results of different studies with this intervention.

### **Theories of Social Learning and Behavior.**

Social Norms Intervention arises from the concepts of various theories of social learning, such as the social learning theory, which emphasizes the importance of descriptive norms and injunctive norms as factors that shape behavior (Moore et al., 2013). Social norms can be seen as general guidelines that people have to shape their behavior and to know what types of behaviors are accepted or inappropriate in different contexts. Descriptive norms are defined as “individuals’ perceptions about the prevalence of a behavior” (Rimal, 2008, p. 104). This means that descriptive norms are the ideas that people have of what behavior is recurrent in other people. In the case of alcohol consumption, college students have certain perceptions of the amount of drinking of their peers. According to Chauvin (2011) evidence from various studies suggest that descriptive norms are a significant predictor of students’ drinking. On the other hand, Rimal (2008) defines injunctive norms as the perception of the person of what would be “the appropriate course of action in a given situation” (p. 104). Therefore, injunctive norms, at a certain degree, shape the responses that people have to certain situations.

The theory of planned behavior (TPB), on the other hand, gives greater importance and emphasizes strongly that injunctive norms are valuable predictors of behavior (Rimal, 2008). According to Rimal (2008) injunctive norms play this significant role because



“perceiving that one’s social referents expect one to engage in a behavior should result in greater likelihood of engaging in the behavior” (p. 104). The injunctive norms can be seen as the pressure to respond to social expectations and the strong influence that this has over people. The TPB proposes that by socializing actual injunctive norms, people will adjust their behavior to the accepted behaviors by society.

The theory of normative social behavior (TNSB) poses that the combination of descriptive and injunctive norms has an effect over the behavior of people. This theory proposes that both, a strong descriptive norm and a strong injunctive norm have to coexist in order to significantly influence behavior (Rimal , 2008). Therefore, if the person believes that most of his peers engage in heavy drinking (descriptive norm), and that it is expected of him to also engage in the behavior in order to avoid a social sanction (injunctive norm), it is probable that his/her behavior will be affected. Furthermore, the TNSB also takes in account outcome expectations as a factor of behavioral changes. Outcome expectations are defined as “beliefs that one’s actions will lead to benefits that one seeks” (Rimal, 2008, p. 105). This means that an individual will be likely influenced by the descriptive and injunctive norms, only if he/she believes that the results of their actions will be beneficial and positive.

#### **Methodology of a Social Norms Intervention.**

Social interactions and social learning shape human behavior, positively or negatively, in many ways. Humans are social beings that can be strongly influenced by their reference groups. Hence, alcohol consumption patterns in college students can be, to a certain degree, a result of social interactions, perceptions and norms. The Social Norms Intervention (SNI) proposes that student drinking is strongly influenced by the descriptive norms, injunctive norms and perceptions. This intervention suggests that students overestimate the prevalence (descriptive norms) of drinking among peers of their reference

group (Carter & Kahnweiler, 2000; Moore et al., 2013). As a result, students believe they need to drink higher quantities of alcohol in order to adjust to the situation and the social pressures it presents (injunctive norms) (Carter & Kahnweiler, 2000; Moore et al., 2013).

A Social Norms Intervention is carried out by investigating the prevalence of alcohol consumption in students and the perceptions of their peers' drinking. Subsequently, the SNI will implement a marketing campaign for students in order to inform and adjust the misperceptions of overestimated drinking in peers and to inform real social expectations of drinking behaviors (Carter & Kahnweiler, 2000). When misperceptions are corrected, the students will reduce alcohol consumption as a way to adjust to the group of reference (Carter & Kahnweiler, 2000). Studies have found that this intervention is most effective when it is designed for specific groups instead of the average person (Moore et al., 2013). Therefore, each SNI has to be designed for the specific population it wants to reach.

The marketing campaign for the intervention can be applied by many different approaches. Previous studies have used social media, direct communication by mail or posters, stickers, articles, newspapers, webpage postings and more (Moore et al., 2013; Turner, Perkins, & Baurele, 2008). Furthermore, Hangman, Clifford and Noel (2007), report that there is a significant effect in the results of a SNI due to the type of approach used. The authors conclude that the Alcohol 101 program and the didactic presentation led to significant reduction in perception of peer alcohol use, in comparison to a visual video aid (Hangman et al., 2007).

### **Previous studies.**

Previous studies of social norms based interventions have been carried out primarily in college campuses in the United States and the United Kingdom. According to Mollen, Rimal, Ruiters, Ahn Jang and Kok (2013) "about 48% of 4-year residential colleges and

universities in the US have tried this approach” (p. 562). However, evidence of these studies is ambiguous in results. Many universities in the United States, such as the University of Arizona, Hobart and William Smith Colleges, the Western Washington University and others, report a significant reduction, up to 29%, in the levels of binge drinking in their campuses (Reilly & Wood, 2008). Likewise, Turner et al. (2008) carried out an investigation of the effects of a long term SNI in reducing alcohol related consequences and promoted healthy normed behaviors. This experiment initiated in 1999 and had a duration of 6 years. The intervention would first target first-year student in campus, and would evolve to reach all undergraduate students through various approaches. As a result, the study reports significant decreases (57%) in the odds of students suffering serious consequences associated with alcohol use (Turner et al., 2008). These statistics seem to assure the effectiveness of a Social Norms Intervention, however the literature on the subject is reduced and requires further testing.

Some studies, on the other hand, report negative or minimal results for the Social Norms Intervention. For example, the study conducted by Moore et al. (2013) applies a social norms intervention to reduce alcohol by exploring the differences in behavioral changes when using descriptive vs. injunctive norms (Moore et al., 2013). The study found that most students were able to remember, understand and recognize posters with descriptive norms rather than those with injunctive. However, they found that the impact on their change of behavior was present but small (Moore et al., 2013). Other studies conducted by Clapp and colleges, or Wrech and colleges, have found similar results, that the misperceptions of students are corrected, however the reduction in alcohol consumption is small (Reilly & Wood, 2008).

I believe that possible factors that are not being taken in account are the time, place and the medium used to deliver the Social Norms Intervention. In this study, I propose that the marketing social norms campaign is delivered directly by a text message to students in the peak hour and days that they will likely be drinking. As a result, I expect to find that a Social Norms Intervention in the university students will correct misperceptions of how much their peers drink. Secondly, I believe that there will be greater effectiveness in reducing binge drinking when the time of targeting participants is taken in account, which means that the intervention will be most effective at the times that students are most likely going engage in drinking.

## METHODOLOGY

### Participants

The sample of participants of the study is composed by 500 full-time students of Universidad San Francisco de Quito. The sample includes both male (48%, N=240) and female (52%, N=260) participants. As a requirement the students who are part of the experiment must be of legal drinking age, and their ages range from 18 to 24 years old. Their socioeconomic status of students is mostly middle and upper-middle standing.

### Recruitment of participants

In order to recruit participants, the following study will use the academic platform of Universidad San Francisco de Quito, Desire 2 Learn (D2L). First, a formal letter will be sent to the Dean of Students explaining the project, the purpose of the investigation, the risks and benefits for students and the institution, as well as the requirements for students to participate. In this case, the letter will ask permission to the Dean of Students to post an image with the information of the study in the "*Mi página de inicio*" page of D2L. This platform is used by all students in Universidad San Francisco de Quito mostly on a daily basis. Furthermore, the letter will also kindly request the Dean to mass send the information of recruitment to students' university email.

### Study design

The current study proposes the use of an experimental design, specifically a field experiment, on the Universidad San Francisco de Quito campus. Additionally, a pre and post test design will be used in order to identify changes in drinking patterns before and after the

intervention. A field experiment is a type of study design in which an investigator is able to impose and manipulate a variable in a naturally occurring environment (Roe & Just, 2009; Harrison & List, 2004). This type of study design has benefits and drawbacks that must be considered. One of the characteristics that can be seen as both, a benefit and a drawback, is that the investigator has less control over the environment than in a lab experiment. The benefit in this is that the results will have more external validity and can be generalizable to more contexts (Roe & Just, 2009). On the other hand, it can be a drawback because the lack of control of all the variables can reduce the certainty of establishing causality between variables (Roe & Just, 2009). Contrarily, Harrison and List (2004) argue that it is possible in a field experiment to have a controlled setting and the benefit is that the participants do not perceive their natural environment as being controlled. According to Roe and Just (2009), field experiments have medium to high internal validity and external validity. However, they argue that these types of experiments are difficult to replicate because of the lack of control (Roe & Just, 2009). Finally, it is important to note that in field experiments the groups may be contaminated by different treatment conditions due to the fact that the treatments are introduced to the natural context (Roe & Just, 2009).

In the case of this study, the participants will be recruited by addressing to all the students of the university via the virtual platform. The sample of participants will then be conformed by those students who are 18 years old or older and wish to participate in the study. Then, after receiving informed consent from the participants, the Drinking Norms Rating Form (Baer et al., 1991) will be applied in order to get the participants' perception of their peers' drinking habits. The Drinking Norms Rating Form was developed by Baer et al. in 1991, as a tool to identify the perceptions that people have of the drinking of the typical

student (Dimeff, 1999). Afterwards, the questionnaire Alcohol Use Disorders Identification Test (AUDIT) will be used in order to get a baseline of alcohol consumption of the participants and to identify patterns of consumption. The World Health Organization developed the “AUDIT” self-report questionnaire as a screening tool to identify excessive drinking (Barbon, Higgins-Biddle, Saunders, & Monteiro, 2001). This tool has demonstrated to be valid for people of different ages, gender and cultures, and it has been validated for the last two decades in many countries around the world, such as Mexico, Australia, Kenya, and the United States (Barbon et al., 2001).

Subsequently, students will be randomly assigned into three groups: 1) the experimental group that receives the social norms texts at time frame #1, 2) the experimental group that receives the social norms texts at time frame #2, and 3) the control group that will not receive any type of text messages. The experimental groups will then be targeted for a semester by a marketing campaign, via direct text messages, with social norms of alcohol consumption of their peers and the injunctive norms. The messages for the experimental group with time frame #1 will be delivered on Thursday, Friday, and Saturday from 19h00 to 2h00. On the other hand, the experimental group with time frame #2 will receive the same messages at a different timing: Monday, Tuesday and Wednesday, from 7h00 to 14h00. Finally, after approximately four months, the same AUDIT questionnaire will be used in order to evidence changes in alcohol consumption of participants, and the Drinking Norms Rating Form will be applied to identify changes in perception. Both questionnaires can be found in Annex C.

## **Analysis of the data**

The data will be analyzed taking in account both dependent variables, the levels of drinking and the perception of drinking. These variables are measured using the questionnaires described previously and yield quantitative results. Therefore, in order to measure the changes in the variables that result from the marketing social norms campaign with the two different time frames and the control group, a MANOVA statistical analysis will be applied using the statistics program Minitab 17.

## **Ethics**

In order to adhere to the ethical principles of research and publication, this investigation will first obtain institutional approval by presenting the project to the Bioethics Committee of Universidad San Francisco de Quito (American Psychological Association, 2010). Once approved by the committee, the investigator will approach the authorities of Universidad San Francisco de Quito with a formal letter in order to inform and obtain their permission for the investigation to take place in their institution.

The investigation will select participants by adhering to ethical principles and the Ecuadorian law. In Ecuador, the legal age for drinking alcohol is 18 years old. Due to the fact that this investigation is based on students' self reports of drinking, the investigation will only focus on students who are of legal drinking age. This objective will be achieved by using a filter question before answering the questionnaires that will immediately appreciate participation of underage students and terminate their participation.

Students who meet the criteria, and are willing to participate in the study will be asked to give informed consent of their participation in the investigation. The informed consent will include a brief explanation of the research, the purpose, the duration of the research and the expected procedures they will have to follow (American Psychological



Association, 2010). Furthermore, the informed consent will emphasize their voluntary participation in the investigation and their right to withdraw from the experiment at any point without suffering any kind of consequence (American Psychological Association, 2010). Participants will be reassured that their information will be maintained in confidentiality by the investigator. Also, the informed consent will explain potential risks and benefits of their participation (American Psychological Association, 2010). Finally, participants will be given contact information for them to resolve any doubts and to claim potential problems (American Psychological Association, 2010).

In order to maintain confidentiality of the information given by participants, the investigator will use the following procedures. When using a survey online tool such as Survey Monkey, the investigator will provide information in the informed consent stating that online surveys are not completely anonymous due to the IP address. Therefore, the investigator will maintain the information confidential and encrypted for the assurance of the participants. When using text messages, the investigator will use an automatic system of delivery that also ensures that the cell phone number of participants will remain confidential.

According to the APA ethics code, researchers can use inducements in order to persuade students to participate in the study (American Psychological Association, 2010). In this study the investigator will offer students a coupon for a Subway Sandwich Fajita de Pollo (\$2.50) as a reward for participating in the study.

Finally, in case that any participant has questions about the study, they could contact the lead investigator directly or the supervisor of the investigation. Furthermore, when the study is finished, all participants will be sent a short summary of the results to their

university email. In the case a participant would wish to know with more depth the findings of the study, he or she could request a session with the investigator or request the published results.

## ANTICIPATED RESULTS

The sample of participants at the beginning of the study is expected to be composed by 500 full-time students of Universidad San Francisco de Quito, 240 male (48%) participants and 260 female (52%) participants. The attrition of participants is expected to approximate 30%, which means that roughly 150 students will drop out of the study, will not complete the post-test, or will complete incorrectly the questionnaires. The final sample of the analyzed data will probably be composed of 350 participants, 182 females and 168 males.

I anticipate that the results for this study will demonstrate that in the first application of the Drinking Norms Rating Scale, approximately 90% of students will have overestimated the amount and the frequency of drinking of their peers. After the application of the Social Norms Intervention there will be a significant ( $p < 0.001$ ) change in perception of peers' drinking. Eighty percent of the participants adjusted their misperceptions, which means that only 20% of the participants maintained their overestimated misperceptions. Furthermore, it is expected that these perceptions will maintain at least over the next twelve months.

Taking in account the screening for levels of alcohol consumption, it is expected that in the first application of the AUDIT questionnaire, approximately 44% of the sample will self-report hazardous levels of binge drinking with scores of 8 or more. The Social Norms Intervention will be applied in two experimental groups and the control group. The results of experimental group that had the messages delivered on Thursday, Friday, and Saturday from 19h00 to 2h00 will be expected to reduce risky patterns of drinking in approximately 8% of the group participants. On the other hand, the experimental group with time frame #2, receiving messages from Monday to Wednesday, from 7h00 to 14h00, will be expected to

reduce alcohol consumption in approximately 2%. Finally, it is expected that the levels of binge drinking in the control group will remain fairly the same between the pre and post-test. The results of the changes in patterns of drinking will be expected to have a significance of  $p < 0.05$ .

## CONCLUSIONS

### Discussion

The results of the first application of the Drinking Norms Rating Scale, support the general knowledge that university students have significant misperceptions of the prevalence and amount of drinking of their peers or the average student (Carter & Kahnweiler, 2000; Moore et al., 2013). In this study, approximately 90% of the participants overestimated the prevalence of drinking patterns in the university. Therefore, the overestimation of peers' drinking weighs in as a factor in the students' patterns of drinking in Universidad San Francisco de Quito. This claim is supported by the social learning theory, the theory of planned behavior, and the theory of normative social behavior (Moore et al., 2013; Chauvin, 2011; Rimal, 2008). These theories propose that descriptive norms and injunctive norms of the consumption of alcohol of the reference group play a significant role in shaping the behavior of the students' drinking patterns.

However, when the misperceptions were corrected by the intervention with social norms in nearly 80% of the participants, the reduction in binge drinking wasn't as significant as it was expected to be. These results coincide with those of previous studies conducted by Moore et al., Clapp et al., or Wrech et al., in which the misperceptions were adjusted, however the reduction in drinking behaviors was small (Reilly & Wood, 2008). This may be a consequence of the many factors that influence alcohol consumption, being social norms just one of them. Furthermore, these minimal results could also be attributed to the short time, approximately 4 months, that the interventions were applied. Given the fact that the intervention expects to result in behavioral changes, it is possible that 4 months of intervention is a short time to expect reduction in alcohol consumption.

The results of the AUDIT questionnaire in order to identify hazardous drinking, demonstrate that approximately 44% of the participant's reported binge drinking. These results are consistent with the international statistics of undergraduate binge drinking (Jones et al., 2001; Thombs et al., 2007). On the second application of the questionnaire, after the intervention, there was a significant reduction of hazardous patterns of drinking. However, it is important to note that the results may be a distortion of the reality due to the fact that the AUDIT questionnaire is a self-report tool, and that students may underreport their consumption because they fear negative consequences or as social adequacy in order adapt to the social norms presented during the campaign. Furthermore, in Ecuador there is a lack of information regarding college student binge drinking, and this study may be the first to uncover the reality of the problem in our country.

Finally, the social norms intervention with two time frames did demonstrate to have significant differences in the impact it had over participants' drinking. A marketing campaign of social norms applied at times in which students are most likely drinking (Thursday, Friday and Saturday from 19h00 to 2h00), has demonstrated to be more effective in reducing excessive drinking that a campaign applied at daytime during weekdays. These results are an important breakthrough of the social norms intervention model in order to achieve more effective campaign models. As noted previously, the literature of the social norms interventions is reduced and ambiguous, and this is the first study that examines the time of intervention as an important variable to take in account.

## **Limitations**

When taking in account the study design, a possible limitation is the duration of the study, which is only for fourth months. In this case, we are expecting behavioral changes to

result from the intervention, and the limited time of the intervention may not be sufficient to result in or evidence significant changes. Another important limitation to consider is the fact that the questionnaires of alcohol consumption are of self-report, which means that the results could be biased because students want to be socially desirable and not actually because there was a behavioral change. Finally, another limitation to the study is that it is possible that the participants who have risky alcohol consumption patterns or dependence may try to avoid the investigation or provide biased answers.

### **Future Research**

For future research, it would be interesting to conduct a longitudinal Social Norms Intervention that would start with freshmen students and would continue until graduation. It is possible that with a greater time of intervention, the behavioral change will be more important. Also, this study takes into account social norms and social pressures as an important, or principal, motivator in influencing drinking behavior. However, if social aspects would be the principal motive for drinking, a greater change in behavior would result from the intervention. Therefore, for future studies it would be interesting to understand other motives that have an effect over drinking behaviors, in order to create a more effective intervention to reduce binge drinking.

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# ANNEX A: ADVERSITING

## Advertising Email

*Subject Line:* Seeking participation of students in research study

Dear Universidad San Francisco de Quito students,

My name is Daniela Valdivieso and I'm currently working on my research study in order to complete my undergraduate Psychology studies here at Universidad San Francisco de Quito. My research is aimed at applying a social norms intervention for binge drinking at the university, for which I'm currently looking for participants. I'm reaching out to you today to inform you about my research project and to encourage your participation. The study results have the potential to promote beneficial results in the academic community of Universidad San Francisco de Quito, but most importantly in the students' lives by regulating excessive alcohol consumption.

If you are interested, participation would require you being over 18 years old. First, the procedure would entail completing a consent form, which addresses ethical concerns and your rights as a participant in the study. Later, you will be required to complete two online questionnaires that take approximately 15 minutes to fill. Finally, as a follow up at the end of the semester you will complete the same two online questionnaires. Your participation would be very appreciated, and as a reward you would receive a coupon for a free Subway Sandwich Fajita de Pollo.

Following the conclusion of the study the results will be made available either through e-mail or if you require it by a follow up meeting with me. If you have any further questions, please do not hesitate to contact me at \*\*\*\*\*@estud.usfq.edu.ec , or at (+593)99\*\*\*\*\*. To proceed to the questionnaire, please click on the link below.

## Advertising Poster

**PSYCHOLOGY  
RESEARCH  
PROJECT  
USFQ**

*COMPLEMENTARY  
SUBWAY*

**REQUIREMENTS**

- 1. BE 18 YEARS OLD OR MORE**
- 2. BE ENROLLED AT USFQ**
- 3. COMPLETE AN ONLINE QUESTIONNAIRE**
- 4. 20 MINUTES OF YOUR TIME**

CONTACT ME AT \*\*\*\*\*@ESTUD.USFQ.EDU.EC  
OR (593)99\*\*\*\*\*

## ANNEX B: ETHICS FORMS



**Comité de Bioética, Universidad San Francisco de Quito**  
**El Comité de Revisión Institucional de la USFQ**  
**The Institutional Review Board of the USFQ**

### SOLICITUD PARA APROBACION DE UN ESTUDIO DE INVESTIGACION

#### INSTRUCCIONES:

1. Antes de remitir este formulario al CBE, se debe solicitar vía electrónica un código para incluirlo, a [comitebioetica@usfq.edu.ec](mailto:comitebioetica@usfq.edu.ec)
2. Enviar solo archivos digitales. Esta solicitud será firmada en su versión final, sea de manera presencial o enviando un documento escaneado.
3. Este documento debe completarse con la información del protocolo del estudio que debe servir al investigador como respaldo.
4. Favor leer cada uno de los parámetros verificando que se ha completado toda la información que se solicita antes de enviarla.

DATOS DE IDENTIFICACIÓN	
<b>Título de la Investigación</b>	
	Social norms intervention to reduce binge drinking at Universidad San Francisco de Quito
<b>Investigador Principal</b> <i>Nombre completo, afiliación institucional y dirección electrónica</i>	
	Daniela Valdivieso Eguiguren, Universidad San Francisco de Quito, *****@gmail.com
<b>Co-investigadores</b> <i>Nombres completos, afiliación institucional y dirección electrónica. Especificar si no lo hubiera</i>	
	N/A
<b>Persona de contacto</b> <i>Nombre y datos de contacto incluyendo teléfonos fijo, celular y dirección electrónica</i>	
	Eugenia Eguiguren, (+593)*****, *****@gmail.com
<b>Nombre de director de tesis y correo electrónico</b> <i>Solo si es que aplica</i>	
	Sonja Embree, *****@usfq.edu.ec
<b>Fecha de inicio de la investigación</b>	28/08/2016
<b>Fecha de término de la investigación</b>	20/12/2016
<b>Financiamiento</b> <i>Datos completos del auspiciante o indicar "personal"</i>	

DESCRIPCIÓN DEL ESTUDIO	
<b>Objetivo General</b> <i>Se debe responder tres preguntas: qué? cómo? y para qué?</i>	
	La investigación es una intervención publicitaria con normas sociales para reducir el patrón de consumo "binge drinking" en los estudiantes de la Universidad San Francisco de Quito. Por medio de la intervención de normas sociales se ajustan percepciones erróneas en cuanto a normas descriptivas y prescriptivas relacionados al consumo de alcohol.
<b>Objetivos Específicos</b>	

1. Corregir percepciones erróneas de normas sociales (descriptivas y prescriptivas) relacionadas al consumo de alcohol
2. Conocer la efectividad de la intervención de normas sociales por medio de mensajes de texto en dos diferentes modalidades de tiempo.
3. Reducir el consumo “binge drinking” en estudiantes que su principal motivo para tomar es recompensa social.
4. Conocer la eficacia de una intervención de normas sociales en estudiantes de latinoamérica, con el objetivo de replicar el estudio.

**Diseño y Metodología del estudio** *Explicar el tipo de estudio (por ejemplo cualitativo, cuantitativo, con enfoque experimental, cuasi-experimental, pre-experimental; estudio descriptivo, transversal, de caso, in-vitro...) Explicar además el universo, la muestra, cómo se la calculó y un breve resumen de cómo se realizará el análisis de los datos, incluyendo las variables primarias y secundarias..*

**Tipo de estudio:** La investigación es un tipo de estudio cuantitativo pre- post con diseño de experimento de campo. **Universo:** La población es de estudiantes universitarios de 18 a 24 años de Quito, Ecuador. **Muestra:** La muestra se compone por 500 estudiantes, hombres y mujeres, de 18 a 24 años, de la Universidad San Francisco de Quito. Su estado socio económico es principalmente de clase media a media-alta.

**Variables:** La VD#1 corresponde a la medida de las percepciones de los estudiantes sobre el consumo de alcohol de sus compañeros o grupo de referencia. Dicha variable se mide por medio del cuestionario Drinking Norms Rating Scale (Baer et al., 1991). La VD#2 corresponde a las medidas del cuestionario AUDIT, que se refieren a los niveles y patrones de consumo de alcohol de los estudiantes. La VI#1 corresponde a la modalidad de tiempo (Lunes, Martes y Miércoles de 8h00 a 14h00, o Jueves, Viernes y Sábado de 20h00 a 2h00) en la que la intervención publicitaria de normas sociales referentes al consumo de alcohol es presentada. Finalmente, la VI#2 es el tiempo en el que se realizan las medidas, antes y después de la aplicación de la intervención.

**Análisis de datos:** El análisis de datos se realizará con el uso del programa estadístico Minitab 17. Se utilizará un modelo estadístico MANOVA.

**Procedimientos** *Los pasos a seguir desde el primer contacto con los sujetos participantes, su reclutamiento o contacto con la muestra/datos.*

1. Se contactará por medio de una carta a las autoridades de la Universidad San Francisco de Quito para investigar la investigación, sus beneficios, riesgos, y toda la información pertinente, con el objetivo de conseguir su aprobación para realizar la investigación en su institución.
2. Se contactará al Decanato de Estudiantes por medio de un e-mail para pedirles ayuda a difundir el poster y el e-mail de reclutamiento por medio de la plataforma virtual de la universidad, Desire 2 Learn, y los correos electrónicos institucionales de los estudiantes.
3. Estudiantes interesados en participar recibirán el consentimiento informado para que lo lean, comprendan y firmen.
4. Se iniciará con la primera aplicación de los cuestionarios Drinking Norms Rating Scale y el AUDIT.
5. Se va a dividir aleatoriamente a los estudiantes en el grupo control y dos grupos experimentales.
6. Por medio de mensajes de texto se difundirá la campaña de marketing de normas sociales durante el semestre, es decir por un tiempo aproximado de 4 meses. Cada grupo experimental tendrá una modalidad de tiempo de entrega diferente.
7. Se volverá a aplicar los cuestionarios Drinking Norms Rating Scale y el AUDIT a los dos grupos para evidenciar cambios en la percepción de consumo de los compañeros y en los patrones de consumo de alcohol.
8. Se enviará por medio de un correo electrónico los resultados de la investigación a todos los estudiantes y docentes de la Universidad San Francisco de Quito. La investigación

completa será entregada en el caso de que algún participante lo solicite.
<b>Recolección y almacenamiento de los datos</b> <i>Para garantizar la confidencialidad y privacidad, de quién y donde se recolectarán datos; almacenamiento de datos—donde y por cuánto tiempo; quienes tendrán acceso a los datos, qué se hará con los datos cuando termine la investigación</i>
Con el objetivo de garantizar la confidencialidad y la privacidad de los participantes, se utilizará una plataforma de encuestas para el llenado de los cuestionarios. Sin embargo, es importante mencionar que los participantes serán informados que sus datos no serán completamente anónimos por el camino rastreable que deja la dirección IP. Para garantizar la confidencialidad se mantendrán los datos bajo contraseña y encriptados en la computadora de la investigadora por un tiempo de dos años. La investigadora principal será la única persona con acceso a estos datos. En el caso extraordinario de que se presente algún problema en la investigación, el Comité de Bioética de la Universidad San Francisco de Quito podrá pedir el acceso a los datos recolectados. Una vez que se termine la investigación todos los datos serán eliminados definitivamente de la computadora.
<b>Herramientas y equipos</b> <i>Incluyendo cuestionarios y bases de datos, descripción de equipos</i>
<ol style="list-style-type: none"> <li>1. MacBook Pro 2010</li> <li>2. Minitab 17</li> <li>3. Microsoft Excel for Mac 2011- Versión 14.3.6</li> <li>4. The Alcohol Use Disorders Identification Test (AUDIT) (World Health Organization, 2001)</li> <li>5. Drinking Norms Rating Scale (Baer et al., 1991)</li> </ol>

## JUSTIFICACIÓN CIENTÍFICA DEL ESTUDIO

*Se debe demostrar con suficiente evidencia por qué es importante este estudio y qué tipo de aporte ofrecerá a la comunidad científica.*

El consumo de alcohol excesivo en Ecuador es un problema social recurrente. De acuerdo a la Organización Panamericana de la Salud (2014), Ecuador es el noveno país en la región con consumo más alto per cápita. El consumo de alcohol en el país se extiende a todos los segmentos de la población y se ha vuelto parte de la cultura. Sin embargo, estudios del Instituto Nacional Ecuatoriano de Estadísticas y Censos (2012) y el Consejo Nacional de Control de Sustancias Estupefacientes y Psicotrópicas (2014), demuestran que las personas de 18 a 24 años demuestran el consumo más elevado y riesgoso de la población. Adicionalmente, varios estudios han encontrado que estudiantes universitarios en dicho rango de edad consumen mayor cantidad de alcohol y se involucran más en “binge drinking” que sus pares que no están en la universidad (Clinkinbeard & Johnson, 2013). El consumo moderado de alcohol en su mayoría no presenta riesgos para la salud, e incluso puede ser beneficioso. Por otro lado, los patrones de consumo excesivos, como el “binge drinking” se han asociado con varias consecuencias físicas y sociales (Clinkinbeard & Johnson, 2013).

La intervención de normas sociales por medio de una campaña publicitaria surge de las teorías de psicología social. Varias teorías como la Teoría del Aprendizaje Social, la Teoría del Comportamiento Planeado y otras, establecen que el comportamiento de las personas es afectado en gran medida por el ambiente social y las normas sociales (Moore, Williams, Moore & Murphy, 2013). Esta intervención se basa en dos tipos de normas: descriptivas y prescriptivas. Las intervenciones de normas sociales han sido utilizadas principalmente en Estados Unidos e Inglaterra. Estudios previos han demostrado que los estudiantes recuerdan más las normas descriptivas, que se presenta una reducción del consumo de alcohol en estudiantes, y se puede utilizar para reducir en gran medida las consecuencias relacionadas al consumo de alcohol ( Moore et al., 2013; Turner, Perkins & Baurele, 2008).

*Referencias bibliográficas completas en formato APA*

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<b>DESCRIPCIÓN DE LOS ASPECTOS ÉTICOS DEL ESTUDIO</b>	
<b>Criterios para la selección de los participantes</b>	<i>Tomando en cuenta los principios de beneficencia, equidad, justicia y respeto</i>
Estudiantes universitarios de 18 a 24 años que cursen actualmente la universidad en modalidad tiempo completo. Dicha población representa el mayor riesgo de consumo de alcohol excesivo y se puede beneficiar de la intervención de normas sociales.	
<b>Riesgos</b>	<i>Describir los riesgos para los participantes en el estudio, incluyendo riesgos físico, emocionales y psicológicos aunque sean mínimos y cómo se los minimizará</i>
La investigación supone algunos riesgos mínimos que serán detallados a continuación. En cuanto a riesgos físicos, no se puede identificar riesgos físicos que puedan surgir para los voluntarios al participar en la investigación. Por otro lado, se pueden identificar riesgos emocionales y psicológicos, se anticipa que algunos participantes concientizen que sus patrones de consumo de alcohol son más elevados de la norma. Como resultado, esto puede generar afectación emocional y psicológica. Para reducir este riesgo, se incluirá en los cuestionarios un contacto de un profesional para referir a los voluntarios que lo deseen. Adicionalmente, se puede anticipar el riesgo de que algunas personas consideren la campaña publicitaria como una burla o un reto, y como resultado presenten un consumo de alcohol más elevado.	
<b>Beneficios para los participantes</b>	<i>Incluyendo resultados de exámenes y otros; solo de este estudio y cómo los recibirán</i>
Los beneficios de participar en este estudio es que posiblemente exista una disminución en el consumo de alcohol en aquellas personas que presenten un patrón de consumo riesgoso como lo es el "binge drinking".	
<b>Ventajas potenciales a la sociedad</b>	<i>Incluir solo ventajas que puedan medirse o a lo que se pueda tener acceso</i>
El patrón de consumo "binge drinking" de alcohol en las universidades en Ecuador y en el mundo es un problema social recurrente y de importancia. En el caso de que la intervención con normas sociales pueda reducir los niveles de consumo de alcohol en estudiantes, se podría replicar en varias universidades del país. La mayor ventaja es que los estudiantes puedan tomar mejores decisiones en lo referente al consumo de alcohol, y que se pueda reducir el consumo riesgoso.	
<b>Derechos y opciones de los participantes del estudio</b>	<i>Incluyendo la opción de no participar o retirarse del estudio a pesar de haber aceptado participar en un inicio.</i>
Los participantes en este estudio son voluntarios, por lo tanto tienen el derecho de retirarse del estudio en cualquier momento sin ningún tipo de consecuencia.	
<b>Seguridad y Confidencialidad de los datos</b>	<i>Describir de manera detallada y explícita como va a proteger los derechos de participantes</i>
La recolección de los datos se realizará por medio de una herramienta de encuestas en línea. Es importante mencionar que al usar este tipo de herramienta, los datos de los participantes no son completamente anónimos debido a la dirección IP. Por lo tanto, con el objetivo de mantener los datos en confidencialidad, dichos datos serán manejados únicamente por la investigadora principal y se	





Se contactará por medio de una carta a las autoridades de la Universidad San Francisco de Quito para investigar la investigación, sus beneficios, riesgos, y toda la información pertinente, con el objetivo de conseguir su aprobación para realizar la investigación en su institución.										
Se contactará al Decanato de Estudiantes por medio de un e-mail para pedirles ayuda a difundir el poster y el e-mail de reclutamiento por medio de la plataforma virtual de la universidad, Desire 2 Learn, y los correos electrónicos institucionales de los estudiantes.										
Estudiantes interesados en participar recibirán el consentimiento informado para que lo lean, comprendan y firmen.										
Se iniciará con la primera aplicación de los cuestionarios Drinking Norms Rating Scale y el AUDIT.										
Se va a dividir aleatoriamente a los estudiantes en el grupo control y el grupo experimental.										
Por medio de mensajes de texto la campaña de marketing de normas sociales durante el semestre en las dos modalidades de tiempo.										
Se volverá a aplicar los cuestionarios Drinking Norms Rating Scale y el AUDIT a los dos grupos para evidenciar cambios en la percepción de consumo de los compañeros y en los patrones de consumo de alcohol.										
Se realizará un análisis estadístico MANOVA con los datos recolectados.										
Se enviará por medio de un correo electrónico los resultados de la investigación a todos los estudiantes y docentes de la Universidad San Fransico de Quito. La investigación completa será entregada en el caso de que algún participante lo solicite.										

**CERTIFICACIÓN:**

1. Certifico no haber recolectado ningún dato ni haber realizado ninguna intervención con sujetos humanos, muestras o datos. Sí ( X ) No ( )
2. Certifico que los documentos adjuntos a esta solicitud han sido revisados y aprobados por mi director de tesis. Sí ( X ) No ( )

No Aplica ( )

**Firma del investigador:** \_\_\_\_\_ (con tinta azul)

**Fecha de envío al Comité de Bioética de la USFQ:** \_\_\_\_\_



## Comité de Bioética, Universidad San Francisco de Quito

El Comité de Revisión Institucional de la USFQ  
The Institutional Review Board of the USFQ

### Formulario Consentimiento Informado

Título de la investigación: Social norms intervention to reduce binge drinking at Universidad San Francisco de Quito

Organización del investigador Universidad San Francisco de Quito

Nombre del investigador principal Daniela Susana Valdivieso Eguiguren

Datos de localización del investigador principal (+593)22\*\*\*\*\*, (+593)9\*\*\*\*\*,  
\*\*\*\*\*@gmail.com

Co-investigadores N/A

#### DESCRIPCIÓN DEL ESTUDIO

**Introducción** *(Se incluye un ejemplo de texto. Debe tomarse en cuenta que el lenguaje que se utilice en este documento no puede ser subjetivo; debe ser lo más claro, conciso y sencillo posible; deben evitarse términos técnicos y en lo posible se los debe reemplazar con una explicación)*

Este formulario incluye un resumen del propósito de este estudio. Usted puede hacer todas las preguntas que quiera para entender claramente su participación y despejar sus dudas. Para participar puede tomarse el tiempo que necesite para consultar con su familia y/o amigos si desea participar o no.

Usted ha sido invitado a participar en un investigación sobre una campaña publicitaria de normas sociales para reducir patrones riesgosos de consumo de alcohol, porque es un estudiantes universitario de 18 a 24 años de edad.

**Propósito del estudio** *(incluir una breve descripción del estudio, incluyendo el número de participantes, evitando términos técnicos e incluyendo solo información que el participante necesita conocer para decidirse a participar o no en el estudio)*

El estudio va a contar con aproximadamente 500 participantes, todos estudiantes de la Universidad San Francisco de Quito. El estudio tiene como propósito conocer si una campaña publicitaria de normas sociales es una intervención efectiva para reducir el “binge drinking” en estudiantes universitarios.

**Descripción de los procedimientos** *(breve descripción de los pasos a seguir en cada etapa y el tiempo que tomará cada intervención en que participará el sujeto)*

1. Al decidir participar en el estudio, primero se va a completar un consentimiento informado. El consentimiento se tiene que leer completamente y el mismo toma aproximadamente 5 minutos en llenar.
2. A continuación se deben completar dos cuestionarios: Drinking Norms Rating Form y AUDIT. Dichos cuestionarios toman aproximadamente 15 minutos en llenar.
3. Durante los siguientes 4 meses el grupo experimental recibirá información a su celular.
4. Al pasar los cuatro meses se volverá a llenar los dos cuestionarios: Drinking Norms Rating Form y AUDIT

**Consentimiento informado** *(Es responsabilidad del investigador verificar que los participantes tengan un nivel de comprensión lectora adecuado para entender este documento. En caso de que no lo tuvieran el documento debe ser leído y explicado frente a un testigo, que corroborará con su firma que lo que se dice de manera oral es lo mismo que dice el documento escrito)*

**Riesgos y beneficios** *(explicar los riesgos para los participantes en detalle, aunque sean mínimos, incluyendo riesgos físicos, emocionales y/o psicológicos a corto y/o largo plazo, detallando cómo el investigador minimizará estos riesgos; incluir además los beneficios tanto para los participantes como para la sociedad, siendo explícito en cuanto a cómo y cuándo recibirán estos beneficios)*

La investigación supone algunos riesgos mínimos que serán detallados a continuación. En cuanto a riesgos físicos, no se puede identificar riesgos físicos que puedan surgir para los voluntarios al participar en la investigación. Por otro lado, se pueden identificar riesgos emocionales y psicológicos, se anticipa que algunos participantes concientizan que sus patrones de consumo de alcohol son más elevados de la norma. Como resultado, esto puede generar afectación emocional y psicológica. Para reducir este riesgo, se incluirá en los cuestionarios un contacto de un profesional para referir a los voluntarios que lo deseen. Por otro lado, los beneficios de participar en este estudio es que posiblemente exista una disminución en el consumo de alcohol en aquellas personas que presenten un patrón de consumo riesgoso para su salud.

**Confidencialidad de los datos** *(se incluyen algunos ejemplos de texto)*

Para nosotros es muy importante mantener su privacidad, por lo cual aplicaremos las medidas necesarias para que nadie conozca su identidad ni tenga acceso a sus datos personales:

1) La información que nos proporcione se identificará con un código que reemplazará su nombre y se guardará en una computadora bajo contraseña donde solo el investigador tendrá acceso.

2) El Comité de Bioética de la USFQ podrá tener acceso a sus datos en caso de que surgieran problemas en cuando a la seguridad y confidencialidad de la información o de la ética en el estudio.

**Derechos y opciones del participante** *(se incluye un ejemplo de texto)*

Usted puede decidir no participar y si decide no participar solo debe decírselo al investigador principal o a la persona que le explica este documento. Además aunque decida participar puede retirarse del estudio cuando lo desee, sin que ello afecte los beneficios de los que goza en este momento.

Usted recibirá un cupón para un sandwich Subway Fajita de Pollo gratis y no tendrá que pagar absolutamente nada por participar en este estudio.

**Información de contacto**

Si usted tiene alguna pregunta sobre el estudio por favor llame al siguiente teléfono (593)\*\*\*\*\* que pertenece a Daniela Valdivieso , o envíe un correo electrónico a \*\*\*\*\*@estud.usfq.edu.ec

Si usted tiene preguntas sobre este formulario puede contactar al Dr. William F. Waters, Presidente del Comité de Bioética de la USFQ, al siguiente correo electrónico: comitebioetica@usfq.edu.ec

Comprendo mi participación en este estudio. Me han explicado los riesgos y beneficios de participar en un lenguaje claro y sencillo. Todas mis preguntas fueron contestadas. Me permitieron contar con tiempo suficiente para tomar la decisión de participar y me entregaron una copia de este formulario de consentimiento informado. Acepto voluntariamente participar en esta investigación.	
Firma del participante	Fecha
Firma del testigo <i>(si aplica)</i>	Fecha
Nombre del investigador que obtiene el consentimiento informado	
Firma del investigador	Fecha

## ANNEX C: INSTRUMENTS

### Drinking Norms Rating Form (Baer et al. 1991)

#### Drinking Norms Rating Form

#### INSTRUCTIONS

Please choose one answer for questions 1 and 2

1. Dormitory/residence hall
2. Fraternity
3. Sorority
4. With Parents
5. Own Residence

1. What type of residence do you currently live in?
2. What type of residence do you expect to live in next semester?

Instructions	A. How often they drink	B. How much they drink on a typical weekend evening
We are interested in your estimates of A) <i>How often</i> and B) <i>How much</i> different types if people drink. For the following questions, please assume whenever possible that you are <i>rating a typical person of your same sex</i> . In each of the following situations, please enter the corresponding number, giving one answer for (A) (1-7), and one answer for (B) (1-6).	<ol style="list-style-type: none"> <li>1. Less than once a month</li> <li>2. About once a month</li> <li>3. Two or three times a month</li> <li>4. Once or twice a week</li> <li>5. Three or four times a week.</li> <li>6. Nearly every day</li> <li>7. Once a day</li> </ol>	<ol style="list-style-type: none"> <li>1. 0 drinks</li> <li>2. 1-2 drinks</li> <li>3. 3-4 drinks</li> <li>4. 5-6 drinks</li> <li>5. 7-8 drinks</li> <li>6. More than 8 drinks</li> </ol>
3. An average college- bound senior in high school		
4. An average university student		
5. An average college student residing in a fraternity		
6. An average college student residing in a sorority		
7. An average college student residing in dormitory/residence hall		
8. An average college student residing with his/her parents		
9. An average college student residing in his/her own residence		
10. Your closest friends		

## Alcohol Use Disorder Identification Test (World Health Organization, 2001)

### AUDIT

PACIENTE: Debido a que el uso del alcohol puede afectar su salud e interferir con ciertos medicamentos y tratamientos, es importante que le hagamos algunas preguntas sobre su uso del alcohol. Sus respuestas serán confidenciales, así que le agradecemos su honestidad.

Para cada pregunta en la tabla siguiente, marque una X en el cuadro que mejor describa su respuesta.

NOTA: En los Estados Unidos *una bebida* se refiere a cualquier bebida que contiene aproximadamente 14 gramos de etanol o alcohol puro. Las bebidas que siguen a continuación son de diferentes tamaños sin embargo su contenido de alcohol es el mismo. Es por eso que todas son consideradas *una bebida*:



Preguntas	0	1	2	3	4	
1. ¿Con qué frecuencia consume alguna bebida alcohólica?	Nunca	Una o menos veces al mes	De 2 a 4 veces al mes	De 2 a 3 más veces a la semana	4 o más veces a la semana	
2. ¿Cuántas consumiciones de bebidas alcohólicas suele realizar en un día de consumo normal?	1 o 2	3 o 4	5 o 6	De 7 a 9	10 o más	
3. ¿Con qué frecuencia toma 5 o más bebidas alcohólicas en un solo día?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
4. ¿Con qué frecuencia en el curso del último año ha sido incapaz de parar de beber una vez había empezado?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
5. ¿Con qué frecuencia en el curso del último año no pudo hacer lo que se esperaba de usted porque había bebido?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
6. ¿Con qué frecuencia en el curso del último año ha necesitado beber en ayunas para recuperarse después de haber bebido mucho el día anterior?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
7. ¿Con qué frecuencia en el curso del último año ha tenido remordimientos o sentimientos de culpa después de haber bebido?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
8. ¿Con qué frecuencia en el curso del último año no ha podido recordar lo que sucedió la noche anterior porque había estado bebiendo?	Nunca	Menos de una vez al mes	Mensualmente	Semanalmente	A diario o casi a diario	
9. ¿Usted o alguna otra persona ha resultado herido porque usted había bebido?	No		Sí, pero no en el curso del último año		Sí, el último año	
10. ¿Algún familiar, amigo, médico o profesional sanitario ha mostrado preocupación por un consumo de bebidas alcohólicas o le ha sugerido que deje de beber?	No		Sí, pero no en el curso del último año		Sí, el último año	
					<b>Total</b>	

**Nota:** Este cuestionario (el AUDIT) se reimprime con permiso de la Organización Mundial de la Salud y la Generalitat Valenciana Conselleria de Benestar Social. Para reflejar las medidas de consumo en los Estados Unidos (14 gramos de alcohol puro), la cantidad de tragos en la pregunta 3 fue cambiada de 6 a 5. En el sitio [www.who.org](http://www.who.org) está disponible en forma gratuita un manual AUDIT con guías para su uso en la atención primaria.