



# Examination of cyberbullying awareness of parents with 36-72 months of children, tackle cyberbullying or victimization and prevention strategies

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## Abstract

This study aims to determine the state of awareness of cyberbullying of preschool parents in Edirne, whether they are cyberbullies or cyber victims, and whether they create strategies by taking security measures to combat cyberbullying. The research was conducted in the 2019-2020 academic year, a total of 15 public, private and independent kindergartens of the Ministry of National Education in Edirne city center were held with parents whose children were educated. The Cyberbullying Scale for University Students, developed by Tanrikulu and Erdur Baker (2020), the questionnaire prepared by the researcher, and the interview form prepared by the researchers were used as a data collection tool. Content analysis was performed for the data obtained from interview forms. SPSS 24 software was used for all analyses. According to the results of the analysis, parents' cyberbullying levels are lower than cyber victimization levels. Being cyberbullying levels of male parents are higher than female parents. Being cyberbully levels are higher for parents who use the Internet for an average of 3-5 hours per day than parents who use 0-2 hours. It is also found that being cyberbullying levels are higher for parents who had not heard of cyberbullying than parents who had heard of it. The parents who participated in the study stated that they were most aware of the concept of cyberbullying through social media. More than half of the parents who participated in the interview emphasized that they have the main control and responsibility to protect children from cyberbullying, and they also emphasized that parents should restrict the usage time of the Internet and information technologies for their children.

**Keywords:** Cyberbullying; preschool; parent; cyber victims

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## 1. Introduction

As of December 2019, during the COVID-19 pandemic worldwide, children of all ages began to spend more time at home and had to take a break from activities such as school,

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sports, and outdoor travel. This has also increased the technological devices and the internet usage of children at home. According to UNICEF, 1.5 billion children worldwide were unable to attend school due to the pandemic, the vast majority of whom had to study and socialize digital environment (UNICEF, 2020a). A study was conducted with 3,000 parents shows that the increase in the screen time of children is 500 percent higher than before the pandemic. 49% of parents surveyed said their children were online for at least 6 hours a day during the pandemic, and more than half said they worried about it (Eng, 2020; Parents Together Foundation, 2020). According to the report of another study on children between the ages of 4 and 15 living in the UK, Spain, and America; After the pandemic, the time children spent with online activities increased by more than 100 percent compared to before the pandemic. The same report also states that increased time spent on the Internet brings along online dangers to children (Qustudio, 2020). Similarly, Uluçay and Melek (2017) point out that there are some problems due to the unsupervised use of the Internet and digital tools, especially by children and adolescents. Encountering violent or pornographic images or videos, sometimes exposure to some elements of harassment or threats by individuals who are met with them in virtual environments by sharing individual information, are the most common of these problems. Livingstone and Haddon (2009) add cyberbullying issues to these problems and point out. Today, cyberbullying has become a global problem combating with and that has serious negative effects for children and young people of all ages. Especially during the pandemic period, children's prolonged and unsupervised use of the Internet and digital tools can expose them to a greater risk of cyberbullying (UNICEF, 2020b). Akkoyunlu (2020), states that cyberbullying incidents against children and young people during the pandemic period increased by a record 70%. The fact that increased screen time in children during the pandemic causes children to be more likely to face risks such as cyberbullying as well as parents to worry. According to Cook (2020), with the closure of schools and the introduction of distance education, parents' resistance to their children's screen addiction has decreased and their warnings to children have become increasingly meaningless. Despite this, it has become the duty of especially parents to inform children who have to stay at home due to distance education about the dangers and risks of the online environment, to take measures in this regard, and to supervise the children.

### *1.1. Cyberbullying, Cyberbully, and Cyber Victim*

The definition of cyberbullying has many equivalents in the literature. The concept of cyberbullying, first introduced by Bill Belsey in 2004, refers to the targeting of a child or adolescent by another child or adolescent who is also his peer. He defined cyber-bullying as the act of using electronic communication devices such as the Internet or mobile phone to attempt to intimidate, harass and threaten a person (Kowalski, Limber, and Agaston, 2008). Mason (2008) defines cyberbullying as the intentional and repeated use of communication technologies through sending or publishing vulgar texts or images to

facilitate harassment or threat deliberately and repetitively by an individual or group. Cyberbullying is intentional and continuous acts of harm or abuse through computers, mobile phones, and other electronic devices by another definition (Hinduja and Patchin, 2009). Cassidy, Faucher, and Jackson (2012) define cyberbullying as the use of a style or image that includes offensive, rude or condescending comments to harm the individual. Following Smith, Grimm, Lombar, and Wolfe's (2015) studies, cyberbullying is a group or individual as an aggressive, deliberate act repeatedly and over a long period against a victim who cannot easily defend himself using electronic forms of communication.

They are individuals who commit acts of cyberbullying using information communication technologies (Betts, 2016). Cyberbullies can threaten the individual with instant messages at any time in digital environments such as mobile phones and computers, speak derogatorily about the individual on social networks, send messages from social networks in a vulgar manner and share the private life of the individual online (Temel, 2015). When these individuals describe their reasons for doing cyber bullying state that they do what they do for fun or joke (Ayas, 2016; Hinduja and Patchin, 2010), and do not think that the messages, images, or messages they use will negatively affect others (Eroglu, 2011). But some researchers suggest that such narratives of cyberbullies are a kind of defensive logic (Smith, Talamelli, Cowie, Naylor, and Chauhan, 2004). Cyberbullies, however, can also target gains such as popularity or liking in their environment (Smith, Madhavi, Carvalho, Fisher, Russell, and Tippett, 2008). In virtual environments, cyberbullies act aggressively or by dominating individuals. The biggest reason for this is the desire to meet their own superiority needs (Dilmaç, 2009).

The cyber victim is the individual chosen as the target in the act of cyberbullying. In addition, individuals directly harmed by the act of cyberbullying are defined by this concept. It is often seen that individuals who have problems in their circles and relationships have a strong sense of loneliness, low self-esteem, are dissatisfied with their relationships, and feel constant unhappiness are more likely to suffer cyber victimization (Ayas, 2016; Campfield, 2008). Smith et al. (2008) defines the status of cyber victimization as systematic aggression that an individual or group intentionally shows to another individual who is incapable of defending himself with digital technology on the Internet. According to Chapin (2016), being a cyber victim is the exposure to damaging actions such as sending a malicious message to a personal e-mail or mobile phone, sending offensive, abusive, threatening, or harmful texts to social networking accounts, obtaining personal information from virtual accounts without permission, disseminating indecent images of an individual via the Internet.

There has been no research on cyberbullying with parents of preschoolers in the literature. The fact that alpha generation children have the opportunity to use the Internet and digital tools from a very young age requires that the issue of cyberbullying

be handled meticulously by parents from preschool ages. In this context, determining whether preschool parents in Edirne city center are aware of cyberbullying, whether they are cyberbullies or cyber victims, and their ability to strategize to combat cyberbullying are the main problems of this research. Accordingly, the following questions were sought for answers:

1. What are the levels of cyberbullying and cyber victimization of the parents involved in the study?

2. Does the level of being a cyberbully and cyber victim of the parents participating in the research differ according to;

- Gender,

- Age,

- Educational background,

- Average internet usage time per day?

- Does it differ depending on the situation in which whether they have heard the concept of cyberbullying before?

3. Do parents surveyed have cyberbullying awareness?

4. What are the strategies of the parents involved in the study to combat cyberbullying?

Conducting this study with preschool parents can contribute to minimizing the likelihood of children becoming cyberbullies or cyber victims in later life. In addition to revealing the current situation, it is hoped that it will shed light on decision-makers and administrators for the works to be performed at the preschool level, in the family-teacher-manager triangle, in-service training, and projects in the future.

## **2. Method**

### *2.1. Model of research*

A mixed model was used as a research model in this study. The mixed research model covers collecting qualitative and quantitative data on the same primary phenomenon in a study, analyzing and interpreting data (Leech and Onwuegbuzie, 2007). The descriptive survey model among quantitative research methods and case study research among qualitative research methods were used. The findings obtained by the descriptive survey model in the study were supported by qualitative data obtained through interviews.

### *2.2. Participant (subject) characteristics*

The study was performed with the public, private kindergartens of the Ministry of National Education in Edirne city center and independent kindergartens. The focus group consists of the 541 student's parents who are educated in 15 institutions, 9 of which are public schools and 6 of which are private. The convenience sampling method was used from the non-random sampling methods in determining schools. The main objective of the convenience sampling method is to prevent loss of time, money, and labor (Büyüköztürk, Çakmak, Akgün, Karadeniz, and Demirel, 2017). Demographic information about parents is included in Table 1.

Table 1. Parent demographics

Demographic Characteristics		Frequency	Percentage
Gender	Female	449	83
	Male	92	17
Age	18-28	36	6.7
	29-39	387	71.5
	40-50	118	21.8
Graduation Status	Elementary School	14	2.6
	Middle School	32	5.9
	High School	181	33.5
	Associate's	68	12.6
	Bachelor's	211	39.0
Daily Average	Postgraduate	24	4.4
	Ph.D.	11	2.0
	I don't use the Internet.	5	1
Internet Usage	0 – 2 hours	328	60
Duration	3 – 5 hours	170	31
	6 – 8 hours	27	6
	9 hours and above	11	2
Total		541	

When the participants are split by their gender, it is viewed that 83% of the participants are female and 17% are male. In case they are broken down by their ages, it is observed that 6.7% of parents are at the age of 18-28, 71.53% of parents are 29-39, 21.4% are between the ages of 40 and 50, and only 2 (0.4%) parents are over 50. The distribution of parents concerning their educational background shows that 14 people with primary school degrees (2.6%), 32 people with secondary school degrees (5.9%), 181 people with high school degrees (33.5%), 68 people with associate's degrees (12.6%), 211 people with bachelor's degrees (39%), 24 people with master's degrees (4.4%) and 11 people with Ph.D. degrees (2%). 5 (1%) parents affirmed that they do not use the Internet. The number of parents who have an average of 0-2 hours internet usage time per day is 328

(60%), 170 (31%) who use 3-5 hours, 27 (6%) who use 6-8 hours, and 11 (2%) who use 9 hours or more.

### *2.3. Data collection tools*

The Cyberbullying Scale for University Students, developed by Tanrikulu and Erdur Baker (2020), is one of the data collection tools used in research. It consists of a total of 22 items. The scale is rated in the type of 4-Likert. There are 11 items in the Cyberbully section of the scale, and the highest score that can be obtained from this section is 33 and the lowest score is 0. The high score indicates a high level of cyberbullying. There are also 11 items in the Cyber Victim section of the scale, and the highest score that can be obtained from this section is 33 and the lowest score is 0. The high score indicates a high level of cyber victimization. The internal consistency reliability coefficients of the scale are 34 and 60 for each section. In this study, the Cronbach Alpha value was found as 0.72 for cyberbullying section and 0.78 for the cyber victim section. The original scale was developed by working on university students. However, the scale was applied to adults in this research. Therefore, there was no need for invariance analysis (measurement invariance) for the scale. Because measurement invariance tests are a kind of covariance structure analysis and are designed to measure a certain structure in different groups (Jöreskog and Sörbom, 1999). According to Tyson (2004), measurement invariance is the degree to which the validity and reliability levels of psychological measurements related to the groups to be compared are similar. In fact, the purpose of testing the measurement invariance is to ensure the validity of the relevant measurements for comparison groups.

In this study, a 19-question questionnaire prepared by the researchers for parents and an interview form consisting of 3 semi-structured questions were used as a data collection tool.

### *2.4. Data collection*

After obtaining the necessary permissions for the implementation of data collection tools, appointments were made from the administrator of each institution during the process of collecting the data and went to meetings. During meetings, administrators and teachers were informed about the subject, purpose, data collection tools, and the process to follow. Parents' questionnaires and scales were delivered to teachers in the next stage of the data collection process. During the data collection process implemented voluntarily, parents who want to participate in the research were also asked to fill out volunteering forms. The institutions were visited two weeks later, and the parents' questionnaires, scales, and volunteering forms were taken from the teachers. Before meeting with the parents, they were contacted from GSM numbers in the parent information forms and an appointment was made from the parents who agreed to meet face-to-face and an interview was provided with them at the institutions. However,

interviews with some parents were conducted via mobile phone due to COVID-19 measures.

### 2.5. Data analysis

The normality values of cyberbullying and cyber victimization variables that constitute the quantitative part of the study were analyzed. The Kolmogorov Smirnov test was used to examine parents' data. The results obtained are given in Table 2.

Table 2. The normality analysis results of cyberbullying/victimization variables

	Statistics	Df	Sig
Cyberbully	0.522	541	0.00
	0.516	56	0.00
	0.203	25	0.00
Cyber victim	0.435	541	0.00
	0.395	56	0.00
	0.316	25	0.00

According to the normality test results in Table 2, none of the parents' cyberbullying and cyber victimization variables can provide the assumption of normality ( $p < 0,05$ ). The frequency analysis for information obtained through surveys, difference tests (Mann-Whitney U and Kruskal Wallis) based on data obtained from scale, and content analysis for data obtained from interview forms were performed within the scope of the study. SPSS 24 software was used for all analyses.

## 3. Results

In this study conducted with 541 parents, the values obtained as a result of statistics of the participants' cyberbullying and cyber victim scores are included in Table 3.

Table 3. The descriptive statistics of parents' cyberbullying and cyber victimization scores

	N	$\bar{X}$	$X_{ort}$	$X_{tepe}$	S.S.	$Sh_x$	Skewness	Kurtosis	Min.	Max.
Cyberbully	541	0.18	0	0	0.667	0.029	4.367	20.451	0	5
Cyber victim	541	0.60	0	0	1.571	0.068	3.707	16.003	0	11

According to Table 3; The cyberbullying average of 541 parents is 0.18; the median and mode value is 0. The resulting standard deviation value is 0.667. The parent with the

lowest "cyberbully" score got 0, and the parent with the highest score got 5 amongst all of the participants. It can be noted that the participating parents have low levels of cyberbullying when the scores are examined. The table also contains descriptive statistics of the level of the parents' cyber victimization. The arithmetic average is 0.60, median and mode values are 0 based on these values. The resulting standard deviation value is 1.571. The parent with the lowest cyber victim score counted 0 and the parent with the highest score counted 11 among all of the participants. Consequently, it can be said that the participating parents have low levels of cyber victims. In this context, the descriptive statistics of the two dimensions in comparison with each other prove that the "cyberbullying" levels of the participants are lower than the levels of "cyber victimization".

Do the levels of cyberbullying and cyber victimization of the parents involved in the study vary by gender? The results of the Mann Whitney U test for this question are included in Table 4.

Table 4. Mann whitney u test results by gender of parents' cyberbullying and victimization

	Gender	N	Rank Sum	Rank Average	U	Z	P
Cyberbully	Female	449	120391.50	268.13	21941.5	1.989	0.047
	Male	92	26219.50	284.99			
Cyber victim	Female	449	120250.00	267.82	22083	1.458	0.145
	Male	92	26361.00	286.53			

Table 4 is an indication that the level of cyberbullying differs statistically significantly by gender ( $U=21941.5$   $p<0,05$ ). Males' average points for cyberbullying are higher than ( $SO = 284,99$ ) females'. ( $SO = 268,13$ ) There was no statistically significant difference for gender when the cyber victimization scores are examined ( $U=22083$ ,  $p>0.05$ ).

Do the levels of cyberbullying and cyber victimization of the parents who participated in the study differ by age? The results of the Kruskal Wallis test for this question are given in Table 5.

Table 5. Kruskal wallis test results for parents' cyberbullying and victimization levels in comparison by age

	Age	N	Rank Average	X <sup>2</sup>	Sd	P
Cyberbullying Offending	18-28	36	268.53	0.866	2	0.649
	29-39	387	268.58			
	40-50	118	279.69			
Cyberbullying Victimization	18-28	36	271.13	0.907	2	0.635
	29-39	387	269.30			
	40-50	118	276.55			



According to Table 5, parents' levels of cyberbullying do not differ statistically by age ( $X^2=0.866$   $sd=2$   $p>0.05$ ). Similarly, there was no statistically significant difference as a result of the examination of cyber victim status by age ( $X^2 =0.907$   $sd=2$   $p>0.05$ ).

Do the levels of cyberbullying and cyber victimization of the parents involved in the study vary according to their educational status? The results of the Kruskal Wallis test are given in Table 6.

Table 6. Kruskal wallis test results of parents' levels of being a cyberbully/victim by their educational background

	Educational Background	N	Rank Average	$X^2$	Sd	P
Cyberbully	Elementary	14	289.43	5,837	6	0,442
	Secondary	32	282.27			
	High School	181	270.23			
	Associate	68	280.13			
	Bachelor's	211	269.43			
	Master	24	249.00			
Cybervictim	Ph. D.	11	249.00	4,082	6	0,666
	Elementary	14	304,61			
	Secondary	32	269,36			
	High School	181	274,10			
	Associate	68	284,29			
	Bachelor's	211	265,19			
	Master	24	246,83			
	Ph. D.	11	263,95			

According to Table 6; Parents' levels of cyberbullying do not differ significantly depending on their educational background statistically ( $X^2=5,837$   $sd=6$   $p>0.05$ ). Similarly, as a result of the examination of cyber victim status related to their educational background, there was no significant difference statistically ( $X^2=4,082$   $sd=6$   $p>0.05$ ).

Do the levels of cyberbullying and cyber victimization of the parents involved in the study vary according to the average daily internet usage time? The results of the Kruskal Wallis test are given in Table 7 for this question.

Table 7. Kruskal wallis test results based on average daily internet usage time of parents' cyberbullying and victimization

	Average Internet Usage Time Per Day	N	Rank Average	$X^2$	Sd	P
Cyberbullying Offending	I don't use the Internet	5	249.00	10.222	4	0.037
	0-2 hours	328	263.79			
	3-5 hours	170	284.28			
	6-8 hours	27	269.04			
	over 9 hours	11	295.45			
Cyberbullying	I don't use the Internet	5	259.50	6.243	4	0.182

Victimization	0-2 hours	328	261.95
	3-5 hours	170	288.26
	6-8 hours	27	272.20
	over 9 hours	11	276.41

According to Table 7; parents' levels of cyberbullying differ statistically from the average daily internet usage time ( $X^2=10,222$   $sd=4$   $p<0,05$ ). The most essential difference is between parents who use the Internet for an average of 0-2 hours per day and parents who use the Internet for 3-5 hours. As a result of examining the levels of cyber victimization of parents according to the average daily internet usage time, there was no statistically significant difference ( $X^2=6.243$   $sd=4$   $p>0.05$ ).

Do the levels of cyberbullying and cyber victimization of the parents who participated in the study vary by their awareness? The results of the Mann Whitney U test related to this question are included in Table 8.

Table 8. Mann whitney u test results based on cyberbullying awareness of parents' cyberbullying and victimization

	The awareness of cyberbullying	N	Rank Sum	Rank Average	U	Z	P
Cyberbullying	Yes	412	110122.50	267.29	28103.5	2.083	0.037
Offending	No	129	36488.50	282.86			
Cyberbullying	Yes	412	110353.50	267.85	27872.5	1.168	0.243
Victimization	No	129	36257.50	281.07			

According to Table 8, the level of cyberbullying in parents differs statistically significantly from hearing the concept of cyberbullying ( $U=37337.5$   $p<0,05$ ). Parents who had not heard of cyberbullying ( $SO= 282.86$ ) were more bullish than those who had heard of it ( $SO=267.29$ ). When parents' cyber victimization scores are examined, it is seen that these scores do not differ statistically significantly according to the situation of hearing the concept of cyberbullying ( $U=27872.5$   $p>0.05$ ).

Do parents who participated in the study have awareness of cyberbullying? The analysis findings of this question are presented below:

Parents who heard the concept of cyberbullying were asked where they heard about it. The values for the answers to the relevant question are given in Table 9.

Table 9. Frequency & percentage values of where parents hear of the concept of cyberbullying

Resource of Heard	Frequency	Percent
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from social media	285	52.7
from TV talk shows/news	235	43.4
from the press (newspapers, magazines, etc.)	172	31.8
from the personal website of an expert on the subject	61	11.3
from a training/seminar speaker I attended	58	10.7
from a friend/relative/neighbor	55	10.2
from my child's teachers	8	1.5
from the administrators of my child	6	1.1

When table 9 was examined, parents pointed to social media as the source of the concept of cyberbullying with a rate of 52.7%. This is followed by visual media (TV talk shows, news) with a rate of 43.4% and written media (newspapers, magazines, etc.) with a rate of 31.8%.

Parents were given some examples of behavior and asked which of them they defined as cyberbullying behavior. The findings are given in Table 10.

Table 10. Frequency & percentage values of responses to whether parents are cyberbullies

	Yes		No	
	Frequency	Percent	Frequency	Percent
Sending insulting, sarcastic, angry, rude, sexually abusive or violent messages to others online, such as on social networks or chat rooms.	504	93.2	37	6.8
Sharing someone's personal information, photos, and videos on the Internet without their permission.	500	92.4	41	7.6
To harass someone using methods such as message attacks and spam.	478	88.4	63	11.6
To attack a person's rights and personal specialties such as ethnicity as verbal, written, or video content.	478	88.4	63	11.6
Spreading rumors about someone on social networks or sharing private life details of someone with everyone.	469	86.7	72	13.3
Preparing defamatory, derogatory web pages about a person.	468	86.5	73	13.5
Opening a fake account on behalf of someone else and impersonating that person.	461	85.2	80	14.8
Following all accounts of individuals on social networks in a way that disturbs them and constantly making negative comments on their posts.	459	84.8	82	15.2
To mock or humiliate someone on the Internet by naming them.	448	82.8	93	17.2
Accessing personal files, folders, and information on someone's computers with malicious software such as viruses.	441	81.5	99	18.3
Making irritating conversations or noises by hiding your phone number.	392	72.5	149	27.6
Organizing mutual friends for them to delete the selected	386	71.3	155	28.7

individual from their friend list and block them,  
simply put, socially exclude that individual.

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According to table 10, all of the behaviors given were described as cyberbullying by most participants. In addition, the first three behaviors considered cyberbullying by a high majority of parents are, respectively, "Sending derogatory, sarcastic, angry, vulgar, sexual harassment or violent messages to others online, on such as social networks or chat rooms (93.2%)," "Sharing someone's personal information, photos, and videos online without permission and knowledge (92.4%)," "Using methods such as message attacks and spam" (88.4%). Behavior that is considered to be cyberbullying by parents is "Organizing common friends, enabling them to delete and block the targeted individual from their friends' list, i.e. to exclude them socially" with a rate of 71.3%.

Parents were asked some questions to identify their awareness of cyberbullying and asked to answer Yes, No, or Undecided. The results obtained are presented in Table 11.

Table 11. Frequency & percentage values of parents' responses to questions asked to measure their cyberbullying awareness

	Yes		No		Undecided	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Can you notice if your child is being cyberbullied?	344	63.6	68	12.6	129	23.8
Can you notice if your child is doing cyberbullying?	336	62.1	87	16.1	118	21.8
Is cyberbullying a criminal offense defined by law?	328	60.6	40	7.4	173	32.0
Would you like to receive training to have comprehensive knowledge about cyberbullying?	307	56.7	120	22.2	114	21.1
Do you know what to do when you being when you or your child being cyberbullied?	227	42.0	189	34.9	125	23.1
Do you know what your legal rights are when you or your child is faced with a cyberbullying incident?	158	29.2	270	49.9	113	20.9
Have you ever thought your child has been cyberbullied?	16	3.0	491	90.8	34	6.3
Have you ever thought that your child has been cyberbullying?	10	1.84	88	90.2	43	7.9

According to Table 11, the question asked to the respondents that "Can you notice if your child is being cyberbullied?", and 63.6% of them answered "yes". Likewise, more than half of the participants answered yes to the following questions respectively: "Can you notice if your child is doing cyberbullied?" (62,1%); "Is cyberbullying a law-defined and punishable crime?" (60,6%); "Would you like to be trained to have comprehensive knowledge of cyberbullying?" (56.7%). The questions that most of the participants answered no with a 90.8% of rate and with a 90.2% of rate respectively were: "Have you ever thought that your child is a cyber victim?" "Have you ever thought that your child is a cyberbully?" The most undecided question for 32% of parents was "Is cyberbullying a law-defined and punishable crime?"

What are the strategies of the parents involved in the study to combat cyberbullying? The analysis findings of this question are presented below:

Parents have been asked to choose from the list of measures they have taken to avoid cyberbullying incidents and to protect themselves, their children, and their students from these incidents. The results obtained are given in Table 12.

Table 12. Frequency & percentage values of responses to a question asked to determine parents' strategies for combating cyberbullying

	Yes		No	
	Frequency	Percent	Frequency	Percent
Not to share my personal information (ID number, mobile number, address, password information, etc.) with anyone on the internet.	498	92.1	43	7.9
Limiting/controlling my child's internet-connected device usage time.	497	91.9	44	8.1
Observing if there is any difference in the behavior of my child or students.	494	91.3	47	8.7
Not accepting friend requests from people, I don't know on social media.	492	90.9	49	9.1
Checking and controlling my child when using any internet-connected device.	488	90.2	53	9.8
Not adding people as friends on social media that I don't know in reality.	484	89.5	57	10.5
To set a password on the devices that we connect to the Internet.	481	88.9	60	11.1
Not sharing my username and password information with anyone.	471	87.1	70	12.9

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Talking to my child about the pros and cons of the Internet and information technologies.	467	86.3	74	13.7
Logging out out from websites that are logged-in with username and password with the secure log-out button.	461	85.2	80	14.8
Setting privacy and security settings on my social network accounts.	458	84.7	83	15.3
Being in constant communication with my child's teachers and administrators, taking into account their observations and warnings.	458	84.7	83	15.3
Making regular updates of my social network accounts.	450	83.2	91	16.8
Not opening e-mails from people/institutions that I don't know.	450	83.2	91	16.8
To set a screen password on the devices on which we connect to the Internet.	449	83.0	92	17.0
Not sharing my personal computer/smartphone/tablet with others.	442	81.7	99	18.3
Not adding anyone as a friend on social media without asking even someone I know.	433	80.0	10	20.0
to regularly update the operating systems installed on the devices we connect to the Internet.	425	78.6	116	21.4
Not accessing sites that require a password on the Internet with devices belonging to friends/neighbors/relatives.	417	77.1	12	22.9
To know the security settings and policies of the sites, I use for shopping.	414	76.5	12	23.5
To have information about the privacy and security policies of social networking companies.	411	76.0	13	24.0
Not to save my username and password information anywhere.	404	74.7	137	25.3
Not sharing my location information on social media.	398	73.6	14	26.4
To give a negative answer to the question of whether to remember the password in the next logins on the sites entered with a password.	397	73.4	14	26.6
Set up e-mail security.	395	73.0	14	27.0
Not using public internet connections that do not require a password.	392	72.5	14	27.5
Using security filters on devices we connect to the Internet.	391	72.3	15	27.7
Using licensed antivirus on devices we connect to the Internet.	378	69.9	16	30.1
To set different passwords for devices, platforms, and accounts that require a login password.	376	69.5	16	30.5

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Changing the passwords periodically for the sites that we log in with a user name and password.	367	67.8	174	32.2
Adjust Google Play parental control settings.	367	67.8	174	32.2
Scan for viruses before opening attachments in emails.	362	66.9	179	33.1
When downloading smartphone applications, read the terms of use.	345	63.8	196	36.2
To follow the developments and news about cyberbullying.	344	63.6	197	36.4
To use two-step authentication for the sites that we log in with a username and password.	304	56.2	237	43.8
Turning off/taping the cameras of the devices we use to connect to the internet when we are not using them.	229	42.3	312	57.7
Manually typing and hyphenation internet addresses.	178	32.9	363	67.1

According to the data in Table 12, most of the measures given are implemented by more than half of the parents. The five most preferred measures are respectively as follows: "Not sharing my personal information (ID number, mobile number, address, password information, etc.) with anyone on the Internet (92.1%)", "Limiting/controlling my child's internet-connected device usage time (91.9%)", "Observing differences in the behavior of my child or students (91.3%)", "Not accepting friend requests from strangers on social media (90.9%)" and "Keeping my child under superintendence when using an internet-connected device (90.2%)". The least preferred measure by parents is "Manually typing and hyphenating Internet addresses" with a rate of 32.9%.

Parents were asked the question of for which their children get help while using a desktop, laptop, smartphone, tablet, and the Internet, and the findings are given in Table 13.

Table 13. Frequency values of whether children get help in the use of information technologies

	Not using		Using with Help		Using without Help	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Desktop computer (PC)	487	90	42	7.8	12	2.2
Laptop	451	83.4	77	14.2	13	2.4
Smartphone	88	16.3	236	43.6	217	40.1
Tablet	239	44.2	123	22.7	178	32.9
Internet	82	15.2	303	56	156	28.8

Children use the most smartphones (40.1%) among information technologies without help according to Table 13. Other information technologies they use without assistance are tablets (32.9%), the internet (28.8%), laptops (2.4%), and desktop computers (2.2%). The information technologies that children can use with help are internet (56%),

smartphone (43.6%), tablet (22.7%), laptop (14.2%) and desktop computer (7.8%). These figures illustrate children between the ages of 36 and 72 months use smartphones more than information technologies. On the other hand, less marked information technology is desktop computers. It was stated by 90% of respondents that their children do not use a desktop computer.

Parents were asked about their children's purposes of using the Internet and asked to mark the ones that best suited them among the options given. The frequency values to use the Internet are presented in Table 14.

Table 14. Frequency and percentage values of parents' children's purposes of using the internet

	Frequency	Percentage
Watching cartoons	377	69.7
Playing games	314	58
Watching videos	307	56.7
Download games	107	19.8
Listening to music	80	14.8
My child doesn't use the Internet	29	5.4
Other	13	2.4

Parents remarked that their children use the Internet the most to watch cartoons (69.7%). This is followed by playing games (58%) and watching videos (56.7%). While 19.8% of children used the Internet to download games, the least preferred purpose was to listen to music with 14.8%. The percentage of parents who affirm their child does not use the Internet is 5.4%. The children of parents' 2.4% have different purposes concerning internet usage such as watching documentaries, listen to fairy tales, and learn foreign languages concerning questionnaire results.

### 3.1. Findings obtained from interview forms

Interviews were conducted with volunteers among the parents who participated in the study. The purpose of the interviews is that participants express their opinions and suggestions for combat cyberbullying awareness and cyberbullying in both themselves and the parent-teacher-manager triangle, supporting the data obtained from the survey and the scale with these statements apart from surveys and scale questions. The



questions and answers received in interviews with 16 (3%) of the 541 parents who participated in the study are as follows:

Question 1. Have you ever witnessed a person, family member, or child being cyberbullied around you? If you witnessed, what kind of cases were they? What was your attitude towards these cases?

Eleven (68.75%) of the 16 parents interviewed answered no. While 1 parent (6.25%) was expressing that parent's bank account information was stolen, 4 parents (25%) stated they encountered the theft of their passwords from their social media accounts. It is observed concerning the responses that the majority of parents themselves, their children, or anyone around them have not encountered any serious incidents of cyberbullying.

Question 2. Do you think teachers know enough about cyberbullying? Why would you think that?

Their children's teachers had sufficient knowledge of cyberbullying stated 14 (87.5%) of parents who participated in the interview. Only 1 parent (6.26%) said the teacher was not consciously based on the teacher's social media posts, while 1 parent (6.26%) said they thought the teacher had as much knowledge as anyone else and no more. It can be recognized that parents generally think their children's teachers know enough about cyberbullying based on these answers.

Question 3. What do you think should be done to combat cyberbullying, especially against children or children? (As government, teachers, administrators, and parents)

To this question, 4 (25%) parents answered that they did not have any ideas. It was emphasized by 12 (75%) parents that the main controller should be parents. Besides, parents agree children should have time restrictions on their use of the Internet and digital vehicles.

#### **4. Discussion**

Emphasize The first research question of the thesis is "What are the levels of cyberbullying and cyber victimization of the parents involved in the study?". The outcomes of this research question are as follows; While the levels of cyber bullies and cyber victims of participating parents are generally low, cyberbullying levels are lower than cyber victimization levels. It is considered that the high awareness of cyberbullying

of the participants was effective in achieving this result. A cyberbullying awareness survey was conducted in 2018 with 20,793 people from 28 countries including Turkey. Adults between the ages of 18 and 64 were included in the study. According to the report of the study, Turkey ranked 23rd among 28 countries with an awareness rate of 60% (Clement, 2019). While it is gratifying that participants' low levels of cyberbullying and high awareness of cyberbullying do not coincide with these research findings, the number and demographic characteristics of the individuals included in the research and thesis studies may be factors in the difference of results. Awareness-oriented and wide-ranging researches could be planned in this context.

When parents' levels of cyberbullying and cyber-victims are examined by gender, it is seen that the level of cyberbullying differs statistically significantly by gender. Accordingly, males have a higher level of cyberbullying than females. This data is similar to some research results (Arıcak et al., 2008; Erdur Baker and Kavşut, 2007; Kowalski and Limber, 2007; Li, 2006; Li, 2007).

Parents' levels of cyberbullying and victimization were examined by age variable, and no differences were found. This can be attributed to the fact that participated parents are predominantly between the ages of 29 and 39 and have at the least a high school of education. In addition, the widespread use of cyberbullying among children and young people may have resulted in this result. Parents' likelihood that they responded to questionnaires and scales knowing that cyberbullying was bad and criminal behavior was also instrumental in achieving this conclusion. The data published by Wtech Platform (2020) demonstrates that the rate of cyber victimization in adults between the ages of 26 and 35 is 34%, and in adults between the ages of 35 and 46, is 13%. The rate of cyber victimization in adults between the ages of 26 and 46 is high with respecting the data. Eachus and Cassidy (2006) revealed a negative correlation between internet technology and age. One of the reasons for this may be the low level of internet and information technology literacy.

Parents' levels of cyberbullying and victimization did not differ statistically significantly according to an educational background in the study. While the level of parental education may not be the same as the level of cyberbullying and victimization in this study, there are studies in the literature that show that parental education affects children's cyberbullying and victim behavior. Akbaba and Eroğlu (2013), and Serin (2012) have conducted studies that show that as the level of maternal education rises, the rate of cyber victimization in children decreases. Eroğlu (2014) also found that the postgraduate mothers' children use the Internet more and show more cyberbullying behavior. Baykal (2016) and Çiftçi (2015) investigated the impact of fathers' educational levels on children's cyberbullying/victimization behaviors and found that as fathers' educational levels increased, the rate of cyberbullying behavior in children also increased. As the fathers' educational levels decrease, cyberbullying or victimization

levels of children increase by the results obtained from Çiftçi's (2015) study. These findings revealed the parental education levels are effective and important for their children's cyberbullying or cyber victimization levels. Although most of the parents who participated in this study have high school and undergraduate degrees, it was noted that the parents' educational levels have no impact on their children's cyberbullying or victimization levels. The prevalence of cyberbullying in children and adolescents might arise from parents being sensitive about cyberbullying or hesitate to tell the truth.

Parents' cyberbullying levels differ statistically significantly based on the average daily internet usage time. The most significant difference is between parents with an average of 0-2 hours of internet use per day and parents with an average of 3-5 hours of internet use. Considering that 60.9% of the world's population (Kemp, 2021a) uses the Internet, this indicates that such usage rate is quite widespread in Turkey. The February 2021 data declared the average daily internet usage time in Turkey is 7 hours 57 minutes, and the average daily social media usage is 2 hours 57 minutes (Kemp, 2021b). How long the internet is used, which is one of the most important requirements for adults, notably children and young people, increases the risks it brings along and the possibility of the risk. A positive correlation was observed between long periods spent on the Internet and high levels of cyberbullying/cyber victimization levels. Cyberbullies and cyber victims try to make up for the human relationships they lack in real life and the search for the attention they need online (Antoniadou and Kokkinos, 2013). Thus, individuals cause various risks when using the Internet, navigate risky sites, share their private lives and information with people they do not know, commit acts of bullying or increase the likelihood of becoming victims (Görzig and Frumkin, 2013). There are various studies in the literature investigating the correlation between cyber victimization and internet usage time. Elmas's (2016) study also found a significant difference between the teacher candidates' internet usage time and cyberbullying. Accordingly, as the time spent on the Internet increases, the called cyberbullying behaviors increase. The same findings were found in studies conducted by Kocatürk (2014), Manap (2012), Özbay (2013), and Serin (2012). However, there are also studies in the literature in which internet usage time predicts cyber victimization. The results of research conducted by Hinduja and Patchin (2008) was evidenced that the individuals who were victims had a higher period of internet use. Hence, as the time spent on the Internet increases, so does the rate of cyberbullying and cyber victimization.

When parents' cyberbullying and victimization levels are examined in terms of whether they have heard the concept of cyberbullying before, it is viewed that the level of cyberbullying has a significant difference statistically compared to having heard the concept of cyberbullying. Therefore, parents who have not heard of cyberbullying are more bullying than parents who have heard of it. Moreover, 56.7% of parents said they wanted to receive a comprehensive education on cyberbullying, and 21.1% were undecided. These findings suggest that parents need to be informed about cyberbullying.

Similar to the findings, 60% of mothers with children between the ages of 4 and 6 who participated in Özyürek's (2018) study stated that they had educational needs for the use of the internet and information technologies. Although the fact that the parents who participated in the research heard about the concept of cyberbullying did not make any difference in being a cyber victim, when the administrators included in the research were asked whether the parents of the children in the institutions they work should be educated about cyberbullying, the vast majority of them answered yes. The fact that there is no difference between the cyber victimization levels of parents might be due to which people feel the need to hide this situation for various reasons. The majority of parents surveyed correctly knew that the behaviors presented to them as options were cyberbullying. Most parents have stated that they can notice if their child is facing cyberbullying or performing an act of cyberbullying. Many studies reveal that parents have important duties to protect children from cyberbullying and to prevent them from doing cyberbullying. Eckerd (2018) underlines the knowledge, awareness, and paying attention of parents in preventing cyberbullying. The research data published by Comparitech and conducted by Ipsos demonstrates that the proportion of families reporting their child being subjected to cyberbullying was 5% reported in Turkey in 2011, compared to 14% in 2016 and 20% in 2018 (Cook, 2020). According to Cyberwise's report, especially during the COVID-19 pandemic, families seeking help with cyberbullying increased by 80% compared to before the pandemic (Parker, 2020). All this research data is an indication that families are more aware of and responsible for cyberbullying year after year. Makri-Botsari and Karaganni (2014) note that the parent-child relationship and parents' knowledge and awareness of cyberbullying play an important role in the appearance, continuation, and prevention of cyberbullying. Today, the parents' duty is to protect their children from the dangers of the real world and those who live in that world and to raise them as healthy, happy, and educated individuals. Parents are now also in charge of protecting their children from the dangers of the virtual world and those who live in it. In this context, the digital parenting competence of parents will play an important role in preventing cyberbullying.

Parents in the focus group stated that they discovered the concept of cyberbullying most through social media. The proportions and sources of news, information, and academic study posts on social media about cyberbullying are also thought to be worth investigating in this context. It is a thought-provoking fact that the lowest rates for hearing the concept of cyberbullying are the situations that parents, administrators, and teachers heard of this concept from each other. These findings demonstrated the administrators do not implement a strategy to raise awareness of cyberbullying in their institutions, or the parties do not share adequately with each other.

The five most preferred strategies for parents to combat cyberbullying are as follows; It has been that personal information is not shared on internet environments, the use of the device used by the child when entering the Internet is limited, observing whether there is

a difference in the behavior of the child, not accepting friend requests from unfamiliar people on social media, and keeping the child under observation when using any internet-connected device. Noting that 56% of the parents expressed their children use the internet by asking for help, 43.6% use the smartphone, and 22.7% use the tablet by asking for help, they emphasized that their children are under surveillance when using these devices. In different studies conducted about the subject, it is realized that the use of the Internet and smart devices are widespread in preschoolers. As a result of the survey conducted by Yengil, Güner Döner, and Topakkaya (2019), the parents of preschool children (3-6 years) included questions about the use of technological devices by their child, themselves, and their spouses. It was observed that 11 (26.2%) of the children were between the ages of 1 and 2 when they started to use technological devices, 17 (40.5%) were between the ages of 2 and 3, 10 (23.8%) were between the ages of 3 and 4. Also, 4 of them (9.5%) were 4 when they use technological devices for the first time. 24 (57.1%) of children use technological devices for 0-1 hour, 14 (33.3%) for 1-2 hours and 4 (9.5%) for 2-3 hours. 50% of Swedish children between the ages of 3 and 4 use tablet computers, and 25% use smartphones. In Norway, 23% of children aged 0-6 have access to touch screens at home, and 32% of them met the touch screen when they were under 3 years old for the first time. 17% of families with children between the ages of 3 and 7, and 18% of families with children between the ages of 6 and 11 have touch tablets in Germany. The survey of 575 parents in the Netherlands found that children aged 3-6 could easily use touch screens (Hollaway, Green, and Brady, 2013). In the Tokel, Baser, and İşler's (2013) survey, 46% of parents stated that they were with children when using computers and the Internet for entertainment purposes, while 10% said they did not, and 44% said they were sometimes with them. In a survey of 1,129 adolescents and 778 parents studying in primary and secondary schools in Ankara city center (Uludaşdemir, 2017), families of children with more than one social account mostly know only one. Moreover, 22.4% of parents control their children's internet/social media usage when their children shared something, 20.8% every day, and 56.8% occasionally control their children's internet/social media usage. A 2010 study reported similar results that the rate of checking every day (18.3%) was lower than that of those who checked occasionally (37.9%) (Lou, Shih, Liu, Guo, and Tseng, 2010). In a study of the majority of respondents (67%) of mothers, it has been reported that 91% of parents use social media, 43% of children spend 1-3 hours on the Internet, 57% connect to the Internet at home, 55% welcome their children's use of social media and 73% do not punish and 52% do not restrict if they misuse social media (Ulusoy and Bostancı, 2014). According to research by Comparitech; 59.4% of parents spoke to their children about secure the Internet after being cyberbullied. While 43.4% of parents used parental control on the Internet to prevent cyberbullying, 33% of them set new rules to restrict their children's use of technology (Cook, 2020). Among the most common strategies employed by parents participating in the study to combat cyberbullying is to limit the use of the device that

their child uses when entering the Internet. The American Society of Pediatrics recommends limiting the daily screen time of children between the ages of 2 and 5 to 1 hour, which is supported by quality programs and spent under parental supervision (Roberts, 2019). Öztürk (2019) states that it is right for children between the ages of 3 and 6 to spend 30 minutes every day, primary school children for 45 minutes, middle school students for 1 hour, and high school-age youth for 2 hours and spend time with technological means. In light of this information, it can be declared that parents have implemented an accurate strategy.

## **5. Conclusions and Recommendations**

This research aimed to determine the level of cyberbullying and victimization of preschool parents in Edirne and to create strategies by taking security measures to raise awareness about cyberbullying and combat cyberbullying. Consequently; The levels of cyberbullying of the parents involved in the study were lower than the levels of cyber victimization. Following the analysis of the change of parents' levels of cyberbullying by gender, male parents have higher average rates of cyberbullying than females. While parents' cyber victimization score averages did not differ significantly by gender variable; Likewise, their level of cyberbullying and cyber victimization does not differ statistically according to age and education level variables. The average cyberbullying score of the parents who use the internet for 3-5 hours per day was found to be higher than the parents who use the internet for 0-2 hours. The average daily internet usage time did not cause a statistically significant difference in parents' cyber victimization score averages. Parents who had not heard of cyberbullying were found to have higher average scores of cyberbullying than those who had heard of it. It was observed that the cyber victimization scores of parents did not differ statistically significantly according to their hearing about the concept of cyberbullying.

It is discerned that most parents have met the concept of cyberbullying through social media when the findings were considered. Parents pointed to teachers and administrators as the two options they heard the concept of cyberbullying to the least extent.

Most parents have correctly flagged all of the cyberbullying behaviors that are presented to them as options. Therefore, it has been concluded that they are aware of what behaviors are covered by cyberbullying.

More than half of parents expressed that when their children are cyberbullied, they can recognize it, that they can understand that their child is cyberbullying someone else, that they know that cyberbullying is a crime, that they would like to be educated about cyberbullying. Nearly all parents responded that their children were not cyberbullied and that their children were not cyberbullying anyone else.

When parents were asked to choose from the list of measures, they took to avoid cyberbullying incidents and to protect themselves and their children from these incidents, it was determined that most of the measures given were implemented by more than half of parents. Among the measures taken by parents, the highest rate was "Not to share my personal information (ID number, mobile number, address, password information, etc.) with anyone on the Internet" and "To limit/control my child's internet-connected device usage time." The two measures that parents take at the lowest rate; "Using two-step authentication for websites where we log in with username and password." and "Manually typing and hyphenating internet addresses." Almost half of the parents say their children use smartphones and tablets without help. Parents have stated that their children use the Internet the most to watch cartoons and play games.

Most parents who participated in the interview said they had not witnessed a person around them, a family member, or their child being cyberbullied. Nearly all of the parents who participated in the interview stated that their children's teachers had sufficient knowledge of cyberbullying. Most of the parents who participated in the interview emphasized that the family should be in the main control over the protection from cyberbullying, and agreed that there should be time restrictions for children in the use of the Internet and information technologies.

In light of the findings from the analysis, recommendations for studies and practices on cyberbullying in the future are presented below:

In-service training and seminars should be held regularly to enable pre-school parents, teachers, and administrators to develop strategies to combat cyberbullying correctly. These activities should be attended by experts from related and different dissipations such as pedagogues, psychologists, police officers, IT lawyers. This information should be delivered through internet technologies to parents who cannot attend activities due to their busy working life.

In preschool educational institutions, efforts should be performed to establish units that will guide safe and informed internet use. In these units, it should be aimed to provide support and guidance to students and parents where necessary and to allow counseling and sharing of children and parents.

It is thought that researching to compare the levels/factors of cyberbullying/victimization of preschoolers before and during the pandemic process will contribute to taking measures in the context of preventing cyberbullying for special situations such as pandemics.

This research, which is performed in preschool education institutions in Edirne city center, can be expanded to include preschool parents, teachers, and administrators in Edirne's districts and villages. In this way; environmental, cultural, and economic factors can have an impact on cyberbully/victim levels.

Most of the participants in this study are females. New research can be performed in which fathers will participate as much as mothers. The fact that the number is close together can bring different results.

A wide range of research can be implemented in the Marmara Region and Turkey, including Edirne. A large focus group can help to generalize the results and make more effective decisions for decision-makers.

Cyberbully/victimization levels and awareness of parents; internet literacy, information technology literacy, social media literacy, and information security awareness can be investigated according to situation variables.

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