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CÁTEDRA

Associated factors and statistical analysis of alcohol consumption in university students

Factores asociados y análisis estadístico del consumo de alcohol en estudiantes universitarios

Jimmy Román-Proaño

Universidad Nacional de Chimborazo, Riobamba, Ecuador
Facultad de Ciencias de la Educación, Humanas y Tecnologías, Carrera de Educación Inicial
jimmy.roman@unach.edu.ec
<https://orcid.org/0000-0001-9669-8957>

Marcela Cadena-Figueroa

Universidad Nacional de Chimborazo, Riobamba, Ecuador
Facultad de Ciencias de la Educación, Humanas y Tecnologías, Carrera de Educación Inicial
marcelacadena@unach.edu.ec
<https://orcid.org/0000-0003-1698-5791>

Nancy Valladares-Carvajal

Universidad Nacional de Chimborazo, Riobamba, Ecuador
Facultad de Ciencias de la Educación, Humanas y Tecnologías, Carrera de Educación Inicial
nvalladares@unach.edu.ec
<https://orcid.org/0000-0002-6768-4027>

Pilar Salazar-Almeida

Universidad Nacional de Chimborazo, Riobamba, Ecuador
Facultad de Ciencias de la Educación, Humanas y Tecnologías, Carrera de Educación Inicial
psalazar@unach.edu.ec
<https://orcid.org/0000-0002-3128-9375>

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Abstract

This research aimed to determine alcohol consumption patterns and evaluate the influence of the surrounding population on a sample of 1,045 university students, based on data collected at the University of Chimborazo, Ecuador. The main problem addressed is the lack of attention to and awareness of current alcohol consumption levels among students about to become education professionals. Based on this problem, the authors proposed a descriptive study with a quantitative approach, consisting of a structured questionnaire on alcohol consumption habits, associated factors, and their consequences. The results reveal a critical distinction regarding consumption rates: 57% of students do not consume alcohol regularly, and 30% lack parental support due to a lack of awareness. The results demonstrate that the family context does not act as a significant protective factor against alcohol consumption. In this regard, young people's decision to consume alcoholic beverages appears to be primarily associated with individual factors, such as their personal preferences, as well as external elements, including social pressure and the dynamics of the university environment. It is concluded that a significant portion of the sample does not consume alcoholic beverages regularly; therefore, preventive strategies should focus on raising family awareness, changing behaviors in social settings, and preventing the consequences associated with consumption.

Keywords

Alcohol, consumption, consequences, patterns, health, sociodemographic.

Resumen

Esta investigación tuvo como objetivo determinar los patrones de consumo de alcohol y evaluar la influencia de la población cercana en una muestra de 1045 estudiantes universitarios, a partir de datos recolectados en la universidad de Chimborazo-Ecuador. La principal problemática que se aborda es la escasa atención y desconocimiento de los niveles actuales de consumo de alcohol de los estudiantes que están próximos a ser profesionales de la educación. Con base en este problema, los autores proponen la ejecución de una investigación de tipo descriptivo con enfoque cuantitativo, que consta de un cuestionario estructurado sobre los hábitos de consumo de alcohol, los factores asociados y sus consecuencias. Los resultados revelan una distinción crítica respecto a los índices de consumo: el 57% de estudiantes no consume alcohol de forma regular, el 30% no cuenta con el apoyo o soporte de sus padres por desconocimiento. Los resultados evidencian que el contexto familiar no actúa como un factor de protección significativo frente al consumo de alcohol. En este sentido, la decisión de los jóvenes de consumir bebidas alcohólicas parece estar asociada, principalmente, a factores individuales, como sus preferencias personales, así como a elementos externos, entre ellos la presión social y las dinámicas propias del entorno universitario. Se concluye que una parte significativa de la muestra no consume bebidas alcohólicas de forma habitual; por ello, las estrategias preventivas deben enfocarse en la concientización familiar, el cambio de conductas en espacios de socialización y la prevención de las consecuencias asociadas al consumo.

Palabras clave

Alcohol, consumo, consecuencias, patrones, salud, sociodemográficas.



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1. Introduction

In theory, Pretel et al. explain that alcohol is one of the most widely consumed substances or drugs worldwide, both in terms of population and the length of time it has been affecting society. It is believed that its origins date back to religious ceremonies or rituals, where the activities themselves required its consumption (Pretel et al., 2014). However, the percentage of the population that consumed alcohol in these activities was not considered at-risk drinkers, but rather social drinkers who only consumed at public events or commemorations, unlike alcoholics who usually drink to the point of losing control and committing irresponsible acts. Alcohol consumption is understood as a very serious social problem related to a variety of economic, social, political, and cultural factors that generate a significant impact at all levels of society. Furthermore, the World Health Organization (WHO) identifies that 22 million people consume alcohol, even if it's just one drink, in many parts of the world. This is due to the increased availability of alcoholic beverages and the exceptions to laws in each specific context (WHO, 2024). Alvarado and Reyes point out that alcohol consumption is closely linked to the development of approximately 200 diseases and injuries, in addition to causing one death every 100 seconds and the loss of 274 million years of healthy life. In Europe, specifically, alcohol consumption is associated with around 10% of cancer cases in men and 3% in women. It also generates various long-term consequences, including violence, intoxication, cirrhosis, accidents, and family, work, and social conflicts (Alvarado and Reyes, 2025). The MedlinePlus scientific team briefly notes that some of the factors that can influence alcoholism in individuals include genetic predisposition, low self-esteem, social pressure, environmental influence, a desire for belonging, mental health problems (depression, bipolar disorder, anxiety, post-traumatic stress), poor interpersonal relationships, and severe stress (MedlinePlus, 2026).

This problem has increased over the last five years and has become a significant challenge for the medical field. However, Suárez-Ramos and Bonilla-Basantes point out that it still has low visibility within the current healthcare system due to the diversity of its causes and its biological and psychological consequences for the population (Suárez-Ramos and Bonilla-Basantes, 2022). Along the same lines, several authors analyze the main groups of alcohol consumers and identify that these primarily consist of adolescents and young adults undergoing personal transformation. This stage is characterized by changes in thoughts, emotions, and feelings, as well as increased vulnerability, a desire for social acceptance, and a search for a sense of belonging (Lopez-Cisneros et al., 2021; Zhou and Rodríguez-Mantilla, 2020).

Based on information from the WHO technical team, it is known that in 2019, at least 2.6 million people worldwide died due to alcohol-related causes. Of these, 1.6 million (approximately 62%) died from non-communicable diseases, 700,000 (27%) from injuries, and 105,000 (4%) from communicable diseases (WHO, 2024). These levels were high, especially in regions of Europe and Asia, with a rate of 53 deaths per 100,000 people; however, Latin America was no exception, ranking as the second region with the highest alcohol consumption worldwide.

Within this context, Méndez-Ruíz et al. mention that, during 2014, approximately 25% of the world's population consumed alcohol due to its easy availability, and that 16% developed addictive problems before reaching adulthood. It is worth noting that this situation was more pronounced in the Americas and Europe, where addiction rates were highest, representing 1.3% of the global population. (Méndez-Ruíz et al., 2018).



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Furthermore, at the global level, the WHO highlighted that, of all deaths attributable to alcohol consumption, 28% are due to injuries (vehicle accidents, bone trauma, or interpersonal violence), 21% to gastrointestinal or digestive diseases, 19% to cardiovascular diseases, and the remainder to mental illnesses, neoplasms, or general conditions or infections of any part of the body (WHO, 2024). At the national level, considering data obtained from reports by technical teams belonging to the National Institute of Statistics and Censuses (2013) and the Pan American Health Organization (2022), 5.9% of the world's population, corresponding to 3.3 million people, died from harmful alcohol consumption, of which 5.1% were due to injuries or morbidity attributed to alcohol abuse. Similarly, based on the same methodology, Ecuador ranked ninth globally in this regard. Regionally, there is a high rate of alcohol consumption at harmful levels; furthermore, it was identified that approximately 900,000 Ecuadorians exhibited abusive behavior regarding this substance, with 89% being men and 11% women, resulting in a higher prevalence among men. At the local level, a review of research conducted by Pilco et al. identified that approximately 18% of them are critical or at-risk drinkers, and 7% have physical and psychological problems related to drinking, making them subjects with probable alcohol dependence (Pilco et al., 2019). However, these findings cannot be considered fixed data or trends within the Latin American context, as they did not coincide with the results obtained by Esquivel-Paladines in Peru, who considered 62% to be low-risk consumers and 2% to be harmful consumers (Esquivel-Paladines, 2019).

Within the Ecuadorian university context, concern about this issue has motivated the development of the research project entitled Analysis This statistical study on alcohol consumption among students in the Faculty of Educational, Human, and Technological Sciences focuses on determining the factors associated with alcohol consumption in university students. Data was collected through surveys administered to a representative sample of students from this faculty. This approach not only identifies consumption patterns but also helps to understand the patterns, frequencies, familial and social factors, ages of onset, and subsequent symptoms associated with this practice.

It is worth noting that personality traits play a significant role among the causes associated with alcohol consumption in youth. These include behavioral patterns, ways of thinking, social interaction skills, and perception of identity. In this regard, McCrae and Costa proposed the Big Five personality traits model, which helps to understand how certain behavioral factors and habits influence the development, maintenance, or modification of healthy or unhealthy lifestyles (McCrae & Costa, 1991).

The central focus of this research is to examine, from a quantitative and descriptive perspective, the factors that influence alcohol consumption among university students, considering all the variables that may be involved, from sociodemographic to behavioral, social, and perceptual contexts. In short, it attempts to answer key questions such as: At what age do they begin consuming alcohol? How frequently do they consume it? Which alcoholic beverages do they consume most often? What physical consequences do they experience after consumption? In what situations do they consume alcohol? With whom do they drink? What role do their family and social environment play in the decision to consume alcohol? What perception do they have of people who choose not to consume alcohol?

However, it is worth noting that one of the main challenges of this research, which may be subject to bias, was obtaining valid information from the surveyed students about their drinking habits or preferences, due to social factors such as fear of being judged, the



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normalization of the behavior, and a lack of awareness about the problem itself. Even so, the research makes a significant contribution, as it brings to light a problem that is often underestimated. Furthermore, it provides valuable input for designing intervention strategies within the university setting. The study is limited to the analysis of data collected through a questionnaire administered exclusively within a university in Chimborazo during the 2024–2025 period. However, it may be necessary at some point to consider and statistically verify whether the data can be extrapolated to the entire university community, given its current broad and diverse nature.

To achieve this objective, the manuscript is structured into four sections. First, a brief theoretical overview of the most relevant concepts is presented. Second, the methodological design is developed, detailing the scope, approach, sample selection, questionnaire parameters, and data processing techniques. Third, the results and discussion are presented, considering the empirical findings, the level of consumption, family factors, the environmental impact, and the interpretation of the results. Fourth, the conclusions, based on the findings, are presented, along with recommendations for future interventions.

2. State of the question

This section reviews research related to the topic; these studies are no more than five years old and are comprised of literature reviews or field research, available on open platforms, providing a general overview of the patterns, causes, consequences, outcomes, and levels of alcohol consumption among university students, the educational community, and staff in recent years.

Suárez-Ramos and Bonilla-Basantes conducted applied research on the relationship between individual personality traits and alcohol consumption among university students. The study's initial objective was to determine whether this relationship exists or is merely a perception held by the environment in which the consumers find themselves. The main finding was to refute the initial hypothesis, identifying that these two variables are not directly related, that 27% of the consuming population drinks due to anxiety, and that the remaining 40% drinks in risky situations (Suárez-Ramos & Bonilla-Basantes, 2022).

Lopez-Cisneros et al. conducted a study to determine the relationship between personality traits and alcohol consumption levels among university students in Carmen, Campeche, Mexico. Using a quantitative, descriptive-correlational approach with a sample of 238 university students, they found that the past prevalence of alcohol consumption (85.3%) was higher than the current and immediate prevalence (61.5%), indicating a direct relationship. This finding highlights the importance of implementing timely interventions to significantly reduce or eliminate harmful habits or unhealthy lifestyles (Lopez-Cisneros et al., 2021). Alvarado and Reyes developed a research project whose main purpose was to establish the relationship between alcohol consumption and its correlation with personality traits. Although this may seem like just another research project, the instruments used in its execution were the alcohol consumption disorders identification test and the five-factor personality inventory, which among its main findings revealed that the majority of women have a low rate of alcohol consumption, corresponding to 84%, compared to men (Alvarado and Reyes, 2025).

Del Ángel-García et al. conducted a systematic review of research related to the factors influencing alcohol consumption among university students. Their objective was to investigate the most important personal factors influencing alcohol consumption among university students. Using the methodology outlined in the Cochrane Handbook and the



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PRISMA database, they critically appraised 29 studies, employing methodologies that allowed them to correlate biological factors (sex, age, genetics), cognitive factors (abstinence self-efficacy, impulsivity, self-esteem), and affective factors (life satisfaction, stress, religiosity, anxiety) with alcohol consumption. The results showed that all factors related to the genetic, psychological, and emotional characteristics of individuals influence alcohol consumption among young university students (Del Ángel-García et al., 2024).).

3. Conceptual approach to alcohol consumption

Alcohol consumption is one of the most frequent public health problems among young people today. Its use and abuse generate high social and health costs, in addition to significantly affecting people's quality of life. Furthermore, alcohol is considered one of the most impactful psychoactive substances due to the toxic effects it can produce in the body and its relationship with various physical and psychological disorders. Throughout history, people have always sought to improve themselves, and in some cases, they have sought substances that, despite being harmful, allow them to increase their potential to perform different tasks such as fishing, fighting, and hunting.

Even so, as Águila points out, these substances do not always produce serious effects on the functional and structural characteristics of their characteristics; for this reason, it is considered an addictive substance or drug that, when ingested, stimulates the central nervous system, generating a type of inhibition or distortion of its functions (Águila, 2011). From a practical point of view, Monzón et al. (2023) indicate that alcohol, or rather, alcohol consumption, can be categorized into three types of patterns, as mentioned below:

- **Abstinence:** This refers to the stage or lifestyle in which students, young people, or adults do not consume alcohol, thus coping with social pressure or seeking acceptance within their peer groups.
- **Social drinker:** This is someone who only consumes alcoholic beverages at festive or social events (such as baptisms, weddings, birthdays, town festivals, etc.). Their consumption is limited to one or two drinks per event, and the number of such events or celebrations should not exceed five per year.
- **Moderate drinker:** This refers to someone who does not consume alcoholic beverages every day, but rather during the week, and does not exceed a quarter of a bottle of hard liquor or a liter of wine, whether red, white, Sauvignon Blanc, or others.
- **At-risk consumer:** This is a drinker who is already considered an alcoholic or a severe consumer, as they have developed a dependence on the substance itself; that is, they cannot live without it and ingest it daily.

Furthermore, the effects or consequences of alcohol on the health of consumers are numerous. As highlighted by Hyun et al., 2021; Piano et al., 2025; D. Solís et al., 2020; and Sordo et al., 2020, it forms the basis for developing more than 200 medical problems and causing more than 40 deaths, including: liver cirrhosis, cardiovascular conditions (heart attack), acute pancreatitis (leading to cancer), withdrawal syndrome, alcoholic hallucinosis, alcoholic amnesia, problems with intellectual retention, personality changes, and social conflicts with personal or moral repercussions.

3.1. Factors associated with alcohol consumption

Several authors indicate that some of the factors associated with alcohol consumption among university students stem from low self-esteem, family problems, and economic,



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social, work-related, and academic difficulties (Betancourth-Zambrano et al., 2017; Jiménez-Franco and Fonseca-Fernández, 2025; Solís et al., 2022). In this regard, the factors associated with alcohol consumption, according to the theories of the aforementioned authors, are presented below:

Dimension	Identified factor	Reported frequency	Author
Psychological Social	Low self-esteem	64%	Solís et al. (2022)
	Stress	78%	
	Depression	42%	
Academic	Social belonging	90%	Jiménez-Franco y Fonseca-Fernández (2025)
	Relationship problems	48%	
Family	Workload	78%	
Economic	Family problems	48%	
Sociodemographic	Financial problems	24%	
Psychological	Age	77%	
	University life	71%	

Table 1. Shows the most common factors associated with alcohol consumption

In summary, the factors that have the most relationship with alcohol consumption are age (between 21 and 23 years), the academic year in which they are (beginning of university life and third semester), gender (greater consumption in men), social dilemmas (problems with fitting in or being accepted by their group), dating problems (crisis, fights or breakups), mental problems (depression, stress or anxiety), academic situations (too much schoolwork, pressure from their university friends, difficulty in understanding or passing subjects), family problems (parental rejection, absence of family, separation between relatives), among other.

4. Methodology

This research focused on descriptively analyzing the prevalence of alcohol consumption and the factors associated with this behavior, identifying the influence of the social context and family environment within the student population. To this end, the study employed a quantitative approach, using a non-experimental, cross-sectional design with an explanatory and descriptive scope. This methodological approach was considered the most important due to the way it obtains, processes, and analyzes numerical data in a natural setting where variables are not manipulated and only survey data is collected through objective and measurable responses to the questions.

The study was conducted using a cross-sectional design, in which data collection was carried out during a single period, 2024-2025. Its scope is descriptive-explanatory, as it



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focused solely on evaluating the participants' capacity and the factors associated with their alcohol consumption.

4.1. Participants and sample size

The initial target population for this study consisted of the entire student body of the faculty under investigation at the University of Chimborazo, which had an official record of 14,895 students enrolled during the 2024-2025 academic year. From this population, a purposive non-probability sampling method was used, in which the selected personnel met the following criteria: a) being legally enrolled in a single semester (all courses), b) having no relationship with the researchers (student, family member, or relative by marriage), c) having been affiliated with the institution for more than one year, and d) being of legal age. Thus, a total sample of 2,000 individuals eligible to participate voluntarily in the data collection process was considered, of whom only 1,045 agreed to participate after signing an informed consent form regarding the survey to which they would be subjected.

This sampling strategy was considered the most viable methodological option in the present study due to logistical, temporal, and budgetary constraints that limited the application of probabilistic random sampling. It ensured an ethical environment that promoted honesty and voluntary participation regarding consumer behavior. Some of the inherent limitations of this type of sampling were the representativeness and generalizability of results. As a non-probabilistic sample, it carries a risk of self-selection, where only students who signed the consent form could answer the questionnaire, thus restricting the impact of the findings to the subpopulation.

To mitigate all coverage limitations in the analysis, this research ensured that all programs offered by the university were adequately represented and included in the sample. The following table summarizes the most important demographic characteristics and the percentage distribution of participants.

Characteristic - Gender	N	%
Male	257	24.59
Female	783	74.92
Other	5	0.5
Total	1045	100

Table 2. Shows the sociodemographic characteristics of the student sample

It is important to note that the final participation of the people involved in the sample was entirely voluntary, consented to and informed by each of them, considering their confidentiality and anonymity at all times.

4.2. Instruments

The instruments used to conduct this research consisted of a survey administered to students at a university in Chimborazo, which assessed alcohol consumption patterns and the factors within their environment. This instrument has only been recognized for its design in measuring variables such as consumption habits, physiological effects, quantity consumed, type of beverage, and the influence of their surroundings.

This questionnaire includes all the necessary dimensions, from sociodemographic characteristics and alcohol consumption preferences to physical symptoms after consumption and the factors within their socio-personal and family environment that



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influence these symptoms. The ranges, categories, indicators, and scales of the aspects evaluated in this research are presented in Table 3.

Category evaluated	Indicators	Scale
Consumption preferences Frequency	Gender	Female, Male, or Other
	Type of beverage	Absolute Frequency
	Age of onset	Chronological Age
Physical symptoms	Amount consumed	Ordinal Scale
Family context	Physical consequences	Rating Scale
	Family attitude towards consumption	Nominal
	History of loss of objects due to consumption	Nominal
Consumption preferences	Type of companions	Multiple Choice
	Physical spaces for consumption	Multiple Choice

Table 3. Shows the categories evaluated in the student sample

The structured questionnaire has items organized and designed with the intention of measuring the behavior, consumption habits and daily life of students belonging to the higher education system through the social, personal, emotional, family and work competencies of their environment.

4.3. Data Analysis

The first phase of this study consisted of implementing the data collection instrument with the student sample from the University of Chimborazo during the 2024-2025 academic year. Subsequently, the information collected in the surveys was processed, tabulated, and statistically analyzed using the SPSS software package, supplemented by automated spreadsheets to consolidate the data. In the data analysis, a descriptive statistical process was implemented to characterize the sociodemographic profile of the sample and determine the prevalence of the phenomenon, including factors such as gender, types of beverages consumed, post-drinking psychological symptoms, and the physical spaces/environments in which these occur. Absolute frequencies and percentages were calculated for each variable.



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5. Results

5.1. Prevalence of alcohol consumption and characterization of the habit.

The first element analyzed was the alcohol consumption pattern of the students studied. It was noted that the sample was predominantly male ($n = 783$; 74.9%), followed by female ($n = 257$; 24.6%), with a small number opting for other beverages ($n = 5$; 0.5%), resulting in a total sample size of $N = 1045$ students.

Figure 1 presents the data obtained and summarized in this section regarding the consumers' preferred beverage and their gender

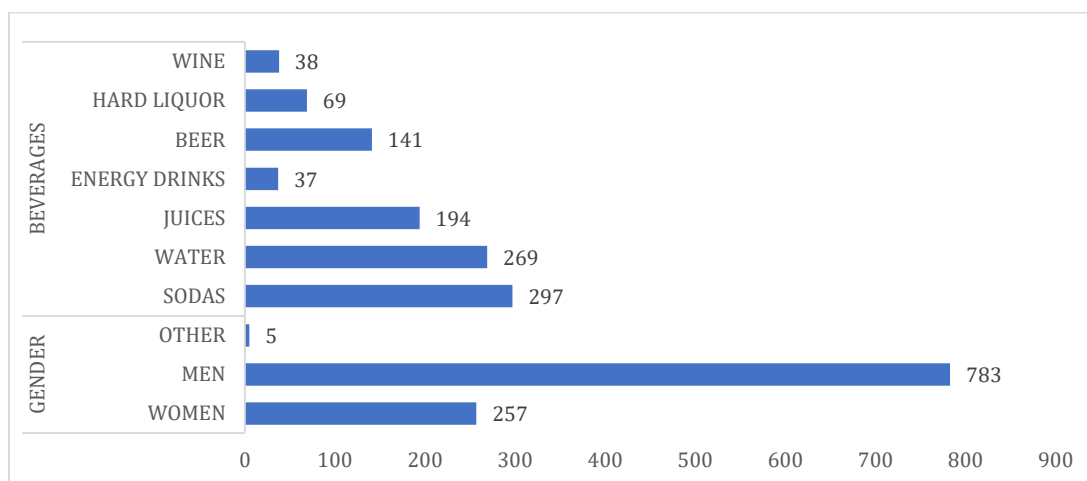


Figure 1. Shows the prevalence of consumption

Regarding consumption preferences, as shown in Figure 1, it was found that non-alcoholic beverages had the highest frequencies, starting with references such as soft drinks ($n = 297$; 28.42%), water ($n = 269$; 25.74%), juices ($n = 194$; 18.56%) and energy drinks ($n = 37$; 3.54%); while, within alcoholic beverages, beer ranked first ($n = 141$; 13.50%), followed by hard liquor ($n = 69$; 6.60%) and wine ($n = 38$; 3.64%).

5.1.1. Alcohol consumption on regular days (usually)

- 817 respondents demonstrated a state of generalized non-consumption on weekdays, representing 78.2%. This indicator shows the prevalence of intermittent or permanent abstinence during regular academic days, prioritizing their tasks or responsibilities.
- 178 students, approximately 17% of the total sample, reported low consumption on academic days, consuming at most one bottle of beer (105), one glass of liquor (43), and one glass of wine in other cases (30).
- 50 people in the total sample revealed high consumption, that is, in large quantities on typical academic days, representing 4.8%. These individuals, while having to fulfill their academic obligations, also have high consumption, reaching more than one glass of liquor (22), more than one glass of hard liquor (13), more than one bottle of beer (11), and even more than one glass of wine (4)..

5.1.2. Alcohol consumption on weekends

- 602 students reported not consuming alcohol on weekends, representing 57.6%, which indicates that the majority of the sample maintains abstinence even during



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leisure time or academic breaks. Comparing this value with the previous indicator suggests that regular consumption occurs more frequently during the week than on weekends or holidays.

- 266 students, approximately 25–26%, indicated that they do consume alcohol on weekends, but in moderation, in some cases up to one bottle of beer (178), one glass of hard liquor (46), and one glass of wine (42).
- 177 of the respondents, approximately 16.94% of them, indicated that they do consume alcohol on weekends, identifying consumption of: more than one bottle of beer (8.5%), more than one glass of wine (1.4%), more than one glass of hard liquor (3.8%), and more than one glass of strong liquor (3.1%).).

5.1.3. Start of consumption

- 349 people surveyed reported complete abstinence; that is, 33.3% indicated they had never consumed alcohol in their lives. Based on the factors mentioned above, this reflects a completely healthy lifestyle within the studied population.
- 675 students reported having already begun consuming alcohol and being active in this environment. The youngest age of initiation was an average of 16.8 years ($\mu = 2.4$). The peak of vulnerability identified was early initiation at ages 15 (97), 17 (114), 18 (94), 19 (95), and 20 (94), respectively.
- 21 of the students surveyed did not answer the question, which may represent a limitation within the present study, since we will not be able to consider their answers in the following questions regarding the symptoms that alcohol consumption generates in physical health, the preferred drink, their company during consumption or the places in which they prefer to do it.

5.1.4. Post-consumption symptomatology

- A total of 578 students reported experiencing dizziness, representing 55% of the sample. This result demonstrates that dizziness is the most prevalent clinical symptom among alcohol consumers, with 440 affirmative responses and 138 responses indicating "sometimes." This highlights the significant impact of the substance itself on the individual's central nervous system and the vulnerability of those exposed.
- 412 respondents reported experiencing digestive issues, particularly nausea, after consuming alcohol, representing 39.4% of consumers. Regarding gastric intolerance, 304 students responded "yes" and 108 indicated "sometimes," demonstrating a physiological reaction of the body to the ingestion of a potentially harmful substance.
- Approximately 409 people, or 39.1% of the sample, reported episodes of vomiting, with 304 responding "yes" and 108 responding "sometimes." This suggests patterns of heavy consumption or acute intoxication from the ingested beverage in the gastrointestinal tract.
- 397 students reported experiencing general malaise throughout their bodies, meaning 38% of the analyzed sample reported persistent side effects, such as a hangover, after consumption. Of these, 67% responded "yes," while 33% indicated this only happened "sometimes." This can have a significant impact on academic performance and the ability to carry out daily activities.
- 220 individuals, or 21% of the sample, reported experiencing temporary loss of consciousness during consumption episodes, due to the intoxication caused by the substance's effects on the body. 133 subjects responded "yes" and 87 responded "sometimes." While this factor represents another symptom associated with alcohol



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consumption, the risk it poses to physical well-being and vulnerability within the social environment is significant.

- 201 people, representing 19.2%, reported experiencing acute abdominal and digestive problems. 150 individuals responded "yes" and 51 responded "sometimes." This can often be caused by alcoholic beverages with a high alcohol content or risky combinations that can affect the digestive tract.
- 45 of the respondents reported organically generated seizures, of which only a small part warned of suffering critical and dangerous neurological responses in the consumption population, with 23 people saying "yes" and 22 saying "sometimes".

5.2. Social environment and family atmosphere

In the second section, within the results, the analysis focused on identifying the factors associated with alcohol consumption and the influence of different community groups on this process. When examining the perception or position of the family unit regarding consumption, a restrictive trend was identified. Within households, 53% disapprove of alcohol consumption, 23.6% do not interfere or comment on it, 16.4% accept that their children or relatives consume it, and 7.1% report not knowing if their children engage in this practice.

Regarding the variables of social interaction, the following summary table presents the frequency and percentage of the analyzed sample regarding drinking companionship, the motivators or social reasons for doing so, and the environments or physical spaces where consumption occurs.

Social Indicator Category	Type of indicator	Frequency	Percentage
Social motivators	Sharing with friends/partner	360	34.4%
	Get-together or party	455	43.5%
	Celebrating an achievement	170	16.3%
	Completion of academic activities	24	2.3%
	Financial problems	5	0.5%
	Academic problems	12	1.1%
	Family problems	19	1.8%
Physical consumption environments	Around the university	30	2.9%
	Friends' house	340	32.5%
	Parties	260	24.99%
	Walk	35	3.3%
	Park	13	1.2%
	Other	367	35.1%
Consumer company	Friends	572	54.7%
	Alone	49	4.7%



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Family	363	34.7%
Strangers/Other	61	5.8%

Table 4. Consumption Indicators. The table shows the social consumption indicators evaluated in the student sample.

In summary, after statistically processing the data, it was observed that, according to the interactions detailed in Table 4, simply being accompanied by friends or peers plays a primary role in the development of alcohol consumption, establishing itself as the core social group for consumption, at 54.7%, significantly surpassing family members by approximately 20%. Regarding the motivations or reasons that promote alcohol consumption, it was identified that 75.6% of cases refer to celebrations shared with peers, while various economic, academic, and family stresses represent a very small proportion, with a total of 36 incidents corresponding to 3.4% of the motivations.

Finally, regarding the environments or physical spaces, it is found that the trend leans towards consumption in friends' houses, with a percentage of 32.5%, and establishments such as nightclubs or parties, with a portion of 24.9%, which shows that this behavior often occurs in environments of external validation and away from the environment of relatives..

6. Discussion of results

The state of the art presented at the beginning of this article reflects the importance of expanding our existing knowledge on the number of studies related to consumption patterns or habits within higher education, demonstrating not only descriptive approaches to consumption and the variables that can temporarily or permanently influence the development of this habit. In this study, the results related to the sex or gender of the consumers showed that 74.9% of the population are male, which differs from the findings of the research presented by Gómez-Tejeda et al., 2021 and Parra-Soto et al., 2023, who demonstrated a predominance of females with results of 66% and 74%, respectively. This represents a significant shift in the association between alcohol consumption and related factors. This difference may be due to the culture of the society in which the students develop or the social pressure exerted on some individuals more than others.

Furthermore, factors related to the epidemiological understanding of this phenomenon were identified, allowing for its temporal segmentation. This analysis revealed that 78.2% of the abstinence reported by students is directly related to their normal weekly routine, while 57.6% of those evaluated abstain on weekends, meaning they are part of the percentage who do not drink at all. This finding demonstrates that students' alcohol consumption behavior is not chronic, but rather reflects a lifestyle in which the vast majority prioritize meeting the demands of academic life over having much leisure time.

In line with Solís et al., who determined that young people are more vulnerable during the early transition years, the main results showed that the ages at which they began drinking were: 12 years old (1 person), 14 years old (2 people), 15 years old (7 people), 16 and 17 years old (8 individuals each), and 5 subjects who started at 18 years old (Solís et al., 2022). The findings collected in this study agree with the actual age at which the surveyed students began consuming alcohol, which has a marked mean of 16.8 years and a range of initiation between 15 and 20 years old. This age, more often due to domestic, economic, or family problems, stems from adolescent self-discovery.



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Considering the increase in young alcohol consumers and the importance of proposing alternatives to address this issue, it is essential to understand the social factors or events that motivate alcohol consumption, which in this particular research are characterized as follows: Sharing with friends or partners, parties or meetings, celebrating achievements, completing academic activities, or dealing with family, economic, and academic dilemmas; this is verified in other research, such as that carried out by Solís et al. (2022), who states that the factors associated with the consumption of this substance are divided into: mental problems, low self-esteem, family or economic dilemmas, social pressure, completion of school work, or problems with their partners or boyfriends..

Regarding the environment or physical space where alcohol is preferred, following the theory cited by Betancourth-Zambrano et al. (2017), students most often prefer to consume alcohol at a friend's house, in bars, clubs, discos, or at their own home, due to its social acceptance by their family or social group. However, this also presents a risk in the eyes of parents, as a kind of consequence that is passed down from generation to generation due to the maturation process and decision-making.

Finally, when discussing the clinical symptoms that the human body presents after consumption, it is necessary to refer to the effects of the alcohol that has been ingested and processed by the body's fluids or blood. As Arias indicates, some of the most common conditions related to alcohol consumption originate in the respiratory system (pneumonia, abscesses, laryngitis, bronchitis) and the digestive system (esophagitis, ulcers, gastritis, halitosis, hepatitis, pancreatitis, etc.) (Arias, 2025). This coincides with the physical consequences found in this research, which include hangovers, dizziness, abdominal pain, vomiting, general malaise, and loss of consciousness; these effects gradually lead to the aforementioned problems.

7. Conclusions

In the sample studied, the pattern of alcohol consumption among university students was not reflected as a chronic attitude or behavior, but rather as an adaptive phenomenon to the time period in which they are developing. They exhibited significant abstinence during the week (normal academic routine) at 78.2%, and less restriction on intake on weekends at 57.6%. This demonstrates that students have the capacity to discern between the activities they must fulfill to meet their academic demands, disregarding common theoretical approaches that portrayed alcohol as a constant risk throughout the university community.

Among the most relevant associated factors related to alcohol consumption, peers or friends played a very significant motivational role, more so than the family environment. Furthermore, their main social motivations were the culture of celebration and social gatherings, the search for social acceptance, economic, family, or academic pressures, and spending time with friends or partners. Regarding the physical environment, the findings align with normal parameters, as consumers prefer to consume alcoholic beverages in private or public spaces such as friends' or their own homes, nightclubs, bars, clubs, or during outings.

Finally, the appearance of post-consumption physical and social symptoms acts as a deterrent to the habit of drinking alcohol; therefore, it is pertinent to briefly mention it in conclusion. These factors include parental disapproval of alcohol consumption, the presence of adverse physiological responses, and general malaise, which can manifest as dizziness, nausea, vomiting, hangovers, body aches, loss of consciousness, seizures, abdominal pain, and other symptoms.



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Authors

JIMMY ROMÁN-PROAÑO obtained his Master's degree in Teaching with a specialization in Psychopedagogical Intervention from the Postgraduate Department of the National University of Chimborazo (UNACH) in 2017. He obtained his Bachelor's degree in Educational Psychology, Vocational and Family Guidance from the National University of Chimborazo in 2011. Currently, he teaches at the National University of Chimborazo in Riobamba, Ecuador. His research focuses on emotion management and affective bonds in education and child development, and he has published studies on the affective bond as a predictor of emotional management in infants.

MARCELA CADENA-FIGUEROA obtained her Master's degree in Technologies for Teaching Management and Practice from the Postgraduate Department of the Pontifical Catholic University of Ecuador (PUCE) in 2016. She earned her Bachelor's degree in Graphic Design from the National University of Chimborazo in 2010. Currently, she is an associate professor and research author at the National University of Chimborazo in Riobamba, Ecuador. She has served as author and principal investigator on thesis projects and final research reports, and has published in academic journals and local databases on educational and technological topics.

NANCY VALLADARES-CARVAJAL earned her Master's degree in Early Childhood Education, specializing in Play, Art, and Learning, from the Graduate Department of the National University of Chimborazo (UNACH) in 2015. She obtained her Bachelor's degree in Education (Early Childhood Education Teacher) from the National University of Chimborazo in 2006. Currently, she is a tenured professor in the Early Childhood Education program at the National University of Chimborazo (UNACH) in Riobamba, Ecuador. She has authored and supervised several research projects related to education and educational communication, and has published academic articles in journals such as *Episteme Koinonia*, where she analyzes, among other topics, student-teacher communication in university teaching and the integration of emerging technologies in university education.

PILAR SALAZAR-ALMEIDA earned her Master's degree in Early Childhood Education from the Graduate Department of the National University of Chimborazo (UNACH) in 2024. She obtained her Bachelor's degree in Educational Sciences (specializing in Early Childhood Education) from the National University of Chimborazo in 2007. Currently, she is a professor and researcher at the National University of Chimborazo in Riobamba, Ecuador. She has authored several academic works focused on early childhood education and the development of strategies for meaningful learning in young children. Among her recent research projects is an analysis of meaningful learning in infants at the "Guardianes del Agua" Child Development Center. She has also explored topics such as emotional education and its relationship to self-esteem in university students.

Declaration of authorship-CRediT

JIMMY ROMÁN-PROAÑO: Validation of statistical models, analysis of social environment data, material resources, drafting (specific sections on temporal results).



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MARCELA CADENA-FIGUEROA: Conceptualization, methodology, formal analysis, visualization and layout of tables/charts, state of the art, related concepts, drafting and revision, organization and editing of the final manuscript.

NANCY VALLADARES-CARVAJAL: Field research, organization and integration of data COLLECTED BY THE GROUP, STATE OF THE ART (REVIEW OF THEORETICAL BACKGROUND), AND CONCLUSIONS.

PILAR SALAZAR-ALMEIDA: Conceptualization, methodology, research, data curation, formal analysis, drafting (first draft), data organization.

Statement on the use of artificial intelligence

The authors report that they used the ChatGPT tool – GPT-4 model (OpenAI), July 2025 version – partially during the manuscript preparation stage, specifically for: (1) support in the syntactic restructuring of some paragraphs; (2) the creation of alternative versions of titles and subtitles; and (3) the generation of preliminary examples that were subsequently reformulated manually. AI was not used to draft sections related to the methodological design, data analysis, interpretation of results, or academic discussion. All content suggested by the tool was critically reviewed, verified, and modified by the authors, who assume full responsibility for the final text, its accuracy, and its scientific rigor. No data, documents, or sensitive information were entered into the tool during its use.



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