

Transdiagnostic variables in alcohol consumption in Ecuadorian university students of the Open and Distance Learning Mode

VARIABLES TRANSDIAGNÓSTICAS EN EL CONSUMO DE ALCOHOL ESTUDIANTES UNIVERSITARIOS ECUATORIANOS DE LA MODALIDAD ABIERTA Y A DISTANCIA

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ABSTRACT

Keywords:

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Alcohol consumption is a phenomenon present among university students that may be associated with different psychological factors. The objective of this study was to analyze the relationship between alcohol consumption, perceived stress, and psychological inflexibility in three independent groups. Data was collected through online questionnaires and administered to a non-probability sample of 293 open and distance learning university students. The instruments used were the Perceived Stress Scale (PSS-10) and the Acceptance and Commitment Questionnaire-II (AAQ-II). The results show a statistically significant relationship between perceived stress, psychological inflexibility, and alcohol consumption ($p < 0.001$). Higher levels of the transdiagnostic variables (perceived stress and psychological inflexibility) indicate higher levels of alcohol consumption. These results suggest that alcohol may act as a maladaptive coping strategy, increasing the risk of dependence. The results are consistent with previous research but contrast with some studies, possibly due to sociodemographic factors. Interventions targeting stress management and psychological flexibility are crucial. Limitations include the cross-sectional design and the use of self-report questionnaires, which limit causal inferences. The findings emphasize transdiagnostic factors in alcohol use, warranting further research to inform prevention strategies.

RESUMEN

Palabras clave:

consumo de alcohol, estrés percibido, inflexibilidad psicológica, estudiantes universitarios.

El consumo de alcohol es un fenómeno presente entre estudiantes universitarios que puede estar asociados con diferentes factores psicológicos. El objetivo de este estudio fue analizar la relación entre el consumo de alcohol, el estrés percibido y la inflexibilidad psicológica en tres grupos independientes. Los datos se recolectaron mediante cuestionarios en línea y fueron administrados a una muestra no probabilística de 293 estudiantes universitarios de modalidad abierta y a distancia. Los instrumentos utilizados fueron la Escala de Estrés Percibido (PSS-10) y el Cuestionario de Aceptación y Compromiso-II (AAQ-II). Los resultados muestran que existe una relación estadísticamente significativa entre el estrés percibido, la inflexibilidad psicológica y el consumo de alcohol ($p < 0,001$). A mayores niveles de las variables transdiagnósticas (estrés percibido e inflexibilidad psicológica), se observaron mayores niveles de consumo de alcohol. Estos resultados sugieren que el alcohol puede actuar como una estrategia de afrontamiento desadaptativa, aumentando el riesgo de dependencia. Los resultados coinciden con investigaciones previas, pero contrastan con algunos estudios, posiblemente debido a factores sociodemográficos. Las intervenciones dirigidas al manejo del estrés y la flexibilidad psicológica son cruciales. Las limitaciones incluyen el diseño transversal y el uso de cuestionarios de autoinforme, lo que limita las inferencias causales. Los hallazgos enfatizan los factores transdiagnósticos en el consumo de alcohol, lo que justifica una mayor investigación para fundamentar las estrategias de prevención.

Introduction

Alcohol is one of the most widely consumed substances worldwide, and its use has accompanied mankind throughout history. However, its consumption is not without risk, as it has been shown to cause serious physical and mental health problems, as well as being associated with high morbidity and various socioeconomic consequences. According to the World Health Organization (WHO), alcohol is responsible for more than 200 diseases, including cirrhosis of the liver, some types of cancer and cardiovascular disease. It also increases the risk of developing mental health problems such as alcoholism and other mental disorders (WHO, 2022).

Despite efforts to reduce its consumption, alcohol remains a major cause of mortality in many regions. In the Americas, for example, it is estimated that alcohol consumption contributes to more than 300,000 deaths annually, representing 5.5% of all deaths. In this region, the impact is greater among men, who account for 83.1% of deaths directly related to alcohol. Gender differences in relation to alcohol consumption are more pronounced in countries such as El Salvador and Belize, while in nations such as Canada and the United States the disparities are smaller (PAHO, 2021).

Alcohol use disorder is defined as a chronic, recurrent condition that affects both the brain and the individual's behavior. Those with this disorder have difficulty controlling their alcohol consumption, even when faced with adverse consequences in their health, social or work life. According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), alcohol use disorder is characterized by a range of symptoms including loss of control over drinking, increasing tolerance to the effects of alcohol, and persistence in using the substance despite negative consequences. Moreover, this disorder can present in different degrees of severity: mild, moderate or severe (NIH, 2023; Coriale et al., 2018).

Problem drinking is also associated with a pattern of harmful drinking, characterized by intoxication and intermittent heavy drinking. This pattern often includes episodes of abuse that not only affect the physical health, but also the quality of life and interpersonal relationships of the consumer. According to WHO (2020), the physiological characteristics of alcohol dependence include tolerance to its effects and withdrawal symptoms that may occur when alcohol consumption is reduced. These symptoms of dependence may be observable after a period of constant use of at least one month.

Alcohol consumption is not homogeneous worldwide, as factors such as geographic region, socioeconomic status and cultural differences influence drinking patterns. In the Americas, per capita consumption in 2019 was 7.6 liters, a figure that exceeds the world average by 1.3 times (PAHO, 2023). Although the percentage of adults consuming alcohol in the Americas decreased from 57.8% to 46.1% between 2010 and 2016, the amount of alcohol consumed by drinkers increased from 14.7 to 15.1 liters of pure alcohol during the same period (WHO, 2020). This increase in alcohol consumption by drinkers is not insignificant from a public health perspective, as it is associated with an increased burden of morbidity and mortality.

Within the Americas, countries such as Barbados, the United States, St. Lucia, Argentina and Chile have the highest levels of total alcohol consumption per capita. In contrast, countries such as Guatemala have the lowest consumption levels in the region (Reynaless-Shigematsu et al., 2023). However, regardless of the country, alcohol

consumption tends to be higher in men than in women. In 2019, the average consumption in American men was 11.9 liters, while that of women was 3.5 liters per person (PAHO, 2023).

In Ecuador, a country with high rates of alcohol consumption, the average age at which alcohol consumption begins is between 14 and 17 years of age. According to a national survey conducted in 2018, 24.1% of adults aged 18-69 admitted to binge drinking. This trend is even more concerning among college students, where 49.7% of males and 23.8% of females reported harmful alcohol consumption (Pengpid and Pelzer, 2020). In addition, in 2023, an alcohol consumption rate of 80% was recorded in this population, with a rate of 28% for risk consumption (Moreta-Herrera, 2023).

Alcohol consumption and its relationship with risk factors are the subject of numerous studies. Certain psychological and sociodemographic factors, such as impulsivity, social class, marital status and gender, have been found to be predictors of problem drinking (Shephard et al., 2023). Mood disorders, such as anxiety and depression, have also been identified as being closely related to the development of alcohol problems, as many people turn to alcohol as a coping mechanism for stress and other emotional problems (Mercer et al., 2023; Adeyinka et al., 2023).

From a theoretical perspective, there are several models that attempt to explain the mechanisms underlying alcohol use disorder. The traditional medical model, for example, suggests that alcohol abuse is a direct consequence of the interaction between human neurobiological processes and the effects of the substance. On the other hand, the biopsychosocial model holds that alcohol consumption is the result of the interaction between biological, psychological and social factors, recognizing the complexity of the causes of this addiction (Bilali et al., 2023).

The transdiagnostic model has gained relevance in modern psychology and psychiatry, as it seeks to identify the fundamental processes underlying a variety of psychological disorders. This approach posits that many mental disorders share common etiological mechanisms and that identification of these processes can help develop more effective interventions. One of the most prominent transdiagnostic factors in the literature is psychological inflexibility, which refers to the individual's inability to adapt to changing situations or to cope with unpleasant thoughts and emotions (Hayes et al., 1996; Gionmi et al., 2023).

Psychological inflexibility manifests itself through processes such as cognitive fusion, in which deeply held thoughts and beliefs are perceived as absolute truths that control behavior, and experiential avoidance, which involves the desire to escape uncomfortable emotions or memories. Research has shown that people with high levels of psychological inflexibility are more likely to develop psychological problems, including those related to alcohol use (Serowik and Orsillo, 2019).

A study by Luoma (2020) found that individuals with greater psychological inflexibility and negative affect drank more when alone ($p < .001$). In addition, experiential avoidance was found to be associated with more harmful forms of alcohol consumption, especially in those with low levels of negative affect. This finding suggests that psychological inflexibility may not only contribute to the development of alcohol problems, but also influence how people respond emotionally to stressful situations.

Perceived stress is another transdiagnostic factor that has been studied in relation to alcohol consumption. Perceived stress refers to a person's subjective perception of the severity or impact of a stressful event, and has been shown to be closely related to a number of mental health problems. In the context of alcohol consumption, perceived stress may act as a trigger, as many people turn to alcohol to relieve anxiety or emotional

distress associated with stressful situations (Fasset et al., 2020).

A study carried out by Schick et al. (2023) found a significant correlation between perceived stress, positive emotions and motives for coping with alcohol consumption. In this study, the researchers concluded that perceived stress and positive emotions were correlated with greater excessive alcohol consumption. Similarly, Flaudias et al. (2021) demonstrated that college students with high levels of perceived stress during the COVID-19 pandemic had a higher prevalence of addictive behaviors, including alcohol abuse ($p = 0.004$).

On the other hand, recent studies suggest that psychological inflexibility may also mediate the relationship between perceived stress and alcohol consumption. A study by Duplessis-Marcotte et al. (2023) demonstrated that individuals with high levels of cortisol ($p = 0.075$) and perceived stress ($p = 0.037$) were more likely to increase their alcohol consumption during periods of elevated stress. These findings reinforce the idea that both psychological inflexibility and perceived stress are key variables in the development of alcohol use disorders.

In conclusion, research has shown that alcohol consumption is influenced by a number of transdiagnostic factors, including psychological inflexibility and perceived stress. These factors not only contribute to the development of alcohol problems, but also act as mediators between other psychological disorders and substance use. Although progress has been made in understanding these processes, further research is needed to develop more effective interventions to address the underlying causes of alcohol use disorder. The study of these transdiagnostic factors could provide a new perspective on how to treat and prevent this addiction, and offer more effective tools to improve the mental health and well-being of those struggling with alcoholism.

Method

Type and Design of Research

The type of research was field, cross-sectional, ex post-facto and causal comparative. It was field because the variables were measured in their natural environment; and cross-sectional because the data were collected at a single moment in time (Hernández-Sampieri & Mendoza, 2018). Likewise, it was ex post-facto because data were collected from an event that had already occurred and comparative causal because the possible relationship between alcohol consumption and transdiagnostic variables in open and distance university students was investigated.

The research design was non-experimental with three independent groups of students with different alcohol levels. It is considered non-experimental because no variables were manipulated. The three independent groups were divided according to the frequency or level of alcohol consumption based on item "b" of the Alcohol, Tobacco and Other Substance Use Screening Test (ASSIST); the groups were:

- a). Non-drinking or one or two-time college students.
- b). College students who consume alcohol on a monthly or weekly basis.
- c). College students who consume alcohol on a daily or near-daily basis

Population and Sample

The population was the university students of the open and distance modality of a private university in Ecuador who studied in the academic period October 2021-February 2022.

The sample consisted of 293 university students (100%), among whom 105 were men (35.8%) and 188 women (64.2%) aged between 18 and 66 years ($M=30.21$; $SD=8.79$). The nationality of all participants was Ecuadorian (100%). The marital status of 58.0% corresponds to single and 36.9% are in level 7 in relation to subjective social class (see Table 1).

Table 1.

Sociodemographic characteristics of the sample

<i>Variables</i>	<i>M</i>	<i>DE</i>	<i>Min/Max</i>	<i>N</i>	<i>%</i>
Age	30,21	8,79	18/66	293	100%
Sex	Men			105	35,8%
	Women			188	64,2%
Nationality	Ecuadorian			293	100%
	Another				
Marital status	Single			170	58,0%
	Married			76	25,9%
	Free union			21	7,2%
	Separated -			25	8,5%
	Divorced			1	0,3%

Note. Sample size (N) = 293; M = mean; SD = standard deviation; Min = maximum value; Max = minimum value; n = simple absolute frequency; % = percentage.

Inclusion Criteria

A. The student must be enrolled in an undergraduate career in the open and distance modality during the academic period October 2021-February 2022.

B. The student must freely agree to be part of the study by means of informed consent.

C. The student must answer the instruments in their entirety.

Exclusion Criteria

A. Not be enrolled in an undergraduate university career in the open and distance modality.

B. Be a graduate student.

C. Failure to accept informed consent.

D. Failure to respond to the instruments in their entirety.

Instruments

An online survey composed of a series of short, psychometrically validated scales was administered to measure indicators of mental health and substance use.

Sociodemographic data questionnaire (Ad hoc): This questionnaire was applied to collect the sociodemographic data of the sample. Data were collected on sex, age, nationality, marital status, subjective social class, and university of undergraduate study.

The application time was five to ten minutes and was applied individually.

Action and Commitment Questionnaire (AAQ-II; Bond et al., 2011; Ruiz et al. version, 2013; Paladines-Costa et al., 2021): The Action and Commitment Questionnaire (AAQ-II) was developed by Bond et al. (2011) with the aim of having a brief instrument to assess psychological inflexibility. The application time is between 5 and 10 minutes, and can be self-administered. It is a seven-item Likert scale, in which 1 represents "never true", 4 "sometimes true" and 7 "always true". The higher the score, the greater the psychological inflexibility (Jarrín and Ponce, 2023). The items assess aspects such as experiential avoidance, the inability to stay focused on the present and reevaluating the direction of actions when internal psychological events are present. The AAQ-II has adequate discriminant validity, a Cronbach's alpha coefficient of $\alpha=0.84$ and test-retest reliability of $r=0.81$ (Bond et al., 2011). As for the version translated into Spanish, a coefficient $\alpha=0.88$ was found (Ruiz et al., 2013). Within the Ecuadorian context, the Spanish version showed high reliability ($\alpha=0.919$; $\omega=0.928$) in a sample of university students (Paladines-Costa et al., 2021). The factor structure is unidimensional (Ruiz et al., 2013).

Perceived Stress Scale (PSS-10; Cohen et al., 1983; Spanish version: Remor, 2006): This instrument was originally designed by Cohen et al. (1983) to quantify the perception of psychological stress, considering how everyday situations are viewed in terms of stress. The questions of this scale include a series of questions focused on determining the degree of stress perceived in the last month. It is applied in an estimated time of 5 to 10 minutes and is self-applied. The Perceived Stress Scale contains 10 items, whose response options are in Likert-type format. It offers five response options that can be scored from 0 to 4: 'never', 'almost never', 'sometimes', 'frequently' and 'always'. These answers are scored from zero to four. However, it is important to note that the responses to items 4, 5, 7 and 8 are scored oppositely or inverted. The higher the score, it is interpreted as higher perceived stress (Campo-Arias et al., 2014). The original version has a high reliability ($\alpha=0.78$; $\omega=0.87$). The factor analysis is described by a 2-factor model: negative feelings in relation to stress and perceived self-efficacy (Taylor, 2015). With respect to the Spanish version, developed by Remor (2006), a high reliability was found ($\alpha=0.81$; test-retest, $r=0.73$). Concurrent validity and sensitivity are also optimal for this instrument.

Alcohol, tobacco and substance use screening test (ASSIST; WHO, 2011): The alcohol, tobacco and substance use screening test was developed by WHO (2011) to assess substance use and identify the level of risk of use. The questionnaire consists of 8 psychological items and is presented in a Likert-type format. However, only item "b" of this questionnaire, referring to the frequency of alcohol consumption, was used to form groups according to the level of alcohol use. It was designed to obtain data on the history of drug use, regularity of use in the last trimester, desire to use substances, complications and actions not taken because of drug use. It is administered in an estimated time of five minutes in the adult population and is heteroapplied. The ASSIST questionnaire has adequate internal consistency ($\alpha=0.71$) and a total variance of 41, 5% (Bonsksen, 2018). This instrument presents good convergent validity with the Pittsburgh Sleep Quality Index (PSQI), the Copenhagen Burnout Inventory (CBI) and the Patient Health Questionnaire-9 (PHQ-9) scale (Fernandez-Neto et al., 2023).

Procedure

For the execution of this research, the database registered during the covid-19 pandemic, from October to February 2021-2022 in Ecuador, was used. This project was carried out by the Universidad Técnica Particular de Loja and is entitled: "Transdiagnostic

model of alcohol consumption and mental health in Ecuador". It was developed and implemented in conjunction with the Ministry of Public Health and directed by PhD. Víctor Manuel López Guerra. The procedure used for data collection is detailed below.

Once approval has been obtained from the Ethics Committee for Research on Human Subjects (CEISH) of the Universidad San Francisco de Quito (USFQ), registered with approval code number (CEISH: 2021-072E), and complying with the established ethical principles of the Declaration of Helsinki, participants were recruited through announcements carried out by the Ministry of Public Health and the National Secretariat of Higher Education, Science, Technology and Innovation (SENESCYT).

Data collection was carried out using ArcGIS software. First, the informed consent form was presented, by which participants could accept their anonymous and voluntary participation. Subsequently, if they agreed to be part of the study, participants were presented with the instruments in the following order:

- Sociodemographic questionnaire (Ad Hoc).
- Perceived Stress Scale (PSS-10).
- Acceptance and Action Questionnaire (AAQ-II).

Finally, the results were collected for approximately five months and stored on the web server for five years.

Data Analysis

First, in order to respond to the first research objective, a descriptive analysis of each variable was performed, including the calculation of the mean and standard deviation.

Secondly, to determine how alcohol consumption is related to transdiagnostic variables, a MANOVA analysis was applied, considering a significance level of 0.05. The effect size was measured using the partial eta squared statistic, taking into consideration the values of small (0.01 - 0.05), medium (0.06 - 0.13) and large (0.14) effects. To identify differences between groups, the Bonferroni post hoc rank test was used with a significance level ≤ 0.05 . Data analysis was performed using SPSS software, version 29.

Results

As a preamble to answering the objectives of the study, we sought to know the internal consistency of the psychological instruments by means of Cronbach's Alpha coefficient (α), which allows us to measure the reliability of the instrument. An optimal Cronbach's alpha (α) should have a value equal to or greater than 0.80 (Streiner, 2010).

Table 2.
Cronbach's alpha of psychological instruments

Instruments	Reliability Cronbach's Alpha (α) (Total)
Perceived Stress Scale (PSS-10)	$\alpha = 0,852$

Acceptance and Commitment Questionnaire-II (AAQ-II)	$\alpha = 0,961$
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Table 2 shows the total Cronbach's Alpha (α) value of both psychological instruments used, of which positive item-total correlations and satisfactory internal consistency are reported for the Perceived Stress Scale (PSS-10) ($\alpha=0.852$) and the Acceptance and Commitment Questionnaire-II (AAQ-II) ($\alpha=0.961$). Therefore, the results demonstrate that the subjects' responses were consistent on each item of the instruments and thus, both instruments are reliable.

In order to respond to the specific objectives of the research, three groups were formed according to the level of alcohol consumption and then the data were balanced to obtain a database with equal groups of participants. The relevant calculations and statistical tests were then performed.

Table 3.

Analysis of transdiagnostic variables in the three groups with different levels of alcohol consumption.

Variables	Group 1 N=104	Group 2 N=99	Group 3 N=90	Total N=293	F	P	η^2
	M (\pm SD)	M (\pm SD)	M (\pm SD)	M (\pm SD)			
Perceived stress	14,96 (7,80)	14,56 (5,30)	20,71 (7,35)	16,59 (7,94)	19,761	<0,001 1-2* 1-3* 2-3*	0,120
Psychological inflexibility	16,07 (7,59)	28,82 (8,80)	38,53 (8,16)	27,81 (12,32)	31,475	<0,001 1-2* 1-3* 2-3*	0,178

Note. M = mean; SD = standard deviation; F = frequency; P = significance level; η^2 = partial eta squared; Group 1 = does not consume, or consumes 1 or 2 times; Group 2 = consumes every month or every week; Group 3 = consumes daily or almost daily; *p < 0.05.

The results obtained after performing the MANOVA analysis showed significant differences ($p < 0.05$) between the mean scores of the variables perceived stress and psychological inflexibility in the three groups according to the degree of alcohol consumption. First, it is evident that the third group obtained higher scores of perceived stress ($M=20.71$; $SD=7.35$) in comparison to group two made up of monthly/weekly consumers ($M=14.56$; $SD=5.30$) and group one made up of non-consumers or people who consume 1 or 2 times ($M=14.96$; $SD=7.80$) in the total score ($F=19.761$; $p < 0.001$; $\eta^2 = 0.120$). On the other hand, it is observed that the third group presents higher levels of psychological inflexibility ($M=38.53$; $SD=8.16$) with respect to the levels reported in the second group ($M=28.82$; $SD=8.80$) and the first group ($M=16.07$; $SD=7.59$) in the total score ($F=31.475$; $p < 0.001$; $\eta^2 = 0.178$).

Thus, it is evident that the lowest score, both in terms of mean and standard deviation, corresponds to the first group while the highest corresponds to group three; it is observed that the higher the alcohol levels, the higher the levels of perceived stress and psychological inflexibility. On the other hand, the partial eta squared statistic showed a

moderate to large effect size on the three groups with different levels of alcohol consumption; with the perceived stress variable having the smallest effect size and psychological inflexibility the largest, with a value greater than $\eta^2 = 0.14$.

The Bonferroni post hoc test was also used to identify which groups differed from each other. This test identified that between both variables there are statistically significant differences ($p < 0.05$) between the first and second groups; the first and third groups and the second and third groups. The results suggest that there is a relationship between consumption levels and transdiagnostic variables.

Discussion and Conclusions

As mentioned above, the general objective of the research was to analyze the relationship between psychological inflexibility and perceived stress with alcohol consumption in a sample of university students. The findings of this study show that as levels of alcohol consumption increased, so did levels of perceived stress and psychological inflexibility.

In other words, this study corroborates the existence of a positive relationship between alcohol consumption levels and perceived stress, which could suggest that students use alcohol as a coping mechanism in stressful situations. These results are consistent with the findings of Schick et al. (2023), who found that stress is positively correlated ($p < .001$) with heavy drinking in the university population.

The results of this study are also in line with the results of other authors who evidenced that people with a high level of perceived stress might consume more alcohol to mitigate their stress, thus increasing the risk of developing alcohol dependence when their healthy coping abilities are limited (Böke et al., 2019; Duplessis- Marcotte et al., 2023). However, these findings differ from the study by Rodriguez et al. (2023), where it was observed that there was no statistically significant correlation ($p = 0.484$) between alcohol consumption and different levels of stress. This discrepancy could be due to the fact that the study sample was made up of Hispanic immigrants from the United States, meaning that this group could present different sociodemographic characteristics, for example, differences at the sociocultural or economic level. This could explain the divergence of results compared to those found in university student populations.

On the other hand, the results of the present investigation show that as alcohol consumption levels increase, so do psychological inflexibility scores. This suggests that alcohol use may be reducing the ability of individuals to adapt to situations that involve negative internal experiences and represent a difficulty in acting in accordance with meaningful personal values.

Alcohol consumption can be used as a strategy to avoid psychological distress despite negative consequences such as the risk of developing excessive alcohol consumption or even other pathologies, such as depression or anxiety. It also increases the risk of suicide. (Reynolds et al., 2015). These findings are aligned with existing literature, for example, the study by Serowik and Orsillo (2019) found that psychological inflexibility is a contributing factor to the development and maintenance of heavy drinking, despite psychological inflexibility presenting a stronger relationship ($p < 0.01$.) with substance dependence than with substance abuse ($p = 0.12$).

It is also important to note that Sánchez-Puertas et al. (2022) indicate that psychological inflexibility significantly predicts alcohol consumption ($b = 0.064$; $p < 0.001$). Other studies point out that psychological inflexibility may positively mediate

between stress and substance abuse (Barenz, 2017; Kheirabadi et al., 2021).

On the other hand, in terms of practical implications, these findings have important applications that can be concretized in the design of intervention programs on alcohol consumption aimed at the university population. For example, these programs may include adaptive coping strategies for stress management, as well as providing tools to address psychological inflexibility. These techniques will be beneficial in providing college students with an alternative approach to managing stressful situations and other negative emotional states, as well as addressing alcohol consumption.

In addition, it should be mentioned that the number of studies addressing the relationship of the three variables is limited, highlighting the need for further research to confirm and clarify the relationship between these variables. Thus, this study contributes to the existing body of literature on the relationship of perceived stress and psychological inflexibility, as transdiagnostic variables, on alcohol consumption among college students.

However, it is important to keep in mind some limitations of this study when interpreting the results. For example, the cross-sectional nature of the research design precludes drawing causal inferences about the relationship between perceived stress, psychological inflexibility, and alcohol consumption. In addition, the sample consisted primarily of undergraduate students from a single institution, which limits the generalizability of the findings to other university populations.

Other limitations are related to the form of data collection, given that it was carried out by means of self-administered questionnaires, which may be subject to biases involving memory errors, the desirability effect or the tendency to respond affirmatively regardless of the veracity of the answers. Finally, the use of a non-probabilistic sample selected by convenience may also introduce selection biases, limiting the representativeness of the sample and preventing extrapolation of the findings to other populations or contexts, which affects the external validity of the study.

In summary, this study provides insight into how transdiagnostic variables act on drinking behavior. These findings underscore the need for effective interventions that address both the emotional and cognitive aspects of alcohol use among this vulnerable population.

Conclusions

This study empirically supports that psychological inflexibility and perceived stress are significantly associated with alcohol consumption in college students. The levels of psychological inflexibility and perceived stress varied according to the frequency of consumption, with lower scores on the transdiagnostic variables in the first group corresponding to low levels of consumption. While students with higher levels of alcohol consumption have higher levels of perceived stress and psychological inflexibility, suggesting that students may be using alcohol as a coping mechanism to deal with stress and aversive internal experiences.

Finally, this research supports the study of alcohol consumption from a transdiagnostic approach, where it is corroborated that certain psychological factors may underlie alcohol consumption behavior. This is important because it may lead to more effective and accessible psychological interventions targeted for college students.

Recommendations

For future research, it is suggested to take into account the following aspects that will allow addressing the limitations of the study; it is recommended to expand the study

sample and include university students from different institutions in order to be able to make generalizations about other student populations.

It is also recommended to evaluate and analyze the moderating effect of psychological inflexibility on perceived stress and alcohol consumption, which will provide a deeper understanding of the mechanisms underlying this behavior. In addition, it is important to evaluate other transdiagnostic variables such as the perception of loneliness or impulsivity that could influence alcohol consumption.

Based on the above, it is suggested to develop intervention strategies that address transdiagnostic factors underlying drinking behavior, such as the variables studied in this research. Finally, it is recommended to create transdiagnostic primary, secondary and tertiary prevention programs aimed at the university population in order to reduce alcohol consumption levels.

Conflict of interest

There is no conflict of interest.

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