E-ISSN: 2583-9667 Indexed Journal Peer Reviewed Journal https://multiresearchjournal.theviews.in



Received: 03-11-2023 Accepted: 10-12-2023

# INTERNATIONAL JOURNAL OF ADVANCE RESEARCH IN MULTIDISCIPLINARY

Volume 2; Issue 1; 2024; Page No. 506-511

# Impact of the COVID-19 pandemic and lockdown on alcohol use disorders and related complications

# <sup>1</sup>Amardeep Kohli and <sup>2</sup>Santosh Salve

<sup>1</sup>Research Scholar, Department of Social Sciences, Madhyanchal Professional University, Bhopal, Madhya Pradesh, India <sup>2</sup>Professor, Department of Social Sciences, Madhyanchal Professional University, Bhopal, Madhya Pradesh, India

DOI: https://doi.org/10.5281/zenodo.15506739

Corresponding Author: Amardeep Kohli

#### Abstract

Before the pandemic, our research team conducted a randomized controlled trial aimed at reducing alcohol-exposure risk among private employees in India. When the COVID-19 pandemic forced a pause in active recruitment for the in-person trial, the team shifted focus to follow-up surveys with participants who had already completed the intervention. These surveys were designed to assess changes in their alcohol use during the pandemic. We collected responses from 62 Indian employees who had participated in the initial intervention. Baseline data gathered before the pandemic included demographic information and scores on the Alcohol Use Disorders Identification Test (AUDIT). During the pandemic, follow-up surveys were administered, including a self-reported questionnaire on changes in drinking patterns. At the pre-COVID baseline, all participants were engaged in heavy or binge drinking. At the follow-up during the pandemic, 24.2% reported an increase in drinking, with over half experiencing at least one binge drinking episode. Approximately half of the participants reported a reduction in their alcohol consumption. Our findings indicate that risky drinking behavior persisted for many Indian employees during the pandemic, even among those who had engaged in such behavior before COVID-19. However, some participants reported a decrease in their alcohol use. As the pandemic recedes, it is crucial to make concerted efforts to reach those identified with alcohol use disorders, providing them with the necessary resources and interventions.

Keywords: COVID-19, Alcohol consumption, Risk analysis, stress management

# 1. Introduction

In India, the COVID-19 pandemic prompted various societal measures aimed at curbing the spread of the virus, which likely influenced alcohol consumption in several ways: (i) a temporary decrease due to restricted economic and physical access to alcohol, and (ii) a potential increase among groups experiencing pandemic-related distress. Similar trends have been observed in high-risk drug users. Additionally, the pandemic may have led to fewer social gatherings conducive to drinking or, conversely, increased consumption due to more flexible work schedules. Emerging literature from Asian countries and beyond reflects these trends. In Madhya Pradesh, COVID-19 restrictions, enforced from around March 2020, included limitations on social gatherings, travel, and trading hours for on-premises alcohol sales. These restrictions likely reduced access to and consumption of alcohol. However, total alcohol consumption slightly rose in the second quarter of

2020 compared to 2019, suggesting that decreased consumption in some groups might have been offset by increased consumption in others. While travel and social gathering restrictions affected all population segments uniformly, other measures varied across municipalities and demographic groups. For instance, on-premises alcohol sales faced stricter regulations in the capital, Oslo, compared to other areas, and closures of childcare facilities and schools impacted households with children. Despite government support, many individuals faced job loss and income reduction, potentially moderating alcohol use. With more people working from home under flexible schedules, variations in socioeconomic status might have influenced alcohol consumption differently. Therefore, the impact of these measures on alcohol consumption likely varied based on sociodemographic factors. The global impact of COVID-19 has been profound, affecting nearly every aspect of human life on a scale rarely seen in modern history. The virus has had immediate and devastating effects on public health systems worldwide, leading to shortages of essential medical supplies, hospital beds, and personnel. Healthcare systems have been overwhelmed, revealing weaknesses and disparities in access to services. Economically, the pandemic has caused widespread disruption, resulting in job losses, business closures, and economic downturns. Supply chains have been disrupted, leading to shortages of essential goods and inflationary pressures. In response, governments have implemented various measures, including stimulus packages, financial assistance programs, and monetary policy interventions. Education has also been significantly impacted, with schools and universities forced to close or transition to online learning. The digital divide has become more pronounced, with students from disadvantaged backgrounds facing barriers to remote learning resources. The long-term consequences of these educational disruptions are likely to have far-reaching implications for future generations. Socially, the pandemic has led to widespread isolation, loneliness, and mental health challenges. Lockdowns, social distancing measures, and travel restrictions have disrupted social interactions and traditional ways of life. A study examining alcohol use during the initial lockdown revealed a significant increase of 34.7% in alcohol consumption, with participants reporting higher consumption than usual since the lockdown began. A subsequent study focused on young adults found that 29% reported increased alcohol consumption, with those experiencing symptoms of depression showing a 64% higher likelihood of increased intake. Young adults were more likely than older adults to report heightened alcohol use, and over a third of young adults reported psychological distress related to pandemic stressors. These findings underscore the need to examine factors related to alcohol use during health crises. Despite research on alcohol use during the COVID-19 pandemic, there is a lack of studies investigating the mechanisms behind this increase, specifically the association between alcohol use and COVID-19-related fears. It remains unclear whether COVID-19-related anxiety directly leads to increased alcohol consumption or exacerbates other factors contributing to higher alcohol use. Furthermore, there has been limited exploration of alcohol use among college students during the pandemic. Investigating factors such as COVID-19-related fears could provide insights into the drivers of increased substance use during health crises and inform intervention strategies. The rest of article explores as in sections 2 discuss recently work of alcohol consumption in pandemic, in section 3 describes methodology of analysis, in section 4 conclude research work.

# 2. Existing study

Alcohol consumption is often used as a coping mechanism in response to life stressors, traditionally explained by the tension reduction hypothesis. This hypothesis posits that people increase their alcohol intake to relieve negative emotions triggered by both cumulative and acute stress. The COVID-19 crisis, with its associated acute social isolation, health risks, and life disruptions, likely served as significant stressors, particularly for middle-to-older-aged adults who faced a higher risk of severe illness and death and thus may have needed to isolate more stringently than younger

populations. Although previous research has yielded mixed results regarding the tension reduction hypothesis, there is consistent evidence of a strong, bidirectional relationship between alcohol use and depression. Furthermore, studies indicate that stress exposure is a key motivator for increased alcohol consumption. However, it remains unclear how alcohol consumption patterns among middle-to-older-aged U.S. adults have shifted during the COVID-19 pandemic. Tuba, Mahtab. (2022) <sup>[1]</sup>. The study applies a statistical method to analyze overdispersion in low-frequency datasets. The author acknowledges their supervisors, the EPIC group, and research contributors. It is noted that the use of convenience sampling may limit the generalizability of the findings, and the low base rate of alcohol behavior could affect the reported outcomes. Mohr, Cynthia D., and Sheila K. Umemoto. (2021)<sup>[2]</sup>. This research explores the impact of COVID-19 stressors on alcohol and marijuana use among students, highlighting the relationships between loneliness, exposure to COVID-19 news, and drinking motives. The study discusses the influence of the pandemic on substance use and coping behaviors. However, the student sample may not be representative of the broader U.S. undergraduate population due to demographic factors. The cross-sectional survey design limits conclusions about mediation, and the absence of a measure for marijuana-use motives is a noted limitation. Litt, Dana M., and Lindsey M. (2021) <sup>[3]</sup>. The study concept examines the use of cross-sectional data, which restricts temporal conclusions, and self-reporting may lead to an underestimation of posting behavior. Additionally, the study does not fully explore the role of mental health and does not encompass the full range of alcohol use motivations. Monteiro, G., and Zila M. Sanchez. (2021)<sup>[4]</sup>. This study estimates changes in heavy episodic drinking (HED) during COVID-19 in Latin America and analyzes factors associated with increased HED frequency. The research paper does not specify any limitations. Weerakoon, Sitara M., and Katelyn K. Jetelina. (2021)<sup>[5]</sup>. The study identifies COVID-19 stressors linked to binge drinking among U.S. adults, emphasizing the unintended health consequences of the pandemic on alcohol consumption. The findings are subject to self-reported data, which may be influenced by social desirability bias. The study also reports a low response rate of 5.8% and a lack of a specified time frame for the definition of binge drinking. Garcia-Cerde, Rodrigo, and Juliana Y. (2021) [6]. RGC conducted the statistical analysis and wrote the methodology, results, and tables. JYV contributed to the literature review and discussion section, while IS wrote the introductory section and supported the literature review. RF assisted with bibliography ordering and language review, and ZMS supervised the analysis and contributed to writing the discussion. MGM secured funding, implemented the survey, and reviewed the article. A limitation is the lack of sociodemographic data for non-participants due to the online survey format, preventing analysis of nonparticipants' data. Murthy, Pratima, and Venkata Lakshmi Narasimha. (2021) <sup>[7]</sup>. This study reports an increase in alcohol-related emergencies during the lockdown, examining alcohol's impact on COVID-19 infection and progression. It explores changes in drinking patterns driven by psychological, social, and economic factors and discusses alcohol's effects on vulnerable groups such as

adolescents, the elderly, and cancer patients. The use of convenience samples and web-based surveys on social media platforms is a limitation, highlighting the need for new protocols and cohorts to study long-term effects. Gili, Alessio, Mauro, and Kyriaki Aroni. (2021)<sup>[8]</sup>. The study monitored drug use in 30 subjects during the COVID-19 lockdown, using hair analysis to gather retrospective data on substance and alcohol abuse risks. The study's limitations include a small sample size of 30 subjects with substance use disorders (SUDs) and a focus on Italy's first wave of the COVID-19 lockdown. Sharma, Pawan, and Yatan Pal Singh Balhara. (2021)<sup>[9]</sup>. This research examines internet-based search behaviors during an alcohol sales ban, limited to Google search traffic. The study did not explore vernacular terms due to logistical constraints, and internet access was limited in some regions of India. Whitley, Gregory Adam, and Graham R. Law. (2021) <sup>[10]</sup>. A systematic review of alcohol and substance use during the COVID-19 pandemic, documenting the frequency, severity, and risk factors associated with substance use. The review covers studies from 17 countries but lacks global coverage. The reliance on self-reporting may lead to underreporting of substance use, and methodological differences across studies could have contributed to mixed findings. Behera, Chittaranjan, and Sudhir Kumar Gupta. (2021)<sup>[11]</sup>. The study examines the impact of COVID-19 on suicide rates and associated risk factors, with a focus on the use of digital technology for suicide prevention. The association of alcohol use with increased suicide risk during the pandemic is discussed. However, the study lacks a detailed exploration of COVID-19's effects on students, and further research is needed on the pandemic's impact on family units. Cummings, Jenna R., and Joshua M. Ackerman. (2021) [12]. The study finds that stress levels in 2020 were higher compared to 2007. It investigates eating behaviors during the COVID-19 pandemic in the U.S., comparing behaviors before and after the pandemic. However, inconsistencies in drinking quantity data limited the analysis, and data on cooking behavior and fruit and vegetable intake was not reported. Jaffe, Anna E., and Shaina A. Kumar. (2021) <sup>[13]</sup>. The study reports that college students drank less at the onset of the COVID-19 pandemic, noting that living situations impacted drinking behavior. It calls for more research on alcohol use in other universities, but generalizability is limited due to the ongoing nature of the research project and state-specific data. A high attrition rate also affected survey completion and the generalizability of the findings. The data was collected in a state without official stay-at-home orders. Buckner, Julia D., and Elizabeth M. Lewis. (2021)<sup>[14]</sup>. The study links difficulties in emotion regulation to increased alcohol use during COVID-19, highlighting the sequential mediation of COVID-related distress and coping behaviors with pandemic drinking. No specific limitations were mentioned in the research paper. Sugaya, Nagisa, and Tetsuya Yamamoto. (2021) <sup>[15]</sup>. The research investigates alcohol use trends during COVID-19 in Japan and associated psychosocial effects, comparing the findings with previous studies on alcohol use during the pandemic. The study's limitations include a lack of long-term follow-up data on alcohol use trends and a limited scope for assessing the impact of interventions on alcoholism. Patrick, Megan E., and Christine M. Lee. (2021) <sup>[16]</sup>. The study analyzes

changes in alcohol and marijuana use behaviors during COVID-19, focusing on young adults' motivations for substance use. The reliance on self-reported data may not provide accurate results, and the limited racial and ethnic diversity of the sample may not be representative of young adults nationwide. Additionally, participants may alter their behavior in anticipation of observations. The study calls for further research to explore racial and ethnic disparities in COVID-19 health outcomes, encouraging oversampling of minority groups disproportionately impacted by the pandemic. Shukla, Lekhansh, and Vivek Benegal. (2021) <sup>[17]</sup>. This study reports a spike in complicated alcohol withdrawal cases following the post-COVID lockdown, raising ethical concerns about the sudden cessation of alcohol access during the pandemic. It also notes an increase in domestic violence after the lockdown, though not solely due to alcohol. The study questions the effectiveness of alcohol prohibition as a public health measure, pointing out unintended consequences such as increased domestic violence and illicit alcohol consumption. The continuation of liquor bans could lead to thefts and black-market activities. Hanson, Jessica D., and Carolyn Noonan. (2021) <sup>[18]</sup>. The study involved conceptualization, methodology, investigation, resources, data curation, writing, supervision, and funding, with no specific limitations mentioned in the provided contexts. Killgore, William DS, and Sara A. Cloonan. (2021)<sup>[19]</sup>. The research examines the effects of the lockdown on hazardous alcohol use during the COVID-19 pandemic, assessing alcohol dependence levels during the first six months. It analyzes scores and cutoffs from the Alcohol Use Disorders Identification Test (AUDIT). The study is limited by the accuracy of self-reported data and potential bias due to sample selection. Covid, humancentered. (2021) [20]. The study explores the impact of mental health indicators on alcohol consumption during the pandemic, acknowledging funding for the research. The cross-sectional design limits the ability to infer causal direction between mental health and alcohol use, and the reliance on self-reported data may lead to underestimations. The exclusion of region and area of residence as variables is also a limitation, as is the selection bias resulting from the use of a non-probability-based sample.

#### 3. Materials and Methods

Throughout the process of performing their function, a role occupier may run into issues such as conflicts, limitations, weaknesses, or challenges of one kind or another. The role occupant is expected to perform and meet his or her role expectations despite obstacles like: difficulty interacting with related roles; role is unimportant and has no impact on the organization; role occupant is unclear about his or her role expectations; lack of adequate resources for performing the role; lack of competence for performing in the role; and role involves co-workers. Therefore, a job or a position inside an organization might be a cause of stress. Role Stress is defined as stress incurred when performing duties. Poor role design or a bad match between the individual and the environment are the causes of high role stress. Workplace stress puts the position occupant's health and performance at risk Role erosion is feeling that some important functions have been given to some other roles or it could be a feeling that there is no much challenge in the International Journal of Advance Research in Multidisciplinary

functions to the given role. It is the role occupant's feeling that some functions which should properly belong to his/her role are transferred to/or performed by some other role. When a role occupant feels that some functions that he or she would like to perform are being performed by some other role, the stress felt is called role erosion. Role erosion is the subjective feeling of an individual that some important role expectations he or she has from the role are shared by

other roles in the role set. Role erosion is likely to be

experienced in an organization where there is re- definition of roles and creation of new roles. In the organizations that redefine their structure, the stress of role erosion would be inevitably felt by the employees. It may take the form of splitting the roles into two roles. The role occupants of both these new roles would experience role erosion and they may feel that their roles had become less important compared to the old role.

#### Table 1: Role Stress Experienced by the Respondents

Question		Ne	ver	Occasio	OccasionallySometimesF1				requentlyAlway			
No.	Question		%	N0.	%	No.	%	No	%	No	%	
1	My role tends to interfere with my family life	5	2	114	35	125	38	78	24	3	1	
11	I have various other interests [social, religious etc.] which remain neglected because I do not get time to attend to these.		1	127	39	121	37	71	22	3	1	
21	My roles do not allow me to have enough time with my family.	16	5	118	36	161	50	30	9	0	0	
31	My organizational responsibilities interfere with my extra-organizational role	13	4	114	35	154	47	38	12	6	2	
41	My family and friends complain that I do not spend time with them due to heavy demands of my work role.			95	29	153	47	37	11	9	3	
Role stagnant												
2	I am afraid I am not learning enough in my present role for taking up higher responsibility		4	113	35	159	49	36	11	3	1	
12	I am too preoccupied with my present role responsibility to be able to prepare for taking higher responsibility.		0	97	30	136	42	72	22	20	6	
22	I do not have time and opportunities to prepare myself for the future challenges.		8	110	34	133	41	51	15	5	2	
32	There is very little scope for personal growth in my role		4	127	39	130	40	52	16	3	1	
42	I feel stagnant in my post		6	155	48	103	31	45	14	3	1	
	Role Expectation Conflict											
3	I am not able to satisfy the conflicting demand of various people over me		6	110	34	156	48	31	10	9	3	
13	I am not able to satisfy the conflicting demands of the various peer levels people and my juniors.		2	88	27	183	56	32	10	17	5	
23	I am not able to satisfy the demands of clients and others, since these are conflicting with one another		6	130	40	123	38	45	14	6	2	
33	The expectations of my seniors conflict with those of my juniors.	7	2	129	40	149	46	28	9	12	4	
43	I am bothered with contradictory expectations different people have form my role		6	108	33	157	48	32	10	10	3	

Table 2: Friedman's test for measuring Inter - role distance

Statements	Mean	SD	Mean Rank	Reliability
My role tends to interfere with my family life.		0.82	3.28	
Have various interests which remain neglected because I do not get time to attend to them.		0.81	3.07	
My roles do not allow me to have enough time with my family.		0.72	2.75	0.6150
My organizational responsibilities interfere with my extra-organizational role.	1.72	0.79	2.92	0.0139
Family and friends complain that I do not spend time with them due to heavy demands of work role.	1.69	0.90	2.99	

It could be noted from the above table that among the five statements, the statement "My role tends to interfere with my family life  $(S_1)$ " was ranked first. It was followed by the aspect "Have various interests which remain neglected because I do not get time to attend to these  $(S_2)$ ". "Family

and friends complain that I do not spend time with them due to heavy demands of work role  $(S_5)$ " was ranked third. "My organizational responsibilities interfere with my extraorganizational role"  $(S_4)$  was ranked fourth.

Table 3: level of organizational	al role stress of the respondents
----------------------------------	-----------------------------------

		Low	M	Medium High			Total	
	Ν	%	Ν	%	Ν	%	Ν	
Inter - role distance	55	16.92	255	78.46	15	4.62	325	
Role Stagnation	76	23.38	223	68.62	26	8.00	325	
Role Expectation Conflict	72	22.15	237	72.92	16	4.92	325	
Role Erosion	87	26.77	208	64.00	30	9.23	325	
Role overload	85	26.15	214	65.85	26	8.00	325	
Role Isolation	84	25.85	214	65.85	27	8.31	325	
Personal Inadequacy	95	29.23	216	66.46	14	4.31	325	

https://multiresearchjournal.theviews.in

Self-Role Distance	72	22.15	236	72.62	17	5.23	325
Role Ambiguity	85	26.15	223	68.62	17	5.23	325
Resource Inadequacy	60	18.46	247	76.00	18	5.54	325
Overall	78	24.00	230	70.77	17	5.23	325

From the above table it is clear that majority of the employees of select multinational IT companies in Bangalore experience medium level of organizational role Stress. Out of the total respondents, on an average 70.77% respondents experienced organizational role stress. An analysis of level of stress experienced by the respondents based on individual stressors, the following can be observed. 78.46% of the respondents experience medium level of Role stagnation stress. 68.62% of the respondents experience medium level of Inter role distance stress. 72.92% of the respondents experience medium level of Role expectation conflict stress. 64% of the respondents experience medium level of Role Erosion stress. 65.85% of the respondents experience medium level of Role overload stress. 65.85% of the respondents experience medium level of Role Isolation stress. 66.46% of the respondents experience medium level of Personal Inadequacy stress. 72.62% of the respondents experience medium level of Selfrole distance stress. 68.62% of the respondents experience medium level of Role Ambiguity stress. 76% of the respondents experience medium level of Resource Inadequacy stress. From the above table we can also understand that only around 5% of the total respondents, experienced high-level stress while approximately 24% of the respondents experienced low level of organizational role stress.

# 4. Conclusion & Future Scope

In this extensive cross-sectional study of middle-aged and older Indian adults during the first wave of the COVID-19 pandemic, we observed that changes in alcohol consumption since the pandemic's onset were linked to experiencing depression, anxiety, and loneliness. These findings underscore the unmet need for mental health and stresscoping resources. They also emphasize the connection between mental health, stress exposure, and alcohol use, which could serve as a basis for identifying individuals at risk of developing problematic alcohol use and for tailoring interventions to better support older adults in managing stress and isolation. One limitation of this study is its crosssectional design, which limits our ability to determine the causal direction between mental health and alcohol use. Additionally, we lacked information on participants' mental health prior to the pandemic. However, the prevalence of depression, anxiety, and loneliness observed in this study aligns with findings from nationally representative surveys, such as the National Poll on Healthy Aging and a mental health survey conducted by the CDC in June 2020. Our results also depend on the accuracy of self-reported data, which is a common limitation of survey-based studies. Reluctance to answer questions honestly, particularly those perceived negatively, may have led to an underreporting of alcohol use or mental health symptoms, potentially underestimating the true magnitude of these associations. This analysis did not account for region or area of residence, such as urban versus rural locations. Geographic isolation is often associated with access to services and social support,

which could influence the relationship between mental health indicators and changes in coping behaviors like alcohol consumption. Furthermore, although our sample included a large number of participants from all 50 US states, the District of Columbia, and Puerto Rico, it was not a probability-based sample. Selection bias may be present if study participation was influenced by mental health and alcohol use or other unmeasured factors not correlated with the sociodemographic variables used to weight our sample to reflect the US general population. Additionally, our findings may not be generalizable to non-Internet users if the associations under study differ in this group compared to Internet users. Future research could build on this study by incorporating longitudinal data to track changes in mental health indicators and their impact on alcohol use among middle-aged and older Indian adults throughout the COVID-19 pandemic and beyond.

# 5. References

- 1. Tuba M. The relationship between discrimination and alcohol use among Latinx college students in the context of COVID-19. 2022.
- Mohr CD, Umemoto SK, Rounds TW, Bouleh P, Arpin SN. Drinking to cope in the COVID-19 era: An investigation among college students. Journal of Studies on Alcohol and Drugs. 2021;82(2):178–87.
- 3. Litt DM, Rodriguez LM, Stewart SH. Examining associations between social networking site alcoholspecific social norms, posting behavior, and drinking to cope during the COVID-19 pandemic. Cyberpsychology, Behavior, and Social Networking. 2021;24(11):715–21.
- 4. Valente JY, Sohi I, Garcia-Cerde R, Monteiro MG, Sanchez ZM. What is associated with the increased frequency of heavy episodic drinking during the COVID-19 pandemic? Data from the PAHO regional web-based survey. Drug and Alcohol Dependence. 2021;221:108621.
- 5. Weerakoon SM, Jetelina KK, Knell G. Longer time spent at home during COVID-19 pandemic is associated with binge drinking among US adults. The American Journal of Drug and Alcohol Abuse. 2021;47(1):98–106.
- 6. Garcia-Cerde R, Valente JY, Sohi I, Falade R, Sanchez ZM, Monteiro MG. Alcohol use during the COVID-19 pandemic in Latin America and the Caribbean. Revista Panamericana de Salud Pública. 2021;45:e52.
- Murthy P, Narasimha VL. Effects of the COVID-19 pandemic and lockdown on alcohol use disorders and complications. Current Opinion in Psychiatry. 2021;34(4):376–85.
- 8. Gili A, Bacci M, Aroni K, Nicoletti A, Gambelunghe A, Mercurio I, *et al.* Changes in drug use patterns during the COVID-19 pandemic in Italy: monitoring a vulnerable group by hair analysis. International Journal of Environmental Research and Public Health. 2021;18(4):1967.

International Journal of Advance Research in Multidisciplinary

- 9. Singh S, Sharma P, Balhara YPS. The impact of nationwide alcohol ban during the COVID-19 lockdown on alcohol use-related internet searches and behaviour in India: An infodemiology study. Drug and Alcohol Review. 2021;40(2):196–200.
- Roberts A, Rogers J, Mason R, Siriwardena AN, Hogue T, Whitley GA, *et al.* Alcohol and other substance use during the COVID-19 pandemic: A systematic review. Drug and Alcohol Dependence. 2021;229:109150.
- 11. Behera C, Gupta SK, Singh S, Balhara YPS. Trends in deaths attributable to suicide during COVID-19 pandemic and its association with alcohol use and mental disorders: Findings from autopsies conducted in two districts of India. Asian Journal of Psychiatry. 2021;58:102597.
- 12. Cummings JR, Ackerman JM, Wolfson JA, Gearhardt AN. COVID-19 stress and eating and drinking behaviors in the United States during the early stages of the pandemic. Appetite. 2021;162:105163.
- Jaffe AE, Kumar SA, Ramirez JJ, DiLillo D. Is the COVID-19 pandemic a high-risk period for college student alcohol use? A comparison of three spring semesters. Alcoholism: Clinical and Experimental Research. 2021;45(4):854–63.
- Buckner JD, Lewis EM, Abarno CN, Morris PE, Glover NI, Zvolensky MJ. Difficulties with emotion regulation and drinking during the COVID-19 pandemic among undergraduates: the serial mediation of COVID-related distress and drinking to cope with the pandemic. Cognitive Behaviour Therapy. 2021;50(4):261–275.
- 15. Sugaya N, Yamamoto T, Suzuki N, Uchiumi C. Alcohol use and its related psychosocial effects during the prolonged COVID-19 pandemic in Japan: A crosssectional survey. International Journal of Environmental Research and Public Health. 2021;18(24):13318.
- 16. Graupensperger S, Fleming CB, Jaffe AE, Rhew IC, Patrick ME, Lee CM. Changes in young adults' alcohol and marijuana use, norms, and motives from before to during the COVID-19 pandemic. Journal of Adolescent Health. 2021;68(4):658–665.
- 17. Mahadevan J, Shukla L, Benegal V. Alcohol controls in the aftermath of the COVID-19 pandemic in India: Commentary on Stockwell *et al.* Drug and Alcohol Review. 2021;40(1):10–12.
- Hanson JD, Noonan C, Harris A, Oziel K, Sarche M, MacLehose RF, *et al.* Alcohol consumption during COVID among women with an existing alcohol-use disorder. International Journal of Environmental Research and Public Health. 2021;18(18):9460.
- Killgore WDS, Cloonan SA, Taylor EC, Lucas DA, Dailey NS. Alcohol dependence during COVID-19 lockdowns. Psychiatry Research. 2021;296:113676.
- 20. Human-centered Covid. Alcohol use and mental health among older American adults during the early months of the COVID-19 pandemic. Innovation in Aging. 2021;4(S1).

#### https://multiresearchjournal.theviews.in

# **Creative Commons (CC) License**

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.