

The Relationship of Coronavirus Disease 2019 Fear and Anxiety with Smoking and Caffeinated Beverage Consumption in Young People

Abstract

Background: Young people, especially in their developmentally sensitive periods, are highly vulnerable to the impact of constant stressors, so their mental health needs special attention during and after the pandemic. Young people who experience anxiety and fear due to the coronavirus disease 2019 pandemic and who are exposed to many different stressors can resort to ineffective coping methods in the face of these problems.

Aim: The aim of the study was to determine the relationship of coronavirus disease 2019 fear and anxiety with smoking and caffeinated beverage consumption in young people.

Methods: This descriptive and cross-sectional research was conducted on 551 young people. As data collection tools, "Personal Information Form, Coronavirus (COVID-19) Anxiety Scale, and Coronavirus (COVID-19) Fear Scale" were used. In the evaluation of the data obtained in the study, besides descriptive statistics (percentage, frequency, mean, SD, minimum, and maximum), *t*-test and analysis of variance test were used in independent groups.

Results: Young people smoked (8.1%) and consumed caffeinated beverages (31.8) more than normal during the pandemic period and The Coronavirus Anxiety Scale mean score was 11.50 ± 3.02 and the mean score of The Fear of Coronavirus Disease 2019 Scale was 18.32 ± 6.43 of them. It was determined that the young people who smoked had lower coronavirus anxiety and fear. It was found that the young people who stated that they smoked more before the pandemic had lower coronavirus anxiety and higher coronavirus fears. It was found that young people who smoked 16 or more cigarettes a day had lower anxiety and fears about coronavirus than young people who smoked <16 cigarettes. It was determined that the young people, who stated that there was an increase in the consumption of caffeinated beverages compared to the pre-pandemic period, had higher coronavirus anxiety and fears.

Conclusion: As a result, it has been observed that the high coronavirus disease 2019 anxiety and fear of young people had a negative impact on their consumption of cigarettes and caffeine. For this reason, it is recommended to support young people with training for this anxiety and fear they experience and to carry out studies to prevent young people from smoking and caffeine addiction.

Keywords: Caffeine, fear and anxiety of COVID-19, smoking

Melike Yavaş Çelik¹ , Fatma Karasu¹ ,
Ebru Öztürk Çopur¹ , Meltem Sungur² 

¹Department of Nursing, Kilis 7 Aralık University,
Faculty of Health Sciences, Kilis, Türkiye

²Department of Nursing, Aralık University, Yusuf
Şerefoğlu Faculty of Health Sciences, Kilis, Türkiye

Introduction

Coronavirus disease 2019 (COVID-19) first appeared in Wuhan, China, in December 2019 and was learned by reporting a series of "viral pneumonia" cases.¹ Coronavirus disease 2019, which causes severe acute respiratory syndrome, has gradually spread rapidly since the day it emerged and spread to the world.² The World Health Organization (WHO) declared COVID-19 disease as a global pandemic on March 11, 2020.³ The most common symptoms of COVID-19 include fever, dry cough, and tiredness. Coronavirus disease 2019 has a serious process and increases the risk of death, especially in people over 60 and with additional diseases such as high blood pressure, heart and lung problems, diabetes, obesity, or cancer.⁴ The first case of COVID-19 in Türkiye was seen on March 11, 2020, and COVID-19 was spread across the country. Coronavirus disease 2019 has not only physical effects on societies but also negative effects in psychological and social aspects.⁵

In COVID-19 disease, young people have significant effects, especially in terms of transmission and spread of the virus. With the pandemic, the setting of restrictions, school closures, economic, and financial concerns started to have a negative impact on the mental health of young people.^{6,7} Young people, especially in their developmentally

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Corresponding author: Meltem Sungur
E-mail: meltem_sungur4633@hotmail.com

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sensitive periods, are highly vulnerable to the impact of constant stressors, so their mental health needs special attention during and after the pandemic. The lack of activities carried out at school due to the COVID-19 epidemic, physical activity for socialization outside the classroom, and many activities that increase social interaction may reinforce depression, anxiety and hopelessness in young people.⁸ In studies on the COVID-19 pandemic, it has been determined that the level of anxiety and depressive symptoms is higher in the young population compared to the elderly population, and younger age groups are more vulnerable to stress, depression, and anxiety symptoms.⁹⁻¹¹

Young people who experience anxiety and fear due to the COVID-19 pandemic and who are exposed to many different stressors can resort to ineffective coping methods in the face of these problems. In this context, the use of cigarettes, alcohol, and other addictive substances, which are defined as ineffective coping methods, also reveals another unhealthy lifestyle.¹² One study found that increased smoking, lack of sleep, and alcohol intake were associated with high levels of depression, anxiety, and stress during the pandemic period.¹³ Another study showed that the consumption of caffeinated beverages increased among young people during the pandemic period.¹⁴ Excessive caffeine consumption can prevent the normal functioning of the central nervous system and cause young people to experience mental problems. In addition, excessive consumption of substances such as cigarettes and caffeine is directly related to anxiety, stress, and physical health. Therefore, it is recommended to avoid these substances during the pandemic period.¹⁵ In this respect, the increase in smoking can adversely affect the health of young people and cause fatal consequences. In addition to this situation, all social activities of young people who had to stay at home during the COVID-19 period were taken away.^{6,7} For this reason, most young people cannot find a job at home. In addition, the fears and anxiety of young people are increasing due to the uncertainty about COVID-19. To cope with stressful situations, individuals may turn to smoking, which is unfortunately an undesirable method.¹⁵ Studies have also reported that stress-related conditions such as depression, anxiety, fear, and burnout occur in people during the pandemic.^{16,17} Furthermore, when individuals feel anxiety and fear, they resort to various ways to cope. Among these ways are emotion-focused and maladaptive coping. The increase in cigarette consumption and consumption of caffeinated beverages may have been an undesirable maladaptive way of coping for individuals to cope with many uncertainties, anxieties, and fears. It is important to investigate the relationship between cigarette and caffeine consumption of young people and the anxiety and fear of COVID-19 in terms of determining the risks of young people in this context.¹⁸ Considering that this situation triggers caffeine and cigarette addiction in young people, this study aimed to determine the relationship between fear and anxiety of COVID-19 in young people and the consumption of cigarettes and caffeinated beverages. Within the framework of this general purpose, the following questions were sought:

1. Is there a difference between smoking and caffeinated beverage consumption by young people before and during the pandemic?
2. How are young people's levels of COVID-19 fear and anxiety?
3. Is there a difference between the fear and anxiety of COVID-19 and the sociodemographic characteristics, smoking, and caffeinated beverage consumption of young people?

Material and Methods

Research Type

The research was conducted in descriptive and cross-sectional types.

Research Sample

This research is a descriptive-cross-sectional study. The population of the research consisted of 12.955.672 young people between the ages of 15-24 in Türkiye.¹⁹ The sample size was determined as 542 with a 98% CI and 5% margin of error. The research was conducted with 551 young individuals using the snowball sampling method.

Inclusion Criteria for the Study

The following criteria were included in the study:

- Being between the ages of 15 and 24.
- Volunteer to participate in the research.
- Having a smartphone and using social media.

Data Collection Tools

As data collection tools, "Personal Information Form, Coronavirus (COVID-19) Anxiety Scale and Coronavirus (COVID-19) Fear Scale" were used.^{20,21} The personal information form is based on sociodemographic characteristics (age, gender, marital status, educational status, employment status, income level, family type, and general health status), characteristics related to smoking and caffeinated beverage consumption (symptoms experienced when insufficient caffeine is consumed during the day, symptoms experienced when consuming excessive caffeine during the day) consists of a total of 20 questions.

The Coronavirus Anxiety Scale

It is a scale developed by Lee to quickly and reliably describe the possible dysfunctional anxiety cases and the severity of anxiety symptoms that can be observed in connection with the psychological reactions of the disease in individuals during the coronavirus pandemic, which has reached the dimension of a social crisis.²⁰ The scale is a 5-point Likert (0=never, 1=rare, less than a day or 2, 2=a few days, 3=more than 7 days, 4=almost every day in the past 2 weeks). The scale consists of 5 questions and 1 dimension. Scale items are scored between 0 and 4. There is no reverse item. A high score indicates high anxiety. The Turkish reliability and validity study was conducted by Akkuzu et al and the Cronbach's alpha internal consistency coefficient was found to be 0.81.²¹ For this study, the Cronbach's alpha internal consistency coefficient was calculated as 0.88.

The Fear of Coronavirus Disease 2019 Scale

The scale was created by Ahorsu et al.²² Turkish reliability and validity of scale study was carried out by Bakioğlu, Korkmaz, and Ercan. The scale is a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=undecided, 4=agree, and 5=strongly agree). It consists of 1 dimension and 7 items. There is no reverse item in the scale. The total score obtained from all items of the scale reflects the level of fear of coronavirus experienced by the individual. The scores that can be obtained from the scale range from 7 to 35. High scores on the scale mean experiencing high levels of coronavirus fear. The Cronbach's alpha internal consistency coefficient was found to be 0.88.²³ For this study, the Cronbach's alpha internal consistency coefficient was calculated as 0.86.

Data Collection Process

The study was conducted with 551 young people who agreed to participate in the study between December 20, 2020, and January 1, 2021. It took an average of 15 minutes to complete the questionnaire.

A digital questionnaire form was created by researchers to minimize face-to-face interaction due to the transmission of the COVID-19 from person to person. The answers to the questionnaire were obtained online. The digital questionnaire created was shared on social media platforms (such as WhatsApp, Instagram, and Twitter) and respondents were asked to share it with other people. At the beginning of the questionnaire sent to the young people, there is information about the purpose and content of the study and that participation in the study is voluntary. The identity information of the young people was not recorded in the questionnaire.

Data Evaluation

The data of the study were evaluated using the statistical software program SPSS 24 (Statistical Package for Social Sciences), (SPSS Inc., Chicago, IL, USA) statistical software was used to analyze the data. In the statistical analysis, the compatibility of the data to the normal distribution was evaluated with the skewness-kurtosis (± 1) and Kolmogorov-Smirnov distribution test. It was determined that the data showed normal distribution. In the evaluation of the data obtained in the study, besides descriptive statistics (percentage, frequency, mean, SD, minimum, and maximum), *t*-test and analysis of variance tests were used in independent groups. Internal consistency Cronbach's alpha coefficient was calculated.

Ethical Considerations

To conduct the study, approval was obtained from the Ethics Committee of Kilis 7 Aralık University (Approval No: 2020/29, Date: 16/10/2020). Before moving on to the research questions in the form, they were informed about the content of the research and they were able to continue to fill out the questionnaire after receiving approval to participate in the research. Participation in the study was based on voluntariness. The study was planned and conducted in accordance with the principles of the Helsinki Declaration.

Results

The mean age of the young people is 19.41 ± 1.82 . It was determined that 63.7% of the youth are in the 19-21 age group, 75.7% are female, 97.8% are single, 93.5% study at university or are university graduates, 86.7% do not work, and 57.9% balanced income and expenses. About 79.7% of them have a nuclear family, 54.4% of them have a good general health condition. According to the gender of the youth, a significant difference was found between the mean scores of The Coronavirus Anxiety Scale and The Fear of COVID-19 Scale ($P < .05$) (Table 1).

It was determined that 17.4% of the youth smoked and 8.1% smoked more than normal during the pandemic. It was determined that 5.4% of the youth smoked 6-10 cigarettes before the pandemic and 6.7% smoked 11-15 cigarettes during the pandemic. About 31.8% of teenagers consumed more caffeinated beverages than normal during the pandemic, 31.6% consumed a cup and 9.9% of the youth ≥ 5 and more cups before the pandemic, 37.0% consumed a cup during the pandemic, and 18.7% consumed ≥ 5 and more glasses of caffeinated beverages. In addition, it was determined that 95.8% of the youth stated that they were affected negatively by COVID-19. The difference

between young people's smoking before and during the pandemic, the amount of cigarettes consumed daily before and during the pandemic, the amount of caffeine consumed daily before and during the pandemic were found to be significantly different. A significant difference was found between the mean scores of The Coronavirus Anxiety Scale and The Fear of COVID-19 Scale ($P < .05$) (Table 2).

It was determined that 72.8% of the youth consumed the most black tea. It was determined that 21.2% of the young people who consumed insufficient caffeine during the day experienced headache, and 26.3% of those who consumed excessive caffeine during the day experienced insomnia (Table 3).

The Coronavirus Anxiety Scale mean score of the young people was 11.50 ± 3.02 . The Fear of COVID-19 Scale mean score was found to be 18.32 ± 6.43 (Table 4).

Discussion

Coronavirus disease 2019 has had serious negative consequences on the young population as well as affecting all segments of society. In many studies, it has been reported that the fear of COVID-19 is common and individuals suffer from this condition.^{16,17} This may trigger smoking in young people. Furthermore, while young people are at a relatively lower risk of contracting COVID-19 compared to older adults, given the proportion of young people who smoke, youth smoking may pose a significant risk factor for COVID-19.²⁴ With this study, it was aimed to investigate the relationship of COVID-19 fear and anxiety with smoking and caffeinated beverage consumption in young people. In this study, it was observed that the COVID-19 fear and anxiety of the youth were above the middle value of the score that can be obtained from the scale. Many studies support this situation. In the studies conducted, it was found that the fear and anxiety of COVID-19 were high in individuals.^{20,21,22}

In addition, it was found that women's COVID-19 anxiety and fears were significantly higher than men (Table 1). According to the studies, the rate of anxiety and fear is high in women.^{25,26} In a study conducted in our country, it was stated that women have a significantly higher vulnerability, perceived risk, and fear of the new coronavirus compared to men. Again in the same study, it was noted that younger individuals and women tended to report higher levels of avoidant behavior and fear.

It was found that the majority of the young people stated that COVID-19 also affected young people and people who stated that COVID-19 also affected young people had higher levels of COVID-19 anxiety and fear (Table 2). In this study, the high awareness of young people that they may be affected by COVID-19 disease suggests that it increases the fear and anxiety of COVID-19 in young people. It is a known fact that diseases and pandemics feed the feelings of fear and anxiety and they negatively affect the psychological state.^{25,27} In addition, in studies which were conducted about the COVID-19 pandemic, young people have been indicated among individuals who may be exposed to more negative consequences.²⁸⁻³⁰ According to the study of Durmuş and Erkan, it has been stated that there is a relationship between the mental well-being of individuals and the fear of coronavirus, and the psychological fears of individuals with chronic diseases are higher.³¹ According to a study by Kabasakal et al among health-care professionals, those who think that they have COVID-19 symptoms due to stress or panic have a higher mean of COVID-19 fear scale, those whose relatives have caught COVID-19 and those

Table 1. Comparison of Sociodemographic Characteristics of the Youth and the Mean Scores of the Coronavirus Anxiety Scale and the Fear of COVID-19 Scale (n=551)

| | n (%) | The Coronavirus Anxiety Scale | | The Fear of COVID-19 Scale | |
|---|------------|-------------------------------|---------------------------|----------------------------|---------------------------|
| | | $\bar{X} \pm SS$ | Significance | $\bar{X} \pm SS$ | Significance |
| Age range | | | | | |
| 15-18 | 60 (10.9) | 11.60 \pm 2.75 | $F=1.166$ $P=.312$ | 17.30 \pm 5.34 | $F=0.710$ $P=.492$ |
| 19-21 | 351 (63.7) | 11.59 \pm 3.02 | | 18.59 \pm 6.39 | |
| 22-24 | 140 (25.4) | 11.24 \pm 3.16 | | 18.07 \pm 6.95 | |
| Gender | | | | | |
| Female | 417 (75.7) | 11.85 \pm 3.00 | $t = 4.916$ $P = .001$ | 19.25 \pm 6.37 | $t = 6.201$ $P=.001$ |
| Male | 134 (24.3) | 10.41 \pm 2.83 | | 15.41 \pm 5.74 | |
| Marital status | | | | | |
| Married | 12 (2.2) | 11.00 \pm 3.07 | $t=-0.585$ $P=.559$ | 16.83 \pm 6.84 | $t=-0.809$ $P=.419$ |
| Single | 539 (97.8) | 11.51 \pm 3.02 | | 18.35 \pm 6.43 | |
| Education level | | | | | |
| High school | 36 (6.5) | 11.41 \pm 2.35 | $t = -0.184$ $P=.854$ | 17.00 \pm 4.93 | $t = -1.274$ $P=.203$ |
| Studying at university/university graduates | 515 (93.5) | 11.51 \pm 3.07 | | 18.41 \pm 6.52 | |
| Working status | | | | | |
| I am not working | 478 (86.7) | 11.55 \pm 3.01 | $F=0.561$ $P=.571$ | 18.52 \pm 6.37 | $F = 1.919$ $P=.148$ |
| Yes, full time | 39 (7.1) | 11.38 \pm 3.40 | | 17.30 \pm 6.98 | |
| Yes, part-time | 34 (6.2) | 11.00 \pm 2.71 | | 16.61 \pm 6.57 | |
| Income level statement | | | | | |
| Income below expenses | 161 (29.2) | 11.26 \pm 2.97 | $F = 1.395$ $P=.249$ | 17.95 \pm 6.61 | $F=1.570$ $P=.209$ |
| Income equal expenses | 71 (12.9) | 11.22 \pm 2.54 | | 17.40 \pm 5.69 | |
| Income above expenses | 319 (57.9) | 11.68 \pm 3.14 | | 18.71 \pm 6.49 | |
| Family type | | | | | |
| Nuclear family | 439 (79.7) | 11.62 \pm 3.00 | $t = 1.882$ $P=.060$ | 18.58 \pm 6.30 | $t = 1.878$ $P = .061$ |
| Extended family | 112 (20.3) | 11.02 \pm 3.10 | | 17.30 \pm 6.89 | |
| Health condition | | | | | |
| Good | 300 (54.4) | 11.22 \pm 2.98 | $F=2.905$ $P = .056$ | 17.60 \pm 6.67 | $F=4.379$ $P = .013$ |
| Bad | 11 (2.0) | 11.72 \pm 3.10 | | 18.00 \pm 7.05 | |
| Average | 240 (43.6) | 11.85 \pm 4.04 | | 19.23 \pm 6.51 | |

COVID-19, coronavirus disease 2019; *t*, *t*-test in independent groups; *F*, analysis of variance test.

whose relatives have died due to COVID-19 have higher mean scores of COVID-19 fear scale among health-care workers. It was found that the mean score of the COVID-19 fear scale of those whose general well-being deteriorated compared to the previous months was higher among those working in both sectors.¹⁷ The studies mentioned above have shown that the fear of COVID-19 has taken its place widely in many parts of our society and this situation is reflected negatively on the mood of individuals.

In this study, it was determined that smoking was high among young people (17.4%), young people smoked significantly more (8.1%) during

the pandemic period, and there was an increase in the number of cigarettes smoked before and during the pandemic. Coronavirus disease 2019 anxiety scores of young people who stated that they smoked more during the pandemic were found to be higher. In addition, it was determined that the significant difference between the young people smoking before and now during the pandemic was due to those who said that they smoke more during the pandemic process (Table 2). Smoking is becoming more common among young people.³² In addition, a report titled "10 Facts in Adolescent Health" has been prepared by the WHO for the need to acquire a healthy lifestyle in adolescents. In this report, drug abuse is at the top among the risky

Table 2. Comparison of the Smoking and Caffeinated Beverage Consumption Characteristics of the Youth and the Mean Scores of the Coronavirus Anxiety Scale and the Fear of COVID-19 Scale (n=551)

| | n (%) | The Coronavirus Anxiety Scale | | The Fear of COVID-19 Scale | |
|---|------------|-------------------------------|--------------|----------------------------|--------------|
| | | $\bar{X} \pm SS$ | Significance | $\bar{X} \pm SS$ | Significance |
| Smoking | | | | | |
| Yes | 96 (17.4) | 10.42 \pm 2.56 | $t=3.892$ | 15.75 \pm 5.87 | $t=4.376$ |
| No | 455 (82.6) | 11.73 \pm 3.07 | $P=.001$ | 18.86 \pm 6.42 | $P=.001$ |
| The difference between smoking before and now?* | | | | | |
| Smoking more than normal in a pandemic | 41 (8.1) | 11.17 \pm 3.13 | $F=2.879$ | 19.01 \pm 6.32 | $F=4.459$ |
| Smoking less than normal in a pandemic | 29 (5.3) | 11.88 \pm 2.76 | $P=.011$ | 17.26 \pm 7.08 | $P=.001$ |
| No difference | 22 (4.0) | 11.55 \pm 2.95 | | 15.72 \pm 7.18 | |
| The daily amount of cigarettes you consume before the pandemic (in pieces)* | | | | | |
| 1-5 pieces | 20 (3.6) | 11.00 \pm 1.45 | $F=4.980$ | 16.45 \pm 3.74 | $F=5.490$ |
| 6-10 pieces | 30 (5.4) | 11.10 \pm 2.63 | $P=.001$ | 16.80 \pm 6.17 | $P=.001$ |
| 11-15 pieces | 25 (4.6) | 9.80 \pm 2.64 | | 15.44 \pm 6.17 | |
| ≥ 16 pieces | 21 (3.8) | 9.66 \pm 2.95 | | 13.95 \pm 6.60 | |
| The daily amount of cigarettes you consume during the pandemic (in pieces)* | | | | | |
| 6-10 pieces | 23 (4.2) | 11.73 \pm 3.07 | $F=3.146$ | 18.86 \pm 6.42 | $F=4.569$ |
| 11-15 pieces | 37 (6.7) | 11.01 \pm 2.56 | $P=.024$ | 18.32 \pm 6.43 | $P=.001$ |
| ≥ 16 pieces | 36 (6.5) | 10.42 \pm 3.02 | | 15.75 \pm 5.87 | |
| Difference between consuming caffeinated beverages before and now | | | | | |
| Drinking more than normal in a pandemic | 175 (31.8) | 11.91 \pm 3.29 | $F=3.956$ | 19.12 \pm 6.80 | $F=3.432$ |
| Drinking less than normal in a pandemic | 37 (6.7) | 11.83 \pm 3.50 | $P=.001$ | 17.91 \pm 6.20 | $P=.032$ |
| No differences | 339 (61.5) | 10.90 \pm 2.72 | | 16.27 \pm 6.61 | |
| The daily amount of caffeinated beverages you consume before the pandemic** | | | | | |
| 1 cup | 174 (31.6) | 11.42 \pm 3.12 | $t=0.196$ | 18.01 \pm 6.51 | $t=0.632$ |
| ≥ 2 cup | 35 (6.4) | 11.32 \pm 3.11 | $P=.845$ | 17.34 \pm 6.47 | $P=.528$ |
| 1-2 glasses | 180 (32.7) | 11.33 \pm 2.99 | $F=1.864$ | 19.18 \pm 6.19 | $F=1.704$ |
| 3-4 glasses | 94 (17.1) | 10.94 \pm 2.90 | $P=.157$ | 17.41 \pm 6.89 | $P=.184$ |
| ≥ 5 glasses | 55 (9.9) | 11.52 \pm 3.13 | | 18.34 \pm 6.87 | |
| The daily amount of caffeinated beverages you consume during the pandemic** | | | | | |
| 1 cup | 204 (37.0) | 11.45 \pm 2.62 | $t=3.589$ | 18.20 \pm 5.78 | $t=3.671$ |
| ≥ 2 cups | 49 (8.9) | 11.94 \pm 3.39 | $P=.033$ | 19.06 \pm 6.45 | $P=.017$ |
| 1-2 glasses | 148 (26.9) | 11.36 \pm 2.63 | $F=4.798$ | 18.79 \pm 7.13 | $F=3.986$ |
| 3-4 glasses | 107 (19.4) | 11.95 \pm 3.45 | $P=.001$ | 19.27 \pm 6.25 | $P=.045$ |
| ≥ 5 glasses | 103 (18.7) | 11.89 \pm 3.67 | | 19.36 \pm 6.41 | |
| COVID-19 affects young people | | | | | |
| Affected negatively | 528 (95.8) | 11.57 \pm 3.02 | $t=2.591$ | 18.51 \pm 6.43 | $t=3.386$ |
| No, affected negatively | 23 (4.2) | 9.91 \pm 2.77 | $P=.010$ | 13.91 \pm 4.87 | $P=.001$ |

*Only smokers are taken.

**Those who stated the amount of caffeinated beverage consumption were taken. Cup (Turkish coffee is drunk in 80 cc cups) and glass (the glass is 200 cc) were taken separately.

COVID-19, coronavirus disease 2019; t = t -test in independent groups, F =analysis of variance test.

Table 3. Distribution of Caffeinated Beverage Consumption Characteristics Among the Youth

| | n | % |
|--|-----|------|
| The consumed type of caffeinated beverage* | | |
| Black tea | 401 | 72.8 |
| Turkish coffee | 392 | 71.2 |
| Cola | 240 | 43.6 |
| Nescafe/Espresso | 293 | 53.2 |
| Chocolate/cocoa drinks | 183 | 33.2 |
| Ice tea | 126 | 22.9 |
| Energy drink | 41 | 7.4 |
| Alcohol | 24 | 4.4 |
| Symptoms you experience when you consume insufficient caffeine during the day* | | |
| Headache | 117 | 21.2 |
| Discomfort | 90 | 16.3 |
| Irritability | 83 | 15.1 |
| Other** | 13 | 2.6 |
| Symptoms you experience when you consume excessive caffeine during the day* | | |
| Insomnia | 145 | 26.3 |
| Increased urination | 143 | 26.0 |
| Palpitation | 101 | 18.3 |
| Headache | 91 | 16.5 |
| Pain in the stomach | 83 | 15.1 |
| Tiredness | 69 | 12.5 |
| Dry mouth | 51 | 9.3 |
| Lethargy | 40 | 7.3 |
| Inadequacy in the study | 38 | 6.9 |
| Irritability | 38 | 6.9 |
| Yawning | 32 | 5.8 |
| Increased respiratory rate | 30 | 5.4 |
| Other*** | 74 | 13.5 |

*More than 1 option has been marked.

**Weakness, sleepiness, and lethargy.

***Facial redness, excitement, tremors, ringing in the ears, and light flashing in the eyes.

Table 4. Distribution of Mean Scores of the Coronavirus Anxiety Scale and the Fear of COVID-19 Scale

| | $\bar{X} \pm SD$ | Minimum | Maximum |
|-------------------------------|------------------|---------|---------|
| The Coronavirus Anxiety Scale | 11.50 \pm 3.02 | 5 | 20 |
| The Fear of COVID-19 Scale | 18.32 \pm 6.43 | 7 | 35 |

COVID-19, coronavirus disease 2019.

similar study, it was stated that young people expressed that they were psychologically negatively affected during the pandemic.³⁸ In another study, it was determined that there is a relationship between smoking and depression in adolescents and the depression levels of adolescents who smoke are higher.³⁹ All these results reveal the opinion that young people can increase cigarette consumption during the COVID-19 pandemic.

While there was no significant relationship between the amount of caffeine consumed daily before the pandemic and the average scores of COVID-19 anxiety and fear, a significant relationship was found during the pandemic process (Table 2). It has been reported that caffeine use is associated with anxiety, stress, sleep disturbance, and depression and caffeine use is harmful for those who have these problems.⁴⁰ According to this result of the study, it is thought that the anxiety and fear of COVID-19 experienced by young people will reflect negatively on their health both physiologically and psychologically. In addition, it can be said that the COVID-19 anxiety and fear experienced by young people triggered the caffeine consumption of young people.

In this study, it was determined that young people consume black tea the most among the caffeinated beverages and they usually experience headaches due to insufficient caffeine consumption during the day and insomnia due to excessive caffeine consumption during the day (Table 3). The use of caffeine-containing beverages is increasing among young people.⁴¹ However, caffeine-related side effects are reported as insomnia, heart palpitations, restlessness, headache, dizziness, nausea-vomiting, and sleep disturbance.^{42,43}

These scores show us that young people have the fear and anxiety of COVID-19. Uncertainties about COVID-19 and the claims that are made every day lead individuals to anxiety and fear.⁴⁴ Studies have reported that during the pandemic period, students experience intense anxiety and health anxiety, 7% of individuals have stress symptoms, and individuals are psychologically affected by this process.^{39,45,46} In the case of a life-threatening disease, it is quite common for individuals to experience feelings of anxiety, fear, and sadness. In addition, it has been reported that mental health is negatively affected during pandemics.⁴⁷ In a study, it was found that anxiety and fear were at high levels in individuals during the COVID-19 pandemic.⁴⁸ Therefore, the anxiety and fears of young people on this issue are actually an expected result. However, it should not be forgotten that a certain amount of anxiety and stress motivates people, but a little more anxiety and stress affect the health of individuals negatively.⁴⁹ Therefore, it can be said that this result is very important in terms of showing that the mental health of young people is at risk.

Limitations of the Research

In this study, the use of measurement tools with validity and reliability and reaching more individuals than the number of samples are among the strengths of the research. Although the research has strengths,

behaviors observed in adolescents.³³ Due to COVID-19, young people were invited to stay at home, and they had to stay away from their social lives. They also experienced psychological difficulties in the face of a fatal illness.^{34,35} School closures are cited as the cause of mental health and well-being problems for children and adolescents.³⁶ Coronavirus disease 2019 is described as a risk that causes the deterioration of daily behavior habits of individuals and families and their negative psychosocial and psychological effects.³⁷ In a

there are some limitations of the study such as conducting an online survey due to the pandemic and only those who can use a computer or mobile phone and those who have the social media tools mentioned in the study can participate in the study. In addition, another limitation is that only young people with online access could participate in the research, which may increase the probability of individuals with similar views to participate in the study.

Conclusion and Recommendations

The uncertainty and restrictions brought by the COVID-19 epidemic affect the mood of young people, causing an increase in anxiety and fear. Young people in developmentally sensitive periods resort to ineffective defense mechanisms such as cigarettes, alcohol and addictive substances in cases of anxiety and fear, and this may lead to health problems in the long run. Young people in developmentally sensitive periods develop ineffective defense mechanisms such as smoking, alcohol, and addictive drugs in situations of anxiety and fear, and this may cause health problems in the long term. Especially in the COVID-19 pandemic, the increase in smoking and caffeine use may cause an increase in the risk of health problems in young people. It is known that the smoking rate is high among young people in our country. As can be seen in the results of the study, anxiety and fear play a major role in the increase of smoking and caffeine use among young people. In this regard, the mental health of young people is one of the important issues to be discussed during the COVID-19 pandemic. Nurses play a key role in promoting and maintaining health with health education, counseling, and research functions. Using health education and counseling roles effectively, nurses can provide positive changes in both smoking and caffeinated beverages and the anxiety and fear indicators caused by the pandemic.

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

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