Özgün araştırma

Covid-19 Pandemi Sürecinde Adolesanlarda Siber Mağduriyet ve Yalnızlık

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Öz

Amaç: Bu araştırma, COVID-19 pandemisi sürecinde Türkiye'deki ergenlerde siber mağduriyet ve yalnızlık düzeylerini, etkileyen faktörleri ve bunlar arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

Gereç ve Yöntem: Kesitsel tipteki araştırma, 1 Mart – 15 Mart 2021 tarihleri arasında gerçekleştirilmiştir. Araştırmanın örneklemini, araştırmaya katılmaya gönüllü olan 351 ergen oluşturmuştur. Tüm katılımcılar internet erişimine sahipti. Katılımcılar, Tanımlayıcı Bilgi Formu, Siber Mağduriyet Ölçeği ve UCLA Yalnızlık Ölçeği'ni içeren veri toplama formlarını Google Dokümanlar'ı kullanarak doldurmuştur.

Bulgular: Türkiye'de ergenlerde siber mağduriyet deneyimi düşük, yalnızlık deneyimi orta düzeydedir. Ergenlerin pandemi döneminde yaş grubu ($p \leq .05$), cinsiyeti ($p \leq .001$), okul başarı düzeyi ($p \leq .05$) ile siber mağduriyet arasında anlamlı bir ilişki olduğu tespit edilmiştir. Ergenlerin yaş grubu ($p \leq .05$), annenin çalışma durumu ($p \leq .001$), pandemi dönemindeki okul başarısı ($p \leq .001$) ve yalnızlık arasında istatistiksel olarak anlamlı bir ilişki olduğu bulunmuştur.

Sonuç: Bu araştırmada siber mağduriyet ile yalnızlık arasında anlamlı bir ilişki vardır. Siber mağduriyet ergenlerin yalnızlık durumunu etkileyebilir. COVID-19 pandemisi sürecinde ergenlerin ruh sağlığını korumak için kanıta dayalı bir eylem planı uygulanmalıdır.

Anahtar kelimeler: Ergenler, Siber Mağduriyet, Yalnızlık

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Original research

Cyber Victimization and Loneliness in Adolescents During the COVID-19 Pandemic

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Abstract

Aim: This research was conducted to identify the cyber victimization and loneliness levels, the influencing factors, and the relationship between them in adolescents in Turkey during the COVID-19 pandemic.

Design and Method: The cross-sectional study was conducted between March 1 and March 15, 2021. The sample of the study consists of 351 adolescents who volunteered to participate in the study. All participants had internet access. Participants filled out the Google Docs form used to collect data, including the Descriptive Information Form, Cyber Victimization Scale, and UCLA Loneliness Scale.

Results: The experience of cyber victimization in adolescents in Turkey is low and the experience of being lonely is at a moderate level. It was found that there is a significant relationship between adolescents' age group ($p \leq .05$), gender ($p \leq .001$), level of school success ($p \leq .05$) during the pandemic, and cyber victimization. It was found that there is a statistically significant relationship between adolescents' age group ($p \leq .05$), mother's employment status ($p \leq .001$), and levels of school success ($p \leq .001$) during the pandemic, and loneliness.

Conclusions: In this study, there is a relationship between cyber victimization and loneliness. Cyber victimization can affect the loneliness of adolescents. During the COVID-19 pandemic, an evidence-based action plan should be implemented to protect the mental health of adolescents.

Keywords: Adolescents, Cyber Victimization, Loneliness

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Introduction

As COVID-19 became widespread worldwide, various countries have taken isolation measures depending on their national health policies. Many countries aimed to prevent the disease from spreading by implementing practices such as using masks, keeping social distance, and individual isolation at home (Akoğlu & Karaaslan, 2020). It is known that unpredictable situations such as the COVID-19 pandemic have unfavorable psychosocial effects on children and adolescents (Çaykuş & Çaykuş, 2020; Kaya, 2020; Şahbudak & Emiroğlu, 2020).

The COVID-19 pandemic has affected the mental health of the adolescents in Turkey like the whole world (Kaya, 2020). Adolescents have been negatively affected by factors such as being away from school for a long time, fear of the disease, frustration, boredom, being insufficiently informed, being away from friends and teachers, lack of personal space at home, and economic losses of the family (Şahbudak & Emiroğlu, 2020). The most common psychosocial problems in this process were the constant need for someone, distraction, irritability, asking questions about the disease, sleep disorder, and problematic internet use (Jiao et al., 2020; Wang et al., 2020; Baltacı et. al., 2021).

In the process of COVID-19, internet also among young people there are studies reporting an increase in its use (Dong et al., 2020; Lin, 2020). With the intensive use of the internet, there is an increase in the emergence of situations such as cyber victimization and cyber bullying (Chang et al., 2015).

Cyber victimization in Turkey has been found to be at a very high level, from 5.2% up to 56% (Akbulut et. al., 2010; Eroğlu et al., 2015). Cyber victims generally do not want the people they know to hear about their situation; they tend to stay away from their family and close friends and; think that they have to go through this by themselves (Belsey, 2005). In adolescence, which is a critical period in terms of psychosocial development, communication that cannot be established face to face is attempted to be established in a virtual setting, while the cost is usually solitude (Doğan & Karakaş, 2016).

Studies have proven that the widespread use of the Internet during the Covid-19 process has caused individuals to experience cyber victimization (Sarıgedik, 2022; Şener et al., 2022). This situation can lead to serious consequences such as the perception of loneliness, depression and suicide during adolescence.

Intensive measures have been taken against COVID-19 for about a year in Turkey. This research was conducted to identify the cyber victimization and loneliness levels, the influencing factors, and the relationship between them in adolescents in Turkey during the COVID-19 pandemic.

Research questions

1. What is the level of cyber victimization in adolescents during the COVID-19 pandemic?

2. What is the level of loneliness in adolescents during the COVID-19 pandemic?

3. What are the factors affecting cyber victimization and loneliness in adolescents during the COVID-19 pandemic?

4. Is there a relationship between cyber victimization and loneliness in adolescents during the COVID-19 pandemic?

Methods

Research Type

This study was carried out as a descriptive-correlational study with the participation of adolescents living in Erzurum, Turkey who were contacted electronically between 1-15 March of 2021.

Population and Sample of the Research

The population of the study consists of adolescents living in Erzurum, and the sample consists of 351 adolescents who agreed to participate in the study. A nonrandom sampling method, the snowball sampling method, was used in the study. Data-collection forms prepared with the GoogleDocs program were sent online to adolescents aged 13-18 years in Turkey, and they were asked to fill in the forms and share them with people around them. Six hundred students were reached with this questionnaire. Three-hundred fifty-one adolescents who answered the questionnaire were included in the study.

Research inclusion criteria included: ı) aged between 13-18; ıı) have Internet access; and ııı) uses Facebook, Whatsapp, and Instagram.The exclusion criteria of the study were: a) age is not within the age range; b) do no have access to the Internet; and c) does not us Facebook, Whatsapp, and Instagram.

Data Collection Tools

The data of the study were collected with the Descriptive Information Form, Cyber Victimization Scale, and UCLA Loneliness Scale.

Descriptive information form

The descriptive information form was prepared by the researchers by scanning the relevant literature (Çakıcı, 2020; Çakır & Oğuz, 2017; Gülaçtı, 2020). Includes a total of 11 questions about age, gender, mother's education, mother's employment status, father's education, father's employment status, income status, family type, place of residence. In

addition, questions about the use of social media during the Covid-19 pandemic period, the state of having COVID-19, and school success during the pandemic were also included.

Cyber victimization scale

The Cyber Victimization Scale, developed by Arıcak, Kınay and Tanrıkulu (2012), consists of a total of 24 questions. The survey items are answered as "Yes" or "No." While evaluating the survey, a "Yes" response is given two points and "No" is given one point. If all items in the scale are answered "Yes," a maximum of 48 points is obtained, while 24 points are obtained when all items are answered "No." The higher the score, the higher the cyber victimization. The scale has a 5-factor design. The Cronbach's Alpha coefficient of the scale was reported to be .89 (Arıcak et al., 2012). In this study, the Cronbach's alpha coefficient was found to be .900.

UCLA loneliness scale

This scale, which was developed by Russell, Peplau and Ferguson (1978) in order to identify the loneliness level of people, consists of 20 questions. The Turkish version of validity and reliability tests was conducted by Demir in 1989. The positive items of the scale (1, 4, 5, 6, 9, 10, 15, 16, 19, 20) score "Never" (4), "Rarely" (3), "Sometimes" (2), and "Often" (1). The negative items of the scale (2, 3, 7, 8, 11, 12, 13, 14, 17, 18) score "Never" (1), "Rarely" (2), "Sometimes" (3), and "Often" (4). The maximum score that can be obtained from the scale is 60 and the minimum score is 20. The higher the score, the higher the level of loneliness (Russell et. al., 1978; Demir, 1989). In this study, the Cronbach's alpha coefficient was found to be .859.

Collection of Data

The data of the research was collected between March 1 and March 15, 2021 by filling out an online questionnaire considering the risks in the pandemic process, after getting permission from the Ethics Committee and Scientific Research Platform of the T.R. Ministry of Health. Intensive measures have been taken against COVID-19 for about a year in Turkey. The prolonged continuation of these measures may have affected the social-emotional relationships of adolescents.

First, families with children aged 13-18 were reached through the snowball method. Then, data collection tools were delivered individually to the children of families who agreed to participate in the study. In the study, data collection forms (Descriptive Information Form, Cyber Victimization Scale, and UCLA Loneliness Scale) created in GoogleDocs were delivered to the participants online via Facebook, Whatsapp, Instagram, and e-mail. In the introductory part of the form, an explanatory text containing the purpose and scope of the study for adolescents was included. After the adolescents and parents have read and approved these

statements, the forms to be filled were made available. Repeated entries to the survey were prevented by encryption. Access to the data collection link was open for 15 days of the data collection stage. Later, access to the data collection link was constricted. The data tools took approximately 10 minutes for each participant to fill out.

Data Analysis

Statistical Package for the Social Sciences for Windows 20.0 statistical package program was used to evaluate the research data. Number, percentage, arithmetic mean, standard deviation, and min-max values were calculated for the descriptive characteristics of the data. Shapiro-Wilk normality test was used to determine whether the data was distributed normally. Since the data did not have a normal distribution, Mann Whitney U, Kruskal Wallis H, Dunnett's T3 Post Hoc test, and Sperman's Rho correlation tests were carried out. Statistical significance level was accepted as $p < .05$.

Ethics

For the research, approval was obtained from the ethics committee of a university (Date: 25/02/2021 Number: E.3596) and written permission (No: 2021-01-30T14_12_26) from the Scientific Research Platform of the Turkish Ministry of Health. In the introduction part of the data collection form, the participants were presented with a written text explaining the purpose, scope, and responses of the research that they would not be used anywhere other than this study. Informed consent was obtained from both the adolescents and their parents before the complete survey was made available. Besides, brief information was added about where support can be obtained to support mental health during the pandemic.

Results

When the descriptive characteristics of the adolescents are examined, it is seen that 60.7% are in the 13-15 age group, 56.4% are female, 73.5% of mothers' education level is primary school, and 87.7% of mothers' employment status is unemployed, 37.6% of fathers' education level is high school or above, and 68.4% of fathers' employment status is employed, 67.5% have an income equal to their expenses, 79.5% has a nuclear family, 59.8% reside in county/village, 88.6% have not contracted COVID-19, and 47.0% have average school success during the pandemic (Table 1).

Table 1: Demographic characteristics of adolescents (N=351)

	n	%
Age		
13-15	213	60.7
16-18	138	39.3
Gender		
Female	198	56.4
Male	158	43.6
Income Level		
Less income than expenses	69	19.7
Income equal to expenses	237	67.5
More income than expenses	45	12.8
School Success during the Pandemic		
Good	150	42.7
Average	165	47.0
Bad	36	10.3
Time spent on social media during the pandemic		
2 hours or less		
3-6 hours		
7 hours or more		

N=Number of samples

The average scores of the adolescents from the Cyber Victimization Scale were found to be 26.94 ± 4.11, which is a low level, and their average scores from the Loneliness Scale 38.58 ± 10.73, which is an average level (Table 2).

Table 2: Cyber victimization scale and loneliness scale average scores (N=351)

	Min-Max	Mean±SD
Cyber Victimization Scale	24-47	26.94 ± 4.11
Loneliness Scale	20-64	38.58 ± 10.73

N=Number of samples, Min=Minimum, Max=Maximum, SD=standard deviation

When cyber victimization status of the adolescents is examined according to their descriptive characteristics, the difference between their mean scores from the cyber victimization scale was found to be statistically significant according to their age group ($p \leq .05$), gender ($p \leq .001$), and their school success level ($p \leq .05$) during the pandemic (Table 3). In terms of cyber victimization scores of the adolescents, it was found that there is a difference according to the age groups and gender to the disadvantage of the 13-15 age group and the males (Table 3). Dunnett's T3 Post Hoc test was used to identify the difference between school success levels. According to Dunnett's T3 test, adolescents with poor school success had higher cyber victimization scores than adolescents with average and high school success.

Table 3: Comparison of adolescents' demographic characteristics and cyber victimization and loneliness scale average scores (N=351)

	n	%	Cyber Victimization Mean±SD	Cyber Victimization Test and p	Loneliness Mean±SD	Loneliness Test and p
Age						
13-15	213	60.7	27.38 ± 4.50	U =122481.500	37.50 ± 9.84	U =12803.500
16-18	138	39.3	26.29 ± 3.33	**p=.015**	40.23 ± 11.83	**p=.041**
Gender						
Female	198	56.4	25.77 ± 2.66	U =9649.500	38.26 ± 11.12	U =14428.000
Male	158	43.6	28.44 ± 5.08	**p=.000**	38.99 ± 10.24	p=.445
Mother's Education Level						
Primary school	258	73.5	26.94 ± 3.99		38.29 ± 10.68	
Secondary School	57	16.2	26.89 ± 5.09	KW =.341 p=.843	40.24 ± 10.62	KW =1.975 p=.372
High School or above	36	10.3	27.00 ± 3.28		37.97 ± 11.33	
Mother's Employment Status						
Employed	43	12.3	26.97 ± 4.41	U =6428.500	52.34 ± 9.97	U=1663.500
Unemployed	308	87.7	26.93 ± 4.08	p=.751	36.65 ± 9.35	**p=.000**
Father's Education Level						
Primary school	123	35.0	26.92 ± 4.54		38.65 ± 11.41	
Secondary School	96	27.4	27.28 ± 3.96	KW =2.788 p=.248	38.21 ± 9.90	KW =.139 p=.933
High School or above	132	37.6	26.70 ± 3.91		38.78 ± 10.74	
Father's Employment Status						
Employed	240	68.4	27.20 ± 4.63	U =12447.000	38.85 ± 10.24	U =12423.000
Unemployed	111	31.6	26.37 ± 2.62	p=.313	37.98 ± 11.76	p=.310
Income Level						
Less income than expenses	69	19.7	27.21 ± 4.78		37.49 ± 10.50	
Income equal to expenses	237	67.5	26.69 ± 3.62	KW =1.646 p=.439	38.81 ± 10.98	KW =.630 p=.730
More income than expenses	45	12.8	27.80 ± 5.27		39.00 ± 9.86	
Family Type						
Nuclear family	279	79.5	27.09 ± 4.43		38.78 ± 10.69	
Extended family	54	15.4	26.44 ± 2.80	KW =4.752 p=.093	37.910 ± 10.25	KW =.970 p=.616
Broken family	18	5.1	26.00 ± 3.41		37.44 ± 13.10	
Place of Residence						
City Center	141	40.2	27.42 ± 5.46	U =13761.000	37.91 ± 10.64	U =14048.500
County/Village	210	59.8	26.61 ± 2.84	p=.253	39.02 ± 10.80	p=.417
Covid-19 Passing Status						
Contracted	40	1.4	27.25 ± 5.92	U =6037.000	37.77 ± 11.42	U =5844.500
Not Contracted	311	88.6	26.90 ± 3.83	p=.757	38.68 ± 10.61	p=.534
School Success during the Pandemic						
Good	150	42.7	26.58 ± 3.44		37.26 ± 9.92	
Average	165	47.0	26.53 ± 3.58	KW =8.565 **p=.014**	37.98 ± 10.57	KW =20.840 **p=.000**
Bad	36	10.3	30.27 ± 6.78		46.83 ± 11.41	

U = Mann-Whitney Test, KW =Kruskal Wallis Test, N=Number of samples, Min=Minimum, Max=Maximum, SD=Standard deviation, p= Significance

When the loneliness status of adolescents was examined according to their descriptive characteristics, the difference between the mean scores of the adolescents from the loneliness scale was found to be statistically significant according to their age group (p≤.05), mother's

employment status (p≤.001), and level of school success during the pandemic (p≤.001) (Table 3).In terms of loneliness scores of adolescents, it was found that there is a difference according to the age groups and mother's employment status to the disadvantage of the 16-18 age group and those with employed mothers (Table 3). According to Dunnett's T3 Post Hoc test, which was conducted to identify the difference between school success levels, adolescents with poor school success had higher loneliness scores than adolescents with average and high school success.

Spearman's Rho Correlation analysis was carried out to reveal the relationship between Cyber Victimization and Loneliness scores. A positive correlation was found in the correlation value between Cyber Victimization and Loneliness scores (p <.05) (Table 4).

Table 4: Correlation value regarding the relationship between cyber victimization and loneliness scores (N=351)

	Cyber Victimization	
	r	p
Loneliness	.127	**.018**

Spearman's Rho Test

p= Significance, r=correlation coefficient

Discussion

It was found that excessive use of technological devices during the COVID-19 outbreak has significantly increased the likelihood of Internet addiction, especially as the duration of use increases (Winther & Byrne, 2020). It is thought that this situation increases loneliness and cyberbullying in parallel. Because it has been determined by studies that exposure to cyberbullying has increased due to increased internet use (Ayas & Horzum, 2012; Kavuk & Keser, 2016).

The findings of this research that was conducted to identify cyber victimization and loneliness levels of young people in Turkey during the COVID-19 pandemic, the influencing factors, and the relationship between them were discussed in light of the literature.

In the study, the average of the scores obtained by the adolescents from the Cyber Victimization Scale was found to be low. In a study evaluating cyberbullying and cyber victimization in adolescents, the Cyber Victimization Scale mean score was reported to be low (Bayram & Özkamalı, 2019). In a study investigating the internet attitudes of adolescents' families and their cyber victimization status, the mean score of cyber victimization was found to be low (Apan, 2023). In another study evaluating school burnout and cyber victimization in

adolescents, the mean score of cyber victimization was again found to be low (Uzun & Karataş, 2019). In this context, the research findings are in line with the present study's results. However, the fact that cyberbullying was found to be at average or high levels in studies conducted in Turkey with groups similar to this research's sample (Bayram & Özkamalı, 2019; Apan, 2023; Uzun & Karataş, 2019), while cyber victimization was found to be at a low level, suggests a striking reality. This fact is that adolescents in Turkey hide cyber victimization. This may be because they are ashamed of their environment or fear that their right to use computers at home will be taken away.

In the study, the average of the scores that adolescents got from the Loneliness Scale was found to be moderate. In a similar study conducted with high school students, it was found that the scores obtained from the cyber victimization scale were low and the mean scores of loneliness were moderate (Zhang et. al., 2019). In a study examining the relationship between internet and mobile phone addiction and loneliness in adolescents, it was found that the scores of adolescents on the loneliness scale were close to the average, and a statistically significant relationship was found between internet addiction and loneliness in adolescents (Parashkouh et al., 2018). When problematic internet use and feelings of loneliness were examined, the mean scores of the Loneliness Scale were found to be moderate in another study (Costa et. al., 2019). In another study, it was found that there is a positive significant relationship between problematic internet use and loneliness, and the average score obtained from the loneliness scale was found to be at a moderate level (Oktan, 2015). Since the existence of human beings as social beings, the attempt to interact and communicate with other individuals has always existed. Online schools, increased social distance and curfews prevented adolescents from spending time with their friends. This may have made them feel lonely. Due to the restriction measures taken during the COVID-19 pandemic, it is thought that adolescents interact and communicate with their peers through technology. However, this situation may lead to a gradual increase in technology addiction in adolescents in the future.

In the study, it was determined that there is a difference in cyber victimization scores of adolescents compared to age groups, against younger ones. A recent study of cyberbullying and victimization profiles in adolescents found that younger adolescents were more likely to be involved in cyberbullying and victimization. (Ding et al., 2020). In another study on cyber victimization, younger students were found to be more likely to become cyber victims than those who are older (Murphy et. al., 2017). However, in another study conducted with adolescents, it is reported that age plays an important role in cyberbullying and cyberbullying increases with age (Semerci, 2017). Available evidence on whether age can affect cyberbullying

and cyber victimization is controversial. In this study, with the effect of the COVID-19 pandemic, younger adolescents may have experienced more cyber victimization due to curiosity. Furthermore younger adolescents are still at the stage of opening up to life and have a more fragile structure. It is open to manipulation. This may have caused them to be bullied more.

In the study, it was found that there is a difference against male adolescents in terms of cyber victimization scores according to their gender. When many studies in the literature were evaluated, it was concluded that cyberbullying behavior is mostly carried out by men and cyber victims are mostly men (Lee et al., 2021; Ding et al., 2020; Kadiroğlu et. al., 2018; Ciminli & Kağan, 2016). This may be due to reasons such as the fact that girls are more likely to be controlled by the family regarding their internet use in Turkey, girls are more active in house chores, and boys are more likely to spend time away from family and close relatives. In this context, safe communication with family may affect the cyber victimization of adolescents.

In the study, the cyber victimization scores of adolescents with poor school success were found to be higher than adolescents with average and high school success. It is noteworthy that low school success constitutes both a cause and an effect for cyber victimization in the literature (Tepe & Ergüney, 2023; Kadiroglu et al., 2018; Eroğlu & Güler, 2015; Li, 2007; Nansel et al., 2001). Low school success may lead to pressure from the family and problems with teachers. As a result, the development of negative feelings and thoughts may be easier in adolescents who prefer to give up trying. It has been reported that academic success has a great impact on individuals' emotional development (Kokkinos et. al., 2014). As supported by the literature, it can be stated that low school success can be both the cause and the effect of cyber victimization.

Although the feeling of loneliness can be seen in almost every period of human life, it is more intense in adolescence and young adulthood (Ümmet & Ekşi, 2016). In the study, it was determined that there is a difference against the loneliness scores of adolescents compared to the older age groups. According to the result of the research, as the age increases, the level of loneliness also increases. When the findings of the previous studies are examined, it is seen that results similar to the results of this study were obtained (Çeçen, 2008; Yüksel & Demirkıran, 2019). Contrary to our study and similar studies, there are studies in which age does not significantly predict loneliness (Le Roux and Connors, 2001; Orzeck and Rokach, 2004). Considering that the study group is individuals in adolescence and as their age increases, they return to themselves in order to maintain their own identity development and to satisfy their desire to be independent, this result is considered to be an expected result.

In the study, the loneliness scores of adolescents whose mothers are employed were found to be higher than adolescents whose mothers are unemployed. It is commonly accepted by the psychoanalytic theories that childhood experiences with the mother shape later periods of life (Ümmet & Ekşi, 2016). Mother's employment will limit the time she will spend at home. This situation may cause the mother to spend less time with her children and to suffer from time problems while following their development and needs. Since employed mothers are very tired in their business lives, their patience levels may decrease towards their children at home. Another predicted situation is that mothers who have to work during the COVID-19 pandemic may be more anxious, affecting their relationship with their children, and there may be an increase in the level of loneliness of children.

In the study, loneliness scores of adolescents with poor school success were found to be higher than adolescents with average and high school success. In a study, it was found that students who are cyber victims are more rejected by their peers, their academic achievement is low, and they are more lonely (Uludağlı & Uçanok, 2005). In another study, it was concluded that loneliness predicts academic achievement (Yıldırım, 2000). There is an important relationship between an individual's sense of loneliness and academic failure (Ümmet & Ekşi, 2016). The findings of the research are parallel to the literature. Low grades and academic failure can cause adolescents to become alienated from school. Adolescents who are alienated from school may find it difficult to make friends (Durukan et. al., 2023). This can cause them to be alone.

When the relationship between the cyber victimization of adolescents and their total scores on loneliness scales was examined, a positive relationship was found. Most studies in recent years have shown divergent negative socio-emotional and scholastic impacts on adolescents and children who reported being cyber-victims (Brighi et al., 2012; Olenik-Shemesh et al., 2013; Ybarra & Mitchell, 2008). Studies revealed that mostly the social, emotional and behavioral areas (such as frustration, apathy, loneliness, sadness, depression, anger, low self-esteem, difficulties in social adjustment or social withdrawal) are affected by cyberbullying (Ybarra & Mitchell, 2008; Patchin & Hinduja, 2011). It is known that there is a positive relationship between loneliness and internet abuse (Genç et al., 2018). In a study, it is reported that loneliness increases pathological internet use and as a result, cyberbullying and cyber victimization are inevitably experienced (Oktan, 2015). At the same time, there are studies suggesting that the feeling of loneliness is the basis of internet abuse, people who turn to technology become more lonely after a while, and in this context, their cyber victimization experiences increase (Eroğlu et al., 2015; Sarıçam et. al., 2016; Bilgiz & Peker, 2020).

It is thought that if sufficient communication and interaction among adolescents cannot be achieved, people who cannot reach mental satisfaction feel lonely and try to meet their needs in virtual environments. Especially during the COVID-19 pandemic, adolescents who are withdrawn lead an isolated life, making them feel inadequate and thus prepare the ground for risky internet behaviors. Individuals who cannot receive environmental support may prefer to isolate themselves and distance themselves from everyone. As a result, they can become vulnerable to violence. Adolescents' moods are affected by the feeling of loneliness by internalizing the negativity experienced by the increase of stress factors in individuals exposed to cyber victimization (Campbell, 2005), showing that the research results are a serious issue that needs to be focused on, emphasizing the importance of the study once again.

Limitations

This study has some limitations. First, data collection took place online. This may have excluded children who do not have the computer skills to access the survey. The second limitation is that the research is based on adolescents' own statements. In this case, some children may not be able to express their thoughts fully in order not to be stigmatized. The third limitation is our study is the possibility of snowball sampling method to create potential bias by reaching people with similar qualifications. Another limitation of our study is that it was conducted in Erzurum. The end of the Covid-19 pandemic is another limitation of our research. However, it is thought that our research is a guide for the negativities that adolescents may experience in extraordinary situations in the future.

Conclusions

As a result of the research, it is concluded that the experience of cyber victimization in adolescents in Turkey is low and the experience of being lonely is at a moderate level. It was found that there is a significant relationship between adolescents' age group, gender, level of school success during the pandemic, and cyber victimization. It was found that there is a statistically significant relationship between adolescents' age group, mother's employment status, levels of school success during the pandemic, and loneliness. It was also found that there is a relationship between cyber victimization and loneliness.

During the COVID-19 pandemic, an evidence-based action plan should be implemented to protect the mental health of adolescents. Support services to improve methods of adolescents' on coping with a crisis should be increased Parents can be informed about safe communication and quality time with their adolescent children, and safe internet use for adolescents. For future studies, conducting longitudinal cohort research examining the effects of COVID-19 on mental development in adolescents can be suggested.

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