# Cyber Victimization, Coping Methods, and Attitudes of the Family Toward Internet Use in Adolescents Applying to the Child and Adolescent Psychiatry Department During the Pandemic

*Pandemi Sürecinde Çocuk Psikiyatri Polikliniklerine Başvuran Ergenlerde Siber Zorbalık, Başa Çıkma Yöntemleri ve Ailelerin İnternet Kullanımı ile İlgili Tutumları*

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## ABSTRACT

**Objectives:** The present study aims to determine the frequency of cyber victimization, variables associated with the pandemic, and families' attitudes toward children's internet use, and to understand the coping methods of adolescents during the coronavirus disease-2019 pandemic.

**Materials and Methods:** One hundred forty-two patients between the ages of 12 and 18, who applied face-to-face or online Child Psychiatry Department of Kocaeli University during the pandemic period, were included in the study. The Sociodemographic Data Form was administered to parents, the Cyberbullying Scale for Adolescents, the Coping with Cyberbullying Scale for Adolescents, and the Internet Family Attitude Scale to adolescents.

**Results:** It was found that 69% of adolescents were exposed to cyberbullying at least once during the pandemic, 59.2% were female, and the mean age was 14.64±1.81. Adolescents are mostly cyberbullied while playing games (21.8%), text messaging (21.8%), and using social networks (9.9%). Victims most frequently used online security as a coping method and sought significantly less help. It was determined that in families, a negligent attitude is associated with being a cyber victim, despite the high rates.

**Conclusion:** It was determined that cyber victimization in adolescents was high during the pandemic, families were not aware of this situation, and young people did not use appropriate coping methods. In the literature, there are a limited number of studies on adolescents regarding cyber victimization during the pandemic. It is thought that our study is essential to take precautions and make appropriate referrals in a long-lasting pandemic.

**Keywords:** Cyberbullying, cyber-victimization, adolescents, family research, COVID-19

## ÖZ

**Amaç:** Bu çalışmanın amacı, koronavirüs hastalığı-2019 pandemisinde çocuk ve ergen psikiyatrisi polikliniklerine başvuran ergenlerde siber mağduriyet sıklığını, ailelerin çocukların internet kullanımına yönelik tutumlarını ve siber zorbalıkla baş etme yöntemlerini saptamaktır.

**Gereç ve Yöntem:** Çalışmaya pandemi sürecinde kısıtlamaların uygulandığı dönemde Kocaeli Üniversitesi Çocuk Psikiyatri Anabilim Dalı'na birebir veya online başvuruda bulunan, 12-18 yaş arası 142 hasta dahil edilmiştir. Ebeveynlere Sosyodemografik Veri Formu, Ergenlere Siber Zorbalık Ölçeği, Ergenlere Yönelik Siber Zorbalıkla Başa Çıkma Ölçeği ve İnternet Aile Tutumu Ölçeği uygulanmıştır.

**Bulgular:** Gruptaki ergenlerin 69'unun pandemi döneminde en az bir kez siber zorbalığa maruz kaldığı saptanmıştır. Siber mağdurların%59,2'si kız cinsiyette olup mağdurların yaş ortalaması 14,64±1,81 idi. Ergenlerin en sık çevrimiçi oyunlar (%21,8), mesajlaşma (%21,8) ve sosyal ağları (%9,9) kullanırken siber zorbalığa maruz kaldıkları gözlemiştir. Siber mağdurlar olan ergenlerin en sık kullandığı baş etme yönteminin çevrimiçi güvenlik olduğu ve anlamlı düzeyde daha az yardım isteme yöntemini kullandıkları gözlenmiştir. Ailelerde ihmalkar tutumun siber mağdur olma ile ilişkili olduğu belirlenmiştir.

**Sonuç:** Çalışmamızda pandemi sürecinde ergenlerde siber mağduriyet oranının yüksek olduğu, ailelerin bu durumdan haberdar olmadığı ve gençlerin uygun baş etme yöntemlerini kullanmadıkları bulunmuştur. Literatürde pandemi döneminde siber mağduriyete ilişkin ergenlerle sınırlı sayıda çalışma olduğu görülmüştür. Uzun süren pandemi sürecinde önlem almak ve uygun yönlendirmeler yapabilmek adına çalışmamızın önemli olduğu düşünülmektedir.

**Anahtar Kelimeler:** Siberzorbalık, siber mağduriyet, ergenler, aile araştırması, COVID-19

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## Introduction

Information and communication technologies, especially the internet, have become increasingly important in life because they meet the needs of people, such as accessing information, storing and sharing information, and communicating easily with others. Studies indicate that adolescents intensively use these technologies, including mobile phones, the internet and computers, intensively.[1,2] It has been reported that 95.0% of teenagers in the United States own a smartphone and 45.0% are online almost constantly (Pew Research Center 2018). This widespread use of electronic communication technologies among adolescents has led to the emergence of a type of bullying called cyberbullying, as well as providing benefits in many areas. At the same time, intense and problematic social media use may expose adolescents to environments where different forms of aggression can occur, including cyberbullying.[3]

Cyber victimization is defined as exposure to repetitive and intentional aggressive acts by a group or individual using electronic forms of communication.[4] Cyber victimization can occur in a variety of media, including instant messaging (for example, via Skype™, Messenger™, etc.), e-mail, text messages, web pages, chat rooms, blogs, social networking sites, and online games.[5] Cyber victimization has some different aspects compared to other types of bullying. These can be listed as the prevalence of use of electronic devices that make it difficult to escape from victimization, their instant access to large masses, the permanence of the posts that increase the possibility of recurring victimization, and the anonymity of the perpetrators.[6-8]

In a study conducted by Schneider et al.[9] with high school students between 2006 and 2012, it was reported that traditional school bullying was 1.7 times more common than cyber victimization in 2006, but in 2012, the two types of victimization were seen at similar rates. Many studies show that this increase in cyber victimization among adolescents is highly correlated with the widespread use of smartphones and the provision of interpersonal relationships online.[10-12] Looking at the literature, it is observed that cyber victimization is related to various variables such as gender, parental education level, having a computer at home, daily internet usage time, supervision, purpose of using the internet, and having a personal mobile phone of the students.[13-16] In the samples examined, the use of Instagram application, playing online games, increasing the number of games played, using the internet for three hours or more a day, using webcams, illegally downloading copyrighted material, and sharing personal information are considered as higher risk for cyber victimization.[17-19] Parental non-monitoring of children's online activities and use is also stated as an important predictor of victimization.[20] Parenting styles that include support, warmth, and encourage reasoning have been shown to be associated with less cyber victimization.[21,22] In addition, having a positive parent-child relationship is reported to be a protective factor for a child's mental health, even during cyberbullying.[23]

Considering the relationship with internet usage time, which is most associated with cyber victimization, it has been shown in many studies that the tendency of young people to be cyberbullies and victims increases as the duration increases.[24,25] A recent study showed that there is a linear proportion between the average daily time spent on the Internet and the risk of cyber victimization.[16] Considering the importance of internet use in terms of cyber victimization, the recent coronavirus disease-2019 (COVID-19) virus epidemic has led to various social changes in the world, especially in the fields of health, entertainment, economy, transportation, and education. In the process that started with the detection of the first positive case on March 11, 2020 in our country, primary, secondary, and high school education was suspended for 1 week and university education for 3 weeks as of March 16, and as of March 23, 2020, education from television and internet via distance education has been started and was decided to continue. As of April 3, 2020, children aged 0-18 have been restricted from going out and curfew times have been imposed. Despite the intent of these containment measures to keep people safe and control the disease, they have produced unintended negative consequences. Although these limitations have decreased since the beginning of June 2020 and the normalization process has begun, adolescents stayed at home more during this period, continued their education online, and started to spend a significant part of their time at home on the internet and social media accounts. Because of the curfew and social isolation during the COVID-19 pandemic, most routine activities, communication, and interactions with other people have been interrupted, and online activities have become the only means of daily activities. Adolescents in many parts of the world have turned to the internet, social networks, online platforms for dating, and online games for fun.[26] The data showing that adolescents make up a significant portion of internet users and engage in online activities at a higher rate than the general population confirms that the adolescent age group spends more time on the internet during the pandemic (Turkish Institute of Statistics 2022). In addition, adolescents may turn to online environments to cope with negative emotions.[27]

The fact that adolescents turn to social media as the primary communication method with the spread of the epidemic suggests that the increase in screen time and online activities may increase exposure to bullying. In the study conducted with 118 students in June 2020, during the period when the restrictions were applied, it was stated that 80.0% of the young people were cyberbullied via the internet.[26] Similarly, a national study conducted in Chile reported that 69.0% of students between grades 6 and 11 were victims of cyberbullying.[28]

Because of the pandemic and especially the restrictions, it is thought that adolescents stay at home more and spend more time with computers, telephones, and the internet during this period. For this reason, it is thought that the prolongation of the time spent with electronic communication technologies

may have led to uncontrolled use, which may have increased the rates of cyber victimization. It has been reported that the pandemic period will continue for a long time, and the process is uncertain. Determining how adolescents cope with their cyberbullying experiences and their families' attitudes toward internet use so that making appropriate suggestions can prevent young people from being cyberbullied and lead to fewer negative consequences if they encounter such a situation.

The aims of this study are:

1. Determine the prevalence of cyber victimization among adolescents in the COVID-19 pandemic.

2. Examine the relationship between victimization and families' attitudes toward children's internet use.

3. Understand the methods of coping with cyberbullying among adolescents.

It is thought that the results of the study will be important in terms of making appropriate suggestions to adolescents and families about the safe use of technology and protecting themselves from being cyberbullied. In addition, there will be fewer negative consequences if they encounter such a situation, and the results will contribute to the literature.

## Material and Method

### Study Design and Participants

The G*Power 3.1.9.4 program was used for power analysis.[29] Based on a study in the literature, the sample size was taken as "$\alpha$=0.05, 1-$\beta$=0.80 and effect size=0.42", and sample size was calculated as 142 because of the power analysis.[30] A total of 142 patients, aged between 12 and 18 years, who applied to the department of child and adolescent psychiatry between September 2020 and March 2021, outpatient or online, and who gave consent to participate in the study, were included in the study considering the exclusion criteria. After the psychiatric diagnosis interview of the patients was conducted by a child and adolescent psychiatrist according to the DSM-5 criteria the patients who were eligible to be included in the study were evaluated according to exclusion criteria, the patients who were eligible to be included in the study were contacted, and the patients who accepted were enrolled in the study.

Exclusion criteria for patients who were planned to be included in the study were as follows: moderate or severe mental retardation, autism spectrum disorder, bipolar disorder (attack period), psychotic disorder (needing treatment in the inpatient service), illiteracy, and having a language problem that prevents speaking and understanding.

From the Ministry of Health and Kocaeli University Faculty of Medicine Clinical Research Ethics Committee approval (project no: 2020/219, date: 10.09.2020) for the study was obtained. Before the start of the study, all participants provided informed consent stating the details of the research, and participants who consented to volunteer approved this form.

### Measures

Sociodemographic Questionnaire to parents; Cyberbullying Questionnaire to adolescents; Scale on Coping with Cyberbullying toward Adolescents; and Internet Parenting Scale were administered either one-on-one or online.

### Sociodemographic Questionnaire

This form, prepared by the researchers, consisted of questions about the age, gender, internet-phone-computer use, age, marriage, health and education status of the parents, and the effects of the COVID-19 pandemic.

### Cyberbullying Questionnaire

It was developed by Stewart et al.[31] In the first question, it is questioned whether other children in the virtual environment disturb the person with tools such as e-mail, video, and message, and in the second question, whether the person disturbs other children in these ways. The first two questions are not scored. In the remaining 14 questions, the person's exposure to cyberbullying is evaluated. The scale includes questions such as "Does another child say something rude to you in a text message or online?", "Have you had to ask an adult for help for something bad that happened to you online?". Participants responded to Likert-type questions on the scale of "never (score of 1), always (score of 5)". The Turkish validity and reliability study of the scale was applied to high school students and was performed by Küçük et al.[32] The total internal consistency coefficient of the scale was calculated as $\alpha$=0.87 and the reliability of the scale was found to be high.

### Scale on Coping with Cyberbullying toward Adolescents

The scale was developed by Peker et al.[33] To examine the coping behaviors of young people with cyber bullying through a study conducted with high school students. The 17-item scale consists of four sub-dimensions: "seeking social support", "seeking help", "struggle" and "online security". A 4-point Likert-type rating is used to express the level of agreement about the items in the form. The scale ranges from never (score of 1) to always (score of 4). The increase in the total score in each sub-dimension indicates that the behavior of coping with cyberbullying represented by those sub-dimension increases. Cronbach alpha's internal consistency coefficients for the sub-dimensions of the scale were determined as 0.80 for "seeking social support", 0.86 for "seeking help", 0.70 for "struggle", and 0.77 for "online security", respectively.

### Internet Parenting Scale

It was developed by Van Rooij and van den Eijden.[34] The original scale was written in Dutch and was translated into English by Valcke et al.[35] The Turkish validity study of the scale was conducted on 6-8 year-old class students and made by Ayas and Horzum.[36] The scale consists of 25 items, including 11 items on the factor of family control and 14 items on the factor of family closeness. This is calculated by obtaining a score between 1 and 5 for each participant from the items. Scores below 3 are considered low, while others are considered high. Low family

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control and closeness refer to "neglectful family attitude" in terms of internet use, high family control and low family closeness "authoritarian family attitude", low family control and high family closeness "permissive family attitude", high family control and closeness "democratic family attitude". Cronbach's alpha's internal consistency value of the total of the scale was found to be 0.94. It was found to be 0.86 for the "family control" factor and 0.92 for the "family closeness" factor.[36]

## Statistical Analysis

The study's statistical evaluation was performed using IBM SPSS 20.0 (IBM Corp., Armonk, NY, USA) package program. Normal distribution was evaluated using the Kolmogorov-Smirnov test. Normally distributed numerical variables are given as median ± standard deviation (SD), non-normally distributed numerical variables as median (25th-75th percentile), and categorical variables as frequency (percentage). Differences between groups were determined by independent sample t-test and one-way analysis of variance for numerical variables with normal distribution and by Mann-Whitney U and Kruskal-Wallis tests for numerical variables without normal distribution. The Tukey and Dunn tests were used for multiple comparisons. The relationships between categorical variables were evaluated by chi-square analysis. In the testing of two-way hypotheses, $p < 0.05$ was accepted as sufficient for statistical significance.

## Results

A total of 142 adolescents, 88 girls (62.0%) and 54 boys (38.0%), were included in the study, and it was determined that 98 (69.0%) of them were exposed to cyberbullying at least once during the pandemic period. Of the adolescents who were cyberbullied, 58 (59.2%) were female and 40 (40.8%) were male. Of the cyber victims, 31 (21.8%) were during online games, 31 (21.8%) were through text messages, 14 (9.9%) were on social networks, 11 (7.7%) were through instant messages, 5 (3.5%) were in chat rooms, 4 (2.8%) were through electronic mail, 1 (0.7%) was through personal videos, and 1 (0.7%) reported experiencing cyber bullying via picture messages.

In terms of genders, girls most frequently use text messages (n=22), online games (n=12) and social networks (n=11), while boys mostly use online games (n=19) and text messages (n=9). In chat rooms (n=4) reported being bullied. Fighting online (median: 2.00; 25-75, p=1.00-3.00), disparaging online text messages (median: 2.00; 25-75, p=1.00-2.00), and manipulative texts (median: 1.78; 25-75, p=1.00-3.00) were the most common methods of victimization. The mean age of the cyber victims was 14.6±1.8 years while the mean age of their mothers was 42.1±5.5 years. The mean age of fathers was 46.9±7.0 years. Psychiatric diagnoses were found in 79 adolescents who were cyber victims: 28 (28.6%) attention deficit and hyperactivity disorder (ADHD), 26 (26.5%) major depressive disorder (MDD), 6 (6.1%) anxiety disorder, 4 (4.1%) obsessive disorder, 3 (3.1%) conduct disorder, 3 (3.1%) post-traumatic stress disorder, 2 (2.0%) gender identity disorder, 2 (2%) specific learning disorder, 2 (2%) oppositional defiant

disorder, 1 (1%) eating disorder, 1 (1%) adjustment disorder, and 1 (1.0%) tic disorder. There was no significant relationship between diagnoses and cyber victimization, but a significant relationship was found between having a psychiatric diagnosis and cyber victimization (p=0.007). There was no significant relationship between age and victimization (p=0.792). A comparison of sociodemographic characteristics and variables related to the pandemic with the cyberbullying scale cyber victimization score is shown in Table 1.

The variables that showed a meaningful result between sociodemographic characteristics, pandemic-related variables, and cyberbullying scale total score of encountering cyber victimization are also presented in Table 2, and no relationship was found with other sociodemographic characteristics.

When viewed with logistic regression analysis, it was investigated whether unlimited internet packages and ADHD are risk factors for cyber victimization. Unlimited internet package was found to be a statistically significant risk factor for cyber victimization (p=0.024, OR=2.5). The unlimited internet package increases cyber victimization 2.5 times. ADHD was not found to be a significant risk factor (p=0.086).

It was investigated whether the variables of unlimited internet package and having a psychiatric diagnosis were risk factors for cyber victimization. Unlimited internet package was found to be a statistically significant risk factor for cyber victimization (p=0.034, OR=2.4). The unlimited internet package increases cyber victimization by 2.4 times. Having any psychiatric diagnosis was also found to be a significant risk factor for cyber victimization (p=0.010). Having a psychiatric diagnosis reduces the cyber victimization score by 0.3 times.

It has been examined whether family precautions and ADHD are risk factors for cyber victimization. Family precautions were found to be a statistically significant risk factor for cyber victimization (p=0.039, OR=2.4). Lack of family precautionsincreases cyber victimization 2.4 times. ADHD was not found to be a significant risk factor (p=0.218).

It was investigated whether the variables of family precautions and having a psychiatric diagnosis of the young person are risk factors for cyber victimization. Lack of family precautions was found to be a statistically significant risk factor for cyber victimization (p=0.026, OR=2.6). Not having a family measure increases cyber victimization 2.6 times. Having any psychiatric diagnosis was also found to be a significant risk factor for cyber victimization (p=0.010, OR=0.3). Having a psychiatric diagnosis reduces the cyber victimization score by 0.3 times.

It has been examined whether parents working from home and ADHD are risk factors for cyber victimization during the pandemic. Parental working from home was not found to be a significant risk factor in the pandemic (p=0.081). Similarly, having a diagnosis of ADHD was not found to be a significant risk factor (p=0.242).

We investigated whether the variables of parents working from home and having a psychiatric diagnosis in the pandemic were a risk factor for cyber victimization. There was no significant

**Table 1. Sociodemographic characteristics and pandemic-related variables associated with being cyber victim according to cyberbullying questionnaire**

| | Median (min-max) | | | p-value | Effect size |
|---|---|---|---|---|---|
| **Mother age;**<br>**Cyber victims**<br>**Not cyber victims** | 41 (28-58)<br>39.5 (30-51) | | | **0.022***<br>**U:2593** | $\eta^2$=0.026<br>$d_{Cohen}$=0.328 |

| Features | Groups | Cyber victimization | | Test statistics | Effect size |
|---|---|---|---|---|---|
| | | Yes<br>n (%) | No<br>n (%) | | |
| **Gender** | Female | 58 (59.2) | 30 (68.2) | p=0.307**<br>x$^2$: 1.043 | d=0.172<br>$\eta^2$=0.0073 |
| | Male | 40 (40.8) | 14 (31.8) | | |
| **Class** | 5-8 | 24 (32) | 12 (31.6) | p=0.964**<br>x$^2$:0.002 | d=0.193<br>$\eta^2$=0.0092 |
| | 9-12 | 51 (68) | 26 (68.4) | | |
| **Mother's education** | Illiterate | 8 (8.2) | 1 (2.3) | p=0.420**<br>x$^2$:5.307 | d=0.3941<br>$\eta^2$=0.0374 |
| | Primary school | 36 (36.7) | 15 (34.1) | | |
| | Middle school | 8 (8.2) | 3 (6.8) | | |
| | High school | 32 (32.7) | 14 (31.8) | | |
| | University | 14 (14.3) | 10 (22.7) | | |
| | Postgraduate/PhD | 0 (0) | 1 (2.3) | | |
| **Mother's working status** | Working | 33 (33.7) | 17 (38.6) | p=0.821**<br>x$^2$:0.736 | d=0.1444<br>$\eta^2$=0.0052 |
| | Housewife | 64 (65.3) | 26 (59.1) | | |
| | Retired | 1 (1) | 1 (2.3) | | |
| **Father's education** | Illiterate | 5 (5.1) | 0 (0) | p=0.258**<br>x$^2$:6.385 | d=0.434<br>$\eta^2$=0.045 |
| | Primary school | 23 (23.5) | 13 (29.5) | | |
| | Middle school | 14 (14.3) | 5 (11.4) | | |
| | High school | 42 (42.9) | 15 (34.1) | | |
| | University | 13 (13.3) | 11 (25) | | |
| | Postgraduate/PhD | 1 (1) | 0 (0) | | |
| **Father's working status** | Working | 72 (73.5) | 34 (77.3) | p=0.703**<br>x$^2$:0.752 | d=0.1459<br>$\eta^2$=0.0053 |
| | Not working | 14 (14.3) | 4 (9.1) | | |
| | Retired | 12 (12.2) | 6 (13.6) | | |
| **Mental illness in the family** | Absent | 80 (81.6) | 32 (72.7) | p=0.268**<br>x$^2$:1.445 | d=0.2028<br>$\eta^2$=0.0102 |
| | Exist | 18 (18.4) | 12 (27.3) | | |
| **Monthly income** | 0-2000 | 16 (16.3) | 8 (18.2) | p=0.844**<br>x$^2$:0.823 | d=0.1527<br>$\eta^2$=0.0058 |
| | 2001-3000 | 39 (39.8) | 15 (34.1) | | |
| | 3001-5000 | 22 (22.4) | 9 (20.5) | | |
| | 5001 and above | 21 (21.4) | 12 (27.3) | | |
| **Having a psychiatric diagnosis** | No | 48 (49) | 11 (25) | p=0.007**<br>x$^2$:7.190 | d=0.4619<br>$\eta^2$=0.0506 |
| | Yes | 50 (51) | 33 (75) | | |
| **Internet access content** | Unlimited package | 77 (79.4) | 27 (61.4) | p=0.024**<br>x$^2$:5.077 | d=0.3865<br>$\eta^2$=0.036 |
| | Limited package | 20 (20.6) | 17 (38.6) | | |
| **Internet filtering at home** | Absent | 74 (75.5) | 28 (63.6) | p=0.146**<br>x$^2$:2.116 | d=0.246<br>$\eta^2$=0.0149 |
| | Exist | 24 (24.5) | 16 (36.4) | | |
| **Family precaution** | No | 42 (42.9) | 18 (40.9) | p=0.711**<br>x$^2$:1.375 | d=0.1978<br>$\eta^2$=0.0097 |
| | Internet filter | 20 (20.4) | 6 (13.6) | | |
| | Time control | 20 (20.4) | 11 (25) | | |
| | Checking the entered sites | 16 (16.3) | 9 (20.5) | | |

**Table 1. Continued**

| Features | Groups | Median (min-max) Cyber victimization Yes n (%) | No n (%) | p-value Test statistics | Effect size Effect size |
|---|---|---|---|---|---|
| Computer at home | Absent | 23 (23.5) | 11 (25) | p=0.843** $x^2$:0.039 | d=0.0331 $\eta^2$=0.0003 |
| | Exist | 75 (76.5) | 33 (75) | | |
| Internet using time | Night | 19(19.4) | 6(13.6) | p=0.405** $x^2$:0.692 | d=0.14 $\eta^2$=0.0049 |
| | Daytime | 79 (80.6) | 38 (86.4) | | |
| Having a cellphone | Absent | 18 (18.4) | 9 (20.5) | p=0.769** $x^2$:0.086 | d=0.0492 $\eta^2$=0.0006 |
| | Exist | 80 (81.6) | 35 (79.5) | | |
| Mobile internet package | Absent | 31 (31.6) | 67 (68.4) | p=0.772** $x^2$:0.084 | d=0.0487 $\eta^2$=0.0006 |
| | Exist | 15 (34.1) | 29 (65.9) | | |
| Taking precautions regarding the use of mobile phones by the family | Absent | 42 (80.8) | 10 (19.2) | p=0.019** $x^2$:5.503 | d=0.4031 $\eta^2$=0.039 |
| | Exist | 55 (61.8) | 34 (38.2) | | |
| Social media account | Absent | 24 (24.5) | 10 (22.7) | p=0.820** $x^2$:0.052 | d=0.0383 $\eta^2$=0.0004 |
| | Exist | 74 (75.5) | 34 (77.3) | | |
| Social media opening time | 13 years and under | 78 (79.6) | 37 (84.1) | p=0.528** $x^2$:0.399 | d=0.1062 $\eta^2$=0.0028 |
| | Over 13 | 20 (20.4) | 7 (15.9) | | |
| Using different credentials on social media | Absent | 84 (85.7) | 41 (93.2) | p=0.205** $x^2$:1.607 | d=0.214 $\eta^2$=0.0113 |
| | Exist | 14 (14.3) | 3 (6.8) | | |
| Caring about the number of friends on social media | No | 74 (75.5) | 36 (81.8) | p=0.405** $x^2$:0.692 | d=0.14 $\eta^2$=0.0049 |
| | Yes | 24 (24.5) | 8 (18.2) | | |
| Caring about the number of likes on social media | No | 72 (73.5) | 34 (77.3) | p=0.630** $x^2$:0.232 | d=0.0809 $\eta^2$=0.0016 |
| | Yes | 26 (26.5) | 10 (22.7) | | |
| The location of the computer at home | Own room | 45 (46.9) | 18 (40.9) | p:0.327** $x^2$: 2.367 | d=0.2623 $\eta^2$=0.0169 |
| | Parent room | 3 (3.1) | 4 (9.1) | | |
| | Public areas | 48 (50) | 22 (50) | | |
| Online course tracking in the pandemic | No | 18 (18.4) | 5 (11.4) | p=0.295** $x^2$:1.097 | d=0.1765 $\eta^2$=0.0077 |
| | Yes | 80 (81.6) | 39 (88.6) | | |
| Change in stay-at-home time in the pandemic | No | 24 (24.5) | 17 (38.6) | p=0.085** $x^2$:2.959 | d=0.2918 $\eta^2$=0.0208 |
| | Yes | 74 (75.5) | 27 (61.4) | | |
| Parent working from home during the pandemic | No | 92 (93.9) | 36 (81.8) | p=0.035 ** $x^2$:4.969 | d=0.3809 $\eta^2$=0.035 |
| | Yes | 6 (6.1) | 8 (18.2) | | |
| Are there any parents who cannot continue their work in the pandemic? | No | 74 (75.5) | 31 (70.5) | p=0.526** $x^2$:0.403 | d=0.1067 $\eta^2$=0.0028 |
| | Yes | 24 (24.5) | 13 (29.5) | | |
| Variation in sleep patterns | No | 34 (34.7) | 25 (56.8) | p=0.013** $x^2$:6.120 | d=0.4245 $\eta^2$=0.0431 |
| | Yes | 64 (65.3) | 19 (43.2) | | |
| Doing research on COVID-19 online | No | 52 (53.1) | 26 (59.1) | p=0.504** $x^2$:0.446 | d=0.1123 $\eta^2$=0.0031 |
| | Yes | 46 (46.9) | 18 (40.9) | | |
| Having a familiar person diagnosed with COVID-19 | No | 31 (31.6) | 25 (56.8) | p=0.005** $x^2$:8.065 | d=0.4908 $\eta^2$=0.0568 |
| | Yes | 67 (68.4) | 19 (43.2) | | |

Test statistics; *Mann-Whitney U test, **Chi-square

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**Table 2. Sociodemographic characteristics, pandemic-related variableçs and frequency of encountering with cyber victimization according to cyberbullying questionnaire**

|  |  | N | Mean ± SD | Significance level | Effect size |
|---|---|---|---|---|---|
| Mother age |  | 98 | 42.08±5.46 | r=0.803* | d=2.6947 $\eta^2$=0.6448 |
| Father age |  | 98 | 46.39±8.47 | r=0.675* | d=1.8297 $\eta^2$=0.4556 |
|  | **Variant** | **N** | **Mean ± SD** | **Significance level** | **Effect size** |
| Gender | Female | 58 | 23.55±10.54 | p=0.983** U=2.371 | $\eta^2$=0.714 $d_{cohen}$=3.164 |
|  | Male | 40 | 21.05±7.93 |  |  |
| Having a personal cell phone | Yes | 80 | 23.66±10.05 | t(55)=3.853, p<0.05** | d=1.005 |
|  | No | 18 | 17.5±4.83 |  |  |
| Having a mobile internet package | Yes | 67 | 24.24±10.40 | t(89)=3.184, p<0.05** | d=0.692 |
|  | No | 31 | 18.84±6.26 |  |  |
| Taking precautions regarding the use of mobile phones by the family | Yes | 55 | 25.16±10.90 | t(89)=3.398, p<0.05** | d=0.696 |
|  | No | 42 | 19.17±6.33 |  |  |
| Care about the number of likes | Yes | 26 | 26.92±12.30 | t(32)=2.311, p<0.05** | d=0.529 |
|  | No | 72 | 20.94±7.93 |  |  |
| Change in stay-at-home time | Yes | 74 | 23.74±10.04 | t(56)=2.686, p<0.05** | d=0.631 |
|  | No | 24 | 18.79±6.99 |  |  |
| Frequency of meeting with a friend | Never | 11 | 16.45±3.20 | F(3)=3.495, p<0.05*** | d=1.051 |
|  | Rarely | 31 | 20.58±8.02 |  |  |
|  | Often | 31 | 23.71±10 |  |  |
|  | Very often | 25 | 26.16±11.18 |  |  |

N: Number, test statistics; *Pearson Correlation Coefficient, ** Independent groups t-test, ***ANOVA, SD: Standard deviation

relationship between parents working from home and cyber victimization during the pandemic (p=0.079). Any psychiatric diagnosis of the youth was found to be a significant risk factor for cyber victimization (p=0.018, OR=0.4). Having a psychiatric diagnosis reduces the cyber victimization score by 0.4 times.

It has been investigated whether sleep changes and ADHD variables are risk factors for cyber victimization in the pandemic. Change in sleep during the pandemic was found to be a statistically significant risk factor for cyber victimization (p=0.027, OR=2.3). Having a change in sleep during the pandemic increases the cyber victimization score by 2.3 times. Having a diagnosis of ADHD was not found to be a significant risk factor (p=0.184).

We investigated whether the variables of having sleep changes and having a psychiatric diagnosis in the pandemic are risk factors for cyber victimization. Change in sleep during the pandemic was found to be a significant risk factor for cyber victimization (p=0.014, OR=2.6). Any psychiatric diagnosis of the youth was found to be a significant risk factor for cyber victimization (p=0.009, OR=0.3). Having a psychiatric diagnosis reduces the cyber victimization score by 0.3.

It has been investigated whether acquaintance with a diagnosis of COVID-19 in the pandemic and ADHD variables is a risk factor for cyber victimization. In the pandemic, acquaintance with a diagnosis of COVID-19 was found to be a significant risk factor for cyber victimization (p=0.004, OR=3.0). The presence of acquaintances with a diagnosis of COVID-19 during the pandemic increased the cyber victimization score by 3.0 times. Having a diagnosis of ADHD was not a significant risk factor (p=0.059).

It was investigated whether the variables of being familiar with a diagnosis of COVID-19 in the pandemic and having a psychiatric diagnosis of the young person are risk factors for cyber victimization. In the pandemic, acquaintance with a diagnosis of COVID-19 was found to be a significant risk factor for cyber victimization (p=0.004, OR=3.1). Having an acquaintance with a diagnosis of COVID-19 in the pandemic increases the cyber victimization score by 3.1 times. Having any psychiatric diagnosis was also found to be a significant risk factor for cyber victimization (p=0.006, OR=0.3). Having a psychiatric diagnosis reduces the cyber victimization score by 0.3 times.

We investigated whether maternal age and ADHD variables are risk factors for cyber victimization. Maternal age was found to be a significant risk factor for cyber victimization (p=0.014, OR=1.1). An increase in the maternal age by 1 year increases cyber victimization 1.1 times. Having a diagnosis of ADHD was also found to be a significant risk factor (p=0.043, OR=0.5). Having a diagnosis of ADHD reduces the cyber victimization score by 0. 5 times.

We investigated whether the variables of maternal age and having a psychiatric diagnosis of the young person are a risk factor for cyber victimization. Maternal age was found to be a significant risk factor for cyber victimization (p=0.010, OR=1.1). An increase in the maternal age by 1 year increases cyber victimization 1.1 times. Having any psychiatric diagnosis was also found to be a significant risk factor for cyber victimization (p=0.005, OR=0.3). Having a psychiatric diagnosis reduces the cyber victimization score by 0.3.

The results of the regression analysis of the sociodemographic variables and the frequency of encountering cyberbullying score of the cyberbullying scale are shown in Table 3.

The model created is as follows: frequency of encountering cyberbullying =constant (25,765) + 6,538. family measure + 6,055. number of likes + 4,873. stay at home + 2,365. meeting with friends +1.820. sleep schedule (R2=0.312).

As a coping method, cyber victims most frequently used online security (Median ± SD =18±3.91), sought significantly less help (p=0.011), girls used more struggle (p=0.013) and security method (p=0.019), it was found that adolescents over the age of 14 years used the method of dealing with cyberbullying more (p=0.003). A comparison of cyber victims' coping with cyberbullying scale scores and their sociodemographic characteristics is given in Table 4. By separately examining the effects of age (1) and gender (2), the partial correlation between the frequency of encountering cyber victimization and the sub-scores of the cyberbullying coping scale was examined. A significant relationship was found only between the frequency of encountering cyber victimization and seeking help [p (1)=0.000, r (1)=0.922; p (2)=0.000, r (2)=0.923] and p>0.05 in the others. As the score of seeking help increases, the score of encountering cyber victimization also increases.

In families of cyber victims, it was determined that family control (p=0.026) and family closeness (p=0.010) regarding internet use were significantly low; that is, a "negligent attitude" was exhibited (see Table 5 for details). When asked whether their children were cyberbullied during the pandemic, 93.9% of the parents answered that their children were not cyberbullied. In cyber victims (n=98), no significant results were found separately between gender and age, family control, and family closeness, according to partial correlation.

## Discussion

In our study, the rate of cyber victimization of adolescents was determined to be as high as 69.0%, and it was observed that victimization occurred most frequently during online games and through text messages. The two most common diagnoses observed in cyber victims were ADHD and MDD. Having any psychiatric diagnosis, maternal age, unlimited internet package use, family precautions regarding cell phone use, parents working from home, changing sleep patterns, and having a friend diagnosed with COVID-19 were found to be associated with cyber victimization. It has been determined that cyber victims use online security most frequently as a method of coping with cyberbullying, girls use more fighting and security methods, and adolescents over the age of 14 years use the method of combating cyberbullying more. It has been determined that the families of the cyber victims exhibit a negligent attitude toward internet use, and in support of this situation, 93.9% of the parents answered the question "whether their children were cyberbullied during the pandemic" as "not".

The use of technological devices is increasing daily. In parallel with this situation, it is thought that the rates of cyberbullying and victimization have increased. Between September 2020

| Table 3. The regression analysçis results of the frequency of encountering cyberbullying and some sociodemographic variables | | | | | |
|---|---|---|---|---|---|
| **Variables** | **Univariate** | **Multiple regression analysis** | | | |
| | **p-value** | **p-value** | **B** | **CI %95** | **Effect size** |
| Mother age | r=0.803* | 0.643 | -0.111 | -0.581-0.361 | r=-0.061 |
| Father age | r=922* | 0.769 | -0.052 | -0.400-0.297 | r=-0.037 |
| Psychiatric diagnosis | 0.597** | 0.599 | 1.037 | -2.762-4.759 | r=0.101 |
| Whether or not you have your own cell phone | 0.003** | 0.702 | -1.243 | -7.821-5.292 | r=-0.049 |
| Mobile internet access package | 0.008** | 0.405 | -2.223 | -7.823-3.194 | r=-0.109 |
| Family precaution | 0.007** | 0.001 | 6.538 | -10.369--2.717 | r=-0.334 |
| Caring about the number of likes on social media | 0.030** | 0.006 | 6.055 | -10.255--1.802 | r=-0.280 |
| Parent working from home during the pandemic | 0.286** | 0.583 | -2.144 | -9.955-5.633 | r=-0.055 |
| Whether there is a change in the duration of stay at home in the pandemic | 0.029** | 0.039 | 4.873 | -9.377--0.261 | r=-0.208 |
| Frequency of meeting with friends during the pandemic | 0.018*** | 0.049 | 2.365 | 0.010-4.721 | r=0.274 |
| Change in sleep patterns during the pandemic | 0.009** | 0.359 | 1.820 | -2.222-6.054 | r=0.143 |
| Knowing someone with a diagnosis of COVID-19 | 0.307** | 0.695 | -0.780 | -4.959-3.322 | r=-0.039 |

*Pearson correlation, **Mann-Whitney U test, ***Kruskal-Wallis test, CI: Confidence interval, COVID-19: Coronavirus disease-2019

**Table 4. Comparison of cyberbullying coping method scores and sociodemographic characteristics of cyber victims**

| | Scale of coping with cyberbullying | | | | | | | | | | | |
| | Seeking social support | | | Seeking help | | | Struggle | | | Online security | | |
| | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | | | | | | |
| Female | 9 (4-12) | 0.286* U:1014.500 | $\eta^2$=0.716 $d_{Cohen}$=3.177 | 13.5 (5-20) | 0.619* U:1093 | $\eta^2$=0.002 $d_{Cohen}$=0.098 | 13 (7-16) | 0.013* U:1640.500 | $\eta^2$=0.123 $d_{Cohen}$=0.749 | 19 (5-20) | 0.019* U:842 | $\eta^2$=0.054 $d_{Cohen}$=0.477 |
| Male | 9 (3-12) | | | 14 (5-20) | | | 11.5 (4-16) | | | 17 (5-20) | | |
| **Age** | | | | | | | | | | | | |
| 12-14 years old | 9 (3-12) | 0.599* U:1106.500 | $\eta^2$=0.003 $d_{Cohen}$=0.105 | 14 (5-20) | 0.667* U:983.500 | $\eta^2$=0.002 $d_{Cohen}$=0.085 | 11 (4-16) | 0.003* U:1418.500 | $\eta^2$=0.086 $d_{Cohen}$=0.613 | 18 (5-20) | 0.525* U:957 | $\eta^2$=0.004 $d_{Cohen}$=0.126 |
| 14 years and older | 9 (3-12) | | | 13(5-20) | | | 13 (4-16) | | | 18 (5-20) | | |
| **Psychiatric diagnosis of the child** | | | | | | | | | | | | |
| No | 9 (3-12) | 0.265* U:1029 | $\eta^2$=0.012 $d_{Cohen}$=0.223 | 6 (5-16) | 0.574* U:1259 | $\eta^2$=0.003 $d_{Cohen}$=0.111 | 12 (4-16) | 0.905* U:1116 | $\eta^2$=0.002 $d_{Cohen}$=0.096 | 18 (5-20) | 0.296* U:1039.500 | $\eta^2$=0.013 $d_{Cohen}$=0.232 |
| Yes | 9 (3-12) | | | 7 (5-20) | | | 13 (4-16) | | | 17 (5-20) | | |
| **Diagnosis of ADHD in a child** | | | | | | | | | | | | |
| No | 9 (3-12) | 0.243* U:833.500 | $\eta^2$=0.014 $d_{Cohen}$=0.234 | 6 (5-18) | 0.470* U:1069.500 | $\eta^2$=0.005 $d_{Cohen}$=0.143 | 13 (4-16) | 0.175* U:810 | $\eta^2$=0.018 $d_{Cohen}$=0.273 | 18 (5-20) | 0.879* U:961 | $\eta^2$=0 $d_{Cohen}$=0.03 |
| Yes | 8.5 (3-12) | | | 7.5 (5-20) | | | 11 (4-16) | | | 18 (5-20) | | |
| **Diagnosis of MDD in a child** | | | | | | | | | | | | |
| No | 9 (3-12) | 0.735* U:916,5 | $\eta^2$=0 $d_{Cohen}$=0.005 | 7 (5-20) | 0.669* U:906 | $\eta^2$=0.002 $d_{Cohen}$=0.084 | 13 (4-16) | 0.738* U:1000 | $\eta^2$=0.001 $d_{Cohen}$=0.067 | 18 (5-20) | 0.697* U:910,5 | $\eta^2$=0.001 $d_{Cohen}$=0.077 |
| Yes | 9 (3-12) | | | 7 (5-18) | | | 12 (4-16) | | | 18 (5-20) | | |
| **Monthly income** | | | | | | | | | | | | |
| 0-2000 | 8 (3-11) | 0.012** H:10.962 | $\eta^2$=0.084 $d_{Cohen}$=0.606 | 5 (5-15) | 0.003** H:13.775 | $\eta^2$=0.104 $d_{Cohen}$=0.681 | 12(4-16) | 0.094** H:6.402 | $\eta^2$=0.051 $d_{Cohen}$=0.466 | 18.5(5-20) | 0.297** H:3.686 | $\eta^2$=0.031 $d_{Cohen}$=0.358 |
| 2001-3000 | 9 (3-12) | | | 6 (5-18) | | | 12(4-16) | | | 18(5-20) | | |
| 3001-5000 | 10 (6-12) | | | 11 (5-20) | | | 13(8-16) | | | 20(12-20) | | |
| 5001 and above | 10 (3-12) | | | 9 (5-17) | | | 13(4-16) | | | 17(9-20) | | |
| **Mother's education** | | | | | | | | | | | | |
| None | 9 (6-10) | 0.765** H:1842 | $\eta^2$=0.015 $d_{Cohen}$=0.244 | 5 (5-11) | 0.005** H:15.026 | $\eta^2$=0.113 $d_{Cohen}$=0.713 | 13 (12-16) | 0.808** H:1.606 | $\eta^2$=0.013 $d_{Cohen}$=0.227 | 13 (12-16) | 0.406** H:4.001 | $\eta^2$=0.032 $d_{Cohen}$=0.366 |
| Primary school | 9 (4-12) | | | 6 (5-17) | | | 12.5 (6-16) | | | 12.5 (6-16) | | |
| Middle School | 8.5 (5-12) | | | 7.5 (5-13) | | | 7.5 (5-13) | | | 12.5 (8-15) | | |
| High school | 9 (3-12) | | | 9 (5-20) | | | 13 (4-16) | | | 17 (5-20) | | |
| University | 9 (3-12) | | | 11 (5-17) | | | 12.5 (4-16) | | | 18 (14-20) | | |
| Postgraduate/PhD | 0 (0-0) | | | 0(0-0) | | | 0(0-0) | | | 0 (0-0) | | |
| **Father's education** | | | | | | | | | | | | |
| None | 9 (3-10) | 0.511** H: 4.269 | $\eta^2$=0.034 $d_{Cohen}$=0.373 | 5 (5-5) | 0.061** H:10.543 | $\eta^2$=0.081 $d_{Cohen}$=0.593 | 12 (4-16) | 0.178** H:7.622 | $\eta^2$=0.06 $d_{Cohen}$=0.503 | 19 (5-20) | 0.316** H:5.903 | $\eta^2$=0.046 $d_{Cohen}$=0.442 |
| Primary school | 9 (4-12) | | | 6 (5-20) | | | 11 (6-16) | | | 17 (5-20) | | |
| Middle School | 9 (4-12) | | | 7 (5-14) | | | 13 (11-16) | | | 18.5 (11-20) | | |
| High school | 8.5 (3-12) | | | 7.5 (5-16) | | | 12 (4-16) | | | 19 (5-20) | | |
| University | 9 (3-12) | | | 7 (5-17) | | | 13 (4-16) | | | 17 (14-20) | | |
| Postgraduate/PhD | 12 (12-12) | | | 16 (16-16) | | | 16 (16-16) | | | 20 (20-20) | | |

**Table 4. Continued**

| | Scale of coping with cyberbullying | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Seeking social support** | | | **Seeking help** | | | **Struggle** | | | **Online security** | | |
| | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size | Median (min-max) | p-value | Effect size |
| **Father's working status** | | | | | | | | | | | | |
| Working | 9(3-12) | 0.091** H:4.792 | $\eta^2=0.04$ $d_{Cohen}=0.409$ | 7(5-20) | **0.045**** H:6.197 | $\eta^2=0.05$ $d_{Cohen}=0.461$ | 12.5(4-16) | 0.518** H:1.315 | $\eta^2=0.013$ $d_{Cohen}=0.227$ | 18(5-20) | 0.681** H:0.767 | $\eta^2=0.008$ $d_{Cohen}=0.176$ |
| Unemployed | 8(3-10) | | | 5(5-13) | | | 13.5(4-16) | | | 19(5-20) | | |
| Retired | 10(6-12) | | | 6(5-17) | | | 13(9-16) | | | 19.5(12-20) | | |
| **Mental illness in the family** | | | | | | | | | | | | |
| No | 9 (3-12) | 0.639* U:770.500 | $\eta^2=0.002$ $d_{Cohen}=0.094$ | 7 (5-17) | 0.563* U:781.500 | $\eta^2=0.003$ $d_{Cohen}=0.114$ | 2.5 (4-16) | 0.345* U:618.500 | $\eta^2=0.009$ $d_{Cohen}=0.189$ | 18(5-20) | 0.574* U:780.000 | $\eta^2=0.003$ $d_{Cohen}=0.111$ |
| Yes | 9 (4-12) | | | 6 (5-20) | | | 13 (7-16) | | | 18(9-20) | | |
| **Person living with** | | | | | | | | | | | | |
| Mother and father | 9 (3-12) | **0.023**** H:9.490 | $\eta^2=0.074$ $d_{Cohen}=0.564$ | 8 (5-18) | **0.024**** H:9.479 | $\eta^2=0.074$ $d_{Cohen}=0.564$ | 13 (4-16) | 0.065** H:7.212 | $\eta^2=0.057$ $d_{Cohen}=0.494$ | 17 (5-20) | 0.247** H:4.134 | $\eta^2=0.034$ $d_{Cohen}=0.378$ |
| Mother or father | 9.5 (4-12) | | | 7(5-20) | | | 12 (10-16) | | | 19 (9-20) | | |
| Relative | 6 (3-8) | | | 5 (5-7) | | | 9 (4-12) | | | 11.5 (5-20) | | |
| Institution | 9 (4-10) | | | 5 (5-11) | | | 12 (7-16) | | | 18 (9-20) | | |
| **Marriage status of parents** | | | | | | | | | | | | |
| Together | 9(3-12) | 0.729** H:1.301 | $\eta^2=0.011$ $d_{Cohen}=0.212$ | 7(5-18) | 0.343** H:3.337 | $\eta^2=0.028$ $d_{Cohen}=0.341$ | 13(4-16) | 0.050** H:7.821 | $\eta^2=0.062$ $d_{Cohen}=0.513$ | 17.5(5-20) | 0.210** H:4.522 | $\eta^2=0.037$ $d_{Cohen}=0.395$ |
| 2. Marriage of mother/father | 8.5(4-12) | | | 6(5-20) | | | 12(7-16) | | | 18(9-20) | | |
| Mother is dead | 8(5-12) | | | 5(5-8) | | | 9(7-16) | | | 20(11-20) | | |
| Father is dead | 10(6-12) | | | 5(5-14) | | | 16(12-16) | | | 20(17-20) | | |
| **Social Media Account** | | | | | | | | | | | | |
| No | 8.5(4-12) | 0.251* U:751.000 | $\eta^2=0.013$ $d_{Cohen}=0.23$ | 6(5-11) | 0.174* U:727.500 | $\eta^2=0.018$ $d_{Cohen}=0.27$ | 13(7-16) | 1.000* U:888.000 | $\eta^2=0$ $d_{Cohen}=0$ | 17(5-20) | 0.383* U:784.500 | $\eta^2=0.007$ $d_{Cohen}=0.173$ |
| Yes | 9(3-12) | | | 7(5-20) | | | 12(4-16) | | | 18(5-20) | | |
| **Has there been a change of caregiver during the pandemic period?** | | | | | | | | | | | | |
| No | 9 (3-12) | 0.582** H:2.855 | $\eta^2=0.023$ $d_{Cohen}=0.308$ | 6 (5-20) | 0.101** H:7.760 | $\eta^2=0.061$ $d_{Cohen}=0.51$ | 13 (4-16) | 0.376** H:4.232 | $\eta^2=0.034$ $d_{Cohen}=0.377$ | 18 (5-20) | 0.342** H:4.504 | $\eta^2=0.036$ $d_{Cohen}=0.389$ |
| Yes | 9 (3-12) | | | 9(5-17) | | | 12 (4-16) | | | 16 (5-20) | | |

Test statistics; * Mann-Whitney U test, **Kruskal-Wallis test, MDD: Major depressive disorder, ADHD: Attention deficit and hyperactivity disorder, min-max: Minimum-maximum

**Table 5. Cyber victimization and internet parenting scale scores comparison**

| Subscale | Cyber victimization | N | Median (min-max) | p-value* | Effect size |
|---|---|---|---|---|---|
| Family control | Yes | 98 | 2.0 (1.00-5.00) | 0.026 | $\eta^2=0.636$ |
| | No | 44 | 2.23 (1.27-4.55) | | $d_{Cohen}=2.642$ |
| Family closeness | Yes | 98 | 3.04 (1.00-5.00) | 0.010 | $\eta^2=0.047$ |
| | No | 44 | 3.57 (1.14-4.93) | | $d_{Cohen}=0.444$ |

*Mann-Whitney U test, min-max: Minimum-maximum

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and March 2021, when our study was conducted, restrictions such as distance education, working from home, flexible working hours, and curfews for adolescents were applied. Also, it was thought that these restrictions increased internet use and related to this matter, cyber victimization increased. When we look at the studies conducted before the pandemic, the rate of cyberbullying has been reported as 4.0-33.7%, and the rate of cyber victimization has been reported in a wide range such as 5.1-49.5%.[37,38] When the studies on cyberbullying in Turkey are reviewed, it has been stated that the rate of cyberbullying is between 6.6% and 56.6% and the rate of cyber victimization is between 6.4% and 65.5%. Looking at the studies conducted during the pandemic process, it has been reported that cyber victimization rates have increased, similar to our study result.[39,40]According to the results of the project work carried out by the European Commission Joint Research Center[41], it has been reported that 44.0% of children who are currently victims of cyberbullying have increased their victimization during the COVID-19 pandemic quarantine period, with the highest share at the national level in Germany (51.0%), Italy (50.0%), Spain (50.0%) and Ireland (48.0%), and the lowest in Slovenia (24.0%). In a study by Mkhize and Gopal[42], posts from three social media platforms, such as Facebook[TM], Twitter[TM], and Instagram[TM], from the beginning of the quarantine until February were evaluated. The data obtained show that with the increase in the use of social media among children and youth during the quarantine period, the rate of being a victim of cyberbullying also increases. In our study, the rate of cyber victimization was found to be as high as 69.0%, and this result reveals that cyberbullying has become an important problem among adolescents and that the changes in order during the pandemic affect this situation significantly.

In our study, the relationship between maternal age and exposure to cyberbullying was found to be significant. In a study conducted with adolescents and their parents, it was observed that younger parents were more in control of their internet use.[43] It was thought that as the age of the parents increased, they could not adapt to the developing technology, and this might have caused the older parents to not be able to control the adolescents who are more in contact with technology or to apply wrong control methods. In addition, the long duration of the pandemic period and restrictions, the decrease in the social support of the families, the young people staying at home for most of the day, and their inability to participate in social activities and peer interactions led to more burnout in older mothers, because of which they allowed the use of technological devices more and could not control their use.

With the COVID-19 epidemic, millions of adolescents stayed home and became more dependent on the internet. When we look at the results, unlimited internet packages at home were significantly associated with cyber victimization, and it is thought that thanks to the unlimited internet package, young people can spend longer time on the sites they want. This situation may have caused difficulties for the family in controlling the young person. The use of a limited internet package may have enabled the young person to use the internet only in the areas they needed and for a short time.

Our study observed that young people were more cyber victims in families who took precautions regarding the use of mobile phones. Families' use of wrong methods, such as excessive restriction and prohibition as a precaution, may have caused young people to use the internet uncontrollably at times and places that their families cannot see. One of the study's important findings was that although more than half of the families stated that they took precautions regarding young people's internet use, 75.5% of them stated that they did not use a filter program on their computer. These findings suggest that it would be helpful to question what families perceive from taking precautions and what methods they use. Another significant result of the study was that 93.9% of parents reported that their children were not cyberbullied during the pandemic. The findings of a study in Turkey that adolescents who are victims of cyberbullying share the cyberbullying event with their friends rather than their families support the result that families are less aware of cyberbullying.[44,45]

In this study, there was a significant relationship between the presence of an acquaintance diagnosed with COVID-19 infection in the environment of adolescents and cyber victimization. Young people may have turned to more technology use to cope with the negative effect caused by the increase in their anxiety during adolescence and the fact that infection of their relatives triggers their anxiety. In addition, parents may have provided care support to their relatives with a diagnosis of COVID-19 and spent less time with their children; thus, young people may have been neglected. Because of feeling lonely and friendless in the pandemic, it was thought that the fact that the adolescents who participated in the study care about the number of likes on social media may be related to the fact that they spend more time on social media. It is also likely that their posts may cause them to become more victims in order to get likes.

Strategies for coping with cyberbullying differ among experimental studies. For example, in a United Kingdom study, the most commonly used methods of coping with cyberbullying of adolescents were "blocking messages/contacts", "telling someone (parent or teacher)" and "changing their e-mail address/phone number".[4] A recent study revealed that most students prefer to ignore the bullying they experience and not share information with their families or teachers, and the most commonly used method to overcome the problem is to talk to friends.[46] In the literature, it has been stated that getting help from an adult is important to prevent cyberbullying events and to intervene when these events occur.[47] In addition, in our study, similar to many studies, it was found that adolescents seek less help as a way of coping with cyberbullying.[48] Studies have shown that cyberbullying victims receive less help after the event and adolescents most frequently refer to their friends as a source of help than their family. In our study, it is seen that the most common method used for coping with cyberbullying,

similar to previous studies, is online security.[4,49] In addition, due to the insufficient knowledge of families about technology, young people do not seek help from their families and try to solve it themselves, but the victimization they experience while trying to solve it may be increasing. The fact that the girls who participated in the study asked for help more frequently than the boys who were cyber victims shows parallelism with many other studies.[50,51] In addition, in our study, it was observed that the rate of getting help increases as the age of adolescents who are cyber victim increases. This may be because the help-seeking skills of young children are not yet developed, the victims learn from where and how to seek help with age, they try to cope with the incident on their own, and they decide to seek outside help because of negative experiences.[52]

Our study reveals that parents of cyber victims exhibit a significantly higher rate of negligent attitudes toward internet use. When we look at family attitudes about the internet, young people with a democratic attitude are informed about how to use the internet, how to deal with risky situations, and how to get help from their families. It is stated that the democratic parenting style has a positive and profound effect on children's correct use of the Internet and their development of the right attitude toward the Internet. In the negligent attitude, parents are neither limiting nor supportive of their children's internet use.[53] In a study investigating the relationship between parental attitudes and cyberbullying, 47.6% of the students who told their parents that they were exposed to cyberbullying were democratic, 28.2% were permissive, 12.4% were negligent, and 11.8% had an authoritarian parent style. The fact that adolescents raised with authoritarian and negligent parenting styles have higher rates of cyber victimization than adolescents raised with a permissive and democratic parenting style is also in line with the findings of our study.[54]

### Study Limitations

The fact that adolescents who applied to the child psychiatry clinic and most of whom had psychiatric diagnoses were included in our study, leading to the fact that it was studied with a sample that could create bias. The limitations of the study include the inability to compare the pre-pandemic and post-pandemic situations due to the relatively small number of people in the study, the fact that some of the forms used were filled online, the study was a cross-sectional study, there was no control group, and the scales used in the study did not have pre-pandemic data. In future studies, it is recommended to examine the relationship of various variables related to cyberbullying and victimization with more participants.

## Conclusion

As a result, in our study, it has been concluded that cyberbullying and victimization are important problems among adolescents, that those problems are increasing gradually due to the characteristics of the pandemic period we have been in for more than a year, and that precautions should be taken. The findings show that cyber victimization should be questioned in every patient who applies to child mental health and diseases clinics, especially in the adolescent age group. Adolescents should be discussed on how they can cope with cyber victimization and how to seek appropriate help, especially mobile phone use.

Families should establish closer and trust-based relationships with adolescents and observe how they spend time in the virtual environment. Parents need to keep themselves up-to-date on rapidly developing technology and the Internet to be able to recognize and intervene in cyberbullying events and to provide assurance to adolescents that they can help. Considering that families leave questions about the duration and purposes of internet use unanswered, it would be useful to examine parents' tendencies regarding technology use in future studies and to focus on raising awareness about cyberbullying. In addition, the prevention methods of families should be questioned, appropriate suggestions should be made, and families should be encouraged to increase their knowledge about the use of technological devices. Considering the relationship between low self-esteem and cyber victimization, it is necessary to include interventions aimed at increasing self-esteem in treatment interventions.

### Ethics

### Authorship Contributions

Concept: İ.D.Ç., Design: İ.D.Ç., Data Collection or Processing: İ.D.Ç., F.B.A., E.Ş., N.B.A., M.E., A.A.Ö., Analysis or Interpretation: İ.D.Ç., Literature Search: İ.D.Ç., F.B.A., E.Ş., N.B.A., M.E., A.A.Ö., Writing: İ.D.Ç.

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