

| Extended Abstract |

Investigating the symptoms of post-traumatic stress disorder in individuals who use alcohol and cigarette during the COVID-19 pandemicSevda Acar¹ , Hadiye Bostancı Demirci² , Derya Şaşman Kaylı³ , Görkem Yazarbaş⁴ **Keywords**

alcohol, cigarette, tobacco use disorders, alcohol use disorders, post-traumatic stress disorder, COVID-19

Abstract

Research regarding the COVID-19 pandemic process has been increased day by day. Determining the change of tobacco and alcohol use during the pandemic period has become essential in terms of public health. This study aimed to examine this change in the context of post-traumatic stress disorder. This study was conducted with 475 people over the age of 18 who smoke or drink alcohol, or both. In the study, the usage amounts of the participants who used alcohol and cigarettes during the pandemic process were categorized. The means of post-traumatic stress disorder scores of the obtained groups were compared with one-way analysis of variance for unrelated samples. Demographic Information Form and the Impact of Events Scale (IES-R) were used in the study. Regarding the post-traumatic stress disorder mean scores of the four groups which were categorized in the study, respectively; only alcohol use increased ($M = 20.86$), smoking only increased ($M = 29.06$), both alcohol and cigarette use increased ($M = 29.61$), alcohol or cigarette use did not change ($M = 20.95$), there is a statistically significant difference between the mean scores of post-traumatic stress disorder in some of the groups that did not find any of the classifications related to alcohol and cigarette use appropriate ($M = 21.79$), $F(4,474) = 8.94$, $p < .05$. The present study indicates that there is a significant difference in the post-traumatic stress disorder scores of the groups with varying amounts of alcohol and cigarette use. In this context, it is considered as important to develop biopsychosocial intervention programs regarding the use of these substances, especially during the pandemic period.

Substance could be defined as all kinds of chemicals that might result in changes in the brain's functions in mood, perception, cognition and many other areas, leading to addiction (Carlson, 2014).

It is revealed that substance use has been increasing during the pandemic period and poses a risk in the literature (Satre et al., 2020). In addition, it is recommended to monitor patients' symptoms of Post-Traumatic Stress Disorder (PTSD) during the COVID-19 period (Okur & Demirel, 2020). In this context, the relationship between alcohol and smoking with PTSD during the pandemic period is considered important.

As a matter of fact, smoking rates appear to be significantly higher among people who have been exposed to a traumatic event than in those who have not had such exposure (Vardavas & Nikitara, 2020). In addition, clinical studies indicate a strong relationship between PTSD and alcohol use disorders (Evren et al., 2011; Kofoed et al., 1993; Riggs et al., 2003).

METHODS

This research aimed to examine the symptoms of post-traumatic stress disorder in individuals who smoke and drink alcohol during the COVID-19 pandemic.

The universe of the study consists of people living in Turkey, over the age of 18, smoking or drinking alcohol, or both. Ethical approval of the research was obtained from Celal Bayar University.

Demographic Information Form and The Impact of Events Scale (IES-R), (Weiss & Marmar, 1997) were used in the research. Demographic Information Form includes gender, age, marital status, educational status, occupation of participants. There are also questions about the person's leave status under COVID-19, whether they have received a diagnosis, whether they are actively working in the field in relation to the pandemic, and the change in the amount of smoking and alcohol use.

The participants in this research are: (1) those who only report increased alcohol use, (2) those who only report increased smoking, (3) those who reported increased use of both alcohol and smoking, (4) those who reported that there was no change in the amount of alcohol and cigarette use, (5) those who use alcohol and/or cigarettes but report that none of these options are suitable for them.

Due to the COVID-19 pandemic an online survey was used as the method of collecting data in the study.

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✉ **Sevda Acar** · psikologsevdaacar@gmail.com | ¹Psychologist, ²Psychological Counselor, ⁴Assoc. Prof., Institute on Drug Abuse, Toxicology, and Pharmaceutical Science, Ege University, İzmir, Turkey; ³Assoc. Prof., Department of Social Work, Faculty of Health Sciences, Manisa Celal Bayar University, Manisa, Turkey.

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The question form was configured via google forms; the form was shared through online platforms. The responses were collected between September 2020-October 2020. In this study, data was obtained from 475 people.

RESULTS

The average age of the participants in the study was 35.29 ± 11.46 . Of the people who participated in the study, 305 (64.2%) were women; 170 (35.8%) were men. 221 people (46.5%) who participated in the study were married and 254 people (53.5%) were single.

The number of people who reported that only alcohol use increased during the pandemic is 42 (8.8%). The number of people who reported that only smoking increased during the pandemic was 80 (16.8%). 38 people (8%) reported an increase in both alcohol and cigarette use during this process. The number of people who reported no change in the amount of alcohol and cigarette use was 173 (36.4%). Of this group, it is assumed that there is no increase or decrease in alcohol and/or cigarette use during the pandemic. Finally, the number of people who use alcohol and/or cigarettes, but do not find any of these options suitable for them, is 142 (29.9%). It is assumed that there is a decrease in alcohol and/or cigarette use in this group.

The means of post-traumatic stress disorder scores of 5 groups were compared with one-way analysis of variance for unrelated samples. As a result of the evaluation based on the equality of group variances, Dunnett's C test was used as a multiple comparison test. The results show that the data provides a normal distribution.

A statistically significant difference was observed in means of post-traumatic stress disorder scores, indeed some of the groups that who only report increased alcohol use ($M = 20.86$), report increased only smoking ($M = 29.06$), report increased use of both alcohol and smoking ($M = 29.61$), report that there was no change in the amount of alcohol and cigarette use ($M = 20.95$), use alcohol and/or cigarettes but report that none of these options are suitable for them ($M = 21.79$). The effect size calculated as a result of the test ($\eta^2 = .07$) shows that this difference is moderate.

As a result of the Dunnett C multiple comparison test, the groups in which the mean scores of post-traumatic stress disorder differ significantly are as follows:

Participants with increased only alcohol use had significantly lower averages of post-traumatic stress disorder scores than participants with increased only smoking ($p < .05$). It was observed that the participants who only increased alcohol use had significantly lower post-traumatic stress disorder scores compared to the participants who increased both alcohol use and smoking ($p < .05$). Participants who only increased their smoking were found to have significantly higher post-traumatic stress disorder scores than participants

whose alcohol or cigarette use did not change ($p < .05$).

Participants who only increased their smoking were found to have significantly higher post-traumatic stress disorder scores than participants who did not find any of the classifications related to alcohol and smoking appropriate ($p < .05$). Participants with increased smoking and alcohol use were found to have significantly higher post-traumatic stress disorder scores than participants whose alcohol or cigarette use did not change ($p < .05$). Participants with increased use of both smoking and alcohol have significantly higher post-traumatic stress disorder scores than participants who find none of the classifications related to alcohol and tobacco use appropriate ($p < .05$).

DISCUSSION

The findings of this study particularly emphasize the significant relationship between smoking and post-traumatic stress disorder. It is considered that it is important to evaluate intervention studies related to smoking based on the phenomenon of post-traumatic stress disorder. It may be functional for public health campaigns that address the importance of quitting smoking to take action by addressing the phenomenon of trauma. The current study shows that there is a difference in the post-traumatic stress disorder scores of the groups with varying amounts of alcohol and cigarette use.

The findings show that it is important to develop biopsychosocial intervention programs for the use of these substances, specific to the pandemic period.

Compliance with Ethical Standards Ethical approval was obtained from Manisa Celal Bayar University Ethical Committee (Date: 02.09.2020, No: 20.478.486).

Conflict of Interest The authors declare that they have no conflict of interest.

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