

Motives for tobacco, alcohol, and cannabis use in the confinement context due to COVID-19 pandemic

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Abstract

Introduction. Drugs produce significant negative consequences in societies. The prevalence of drug use continues to increase because various reasons lead people to use them. **Objective.** Identify differences in the frequency and amount of tobacco, alcohol, and cannabis use during and after COVID-19 pandemic confinement, the influence of confinement on motives, and risks for developing problematic use. **Methodology.** Analytical cross-sectional study with non-probabilistic sampling at two points in time. Five hundred and twenty young people participated: 246 high school and university students during the confinement in 2020, and 274 in 2022. Sociodemographic data, reasons for consumption, and problematic consumption were evaluated. **Results.** Cannabis use during confinement (41.1 %) was higher than post-confinement (29.6 %; $p < 0.006$). There were differences between the groups of problematic tobacco use during confinement and the social ($W 8.178$, $p < 0.017$), and coping ($W 26.456$, $p < 0.001$) motives; also, between the groups of problematic alcohol consumption and social motives ($W 6865.5$, $p < 0.001$); encouragement ($W 6768.0$, $p < 0.001$); coping ($W 6176.0$, $p = 0.002$) and expansion ($W 6774.0$, $p < 0.001$). Among the motives for problematic cannabis use, social ($W 6.404$, $p < 0.041$); animation ($W 9.409$, $p < 0.009$); coping ($W 9.265$, $p < 0.010$), and expansion ($W 27.692$, $p < 0.001$) were highlighted. **Conclusion.** Confinement increased the risk of tobacco and cannabis use. Motives for use also increased, except those associated with alcohol use in university students. Problem tobacco use was motivated by social and coping needs; alcohol and cannabis use was motivated by social, entertainment, coping and expansion needs.

Keywords

Alcohol Drinking, Consumption of Tobacco-Derived Products, Recreational Drug Use, Cannabis Smoking, COVID-19.

Resumen

Introducción. Las drogas producen importantes consecuencias negativas en las sociedades. La prevalencia de su consumo sigue aumentando debido a que existen diversos motivos que acercan a las personas a consumirlas. **Objetivo.** Identificar las diferencias en la frecuencia y cantidad del consumo de tabaco, alcohol y cannabis durante y después del confinamiento por la pandemia de COVID-19; así como la influencia del confinamiento en los motivos y los riesgos de desarrollar un consumo problemático. **Metodología.** Estudio transversal analítico con muestreo no probabilístico en dos momentos. Participaron 520 jóvenes: 246 estudiantes de bachillerato y universidad en el año 2020, durante el confinamiento y 274, en 2022. Se evaluaron datos sociodemográficos, motivos de consumo y consumo problemático. **Resultados.** El consumo de cannabis durante el confinamiento (41,1 %) fue mayor que en el posconfinamiento (29,6 %; $p < 0,006$). Hubo diferencias entre los grupos de consumo problemático de tabaco durante el confinamiento y los motivos sociales ($W 8,178$, $p < 0,017$) y de afrontamiento ($W 26,456$, $p < 0,001$); también, entre los grupos de consumo problemático de alcohol y los motivos sociales ($W 6865,5$, $p < 0,001$); de animación ($W 6768,0$, $p < 0,001$); de afrontamiento ($W 6176,0$, $p = 0,002$) y de expansión ($W 6774,0$, $p < 0,001$). Entre los motivos del consumo problemático de cannabis se destacan los sociales ($W 6,404$, $p < 0,041$); de animación ($W 9,409$, $p < 0,009$); de afrontamiento ($W 9,265$, $p < 0,010$) y de expansión ($W 27,692$, $p < 0,001$). **Conclusión.** El confinamiento incrementó el riesgo de consumir tabaco y cannabis. Los motivos de consumo también aumentaron, excepto las asociadas al consumo de alcohol en universitarios. El consumo problemático de tabaco estuvo motivado por necesidades sociales y de afrontamiento; el de alcohol y cannabis, por necesidades sociales, de animación, de afrontamiento y de expansión.

Palabras clave

Consumo de alcohol, consumo de productos derivados del tabaco, uso recreativo de drogas, fumar cannabis, COVID-19.

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The authors declare there are no conflict of interests.

Introduction

The COVID-19 pandemic introduced a series of changes in the attitudes and behaviors of the population. One of these was that the Spanish government decreed a state of alarm to deal with the health emergency between March 14 and June 21, 2020. At its end, a "new normality" was declared, which lasted until May 9, 2021. The restriction measures established included social, family, and work limitations that affected relationship habits^{1,2} affecting depressive and anxious symptoms that can contribute to the consumption and abuse of substances such as alcohol, tobacco, or cannabis³, especially in young people⁴.

According to Cooper *et al.*, substance use can be understood as a strategic behavior based on the underlying need or desire of individuals, with prior knowledge of the effects, to escape from a negative emotional state or to share with others the experience of the effects produced by the substance^{5,6}. Cooper established four motivational categories: 1) self-focused motivations; 2) coping motives; 3) social motives; and 4) social avoidance motives⁷, which may have been affected during the pandemic⁸, especially in young people⁹.

Concerning tobacco, young people are motivated by the desire to experience positive emotions linked to increasing their status or generating an accepted social image, perceiving tobacco consumption as a facilitator of social relations¹⁰.

The influence of confinement and other measures established to deal with the COVID-19 pandemic on the consumption patterns of these substances by students¹¹ has been highlighted because it is closely linked to social motives⁵ and the relationship with peers¹¹. However, the results are contradictory. On the one hand, some studies argue that alcohol consumption has decreased due to social restrictions, while others suggest an increase due to the consequences of the pandemic^{4,13}. On the other hand, about cannabis, no publications have been found on changes in consumption due to the pandemic, although Schapis *et al.* suggest an increase among students as of COVID-19⁴.

Consequently, this study aims to compare the motives for tobacco, alcohol, and cannabis use and the risk of problematic use of tobacco, alcohol, and cannabis among young high school and college students during and after the confinement of the COVID-19 pandemic. Based on the documentation consulted, the hypotheses are: 1) in times of pandemic, young people have used tobacco, alcohol, or cannabis to cope

with negative emotions; 2) motivations for tobacco, alcohol, or cannabis use are an influential factor in developing problematic use.

Methodology

A total of 520 individuals were recruited, of whom 266 were high school students from Gavà, a town in the metropolitan area of Barcelona, and 254 university students, all from the province of Barcelona, Spain. Of the total, 246 participated during the COVID-19 pandemic confinement in 2020, and 274 were recruited in 2022. Participants met the selection criteria: 1) they were high school or university students; 2) they had consumed one of the three substances in the last year; and 3) they gave their consent or had the consent of their parents or guardian to participate.

Five instruments were used for data collection, a questionnaire of sociodemographic characteristics: sex, age, and educational level. The Marijuana Motives Measure Short Form (MMM-SF)¹⁴ questionnaire, which was used to address motives for cannabis use, is a shortened version of the Marijuana Motives Measure (MMM)¹⁵, which in turn is an adaptation of the Drinking Motives Questionnaire (DMQ)⁷.

The MMM-SF consists of 15 items and evaluates the different motivations for the substance use. It is answered based on a Likert scale from 1 to 5, where 1 corresponds to "almost never" and 5 to "almost always". The psychometric data of the MMM-SF showed good reliability. Cronbach's alpha of 0.820 was in the data analysis of the questionnaire to assess motivation towards smoking. A Cronbach's alpha of 0.873 was in the case of alcohol. Finally, Cronbach's alpha of 0.878 was the motivation for cannabis use.

The Alcohol Use Disorders Identification (AUDIT) questionnaire was used to assess problematic alcohol use. The AUDIT is a self-administered questionnaire consisting of ten questions; three of them are designed to find out the frequency and dependence on alcohol consumption, the next two refer to the attitude towards drinking. The seventh and eighth to adverse reactions, and the last ones are related to problems with its consumption. Therefore, this questionnaire aims to detect problems related to alcohol consumption, i.e., problematic alcohol consumption. The validated version was used in Spain, which showed good psychometric results in terms of reliability, obtaining a Cronbach's alpha of 0.696^{16,17}.

The Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) was used to assess problematic tobacco use.

The ASSIST is a screening test for the risk of alcohol, tobacco, and other substance use; however, in this study, it was used only to assess the frequency, dependence, and consequences of tobacco use¹⁸. Regarding the psychometric data, the items chosen showed good reliability in the data analysis, obtaining a Cronbach's alpha of 0.767.

Problematic cannabis use was assessed using the Cannabis Abuse Screening Test (CAST)¹⁹ questionnaire. The CAST is a questionnaire for estimating problematic cannabis use. Problematic cannabis use was assessed using the Cannabis Abuse Screening Test (CAST)¹⁹ questionnaire. The CAST is a questionnaire for estimating problematic cannabis use. It consists of six items that are answered taking into account the frequency with which one feels identified with the question. The response must be rated from 0 to 4 where 0 corresponds to "never", 1 to "rarely", 2 to "occasionally", 3 to "quite often", and 4 to "very often"^{8,19,20}. This questionnaire showed good reliability, obtaining a Cronbach's alpha of 0.832.

The questionnaires were administered through a link to Google Forms in two different moments; the first in 2020 during confinement and the second in 2022. To apply the questionnaires to high school students, face-to-face groups of approximately 30 students were conducted. The university students responded autonomously and personally. In addition, they were asked to forward the survey to acquaintances who met the selection criteria.

The study of the ordinal, nominal and quantitative variables obtained in the questionnaire was carried out by means of different statistical tests using Jeffreys's Amazing Statistics Program (JASP). The Chi-square test was for nominal and ordinal variables. As for quantitative variables, since they did not comply with normality, nonparametric tests were performed: Spearman's correlation and Mann-Whitney U test. The significance level chosen for the results interpretation was $p < 0.05$ for a confidence interval of 95 %.

Both high school and university students were informed of the confidentiality of the responses, the voluntary nature of participation and were not given any reward for their collaboration. For minors, informed consent was obtained from parents or guardians. In the case of adults, to participate in the research, they had to accept the terms and give their consent.

Results

A total of 295 women (56.7 %) and 225 men (43.3 %) participated, with a mean age of

19.94 years (SD 3.365). No statistically significant differences ($W = 35\,868$, $p = 0.108$) were between the mean age of females (19.10, SD 3.379) and males (18.74, SD 3.344), nor between the mean age of students who participated during confinement (18.768, SD 2.579) and after confinement (19.10, SD 3.938; $W = 34\,247$, $p = 0.746$).

Regarding tobacco ($p = 0.959$) and alcohol use ($p = 0.096$), there were no significant differences between the sexes in the last year. In contrast, cannabis use was in 44.89 % of men compared to 27.46 % of women ($p < 0.001$).

On the other hand, no significant differences were found in the motivations associated with tobacco use between men and women. In contrast with the motives for alcohol consumption, differences were found in the coping motives ($p = 0.012$). In this type of consumption, women obtained higher scores ($M = 4.531$, $SD = 2.785$) than men ($M = 3.967$, $SD = 2.738$). In addition, in the motives for cannabis use, significant differences were found related to social ($W = 12\,754.500$, $p < 0.001$), encouragement ($W = 12\,753$, $p < 0.001$), coping ($W = 13\,320$, $p < 0.001$), conformity ($W = 13\,060.500$, $p < 0.001$) and expansion ($W = 13\,393$, $p < 0.001$) motives. In all, men's scores were higher than those of women.

Age and educational level were positively correlated with the motives for consumption of the three substances. Thus, the older the age and the higher the level of education, the higher the scores on the motives for consumption. The greatest difference between means ($W = 14\,351.500$, $p < 0.001$) was between high school students ($M = 3.891$, $SD = 5.669$) and university students ($M = 5.497$, $SD = 5.391$).

Consumption and risk consumption during and after confinement the pandemic of high school and college students

First, significant differences were observed in cannabis use in the total sample during the last year ($p = 0.006$). During confinement, 41.1 % used cannabis at least once in the last 12 months. In contrast, after confinement, this consumption decreased to 29.6 %. On the other hand, no significant differences were found ($p = 0.543$) between alcohol consumption during (86.2 %) and after confinement (84.3 %). Nor were significant differences found in tobacco consumption ($p = 0.427$) during (48.4 %) and after confinement (44.9 %).

Second, tobacco risk consumption showed significant differences during and after pandemic confinement between the group of high school students ($p < 0.001$)

and the group of university students ($p < 0.001$) (Table 1). During confinement, 80 % of the high school students were at medium risk; in contrast, after confinement, 76.71 % were at low risk. As for university students, it is worth noting that during confinement, 73.44 % were in medium-risk consumption. This figure dropped to 50 % after confinement.

Likewise, in cannabis use, significant differences were also observed in the risk use of high school students ($p < 0.001$) and university students ($p < 0.001$). During confinement, 47.4 % of high school students had risky cannabis use. After confinement, this figure decreased so that 8.1 % of high school students had a risk associated with their use.

On the other hand, 39.7 % of university students had risky consumption during confinement. After confinement, 81.3 % had no risk associated with consumption. Finally, it should be noted that no significant differences were found in the risk of alcohol consumption of high school students ($p 0.265$) and college students ($p 0.352$) during and after confinement.

Motives for consumption during and after COVID-19 pandemic confinement

Motives (social, encouragement, coping, conformity, and expansion) for tobacco, alcohol, and cannabis use were higher during the COVID-19 pandemic confinement for both high school and college students, except for alcohol use in college students. All, except cheerleading ($W 9096.5$, $p 0.004$) and coping ($W 8667$, $p 0.025$) motives, remained the same during and after confinement (Table 2).

Relationship between motives for use and problematic use during and after confinement for the COVID-19 pandemic

The relationship between consumption motives and problematic consumption during and after confinement is shown in Table 3. During confinement, the tobacco risk groups showed significant differences between social ($W 8.178$, $p 0.017$) and coping motives ($W 26.456$, $p < 0.001$). Those

Table 1. Risk groups before and after confinement for the COVID-19 pandemic as a function of substance and type of studies

			During confinement %	After confinement %	χ^2	p		
Tobacco	High school students	Low risk	18.18	76.71	57.421	< 0.001		
		Medium risk	80.00	22.60				
		High risk	1.82	0.69				
	University students	Low risk	20.31	48.44			15.694	< 0.001
		Medium risk	73.44	50.00				
		High risk	6.25	1.56				
Alcohol	High school students	Normal consumption	75.79	69.18	1.242	0.265		
		Risk consumption	24.21	30.82				
	University students	Normal consumption	60.68	66.41			0.865	0.352
		Risk consumption	39.32	33.59				
Cannabis	High school students	No risk	39.47	91.10	54.343	< 0.001		
		Medium risk	13.16	4.10				
		High risk	47.37	4.80				
	University students	No risk	41.27	81.25			31.224	< 0.001
		Medium risk	19.05	7.03				
		High risk	39.68	11.72				

participants with medium risk in tobacco use showed higher scores in social and coping motives compared to those with low risk.

On the other hand, significant differences were between the alcohol risk drinking groups and the social (W 6865.5, $p < 0.001$), encouragement (W 6768, $p < 0.001$), coping (W 6176, $p = 0.002$), and expansion (W 6774, $p < 0.001$) motivations. Therefore, those with risky alcohol consumption showed higher scores on social motivation, cheerfulness, coping, and expansiveness compared to those with typical consumption.

Finally, significant differences were between the cannabis risk-taking groups and social (W 6.404, $p = 0.041$), encouragement (W 9.409, $p = 0.009$), coping (W 9.265, $p = 0.010$), and expansion (W 27.692, $p < 0.001$) motivations. Thus, participants with higher risk in cannabis use showed higher scores on social motivation, encouragement, coping and expansion than those with low risk.

Similarly, after confinement, a higher risk in tobacco consumption was identified due to higher social (W 192.155, $p < 0.001$), encouragement (W 200.250, $p < 0.001$), coping (W 202.619, $p < 0.001$), conformity (W 187.939, $p < 0.001$), and expansion (W 187.634, $p < 0.001$) motivation. The same

is true for risky cannabis use: the higher the risk of use, the higher the social motivation (W 114.964, $p < 0.001$), encouragement (W 121.506, $p < 0.001$), coping (W 122.246, $p < 0.001$), conformity (W 101.426, $p < 0.001$), and expansion (W 113.729, $p < 0.001$).

As for alcohol consumption, the trend is the opposite of the other two substances. The results show that risky consumption implies lower social (W 12 003.5, $p < 0.001$), cheerfulness (W 12 762.5, $p < 0.001$), coping (W 12 544, $p < 0.001$), conformity (W 10 718, $p < 0.001$), and expansion (W 11 861.5, $p < 0.001$) motivation than normal consumption.

Discussion

The main results of the investigation show that there is no difference in the percentage of young people who have used tobacco and alcohol during and after pandemic confinement and that the percentage of cannabis users has decreased. Furthermore, consistent with other studies^{4,13}, students' tobacco and cannabis risk use decreased after confinement. Likewise, alcohol risk consumption remained constant during and after confinement. This finding gener-

Table 2. Consumption motives as a function of substance and type of studies during and after COVID-19 pandemic confinement

	High school students											
	Tobacco				Alcohol				Cannabis			
	COVID-19	Post	W	p	COVID-19	Post	W	p	COVID-19	Post	W	p
Social	6.78	2.562	6493.0	< 0.001	9.642	7.027	8929.0	< 0.001	9.474	1.979	4958.5	< 0.001
Animation	5.909	2.144	6631.0	< 0.001	8.484	5.925	9149.5	< 0.001	10.711	2.116	5000.5	< 0.001
Coping	4.855	1.616	6653.5	< 0.001	4.663	3.630	8630.0	< 0.001	5.737	1.219	5014.5	< 0.001
Compliance	3.309	1.411	6463.0	< 0.001	3.684	2.842	8546.5	< 0.001	3.553	0.774	4968.5	< 0.001
Expansion	3.709	1.418	6494.5	< 0.001	4.547	3.445	8790.0	< 0.001	5.737	1.212	5035.5	< 0.001
	University students											
	Tobacco				Alcohol				Cannabis			
	COVID-19	Post	W	p	COVID-19	Post	W	p	COVID-19	Post	W	p
Social	7.016	3.930	5833.0	< 0.001	9.974	9.133	8245.0	0.170	6.778	2.914	6334.0	< 0.001
Animation	6.016	3.484	5843.0	< 0.001	9.017	7.477	9096.5	0.004	8.968	3.789	6304.5	< 0.001
Coping	4.891	3.125	5638.5	< 0.001	4.709	4.375	8667.0	0.025	4.794	2.258	6465.0	< 0.001
Compliance	3.625	1.953	6160.5	< 0.001	3.641	3.781	7696.0	0.658	3.317	1.500	6421.5	< 0.001
Expansion	3.266	2.008	5700.0	< 0.001	4.419	4.000	8271.0	0.125	5.905	2.523	6440.5	< 0.001
	Muestra total											
	Tobacco				Alcohol				Cannabis			
	COVID-19	Post	W	p	COVID-19	Post	W	p	COVID-19	Post	W	p
Social	6.908	3.201	24870.0	< 0.001	9.825	8.011	34926.0	< 0.001	7.792	2.416	23412.0	< 0.001
Animation	5.966	2.770	25243.5	< 0.001	8.778	6.650	36963.0	< 0.001	9.624	2.898	23441.5	< 0.001
Coping	4.874	2.321	24866.5	< 0.001	4.689	3.978	35056.0	< 0.001	5.149	1.704	23680.5	< 0.001
Compliance	3.479	1.664	25422.5	< 0.001	3.660	3.281	33135.0	0.002	3.406	1.113	23500.5	< 0.001
Expansion	3.471	1.693	24681.5	< 0.001	4.476	3.704	34600.5	< 0.001	5.842	1.825	23696.5	< 0.001

ates some controversy. On the one hand, it is consistent with other studies^{11,12} that found no differences in alcohol risk consumption before and after confinement in American college students; on the other hand, a recent systematic review points to a decrease in consumption during the pandemic²¹ and another points to an increase in alcohol and cannabis²². The students who participated in the research were regular users of the different substances.

In addition, a clear decrease was in all motivations (social, encouragement, coping, conformity and expansion) for tobacco, alcohol and cannabis consumption. However, when dividing the sample into high school and university students, the latter maintained the alcohol consumption motivations (social, conformity, and expansion) during and after confinement. It may be due, on the one hand, to the beliefs associated with alcohol consumption in the university population²³ and, on the other hand, to the sociodemographic characteristics of the sample (e.g., living away from home and older age)²⁴. The generalized decrease in drinking motives after confinement may be due to decreasing stressors associated with COVID-19 (e.g., social isolation and fear of contagion from their elders)³ and highlights the key role that the pandemic may have played in young people.

Also, the results show that the main motivations proposed by Cooper *et al.* and the possibility of developing problematic drug use are related in such a way that the greater the motivation, the greater the risk of drug use^{5,8}. It should be noted

that during confinement, there were some differences in the motives for consumption compared to risk consumption that were not observed after confinement (Table 3). During confinement and concerning tobacco consumption, the only motives that increased with risky consumption were social and coping motives.

Young people with problematic tobacco use during confinement used tobacco to cope with negative feelings (coping) and reinforce or improve social cohesion. Likewise, with alcohol and cannabis use, all motives for use increased, except compliance. It means that people with problematic consumption during confinement did so to enhance positive feelings (encouragement), reinforce or improve group cohesion (socialization), expansion, and cope with negative feelings (coping).

According to the data found, the social motivations for alcohol consumption obtained higher scores since young people consume alcohol in contexts where there is interaction with others^{7,25,26}. On the other hand, Orgaz *et al.* defend the importance of motivations for encouragement with coping motives and the need of young people to try out experiences with alcohol consumption²⁷. It should not be forgotten that during confinement, the domestic consumption of some drugs, such as alcohol, presumably increased²⁸. Finally, cannabis showed significant correlations concerning four motivations in confinement participants, with the motivation to expand awareness, self-awareness, and perception (expansion) scoring the highest, followed by encourage-

Table 3. Risk groups about reasons for consumption during and after pandemic confinement

	During confinement													
	Tobacco					Alcohol				Cannabis				
	Riesgo bajo	Riesgo medio	Riesgo alto	W	P	Consumo normal	Consumo de riesgo	W	P	Sin riesgo	Riesgo bajo	Riesgo alto	W	P
Social	5.174	7.352	6.800	8.178	0.017	8.951	11.638	6865.5	< 0.001	7.049	6.824	8.884	6.404	0.041
Animation	5.087	6.121	7.200	3.441	0.179	7.965	10.464	6768.0	< 0.001	8.317	9.765	10.814	9.409	0.009
Coping	3.087	5.242	6.400	26.456	< 0.001	4.329	5.435	6176.0	0.002	4.439	4.706	6.000	9.265	0.010
Compliance	3.652	3.451	3.200	0.018	0.991	3.657	3.667	5229.5	0.368	3.561	3.176	3.349	0.104	0.950
Expansion	3.348	3.473	4.000	1.252	0.535	3.895	5.681	6774.0	< 0.001	4.878	3.941	7.512	27.692	< 0.001
	After confinement													
	Tobacco					Alcohol				Cannabis				
	Riesgo bajo	Riesgo medio	Riesgo alto	W	P	Consumo normal	Consumo de riesgo	W	P	Sin riesgo	Riesgo bajo	Riesgo alto	W	P
Social	0.736	7.433	9.333	192.155	< 0.001	10.727	6.726	12003.5	< 0.001	1.291	10.933	8.727	114.964	< 0.001
Animation	0.632	6.423	8.667	200.250	< 0.001	9.625	5.242	12762.5	< 0.001	1.523	12.533	11.136	121.506	< 0.001
Coping	0.506	5.414	7.667	202.619	< 0.001	5.955	3.043	12544.0	< 0.001	0.785	5.667	8.909	122.246	< 0.001
Compliance	0.489	3.629	6.333	187.939	< 0.001	4.193	2.849	10718.0	< 0.001	0.675	3.000	4.545	101.426	< 0.001
Expansion	0.500	3.732	3.464	187.634	< 0.001	5.125	3.032	11861.5	< 0.001	0.954	5.600	8.636	113.729	< 0.001

ment and coping. On the other hand, post confinement participants obtained significant correlations in all motivations, with higher scores for coping and encouragement motives. These results differ from other studies⁸ that reduce the weight of expansion motives versus the likelihood of developing problematic use, despite agreeing with the relevance of coping and animation motives in problematic cannabis use.

It is necessary to comment that the results of this study cannot be generalized to the population to which it refers because the sample is not representative. Despite this limitation, it can be affirmed that the reasons that lead young people to consume alcohol, tobacco, or cannabis are related to the possibility of developing problematic consumption. Therefore, it seems essential to take this factor into account to develop effective prevention strategies and develop personalized treatments that address individual factors in addition to the substance. Similarly, attention to contextual factors is essential to prevent possible consumption in the young population, given that stressful events such as the pandemic and the subsequent confinement motivated by COVID-19, which have physical and psychological repercussions, increase the risk of consuming alcohol, tobacco, and cannabis and, consequently, of developing problematic consumption.

Future research is worth investigating the reasons for increased tobacco and cannabis use after confinement, as COVID-19 may have exacerbated pre-existing risk factors for adolescent drug use^{29,30}.

Conclusion

COVID-19 confinement increased the risk of tobacco and cannabis use in students, but not alcohol. The motives for using all three substances during confinement were higher, with the exception of college students, who maintained some alcohol use motivations (social, conformity, and expansion). Risky tobacco use during confinement was motivated by social and coping needs; alcohol and cannabis use was by social encouragement, coping, and expansion.

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