

## Influence of the COVID-19 pandemic on the consumption of alcoholic beverages by adolescents



<https://doi.org/10.56238/Connexpemultidisdevolpft-087>

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### ABSTRACT

The COVID-19 pandemic has brought psychosocial adjustment difficulties to many adolescents, which may favor the abusive use of alcohol. Thus, the objective of the research was to investigate whether during the COVID-19 pandemic there was a change in the amount, frequency and context of alcohol use by adolescents. For this, 253 adolescents, 124 (59%) girls, 81 (38.4%) boys and 48 adolescents who did not identify as male or female answered

“other”, with a mean age of  $17.33 + 0.92$  years old, belonging to the high school of five schools of the state public education network, answered an online form containing short, objective and concise questions about the use, quantity, frequency and context of alcohol use before and during the pandemic of the COVID-19. The data collection instrument was adapted from the Drug Use Screening Inventory questionnaire. The results showed that approximately 43% of adolescents consumed alcoholic beverages before the onset of the COVID-19 pandemic; that for 78% of adolescents, the COVID-19 pandemic did not influence the consumption of alcoholic beverages; 24.8% reported drinking more after the start of the pandemic than before the pandemic. Regarding the context of alcohol use, approximately 40% drink with friends and 29% with family. Regarding the frequency of use, adolescents drink more on weekends and once a week.

**Keywords:** Pandemic, Alcohol consumption in schools, Alcohol consumption by adolescents.

## 1 INTRODUCTION

Adolescence is a phase of life characterized by a series of biological, cognitive, emotional and social changes, as well as marked by the adoption of new behaviors, gain of autonomy, and exposure to various situations of present and future risks to health (ABERASTURY, KNOBEL, 2003).

Exposure to behavioral risk factors, such as alcohol consumption, smoking, drugs, inadequate nutrition, and sedentary lifestyle often begins in adolescence (PENSE, 2019). Studies indicate that alcohol is the first drug to be used in adolescence, and usually its excessive use is the gateway to the consumption of other drugs (WORTH, WIK, 2021).

It is worth mentioning that health and well-being have a prominent place in the Sustainable Development Goals (SDGs). SDG 3, "ensuring healthy living and promoting well-being for all at all ages," is underpinned by 13 targets that span a broad spectrum of WHO's work. Alcohol consumption is specifically mentioned in health goal 3.5, illustrating the recognition of harmful alcohol use as an



issue to be addressed: "Strengthen the prevention and treatment of substance use, including narcotic drug abuse and harmful alcohol use" (WHO, 2018).

Brazilian data indicate a direct relationship between alcohol and early sexual activity and without condom use, violence, traffic accidents and falls in school performance (ANDRADE, 2021; BRAZIL, 2010). An epidemiological study, conducted in Brazilian cities with elementary and high school students, pointed to alcohol as the most consumed and early-onset drug (MAIA, MARQUES, 2017; BOSQUE, 2017).

Regarding the context of alcohol use by adolescents, studies indicate that the beginning of use occurs, most of the time, among family members and then at parties and with friends, and that adolescents hardly drink alone (BOSQUE, 2017; ZUQUETTO, 2019). Media advertisements also show young people drinking at parties, bars, beaches, and usually in groups of friends (ZUQUETTO, 2019; KAM, BASIGNER, ABENDSCHEIN, 2018). The abuse of alcohol and other drugs are factors of high vulnerability in adolescence, and has been recognized as one of the main triggering causes of health problems that can reach extreme and irreversible situations (KAM, BASIGNER, ABENDSCHEIN, 2018). Important to note is the close relationship of the use of legal drugs, such as alcohol and tobacco with situations of individual and social vulnerability (DUMAS, ELLIS, LITT, 2020).

According to an estimate by the World Health Organization (WHO), in Brazil, 26.8% of young people aged between 15 and 19 years reported alcohol consumption, similar to the world rate of 26.5%. Data from the most recent edition of the 2019 National School Health Survey (PeNSE), before the onset of the COVID-19 pandemic, showed that alcohol experimentation by schoolchildren between the ages of 13 and 17 was 63.3 percent, with 55.9 percent of 13- to 15-year-olds reporting experimentation. Among those who are in the range of 16 and 17 years, the result reached 76.8%, a small increase compared to the previous survey, conducted in 2015, which indicated 73% for this age group (IBGE, 2021).

A Canadian survey conducted *online* with adolescents between the ages of 14 and 18, asking how the pandemic affected alcohol and drug use, showed that the percentage of young people who consumed it increased slightly in the pre-COVID to post-COVID period (from 28.6% to 30.1%), that alcohol began to be used more frequently (the average days of use, in the 3 weeks assessed before and after COVID-19, it went from 0.76 to 0.96), although in smaller amounts: episodic heavy drinking (BPE), a harmful pattern of drinking that occurs when a large intake of alcohol is made on a single occasion, decreased from 15.7% to 9.8%. It is noteworthy the fact that among the adolescents who used alcohol, 42% were with their parents (KAPETANOVIC, ANDER, GURDAL, 2022).

Since March 2020, most teens have stopped going to school, interacting with peers, or playing sports and extracurricular activities. Many teens have had to take on childcare tasks, such as caring for



younger siblings while their parents work. Remote learning requires hours of screen time and staying engaged and motivated can be difficult. The isolation, uncertainty, and fear related to the pandemic can lead to increased cases of depression, anxiety, stress, and boredom, and it is possible that a new cohort of adolescents is at higher risk of developing addiction to substances such as alcohol (LUNDAHL, LESLIE, CANNOY, 2021).

Health promotion actions, both physical and mental, are important to mitigate the effects of the pandemic, and understanding the social, personal and environmental factors that contribute to the initiation and/or increase in the use of alcoholic beverages is essential for the development of programs to be done efficiently and durably.

When we consider the pandemic scenario and the harm that the habit of drinking alcohol causes to the health of adolescents and the absence of data in the municipality of Alegrete that justifies this project and elaborates the research question: What is the behavior of adolescent students in the face of alcohol use during the pandemic? In order to answer the research question, the general objective of investigating whether during the COVID-19 pandemic there was a change in the amount, frequency and context of alcohol use by adolescents. To meet the general objective, the following specific objectives were outlined: To investigate whether adolescents used alcohol, quantity, frequency and in what context, before the pandemic; Investigate whether adolescents increased, decreased, or continued consuming the same amount, at the same frequency, and in the same context after the pandemic began; Compare adolescents' responses regarding alcohol use, amount, frequency, and context before and after the pandemic began.

## **2 METHOD AND PROCEDURES**

This study with a quantitative approach, cross-sectional design, descriptive with respect to the objectives and field with respect to the place of data collection.

The sample was composed of adolescent students of both sexes aged between 14 and 18 years, living in the urban area of the city of Alegrete, duly enrolled in five high schools.

The age group studied is justified by allowing greater comparability to international indicators, especially those from the *Global School Based Student Health Survey* (GSHS of the WHO/CDC), conducted by the WHO, present in more than 90 countries of the world.

Inclusion criteria were to belong to high school (1st to 3rd year), age group between 14 and 18 years old, of both sexes, students enrolled in public schools of Alegrete and who accepted to participate in the study; and the following exclusion criteria were considered: Adolescents who did not wish to be part of the study or refused to indicate their consent on the form and guardians who did not indicate their consent in the Free and Informed Consent Form.



The project was submitted to the Research Ethics Committee of Uergs and was approved with CAEE 61699422.7.0000.8091.

Data were collected from August to December 2022 in five state schools in the urban area of the city of Alegrete, RS, and the data collection instrument was the summarized and adapted version of the *Drug Use Screening Inventory (DUSI)* questionnaire to identify the prevalence of adolescent alcohol users. Data were analyzed using descriptive statistics observing the means and standard deviations.

### 3 RESULTS AND DISCUSSION

The aim of the research was to investigate whether during the COVID-19 pandemic there was a change in the amount, frequency and context of alcohol use by adolescents. For this, 253 adolescents, 124 (59%) girls, 81 (38.4%) boys and 48 adolescents who did not identify with the male or female sex answering "other", with a mean age of  $17.33 \pm 0.92$  years of age, belonging to the high school of five schools of the state public school system, answered a form *Online* containing short, objective, and concise questions about the use, quantity, frequency, and context of alcohol use before and during the COVID-19 pandemic.

The results showed that 100 (42.6%) adolescents consumed alcoholic beverages before the pandemic began, while 125 (53.2%) did not use alcohol. The adolescents were evasive about the frequency and amount of use, responding to not knowing or "I lost count." A study conducted with 324 high school adolescents from a public school in Bahia showed that in 2018 the majority of adolescents said they did not consume alcohol (52.2%), and the results were similar to the results of this research (FERREIRA et al, 2022).

Of the 229 adolescents, 178 (77.7%) answered that the COVID-19 pandemic did not influence the consumption of alcoholic beverages, while 26 (11.4%) answered yes and 25 (10.9%) answered "maybe". The study *ConVid Teens — Behavior Survey*, which aimed to evaluate the changes that occurred in the lives of Brazilian adolescents in the period of social distancing, consequent to the COVID-19 pandemic in the country found a reduction in alcohol consumption by adolescents that went from 17.72%, before the pandemic, to 12.77% during the pandemic (MALTA et al, 2021). The analysis of PeNSE data showed that the main means of obtaining alcoholic beverages by adolescents were parties. So, the fact that adolescents stayed at home, without attending parties and without contacts with friends, in the pandemic period was possibly the main responsible for the reduction of this consumption.

Thus, most of the adolescent students answered that the pandemic did not influence the consumption of alcoholic beverages. Practically the same question was asked in other words, to test the answers and when asked to compare pre-pandemic alcohol consumption with the pandemic period,



37 (15.8%) answered to be drinking less, 58 (24.8%) answered to be drinking more and 103 (44%) of the sample answered not to use alcoholic beverages. Most likely, the 44% who report not drinking alcohol are in the group of almost 78% who said that the pandemic has not influenced alcohol consumption. Approximately 34%, that is, 78 adolescents did not maintain the answer. Even assuring that there would be no way for the researcher to find out who answered the electronic form, the data suggest that 34% of the adolescents remained fearful and were contradictory in their answers.

Research conducted by Kapetanovic et al. (2022) with 1818 Swedish adolescents aged 15 to 19 years in June 2020 showed that 767 (50.7%) of the adolescents reported no use or decrease in the use of all substances during the Covid-19 pandemic, similar to the results of our research.

With regard to the context in which they drink, Of the 207 respondents, 59 (28.5%) drink with family members, 82 (39.6%) drink with friends, 57 (27.5%) drink with boyfriend, husband, father and mother, and 9 (4.3%) drink alone. A study conducted with 682 families from five Midwestern states showed that younger siblings' earlier alcohol consumption was strongly related to older siblings' alcohol consumption during the pandemic shutdown (WHITEMAN et al, 2022). Also according to Araújo, Almeida and Quintana (2022) it is not uncommon for the use of alcoholic beverages by adolescents to start in the family context, at family parties or at home. The authors mention that the behavior of parents, the amount of alcoholic beverages stored at home, the "fun" stories told by family members that involve alcohol consumption, and the social practice of allowing adolescents to try the drinks, are factors that influence adolescents to consume alcoholic beverages, agreeing with the results of our study.

Twenty-seven percent of teens drink once a week, corresponding to 13 percent; (27) out of a total of 203 respondents; While 7% (15) drink twice a week, 7% (15) drink three to four times a week, 8% (18) drink only on weekends, 13% (27) drink only at parties, one person reported drinking every day and most of the sample, 48.7% (99) reported not drinking.

When asked about the monthly frequency with which they drink, the results were different, except for one person who answered every day.

Eleven percent (18) of the 167 adolescents who responded to the electronic form drink once a month, 13% (21) drink twice a month, 13% (22) drink 3 to 4 times a month, which would correspond to approximately once a week, three percent (5) drink only on weekends, four percent (7) drink at parties, One person responded to drink every day and most adolescents 47% (79). When we individually analyze the monthly frequency with which adolescents drink, the values are not high. Analyzing more deeply the answers, it is observed that they were coherent, as for example when 53% of the total of adolescents made reference to alcohol consumption in one question and in another question 44% mentioned not drinking, totaling 97% of the adolescents.



It is important to note that not all adolescents answered all the questions, either out of laziness or fear of being discovered, which is a question without a definitive answer.

Answering the research question "What is the behavior of adolescent students in the face of alcohol use during the pandemic?" we can say that 93% of adolescents mentioned using something at some point during the pandemic, 25% of adolescents reported having drunk more during the pandemic when compared to the pre-COVID-19 pandemic period, and that friends continue to be the people with whom they share the use of the drink. One fact that caused concern was the increase in the use of alcoholic beverages with family members who should be the first to discourage consumption.

#### **4 FINAL CONSIDERATIONS**

The results showed that approximately 43% of adolescents consumed alcoholic beverages before the onset of the COVID-19 pandemic; whereas for 78% of adolescents the COVID-19 pandemic has not influenced alcohol consumption; 24.8% reported drinking more after the start of the pandemic than before the pandemic. Regarding the context of alcohol use, approximately 40% drink with friends and 29% with family. Regarding the frequency of use, adolescents drink more on weekends and once a week.

The importance of formulating public policies, educational campaigns for families and adolescents as well as brief interventions about the harms of alcohol use by adolescents who are still in the development phase is highlighted.

We thank the schools, teachers, family members and especially the adolescents who proposed to answer the form and allowed us to know part of their experiences during a period that was of such suffering for the whole society, but that possibly impacted more strongly on these students.



## REFERENCES

- ABERASTURY, A; KNOBEL, M. *Adolescência normal*. Porto Alegre: Artmed, 2003. 96p.
- ANDRADE, A. G. *Álcool ea saúde dos brasileiros: panorama 2021*. 128 p.
- ARAÚJO, B.F.S.; ALMEIDA, T.C.A.; QUINTANA, S. Consumo de álcool na adolescência: razões e consequências. *Revista Saúde em Foco*, edição 14. 2022. Disponível em: Ano 2022 | Centro Universitário Amparense (unisepe.com.br)
- BOSQUE-PROUS, M., KUIPERS, M.A.G., Espelt, A. *et al.* Adolescent alcohol use and parental and adolescent socioeconomic position in six European cities. *BMC Public Health* 17, 646. 2017. Disponível em: Adolescent alcohol use and parental and adolescent socioeconomic position in six European cities | BMC Public Health | Full Text (biomedcentral.com) Acesso em: 14 de julho de 2023.
- BRASIL. Secretaria Nacional de Políticas sobre Drogas. *I Levantamento Nacional sobre o Uso de Álcool, Tabaco e Outras Drogas entre Universitários das 27 Capitais Brasileiras*. Brasília: SENAD, 2010. 284 p.
- DUMAS TM, ELLIS W, LITT DM. What Does Adolescent Substance Use Look Like During the COVID-19 Pandemic? Examining Changes in Frequency, Social Contexts, and Pandemic-Related Predictors. *J Adolesc Health*. 2020;67(3):354-361. DOI: <https://doi.org/10.1016/j.jadohealth.2020.06.018>
- FERREIRA, Bruna Vitória de Oliveira et al. Atitudes de adolescentes escolares sobre o consumo de álcool e outras drogas: estudo transversal. *Revista Baiana de Enfermagem*, v. 36, 2022.
- FERREIRA BVO, FRAZÃO IS, CHAVES LCMR, SOUZA JS, BRITO VCNG, FRANÇA VV, et al. Atitudes de adolescentes escolares sobre o consumo de álcool e outras drogas: estudo transversal. *Rev baiana enferm*. 2022;36:e44908
- KAM, JA; BASINGER ED, ABENDSCHEIN B. Adolescent perceptions of parents' alcohol consumption undermine or enhance what parents say about alcohol? The interaction between verbal and nonverbal messages. *Commun Res*. 2018; 44(3):319-47. DOI: <https://doi.org/10.1177/0093650214565922>
- KAPETANOVIC, S., ANDER, B., GURDAL, S. *et al.* Tabagismo na adolescência, uso de álcool, embriaguez e uso de entorpecentes durante a pandemia da Covid-19. *BMC Psicol* 10, 44 (2022). <https://doi.org/10.1186/s40359-022-00756-1>
- LUNDAHL, LESLIE H.; CANNOY, CIARA. COVID-19 and Substance Use in Adolescents. *Pediatr Clin N Am*. 2021. 977–990. DOI: <https://doi.org/10.1016/j.pcl.2021.05.005>
- MAIA DAM, MARQUES RB, MAIA FILHO ALM. CONSUMO DE BEBIDAS ALCOÓLICAS E A PRÁTICA DO BINGE DRINKING EM ACADÊMICOS DE MEDICINA. *Revista Interdisciplinar*. 2017. 10(1):139- 46. Disponível em: <https://revistainterdisciplinar.uninovafapi.edu.br/index.php/revinter/article/view/10688>
- MALTA, Deborah Carvalho et al. The COVID-19 pandemic and changes in the lifestyles of Brazilian adolescents. *Revista Brasileira de Epidemiologia* [online]. v. 24, e210012. 2021. Disponível em: <https://doi.org/10.1590/1980-549720210012>. Acesso em 13 de julho de 2023. DOI: <https://doi.org/10.1590/1980-549720210012>



ORTH, Z., VAN WYK, B. Measuring mental wellness among adolescents living with a physical chronic condition: a systematic review of the mental health and mental well-being instruments. *BMC Psychol* 9, 176. 2021. DOI: <https://doi.org/10.1186/s40359-021-00680-w> .

PESQUISA NACIONAL DE SAÚDE DO ESCOLAR: 2019 / IBGE, Coordenação de População e Indicadores Sociais. – Rio de Janeiro: IBGE, 2021. 162 p. IBGE | Biblioteca | Detalhes | Pesquisa nacional de saúde do escolar: 2019

SCHUTZ, Q. C., DE OLIVEIRA, V. M., DE OLIVEIRA, C. S., MACIEL, F. R., TRUCCOLO, A. B. Estudo de Prevalência do uso de álcool por adolescentes escolares residentes em Município da fronteira Oeste do RS. *Brazilian Journal of Health Review*, v. 5, n. 2, p. 6743-6753, 2022.

WHITEMAN, S. D., MAIYA, S., CASSINAT, J. R., SERANG, S., KELLY, B. C., MUSTILLO, S. A., MAGGS, J. L. Sibling influences on adolescent alcohol use during the spring 2020 COVID-19 pandemic shutdown. *Psychology of Addictive Behaviors*. Advance online publication. 2022. <https://doi.org/10.1037/adb0000841>

WORLD HEALTH ORGANIZATION. *Global Status Report On Alcohol And Health* 2018. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0.

ZUQUETTO, CARLA R. et al. Contributions of parenting styles and parental drunkenness to adolescent drinking. *Brazilian Journal of Psychiatry* [online]. 2019, v. 41, n. 6; pp. 511-517. <https://doi.org/10.1590/1516-4446-2018-0041>.

KAPETANOVIC, S., ANDER, B., GURDAL, S. et al. Teenage smoking, alcohol use, drunkenness and narcotics use during the Covid-19 pandemic. *BMC Psychol* 10, 44 (2022). <https://doi.org/10.1186/s40359-022-00756-1>

LUNDAHL, LESLIE H.; CANNOY, CIARA. COVID-19 and Substance Use in Adolescents. *Pediatr Clin N Am*. 2021. 977–990. DOI: <https://doi.org/10.1016/j.pcl.2021.05.005>

MAIA DAM, MARQUES RB, MAIA SON ALM. CONSUMPTION OF ALCOHOLIC BEVERAGES AND THE PRACTICE OF BINGE DRINKING IN MEDICAL STUDENTS. *Interdisciplinary Journal*. 2017. 10(1):139- 46. Available at: <https://revistainterdisciplinar.uninovafapi.edu.br/index.php/revinter/article/view/10688>

MALTA, Deborah Carvalho et al. The COVID-19 pandemic and changes in the lifestyles of Brazilian adolescents. *Revista Brasileira de Epidemiologia* [online]. v. 24, e210012. 2021. Disponível em: <https://doi.org/10.1590/1980-549720210012>. Acesso em 13 de julho de 2023. DOI: <https://doi.org/10.1590/1980-549720210012>

ORTH, Z., VAN WYK, B. Measuring mental wellness among adolescents living with a physical chronic condition: a systematic review of the mental health and mental well-being instruments. *BMC Psychol* 9, 176. 2021. DOI: <https://doi.org/10.1186/s40359-021-00680-w> .

NATIONAL SURVEY OF SCHOOL HEALTH: 2019 / IBGE, Coordination of Population and Social Indicators. – Rio de Janeiro: IBGE, 2021. 162 p. IBGE | Library | Details | National School Health Survey: 2019

SCHUTZ, Q. C., DE OLIVEIRA, V. M., DE OLIVEIRA, C. S., MACIEL, F. R., TRUCCOLO, A. B. Study of the Prevalence of Alcohol Use by Adolescent Students Living in a Municipality on the Western Border of the State of Rio Grande do Sul. *Brazilian Journal of Health Review*, v. 5, n. 2, p. 6743-6753, 2022.





WHITEMAN, S. D., MAIYA, S., CASSINAT, J. R., SERANG, S., KELLY, B. C., MUSTILLO, S. A., MAGGS, J. L. Sibling influences on adolescent alcohol use during the spring 2020 COVID-19 pandemic shutdown. *Psychology of Addictive Behaviors*. Advance online publication. 2022. <https://doi.org/10.1037/adb0000841>

WORLD HEALTH ORGANIZATION. *Global Status Report On Alcohol And Health* 2018. Geneva: *World Health Organization*; 2018. Licence: CC BY-NC-SA 3.0.

ZUQUETTO, CARLA R. et al. Contributions of parenting styles and parental drunkenness to adolescent drinking. *Brazilian Journal of Psychiatry* [online]. 2019, v. 41, n. 6; pp. 511-517. <https://doi.org/10.1590/1516-4446-2018-0041>.