





## Exploring the Alcohol Consumption of Students in a Higher Education Institution During the COVID-19 Pandemic: A Case Study

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### ABSTRACT

Several studies in foreign literatures indicated an increase in health-related problems induced by alcohol use as a result of the COVID-19 epidemic accompanying limitations on mobility. However, there were a handful of previous research on alcohol usage in the Philippines, particularly in Higher Education Institutions during the COVID-19 pandemic. With this current gap in mind, this study evaluated alcohol use among students at a Higher Education Institution in Metro Manila in order to offer evidence-based data for the formulation of alcohol-related health policy. Furthermore, this study is critical in developing an intervention program to assist students in diverting their focus away from alcohol intake. This study used an online survey form, with 564 students participated. The findings revealed that respondents have different preferences and patterns. Almost all of the respondents are aware of the dangers of excessive alcoholic beverage consumption; a large percentage determined that they do not have a drinking problem; a small percentage revealed that they have tried driving while under the influence of alcohol; and more than one-fourth of the respondents drank at least one glass of alcoholic beverages during enhanced community quarantine. The chi-squared test was also utilized to assess the difference between COVID-19 lockdowns and alcohol consumptions.

### RESUMO

Vários estudos em literaturas estrangeiras indicaram um aumento nos problemas relacionados com a saúde induzidos pelo consumo de álcool como resultado da epidemia de COVID-19 que acompanha as limitações à mobilidade. No entanto, houve algumas pesquisas anteriores sobre o uso de álcool nas Filipinas, particularmente em instituições de ensino superior durante a pandemia de COVID-19. Com esta lacuna atual em mente, este estudo avaliou o uso de álcool entre estudantes de uma instituição de ensino superior na região metropolitana de Manila, a fim de oferecer dados baseados em evidências para a formulação de políticas de saúde relacionadas ao álcool. Além disso, este estudo é fundamental no desenvolvimento de um programa de intervenção para ajudar os alunos a desviar o foco da ingestão de álcool. Este estudo utilizou um formulário de pesquisa online, com a participação de 564 alunos. As descobertas revelaram que os entrevistados têm preferências e padrões diferentes. Quase a totalidade dos entrevistados tem consciência dos perigos do consumo excessivo de bebidas alcoólicas; uma grande porcentagem determinou que não têm problemas com a bebida; uma pequena porcentagem revelou que já tentou dirigir sob efeito de álcool; e mais de um quarto dos entrevistados beberam pelo menos um copo de bebidas alcoólicas durante a quarentena comunitária reforçada. O teste qui-quadrado também foi utilizado para avaliar a diferença entre os bloqueios da COVID-19 e o consumo de álcool.

### ARTICLE INFORMATION

#### Article process:

Submitted: 11/15/2023

Approved: 03/30/2024

Published: 04/06/2024



#### Keywords:

binge drinking, DUI, cross-sectional, college, differences

#### Keywords:

Consumo excessivo de álcool, DUI, Transversal, faculdade, diferenças

## Introduction

COVID-19 imposes numerous constraints on people's lives, notably in social circumstances. Many social events and activities involving the consumption of alcohol were affected by restrictions. Health professionals expressed concern about the impact of lockdown and social isolation, which is crucial to highlight because excessive alcohol usage as a coping method may exacerbate mental health disorders and other negative physical health concerns. (Pollard et al., 2020). In a study by Schecke et al. (2022) and Bourne et al. (2021), it was identified that during the COVID-19 pandemic, Germans and Jamaicans experienced considerable increases in alcohol usage, which became a public health concern.

In addition, college students and teachers were also affected by the closure of colleges and universities in many ways; their mental well-being has been a concern. (Son et al., 2020; Simbulan, 2020; Fernandes et al., 2020; Rabacal et al., 2020). In the study of Rahman et al. (2022), university students, particularly those from the Philippines and three other southeast Asian countries, revealed a higher chance of drinking alcohol on a daily basis.

Although the Philippines suffered greatly by the economic and health context of the COVID-19 pandemic, most contemporary research has been conducted in western contexts, with just a handful focused on alcohol consumption among students in the Philippines' higher education institutions, notably in COVID-19 period. Likewise, there is still a lack of up-to-date empirical-based data from the national health agency on alcohol consumption among students, making it difficult to plan and execute effective preventive and intervention programs.

Thus, the purpose of this research is to investigate the consumption patterns of students at the identified higher education institution (HEI) during COVID-19. Also, the study aims to provide evidence-based facts for the creation of alcohol-related health policies in the chosen HEI. Furthermore, this research is important in establishing an intervention program to help students redirect their attention away from excessive alcohol use and contribute to their physical and mental health well-being.

## Methodology

This is a cross-sectional case study of a specific higher education institution in Metro Manila. The site investigators oversaw obtaining approval from the university's administration to carry out the study. At the same time, the researchers secured approval for the study from the research ethics committee review board. The deployment of an electronic-based survey questionnaire to all students and employees was encouraged due to COVID-19 restrictions.

The instrument tool developed by Pagkatipunan (2017) was used in this study, and a total of 564 respondents were able to provide responses to the modified survey questionnaire. Prior to administering the survey, face and content validation were performed.

## Results and Discussions

A total of 564 respondents were gathered from the selected HEI in Metro Manila. In table 1, out of 564 student respondents, 414 (73%) are female and 150 (27%) are male. Most of the student respondents are from the 1<sup>st</sup> year level at 363 (64%) and aged 18-19 years old at 311 (55%).

**Table 1.**  
*Profile of the student respondents*

Classification	Sex at birth	f		Year level		Age		f	
		f	%	f	%	f	%	f	%
Student	Female	414	73	1 <sup>st</sup> year	363	64	18-19 yrs. old	311	55
	Male	150	27	2 <sup>nd</sup> year	100	18	20-21 yrs. old	207	37
				3 <sup>rd</sup> year	77	14	22-23 yrs. old	38	7
				4 <sup>th</sup> year	10	2	24-25 yrs. old	5	.9
				Irregular	14	2	26 yrs. old and above	3	.5

### Ever drank alcohol and drank before the age of 13 years

Table 2 showed that 67% (376) students responded that they drank any alcohol at least once in their lives. Findings showed that most of the students consumed beer at 67% (376), followed by wine at 64% (360), and the least consumed alcohol is distilled spirits at 60% (338). While in table 3, 85% (484) students stated that they did not drink beer 74% (418), did not drink wine, and 89% (501) did not consumed distilled spirits before the age of 13 years old. Also, the prevalence of drinking alcohol is higher in females (74%) than males (26%) which showed that females have more access, financially, to alcoholic drinks. There has been observed decline of male drinkers than female. (European School Survey Project on Alcohol and Other Drugs, 2020; Pramaunururur et al., 2022).

**Table 2.**  
*Distribution of students who drank one glass of alcohol at least one day in their life*

I drank one glass at least one day in my life.	Beer		Wine		Distilled spirits				
		%		%		%			
	Female	Male	Female	Male	Female	Male			
Yes	271	105	67	260	100	64	228	110	60
No	143	45	33	154	50	36	186	40	40
<i>X<sup>2</sup>, p-value</i>		1.02	0.312	0.712	0.399	15.3	<.001		

The computed chi-squared values and p-values for both beer  $X^2(1, N=564) = 1.02$ ,  $p=.312$  and wine  $X^2(1, N=564) = 0.712$ ,  $p=.399$  have average values than highly significant

distilled spirits  $X^2 (1, N=564) = 15.3, p < .001$  when they drank at least one glass in their lives. The results of the computed chi-squared and p-values for beer, wine, and distilled spirits are  $X^2 (1, N=564) = 7.05, p = .008, 2.43, p = .119,$  and  $13.7, p < .001$  respectively when they drank for the first time before their age 13 shows that there is significant difference on sex at birth.

**Table 3.**

*Distribution of students who drank at least one glass of alcohol before the age of 13*

I drank one glass for the first time before age 13 years old.	Beer		Wine		Distilled spirits				
		%		%		%			
	Female	Male	Female	Male	Female	Male			
Yes	49	31	15	100	46	26	34	29	11
No	365	119	85	314	104	74	380	121	89
	<i>X<sup>2</sup>, p-value</i>		<i>7.05 0.008</i>		<i>2.43 0.119</i>		<i>13.7 &lt;.001</i>		

**Drinking patterns during COVID-19**

Table 4 presents that 237 (42%) respondents drank at least one glass of beer, 226 (40%) drank distilled spirits, and 220 (39%) drank wine during enhanced community quarantine (ECQ). The respondents who drank at least one glass of beer and distilled spirits are statistically associated to their sex at birth with  $X^2 (1, N=564) 2.37, p=0.124$  and  $X^2 (1, N=564) 5.35, p=0.021$  except for those who drank wine with  $X^2 (1, N=564) 0.241, p=0.624$ . Callinan and MacLean (2016) found associations between alcohol preference and drinking motives, quantity of alcohol consumed, and frequency of excessive drinking.

**Table 4.**

*Distribution of students drinking at least one glass of alcohol during ECQ*

I drank at least one glass during the ECQ	Beer		Wine		Distilled spirits	
		%		%		%
Yes	237	42	220	39	226	40
No	327	58	344	61	338	60
	<i>X<sup>2</sup>, p-value</i>		<i>2.37 0.124</i>		<i>5.35 0.021</i>	

There were 27% drank beer, 25% distilled spirits, and 21% wine at least once a month during the ECQ in table 5. Corresponding to the findings in table 4, it revealed statistical dependent on sex at birth in exemption for wine.

**Table 5.**

*Distribution of students drinking alcohol at least once a month during ECQ*

<b>I drank at least once a month during the ECQ</b>	<b>Beer</b>	<b>%</b>	<b>Wine</b>	<b>%</b>	<b>Distilled spirits</b>	<b>%</b>
Yes	150	27	117	21	141	25
No	414	73	447	79	423	75
<i>X<sup>2</sup>, p-value</i>	6.82	0.009	0.833	0.361	6.41	0.011

About 134 respondents said that they drank five or more glasses of distilled spirits in one sitting at least one day during the ECQ followed by 96 respondents said that they drank beer, and 48 drank wine in table 6. It can be said that respondents who drank five or more glasses of beer with  $X^2(1 N=5640) 11.7, p < .001$  have significant association to their sex at birth.

**Table 6.**

*Distribution of students who drank 5 or more glasses of alcohol in one sitting at least one day during ECQ*

<b>I drank 5 or more glasses in one sitting at least one day during the ECQ</b>	<b>Beer</b>	<b>%</b>	<b>Wine</b>	<b>%</b>	<b>Distilled spirits</b>	<b>%</b>
Yes	96	17	48	8	134	24
No	468	83	516	92	430	76
<i>X<sup>2</sup>, p-value</i>	11.7	<.001	1.22	0.269	6.47	0.011

In February 2021, the ECQ was lifted. Table 7 shows that 33% drank at least one glass of distilled spirits in February 2021, followed by 30% who drank beer, and 17% drank wine. The computed  $X^2(1 N=564) 22.0, p < .001$  for distilled spirits and  $X^2(1 N=564) 9.97, p = 0.002$  for beer shows that there is significant dependent on sex at birth. In general, ages between 18-23 (33%) drinks distilled spirits followed by ages between 18-21 (27%) are beer drinkers.

**Table 7.**

*Distribution of students who drank at least one glass in February 2021*

<b>I drank at least one glass in February 2021</b>	<b>Beer</b>	<b>%</b>	<b>Wine</b>	<b>%</b>	<b>Distilled spirits</b>	<b>%</b>
Yes	172	30	94	17	184	33
No	392	70	470	83	380	67
<i>X<sup>2</sup>, p-value</i>	9.97	0.002	1.05	0.306	22.0	<.001

The respondents reported that, relatively, they had drunk more beer (43%), distilled spirits (41%), and wine (32%), prior to the COVID-19 pandemic, as compared to during and after the 2020 ECQ. However, the findings also showed that during and after the 2020 ECQ,

respondents sparsely increased their consumption of beer and distilled spirits after the ECQ, except for those who drank wine, as indicated in table 8. Parallel to the findings in table 4, there was a significant association between beer and distilled spirits and their sex at birth.

**Table 8.**

*Distribution of students who drank more alcohol before pandemic, during, and after ECQ*

<b>In general, I would say I drank more alcohol during</b>	<b>Beer</b>	<b>%</b>	<b>Wine</b>	<b>%</b>	<b>Distilled spirits</b>	<b>%</b>
Pre-Pandemic	244	43	181	32	232	41
During EQC Pandemic (2020)	38	7	44	8	46	8
After ECQ Pandemic (2020)	50	9	31	6	49	9
Rather not say	232	41	308	54	237	42

### Further Discussion

A majority of 92% of respondents, 68% of whom were females and 25% of whom were men, believed they did not have an alcohol problem. Furthermore, 97% (549) of the students are aware of the consequences of binge drinking. Even though most respondents do not feel they have a drinking problem and are aware of the hazards of excessive alcohol intake, their reactions are divided. In general, 57% (319) of students indicated they had not tried or attempted to quit consuming alcohol, while 44% (245) claimed they had.

92% of students' parents were aware of their drinking. Additionally, 68% of those who had parents knew how much they drank, with 284 (50%) females and 102 (18%) males knew how much they drank. Cerkez (2015) argues that parent-child conflict, particularly in females, and a liberal attitude toward alcohol consumption impact the stance on drinking. Also, ECQ may have contributed to these high percentages, as mobility restrictions limit activities outside of the home. Such occasions were observed within families. Drinking alcohol relates to celebration and is regarded as an important social activity for forming social relationships. (Vasquez, 2021; Qian et al., 2018).

Although the percentages were insignificant, this investigation indicated that 46 (8%) tried driving while under the influence of alcohol, 11 (2%) tried illegal substances, and 7 (1%) tried consuming alcohol while taking forbidden drugs. These findings should not be ignored and should be addressed in future investigations.

### Conclusion

The case of alcohol consumption in a higher education institution has been critical for establishing baseline data on alcohol consumption habits and preferences. The prevalence of female drinking has been empirically determined. Although the majority of them are aware of the dangers of alcohol, they do not believe they have a drinking problem and have not attempted or are attempting to quit drinking. A large percentage of students' parents are

completely aware of their drinking habits; thus, monitoring should be considered. During the COVID-19 outbreak, students considered themselves not binge drinkers or engaged in excessive drinking. The study's limitations, including a potential social desirability bias, imply that more investigation into the increased alcohol use during the pandemic and its influence on psychological and physical well-being is necessary.

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