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Research Paper

Association Between Pandemic-Related Posttraumatic Stress, Emotion Dysregulation and Alcohol

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ABSTRACT

Background: The COVID-19 outbreak has drastically altered people's lives triggering an array of mental health problems. Psychological distress and emotional turmoil as a result of the pandemic can lead to the manifestation of symptoms of traumatic stress. Posttraumatic stress along with maladaptive emotion regulation can increase the likelihood of alcohol use. **Aim:** Taking this into consideration, the present study was conducted to examine the associations between pandemic-related posttraumatic stress, emotion dysregulation, and alcohol use. The relationship between these three variables was assessed using a cross-sectional survey design. **Methods:** The present study was designed as a cross-sectional online survey. Measures of pandemic-related posttraumatic stress, emotion dysregulation and alcohol use were obtained with the help of valid and reliable questionnaires from 75 participants. **Results:** Emotion dysregulation was significantly associated with pandemic-related posttraumatic stress and alcohol use. Further data analysis revealed that emotion dysregulation among those who had higher posttraumatic stress differed significantly from those who had lower posttraumatic stress. **Conclusion:** The findings of the present study can be used to inform health policies and campaigns directed at promoting mental wellbeing during the pandemic.

Keywords: *COVID-19, Pandemic, Emotion Dysregulation, Alcohol Use, Posttraumatic Stress, Mental Health*

The current pandemic has not only brought social and economic life to a standstill but has also had a clinical and psychological impact. Since the commencement of the lockdown, there has been an increase in cases of anxiety, stress and insomnia (Awasthi, 2020; Roy et al., 2020). Due to the large-scale negative impact of the current pandemic, traumatic stress has become particularly prevalent (Li et al., 2021; Zhang et al, 2021). According to Bridgland et al., (2021), the pandemic can be considered as a traumatic stressor that can contribute to Posttraumatic Stress Disorder (PTSD) as well as potentially aggravate other existing mental health problems. According to the American Psychiatric Association, posttraumatic stress disorder is defined as "a psychiatric disorder that may occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, or rape or who have been threatened

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with death, sexual violence or serious injury." (American Psychiatric Association, n.d.). PTSD negatively impacts the quality of life and is associated with acute distress in almost all significant areas of life (Balayan et al., 2014; Giacco et al., 2013; Lambert et al., 2012).

Association of PTSD and Emotion Dysregulation

Emotion dysregulation can be understood as a complex construct that comprises inadequate emotional awareness and acceptance along with a lack of strategies that generate difficulties in modulating negative emotions. Those affected by PTSD have greater difficulty in regulating emotions (Weiss et al., 2012; Tull et al., 2007) which predicts later substance use (Radomski & Read, 2016). PTSD is associated with experiential avoidance, difficulty regulation of negative emotions, tendency to suppress negative emotions (Shepherd & Wild, 2014, Kashdan et al., 2009), lack of clarity, awareness and acceptance of emotions and of emotion regulation strategies along with difficulties engaging in goal-directed behavior (Ehring & Quack, 2010).

Emotion Dysregulation and Alcohol use

Research has consistently documented the relationship between emotion dysregulation and alcohol use (Berking at al., 2011; Petit et al., 2015). Impulse control difficulties, lack of emotional clarity, non-acceptance of emotions, difficulties in goal direct behavior is associated with alcohol use and its consequences (Dvorak et al., 2014; Jakubczyk et al., 2018). More recently, Gratz et al. (2021) explored the relationship between financial strain, non-acceptance of emotions, which is one of the facets of difficulties in emotion dysregulation, and problematic alcohol use during the pandemic. In line with previous literature, they found that among individuals with high levels of emotional non-acceptance, the financial strain was positively associated with problematic alcohol use. This was not observed among those with low or average levels of emotional non-acceptance.

Posttraumatic stress and Alcohol use

Posttraumatic stress disorder has been commonly found to be associated with alcohol use (Stewart et al., 2004; Chopko et al., 2013; Takemoto et al., 2021). Studies indicate that around half of those who are diagnosed with PTSD also satisfy the criteria for AUD (Brown et al., 1999). The PTSD-AUD co-morbidity is associated with greater severity of psychiatric symptoms (Najavits et al., 1998), higher service utilization (Brown et al., 1999), poorer treatment outcomes (Blanco et al., 2013), higher likelihood of relapse (Bonanno, 2004) and suicide (Norman et al., 2018). Ertl et al. (2016) found a strong association between trauma exposure and alcohol consumption in men with a high prevalence rate of 46% for alcohol use disorder.

Thus, PTSD as an emerging consequence of the current pandemic as well as the potential for subsequent alcohol is a very likely possibility. Considering this, the goal of the current study is to understand the association between pandemic-related post-traumatic stress, emotion dysregulation and alcohol use. It is hypothesized that pandemic-related post-traumatic stress, emotion dysregulation and alcohol use will be significantly associated with each other. It is further hypothesized that there will be a significant difference in emotion regulation and alcohol use among those who score higher on posttraumatic stress as compared to those who score lower.

METHODOLOGY

Sample

The present study was a cross sectional survey. Data was collected online from 75 participants within the age group of 18 to 60 using convenient and snowball sampling method, out of which 38 were females, 36 were males and 1 recognized as other. The percentage of male and female participants was found to be 50% and 48% respectively. All of the participants were above the age of 18 and well versed in English.

Instruments

- **Difficulties in emotion regulation scale (DERS):** Developed by Gratz & Roemer (2004), DERS is a 36 item self-report scale that measures six facets of emotional regulation- Non-acceptance of emotional responses, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies difficulty engaging in goal-directed behavior, and lack of emotional clarity. Participants were asked to rate each item on a 5 point Likert scale ranging from 1 (almost never) to 5 (almost always).
- **The PTSD Checklist (PCL-5):** Developed by the VA National Center for PTSD, PCL-5 assesses symptoms of PTSD as given in the DSM-5. The scale used in the current study was a modified version of the original PCL-5 adapted to measure the symptoms with regard to the COVID- 19 pandemic. This version was developed by Bridgland et al. (2021). Participants were asked to rate each item on a 5 point Likert scale ranging from 0 (not at all) to 4 (extremely).
- **Alcohol Use Disorders Identification Test (AUDIT-C):** AUDIT-C is employed to identify individuals who engage in hazardous drinking. It includes 3 items and it is a shortened version of the 10 item AUDIT scale developed by the World Health Organization.

Procedure

Participants were recruited using snowball and convenience sampling and data for each of the variables was collected from the participants using google forms. Participants' informed consent was obtained with the help of a consent form at the beginning of the study. All the participants' voluntarily participated in the online survey. They were provided study-relevant information prior to administering the questionnaire.

RESULTS

Descriptive Statistics

Table 1 presents the descriptive statistics for the full sample. Participants obtained a mean score of 32.90 on the PCL-5 scale with 48% of the participants scoring above 33 which is the recommended cutoff for probable diagnosis and for those who might benefit from treatment. On the AUDIT-C scale, participants obtained a mean score of 1.57 with only one participant obtaining a score of 8 which is the recommended cutoff indicating risky drinking. The mean score on the Difficulties in Emotion Regulation scale was 90.06 indicating a higher level of emotion dysregulation.

Table 1: Descriptive statistics on pandemic-related posttraumatic stress, emotion dysregulation and alcohol use.

	N	Mean	Standard Deviation
Posttraumatic stress	75	32.90	18.51
Emotion dysregulation	75	90.06	22.29
Alcohol use	75	1.57	2.11

Lack of emotional awareness	75	15.32	5.39
Impulse control difficulty	75	14.78	5.70
Difficulty in goal-directed behavior	75	14.94	4.49
Lack of emotional clarity	75	11.85	3.78
Non-acceptance of emotions	75	13.48	5.14
Limited emotion regulation strategies	75	19.66	7.14

Correlation between variables

Table 2 presents correlations between respondents' scores on PCL-5, AUDIT-C as well as DERS total and its subscales. To elaborate, posttraumatic stress was found to be moderately and significantly associated with emotion dysregulation. Alcohol use was also found to be weakly correlated with emotion dysregulation. With regard to individual subscales of Difficulties of Emotion Regulation scale, posttraumatic stress was found to be moderately associated with all of the subscales except lack of emotional awareness. However, posttraumatic stress was not found to be significantly associated with alcohol use.

Table 2: Correlations between pandemic-related posttraumatic stress, emotion dysregulation and alcohol use

	Posttraumatic stress	**Emotion dysregulation**	**Alcohol use**	**Non-acceptance of emotions**	**Lack of emotional awareness**	**Lack of goal directed behavior**	**Impulse control difficulties**	**Lack of emotional clarity**
Posttraumatic stress								
Emotion Dysregulation	.60**							
Alcohol use	.06	.23*						
Non-acceptance of emotions	.38**	.66**	-.007					
Lack of emotional awareness	.12	.31**	.22	-.11				
Lack of goal directed behavior	.43**	.73**	.19	.46**	-.16			
Impulse control difficulty	.61**	.85**	.19	.49**	.08	.74**		
Lack of emotional clarity	.46**	.66**	.23*	.35**	.44**	.30**	.46**	
Limited emotion regulation strategies	.58**	.87**	.19	.62**	.08	.70**	.76**	.47**

**Correlation significant at 0.05 level **Correlation significant at 0.01 level*

Independent samples t-test

An independent t-test was conducted to explore differences between participants who obtained scores above the cut-off for clinical significance (>33) and those who obtained scores below the cut-off. An alpha level of .05 was utilized. A statistically significant difference was found in emotion dysregulation between the two groups, $t(74)= -4.58$, $p < .05$. With respect to alcohol use, the difference between the two groups was not found to be significant, $t(74)= -0.91$, $p > .05$.

Table 3: Independent samples t-test for emotion dysregualtion and alcohol use

	Group	N	Mean	SD	Statistic	df	P
Emotion dysregulation	Below cutoff	39	80	16.44	-4.58	74	.00**
	Above cutoff	36	100.36	22.83			
Alcohol use	Below cutoff	39	1.88	1.63	-0.91	74	.36
	Above cutoff	36	1.28	2.51			

***Significant at 0.01 level*

DISCUSSION

The results of the present study examined relationships between pandemic-related posttraumatic stress, emotion dysregulation, and alcohol use. As hypothesized, statistical analysis revealed that individuals who scored above the cut-off for clinical significance on the PCL-5 scale had significantly higher difficulties in regulating emotions as compared to those who had scored below the cut-off ($t=-4.58$, $p<0.05$). Posttraumatic stress was further found to be strongly associated with overall emotion dysregulation ($r=.60$, $p<0.01$) as well as all facets of emotion dysregulation except lack of emotional awareness ($r=.12$, $p>0.05$). The facets of impulse control difficulties ($r=.61$, $p<0.01$) and limited emotion regulation strategies ($r=.58$, $p<0.01$) were found to have the strongest association with pandemic-related posttraumatic stress as compared to other facets of emotion dysregulation. This is consistent with the results of several other studies conducted in the pandemic that found emotion dysregulation to be associated with posttraumatic stress and peritraumatic stress (Tyra et al., 2021; Siegel et al., 2021; Jiang et al., 2020). Moreover, although the data regarding the association between pandemic-related posttraumatic stress and emotion dysregulation in the Indian context is scarce, studies have demonstrated the prevalence of traumatic stress during the pandemic (Singh & Khokhar, 2020; K N et al., 2021) and the utilization of maladaptive regulation strategies such as non-acceptance of thoughts and emotions, emotional avoidance, self-blame, other blame, rumination, catastrophizing, denial, and behavior disengagement among individuals in India (Dubey et al., 2020; Singh et al., 2021).

Inconsistent with the hypothesis, posttraumatic stress was not found to be associated with alcohol use ($r=.06$, $p>0.05$). This is contrary to the findings of other studies that indicate an association between posttraumatic stress during the pandemic and alcohol use (Steudte-Schmiedgen et al., 2021; Currie, 2021) as well as between COVID-19 related psychological distress and drinking to cope (Buckner et al., 2021; Rodriguez et al., 2020) . There was also no significant difference found in alcohol use between those who scored above the cut-off for clinical significance on the PCL-5 scale and those who scored below the cut-off ($t=-0.91$, $p>0.05$). However, as hypothesized, alcohol use was found to be significantly, albeit weakly, associated with emotion dysregulation ($r=.23$, $p<0.05$). Previous literature has also shown a similar relationship between emotion dysregulation and alcohol use (Dvorak et al., 2014; Jakubczyk et al., 2018). In the present study, lack of emotional clarity was the only facet of the Difficulties of Emotion Dysregulation scale that was found to have a weak positive

association with alcohol use (r=.23, p<0.05). Lack of emotional clarity refers to problems in identifying emotions or experiencing confusion about one's emotions. Individuals affected by Alcohol Use Disorder have reported a higher level of lack of emotional clarity (Fox et al., 2008). Difficulty in clarity of emotions is also associated with early relapse and a higher level of craving among those discharged after a rehabilitation program (Ottonello et al., 2019). Alexithymia, which is similar to lack of emotional clarity, is defined as difficulty in identifying and describing feelings, differentiating between feelings and bodily sensation of emotional arousal, and an externally oriented style of thinking (Sifneos, 1973). Alexithymia has been found to be associated with alcohol consumption and alcohol use disorder (Dvorak et al., 2014; de Timary et al., 2008).

The weak and null link between alcohol use and emotion dysregulation as well as between alcohol use and pandemic-related posttraumatic stress respectively can be explained by the restricted access to alcohol as a result of the stringent lockdown in India. During this complete and extended lockdown that was aimed at curbing the spread of the virus, alcohol was banned from production, sale and purchase since it was not recognized by the government of India as an essential commodity (Ghosh et al., 2020; Nadkarni et al., 2020). Thus, it is likely that this non-availability of alcohol greatly affected its overall consumption irrespective of individuals' desire to drink.

The findings of the present study support an association between pandemic-related posttraumatic stress and emotion dysregulation as well as between alcohol use and emotion dysregulation.

Limitations and future directions

First, the data for the present study was collected online using self-report measures. Thus, bias due to social desirability cannot be ruled out. There is also a possibility that there may be a selection bias with those who responded experiencing distress as compared to the rest of the population. Secondly, the study examines a correlation between the variables and inferences regarding the causal relationship between the variables cannot be drawn. Third, PCL-5 was used to examine posttraumatic stress symptoms. However, the Clinician-Administered PTSD Scale is considered a more comprehensive measure to diagnose PTSD. Fourth, the sample of the current study only examined residents and citizens of India and thus, calls into question the generalizability of the findings to other populations.

It would be more informative for future research to take into account the effect of age and gender demographics, presence and severity of COVID-19 symptoms, as well as explore specific risk factors and protective factors with regard to the development of posttraumatic stress during the pandemic. Additionally, longitudinal studies of pandemic-related posttraumatic stress could assist healthcare professionals in having a more comprehensive understanding of therapeutic interventions that could help in effectively coping with trauma.

CONCLUSION

The current pandemic has led to prolonged exposure to stress resulting in a profound psychological impact on the general population. The mental health repercussions of the pandemic can be felt across populations in the form of increased levels of psychological distress and related symptoms.

The present study and its findings shed light on the individuals' susceptibility to posttraumatic stress and the importance of mental health during the pandemic. Furthermore,

given that PTSD has been found to predict alcohol use and emotion dysregulation has been found to mediate the relationship between PTSD and alcohol use, the present findings may imply that those affected by post-traumatic stress due to the pandemic and experience difficulty regulating emotions could also be susceptible to future alcohol use. This study also highlights specific facets of emotion dysregulation associated with post-traumatic stress and alcohol use which could inform interventions.

Considering the results of the study, it would be beneficial to implement programmes, policies and interventions in India that help people cope with psychological distress as a result of the pandemic and promote resilience.

REFERENCES

American Psychiatric Association. (n.d.). What is PTSD. Retrieved from https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd

Awasthi, P. (2020, December 11). 74% of Indians suffering from stress; 88% reported anxiety amid COVID- 1. *The Hindu*. Retrieved from https://www.thehindubusinessline.com/news/variety/74-of-indians-suffering-from-stress-88-reported-anxiety-amid-covid-19-study/article33306490.ece

Balayan, K., Kahloon, M., Tobia, G., Postolova, A., Peek, H., Akopyan, A., Lord, M., Brownstein, A., Aziz, A., Nwabueze, U., Blackmon, B., Steiner, A., Lopez, E., & IsHak, FAPA, Waguih. (2014). The Impact of Posttraumatic Stress Disorder on the Quality of Life: A Systematic Review. *International Neuropsychiatric Disease Journal*. 2. 214-233. 10.9734/INDJ/2014/7649.

Berking, M., Margraf, M., Ebert, D., Wupperman, P., Hofmann, S. G., & Junghanns, K. (2011). Deficits in emotion-regulation skills predict alcohol use during and after cognitive-behavioral therapy for alcohol dependence. *Journal of consulting and clinical psychology*, *79*(3), 307–318. https://doi.org/10.1037/a0023421

Blanco, C., Xu, Y., Brady, K., Pérez-Fuentes, G., Okuda, M., & Wang, S. (2013). Comorbidity of posttraumatic stress disorder with alcohol dependence among US adults: results from National Epidemiological Survey on Alcohol and Related Conditions. *Drug and alcohol dependence*, *132*(3), 630–638. https://doi.org/10.1016/j.drugalcdep.2013.04.016

Bonanno G. A. (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *The American psychologist*, *59*(1), 20–28. https://doi.org/10.1037/0003-066X.59.1.20

Bridgland, V., Moeck, E. K., Green, D. M., Swain, T. L., Nayda, D. M., Matson, L. A., Hutchison, N. P., & Takarangi, M. (2021). Why the COVID-19 pandemic is a traumatic stressor. *PloS one*, *16*(1), e0240146. https://doi.org/10.1371/journal.pone.0240146

Brown, P. J., Stout, R. L., & Mueller, T. (1999). Substance use disorder and posttraumatic stress disorder comorbidity: Addiction and psychiatric treatment rates. Psychology of Addictive Behaviors, 13(2), 115-122.

Buckner, J. D., Lewis, E. M., Abarno, C. N., Morris, P. E., Glover, N. I., & Zvolensky, M. J. (2021). 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*, *50*(4), 261–275. https://doi.org/10.1080/16506073.2020.1861084

Bus, K., Kivlahan, D. R., McDonell, M.B., Fihn, S.D., & Bradley, K.A., for the Ambulatory Care Quality Improvement Project (ACQUIP). The AUDIT Alcohol Consumption Questions (AUDIT-C): An Effective Brief Screening Test for Problem Drinking. *Arch Intern Med.* 1998;158(16):1789–1795. doi:10.1001/archinte.158.16.1789

Chopko, B., Palmieri, P., & Adams, R. (2013). Associations Between Police Stress and Alcohol Use: Implications for Practice. *Journal of Loss and Trauma. 18.* 10.1080/1532 5024.2012.719340.

Currie C. L. (2021). Adult PTSD symptoms and substance use during Wave 1 of the COVID-19 pandemic. *Addictive behaviors reports*, *13*, 100341. https://doi.org/10.1016/j.abrep.2021. 100341

de Timary, P., Luts, A., Hers, D., & Luminet, O. (2008). Absolute and relative stability of alexithymia in alcoholic inpatients undergoing alcohol withdrawal: relationship to depression and anxiety. *Psychiatry research*, *157*(1-3), 105–113. https://doi.org/10.1016/ j.psychres.2006.12.008

Dubey, N., Podder, P., & Pandey, D. (2020). Knowledge of COVID-19 and Its Influence on Mindfulness, Cognitive Emotion Regulation and Psychological Flexibility in the Indian Community. *Frontiers in psychology*, *11*, 589365. https://doi.org/10.3389/fpsyg.2020.58 9365

Dvorak, R. D., Sargent, E. M., Kilwein, T. M., Stevenson, B. L., Kuvaas, N. J., & Williams, T. J. (2014). Alcohol use and alcohol-related consequences: associations with emotion regulation difficulties. *The American journal of drug and alcohol abuse*, *40*(2), 125–130. https://doi.org/10.3109/00952990.2013.877920

Ehring, T., & Quack, D. (2010). Emotion regulation difficulties in trauma survivors: the role of trauma type and PTSD symptom severity. *Behavior therapy*, *41*(4), 587–598. https:// doi.org/10.1016/j.beth.2010.04.004

Ertl, V., Saile, R., Neuner, F., & Catani, C. (2016). Drinking to ease the burden: a cross-sectional study on trauma, alcohol abuse and psychopathology in a post-conflict context. *BMC psychiatry*, *16*, 202. https://doi.org/10.1186/s12888-016-0905-7

Fox, H. C., Hong, K. A., & Sinha, R. (2008). Difficulties in emotion regulation and impulse control in recently abstinent alcoholics compared with social drinkers. *Addictive behaviors*, *33*(2), 388–394. https://doi.org/10.1016/j.addbeh.2007.10.002

Ghosh, A., Choudhury, S., Basu, A., Mahintamani, T., Sharma, K., Pillai, R. R., Basu, D., & Mattoo, S. K. (2020). Extended lockdown and India's alcohol policy: a qualitative analysis of newspaper articles. *The International journal on drug policy*, *85*, 102940. https://doi.org/10.1016/j.drugpo.2020.102940

Giacco, D., Matanov, A., & Priebe, S. (2013). Symptoms and subjective quality of life in post-traumatic stress disorder: a longitudinal study. *PloS one*, *8*(4), e60991. https://doi.org/10. 1371/journal.pone.0060991

Gratz, K. L., and Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale. *J. Psychopathol. Behav. Assess.* 26, 41–54. doi: 10.1023/B: JOBA.0000007455.08539.94

Jakubczyk, A., Trucco, E. M., Kopera, M., Kobyliński, P., Suszek, H., Fudalej, S., Brower, K. J., & Wojnar, M. (2018). The association between impulsivity, emotion regulation, and symptoms of alcohol use disorder. *Journal of substance abuse treatment*, *91*, 49–56. https://doi.org/10.1016/j.jsat.2018.05.004

Jiang, H., Nan, J., Lv, Z., & Yang, J. (2020). Psychological impacts of the COVID-19 epidemic on Chinese people: Exposure, post-traumatic stress symptom, and emotion regulation. *Asian Pacific Journal of Tropical Medicine*, 13(6), 252–259. doi:10. 4103/1995-7645.281614

Kashdan, T. B., Morina, N., & Priebe, S. (2009). Post-traumatic stress disorder, social anxiety disorder, and depression in survivors of the Kosovo War: experiential avoidance as a contributor to distress and quality of life. *Journal of anxiety disorders*, *23*(2), 185–196. https://doi.org/10.1016/j.janxdis.2008.06.006

K N, M., Parashar, N., Kumar, C., Verma, V., Rao, S.,Y, S., K, V. K., A, A., T R, H., B N, P. K., K, S., S, P. K., K, S., Shivam, Kumar, C., & Judith (2021). Prevalence and severity

of secondary traumatic stress and optimism in Indian health care professionals during COVID-19 lockdown. *PloS one*, *16*(9), e0257429. https://doi.org/10.1371/journal.pone.0257429

Li, Y., Scherer, N., Felix, L., & Kuper, H. (2021). Prevalence of depression, anxiety and post-traumatic stress disorder in health care workers during the COVID-19 pandemic: A systematic review and meta-analysis. *PloS one*, *16*(3), e0246454. https://doi.org/10.1371/journal.pone.0246454

Nadkarni, A., Kapoor, A., & Pathare, S. (2020). COVID-19 and forced alcohol abstinence in India: The dilemmas around ethics and rights. *International journal of law and psychiatry*, *71*, 101579. https://doi.org/10.1016/j.ijlp.2020.101579

Najavits, L. M., Gastfriend, D. R., Barber, J. P., Reif, S., Muenz, L. R., Blaine, J., Frank, A., Crits-Christoph, P., Thase, M., & Weiss, R. D. (1998). Cocaine dependence with and without PTSD among subjects in the National Institute on Drug Abuse Collaborative Cocaine Treatment Study. *The American journal of psychiatry*, *155*(2), 214–219. https://doi.org/10.1176/ajp.155.2.214

Norman, S. B., Haller, M., Hamblen, J. L., Southwick, S. M., & Pietrzak, R. H. (2018). The burden of co-occurring alcohol use disorder and PTSD in U.S. Military veterans: Comorbidities, functioning, and suicidality. *Psychology of addictive behaviors : journal of the Society of Psychologists in Addictive Behaviors*, *32*(2), 224–229. https://doi.org/10.1037/adb0000348

Ottonello, M., Fiabane, E., Pistarini, C., Spigno, P., & Torselli, E. (2019). Difficulties In Emotion Regulation During Rehabilitation For Alcohol Addiction: Correlations With Metacognitive Beliefs About Alcohol Use And Relapse Risk. *Neuropsychiatric disease and treatment*, *15*, 2917–2925. https://doi.org/10.2147/NDT.S214268

Petit, G., Luminet, O., Maurage, F., Tecco, J., Lechantre, S., Ferauge, M., Gross, J. J., & de Timary, P. (2015). Emotion Regulation in Alcohol Dependence. *Alcoholism, clinical and experimental research*, *39*(12), 2471–2479. https://doi.org/10.1111/acer.12914

Radomski, S. A., & Read, J. P. (2016). Mechanistic Role of Emotion Regulation in the PTSD and Alcohol Association. *Traumatology*, *22*(2), 113–121. https://doi.org/10.1037/trm0000068

Rodriguez, L. M., Litt, D. M., & Stewart, S. H. (2020). Drinking to cope with the pandemic: The unique associations of COVID-19-related perceived threat and psychological distress to drinking behaviors in American men and women. *Addictive behaviors*, *110*, 106532. https://doi.org/10.1016/j.addbeh.2020.106532

Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian journal of psychiatry*, *51*, 102083. https://doi.org/10.1016/j.ajp.2020.102083

Shepherd, L., & Wild, J. (2014). Emotion regulation, physiological arousal and PTSD symptoms in trauma-exposed individuals. *Journal of behavior therapy and experimental psychiatry*, *45*(3), 360–367. https://doi.org/10.1016/j.jbtep.2014.03.002

Siegel A, Mor I, Lahav Y. Profiles in COVID-19: peritraumatic stress symptoms and their relation with death anxiety, anxiety sensitivity, and emotion dysregulation. Eur J Psychotraumatol. 2021 Sep 24;12(1):1968597. doi: 10.1080/20008198.2021.1968597. PMID: 34589177; PMCID: PMC847510.

Sifneos P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Psychotherapy and psychosomatics*, *22*(2), 255–262. https://doi.org/10.1159/000286529

Singh, S. P., & Khokhar, A. (2021). Prevalence of Posttraumatic Stress Disorder and Depression in General Population in India During COVID-19 Pandemic Home Quarantine. *Asia-Pacific journal of public health*, *33*(1), 154–156. https://doi.org/10.1177/1010539520968455

Singh, V. V., Patra, P., & Singal, A. (2021). Coping with COVID: Cross-sectional study to assess the psychological impact and coping strategies utilized by Indian internet users during the lockdown of the COVID-19 pandemic. *Industrial psychiatry journal*, *30*(1), 29–35. https://doi.org/10.4103/ipj.ipj_202_20

Steudte-Schmiedgen, S., Stieler, L., Erim, Y., Morawa, E., Geiser, F., Beschoner, P., Jerg-Bretzke, L., Albus, C., Hiebel, N., & Weidner, K. (2021). Correlates and Predictors of PTSD Symptoms Among Healthcare Workers During the COVID-19 Pandemic: Results of the egePan-VOICE Study. *Frontiers in psychiatry*, *12*, 686667. https://doi.org/10.3389/fpsyt.2021.686667

Stewart, S. H., Mitchell, T. L., Wright, K. D., & Loba, P. (2004). The relations of PTSD symptoms to alcohol use and coping drinking in volunteers who responded to the Swissair Flight 111 airline disaster. *Journal of anxiety disorders*, *18*(1), 51–68. https://doi.org/10.1016/j.janxdis.2003.07.006

Takemoto, E., Giesinger, I., Russell, J. S., & Li, J. (2021). Association between post-traumatic stress disorder and alcohol-related hospitalizations among World Trade Center Health Registry enrollees. *Drug and alcohol dependence*, *221*, 108656. https://doi.org/10.1016/j.drugalcdep.2021.108656

Tull, M. T., Barrett, H. M., McMillan, E. S., & Roemer, L. (2007). A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. *Behavior therapy*, *38*(3), 303–313. https://doi.org/10.1016/j.beth.2006.10.001

Tyra, A. T., Ginty, A. T., & John-Henderson, N. A. (2021). Emotion Regulation Strategies Predict PTSS During the COVID-19 Pandemic in an American Indian Population. *International journal of behavioral medicine*, *28*(6), 808–812. https://doi.org/10.1007/s12529-021-09964-2

Weiss, N. H., Nelson, R. J., Contractor, A. A., & Sullivan, T. P. (2019). Emotion dysregulation and posttraumatic stress disorder: a test of the incremental role of difficulties regulating positive emotions. *Anxiety, stress, and coping*, *32*(4), 443–456. https://doi.org/10.1080/10615806.2019.1618842

Zhang, L., Pan, R., Cai, Y., & Pan, J. (2021). The Prevalence of Post-Traumatic Stress Disorder in the General Population during the COVID-19 Pandemic: A Systematic Review and Single-Arm Meta-Analysis. *Psychiatry investigation*, *18*(5), 426–433. https://doi.org/10.30773/pi.2020.0458

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Conflict of Interest

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