



# Investigation of Nomophobia and Netlessphobia Levels of Child Development Undergraduate Students

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## **Abstract**

The research aimed to determine the nomophobia and netless phobia levels of undergraduate students of the child development department. In the research carried out with the survey model, one of the quantitative research methods, 195 students studying at Çankırı Karatekin University, Faculty of Health Sciences, Department of Child Development were studied. In the study, "General Information Form", "Netless phobia Scale" developed by Kanbay et. al. (2021) and "Nomophobia Scale" developed by Yıldırım et. al. (2016) was used to determine the sociodemographic characteristics of the students. It was determined that 94,3% of the participants in the study were female, 60,9% were between the ages of 18-20 and 41,4% were second grade students. As a result of the research, a significant difference was found between the students' age, gender, grade level, age of owning smart mobile phones and activities done in their spare time and the nomophobia and netless phobia scales, and significant relationships were found between the nomophobia and netless phobia scales. Based on the results obtained from the research, it may be recommended to conduct mixed method research and direct university students to activities where they can spend their free time.

**Key Words:** Nomophobia, Netless phobia, Technology, University students

**JEL CODE:** I35

## **Introduction**

Today, technology and technological tools are in a very important position and can influence individuals from all walks of life. Especially in this context, children are at risk because their development is not yet mature enough. As a result of children's exposure to technological devices, their developmental areas may be damaged, and emotional and behavioural disorders become common (Akça and Koç Çilekçiler, 2019). It is seen that children's interest in technological tools is influenced by taking their parents as role models parents using technological tools to manage their children's behaviour, or the extraordinary visual and auditory effects coming from technological tools to children (Kandır and Alpan, 2008, Lepicnik- Vodopivec, 2011). However, it can be expressed as a social responsibility to provide necessary guidance to parents to prevent children from being harmed by this situation. An important professional in fulfilling this social responsibility is child development experts.

Child development specialists can be defined as professional professionals who have completed a four-year undergraduate education and work with children and their families, evaluate their development and provide developmental support (Karabulut et. al., 2020). In this context, child development experts need to consciously use technology to be beneficial to parents and therefore children (Yılmaz, Üredi and Akbaşlı, 2015). Different situations may arise as a result of unconscious or excessive use of technological tools one of these situations can be considered as nomophobia and the other a nettles phobia.

Nomophobia can be defined as the fear of separation from the smartphone and showing withdrawal syndrome when the smartphone is not with it (Braggazi and Pente, 2014). An individual tries to have his/her mobile phone accessible from the moment he wakes up in the morning until he goes to bed at night, but if this is not possible, he may feel extreme tension and uneasiness (Erdem et. al., 2016). These individuals who feel like the world stops when they are separated from their smart phones, have difficulty focusing on their work and lessons, and as a result they often experience academic or professional failure (Polat, 2017). In the studies conducted, the emotional, behavioural problems and concentration difficulties seen in individuals with nomophobia or smartphone addiction confirm this situation (Güzeller and Coşguner, 2013; Haug et. al., 2015; Tan et. al., 2013; Toda and Ezoe, 2013).

Netless phobia is expressed as the fear of being without internet. The individual does not want to go to areas where there is no internet, feels extreme anxiety and anxiety when forced to be in such an area, and ultimately shows symptoms similar to withdrawal syndrome. These individuals try to spend most of their time on the internet during the day, check their e-mails regularly, enjoy sharing on their social media accounts, and can become extremely restless when these do not happen (Öztürk, 2015). Research has shown that individuals with fear of being without the internet, or netless phobia, experience emotional behavioural problems, concentration difficulties, and frequently encounter physical health problems (Batıgün and Hasta, 2010; Tanrikulu, Öztürk and Yeşil, 2015).

The fact that there are a considerable number of individuals in society for both quite dangerous situations and that the majority of these individuals are Generation Z individuals, which includes university students, reveals the importance of the issue (Erarslan and Çakıcı Eser, 2015). It is thought that it is especially important to examine child development department students in this context in the literature review, studies were found to determine the nomophobia and netless phobia levels of university students (Akman, 2019; Bardak and Yalçınkaya Alkar, 2016; Batıgün and Hasta, 2010; Erdem et. al., 2016; Fettahlıoğlu et. al., 2019; Hoşgör, 2020; Mendoza et. al., 2018; Mert and Akın, 2018; Oktan and Şahin, 2015; Şakiroğlu et. al., 2017). However, there are no studies investigating the nomophobia and netless phobia levels of child development undergraduate students, who have an important place in the lives of children and therefore the society and have important responsibilities in the healthy construction of the society. Based on this idea, the research aimed to determine the nomophobia and netless phobia levels of undergraduate students of the child development department.

## **Methods**

The methods, study group, data collection tools, data collection method and data analysis of the research conducted to determine the nomophobia and netless phobia levels of undergraduate students of the child development department are given below.

## **Research Model**

The survey model, one of the quantitative research methods, was used in the research conducted to determine the nomophobia and netless phobia levels of child development undergraduate students.

## **Study Group**

The research was conducted with child development undergraduate students studying at Çankırı Karatekin University, Faculty of Health Sciences, Department of Child Development in the 2022-2023 academic year.

Included in the research is, 94,9% of the students are female, 5,1% are male, 65,1% are in the 18-20 age group, and 42,2% are second university students. While 85,6% of the students got their first smart phone during high school, 9,2% got their phone during primary school and 5,1% at university. 59% of the students prefer to spend their free time listening to music, 24,6% do activities such as travelling, 12,3% read books and 4,1% do sports.

## **Data Collection Tools**

In the study, data were collected with the “General Information Form”, the “Nomophobia Scale” developed by Yıldırım et. al. (2016) and the “Netless phobia Scale” developed by Kanbay et. al. (2021).

**General Information Form:** It is a form developed by the researcher to determine the sociodemographic characteristics of child development undergraduate students. The form includes questions about the students’ gender, age, grade, the age of which they first acquired smartphones, and the activities they enjoy doing in their spare time.

**Nomophobia Scale:** It is a scale developed by Yıldırım et al. (2016) and used to determine the nomophobia levels of university students. The scale, which consists of 20 questions and four- sub-dimensions, is evaluated on a 5-point Likert type. In the reliability analysis conducted during the development phase of the scale, it was found to be that Cronbach’s Alpha values were .90 for the sub-dimension of not being able to access information, .74 for the losing connection sub-scale, .94

for the not communicating sub-dimension and .91 for the giving up comfort sub-dimension. In the reliability analysis conducted within the scope of the research it was found to be that .85 for the sub-dimension of not being able to access information, .75 for the losing connection sub-scale; .85 for the sub-scale of not communicating, .80 for the giving up comfort sub-scale, and .85 for the whole scale.

**Netless Phobia Scale:** This is the scale developed by Kanbay et. al. (2021) to determine internet addiction. The scale, which consists of 12 items and one dimension, is evaluated on a 5-point Likert type. During the development phase of the scale, it was found to be that, Cronbach's Alpha value .93, and within the scope of the research, it was .85.

### **Data Collection Method**

In order to collect data in the study, the necessary study permission was first obtained from Çankırı Karatekin University Health Sciences Ethics Committee. (Decision date: 17.03.2022; Decision number: 25). After obtaining ethics committee permission, Child Development undergraduate students were interviewed information about the purpose of the research was given to the students, who voluntarily agreed to participate in the research, and after filling out a voluntary consent form, the data was administered "Google Form" by the researcher.

### **Analysis of Data**

In the research, the data were taken into the SPSS 20.00 package program. For descriptive statistics, frequency and percentage values were examined. In order to determine whether the data showed a normal distribution, Kolmogorov Smirnov test results and skewness and kurtosis values were examined since the number of samples was over 50. As a result of normality analysis, it was determined that the data did not show a normal distribution. For this reason, Mann Whitney U, Kruskal Wallis test and Spearman correlation analysis results were examined for the relationship.

**Findings**

The findings of the research conducted to determine the nomophobia and nettles phobia levels of child development undergraduate students are given below.

Table 1: Means and Mann Whitney U Test Results of the Nomophobia and Nettles Phobia Scale and its Sub-Dimensions by Gender of Child Development Undergraduate Students (n=195)

Scale	Sub-Dimension	Gender	n	Average of ranks	Total of ranks	U	p
Nomophobia Scale	Inability to access information	Female	185	102,79	19016,50	38,50	.000
		Male	10	9,35	93,50		
	Lose connection	Female	185	102,80	190,108	37	.000
		Male	10	9,20	92		
	Not being able to communicate	Female	185	102,94	190,43	12	.000
		Male	10	6,70	67		
Don't give up on comfort	Female	185	94,95	17565,50	360,50	.001	
	Male	10	154,45	1544,50			
Nettles Phobia Scale	Nettles Phobia	Female	185	95,87	17736	531	.02
		Male	10	137,40	1374		

Table 1 shows the Mann Whitney U test results between the Nomophobia and Nettles Phobia scales and sub-scales of child development undergraduate students according to their gender. According to the table, a significant difference was found between the sub-dimensions of the Nomophobia scale, Not being able to access information, Losing connection, Not being able to communicate, and Giving up comfort, and the Nettles Phobia scale, according to the gender of the students ( $p < .05$ ). A significant difference was observed in favour of female students in the sub-scales of not being able to access information and losing connection, and in favour of male students in the scale of giving up comfort and Nettles Phobia.

Table 2: Means and Kruskal Wallis Test Results of Nomophobia and Nettles Phobia Scales and Sub- Dimensions of Child Development Undergraduate Students by Age (n=195)

Scale	Sub-Dimension	Age	n	Ranks average	x <sup>2</sup>	df	p	Significance difference
Nomophobia	Inability to access information	18-20 <sup>1</sup>	127	127,53	113,43	2	.000	1-2
		21-26 <sup>2</sup>	67	43,13				
		27 and over <sup>3</sup>	1	24,50				
	Lose connection	18-20 <sup>1</sup>	127	99,30	2,37	2	.31	
		21-26 <sup>2</sup>	67	96,70				
		27 and over <sup>3</sup>	1	20				
Not being able to communicate	18-20 <sup>1</sup>	127	119,08	57,56	2	.000	1-2	
	21-26 <sup>2</sup>	67	59,49					
	27 and over <sup>3</sup>	1	1					
Don't give up on comfort	18-20 <sup>1</sup>	127	96,94	1,34	2	.51		
	21-26 <sup>2</sup>	67	99,10					
	27 and over <sup>3</sup>	1	159,50					
Nettles Phobia	Nettles Phobia	18-20 <sup>1</sup>	127	83,16	24,41	2	.000	1-2
		21-26 <sup>2</sup>	67	124,69				
		27 and over <sup>3</sup>	1	194,50				

In Table 2, it was found that there was a significant difference between the nomophobia scale and the nettles phobia scale and its sub-scales according to the ages of child development undergraduate students ( $p < .05$ ). According to the table, the average rank of students in the 18-20 age group in the sub-dimension of not being able to access information, one of the sub-dimensions of the nomophobia scale is ( $x=127,53$ ); in the sub-dimension of not being able to communicate, the mean rank of students in the 18-20 age group was found to be high ( $x=119,08$ ). In other words, students in the 18-20 age group feel worse when they cannot access information or communicate. In the Nettles Phobia scale, the average rank of students in the 21-26 age group was found to be high. In other words, students in the 21-26 age group are more disturbed by being without internet.

Table 3: Means and Kruskal Wallis Test Results of the Nomophobia and Nettles Phobia Scale and its Sub-Dimensions by Class of Child Development Undergraduate Students (n=195)

Scale	Sub-Dimension	Class	n	Ranks average	$\chi^2$	df	p	Significance difference
Nomophobia	Inability to access information	1 <sup>1</sup>	32	42,92	124,00	3	.000	1-2
		2 <sup>2</sup>	90	140,81				1-3
		3 <sup>3</sup>	55	80,15				1-4
		4 <sup>4</sup>	18	36,42				2-3
	Lose connection	1 <sup>1</sup>	32	69,73	25,35	3	.000	2-4
		2 <sup>2</sup>	90	114,50				1-2
		3 <sup>3</sup>	55	97,97				1-3
		4 <sup>4</sup>	18	65,83				2-3
	Not being able to communicate	1 <sup>1</sup>	32	93,92	143,81	3	.000	2-4
		2 <sup>2</sup>	90	142,92				1-2
		3 <sup>3</sup>	55	54,11				1-3
		4 <sup>4</sup>	18	14,78				1-4
	Don't give up on comfort	1 <sup>1</sup>	32	110,94	37,77	3	.000	2-3
		2 <sup>2</sup>	90	87,72				1-4
		3 <sup>3</sup>	55	84,55				2-4
		4 <sup>4</sup>	18	168,03				
Nettles Phobia	Nettles Phobia	1 <sup>1</sup>	32	116,52	135,04	3	.000	1-2
		2 <sup>2</sup>	90	53,83				1-3
		3 <sup>3</sup>	55	158,88				2-3
		4 <sup>4</sup>	18	99,89				2-4

Table 3 shows the Kruskal Wallis test results between the nomophobia scale and the nettles phobia scale and its subscales according to the grade levels of child development undergraduate students. According to the table, a significant difference was found between the nomophobia scale sub-dimensions and the nettles phobia scale according to the students' grade levels ( $p < .05$ ). While the scores of 1<sup>st</sup> grade students in the sub-dimension of not being able to access information were found to be lower than other grades, the mean scores of 2<sup>nd</sup> grade students were found to be higher than those of 3<sup>rd</sup> and 4<sup>th</sup> grade students. In other words, 1<sup>st</sup> graders have the least anxiety level about not being able to access information. Regarding losing connection, the average score of 2<sup>nd</sup> grade students was found to be higher than that of all grade groups, and the scores of 3<sup>rd</sup> grade students were higher than those of 1<sup>st</sup> grade students. In other words, 2<sup>nd</sup> and 3<sup>rd</sup> grade students are worried about losing connection. The scores of 4<sup>th</sup> grade students and 1<sup>st</sup> grade students were found to be high in the sub-dimension of giving up comfort. So 4<sup>th</sup> and 1<sup>st</sup> grade students are worried about losing comfort. The scores of 1<sup>st</sup> and 2<sup>nd</sup> grade students were found to be high in the sub-dimension of not being able to communicate, which showed that the level of anxiety of 1<sup>st</sup> and 2<sup>nd</sup> grade students was high when they could not communicate. In the case of being without internet,



the scores of 1<sup>st</sup> grade students were found to be high, while the scores of 2<sup>nd</sup> grade students were found to be low. In other words, 1<sup>st</sup> grade students showed more concern about being without internet.

Table 4: Means and Kruskal Wallis Test Results between the Nomophobia and Nettles Phobia Scale and its Sub-Dimensions, According to the Early Years of Child Development Undergraduate Students They Owned a Smartphone (n=195)

Scale	Sub-Dimension	Age of owning a smartphone	n	Ranks average	$\chi^2$	df	p	Significance difference
Nomophobia	Inability to access information	Primary <sup>1</sup>	18	78,83	33,62	2	.000	1-2
		High school <sup>2</sup>	167	105,37				1-3
		University <sup>3</sup>	10	9,35				2-3
	Lose connection	Primary <sup>1</sup>	18	107,61	30,84	2	.000	1-3
		High school <sup>2</sup>	167	102,28				2-3
		University <sup>3</sup>	10	9,20				
	Not being able to communicate	Primary <sup>1</sup>	18	43,50	55,16	2	.000	1-2
		High school <sup>2</sup>	167	109,34				1-3
		University <sup>3</sup>	10	6,70				2-3
	Don't give up on comfort	Primary <sup>1</sup>	18	182,89	62,85	2	.000	1-2
		High school <sup>2</sup>	167	85,47				2-3
University <sup>3</sup>		10	154,45					
Nettles Phobia	Nettles Phobia	Primary <sup>1</sup>	18	80,06	7,38	2	.02	1-3
		High school <sup>2</sup>	167	97,57				2-3
		University <sup>3</sup>	10	137,40				

Table 4 shows the Kruskal Wallis test results between the smartphone ownership ages of child development undergraduate students and the nomophobia and nettles phobia scale and its subscales. According to the table, a significant difference was found between the students' ages of owning a smartphone and the nomophobia scale sub-dimensions and nettles phobia scales ( $p < .05$ ). It has been found that in the sub-dimension of not being able to access information, the average rank of those who had a smartphone during primary and high school, in the sub-dimension of not being able to communicate, those who had a smartphone during high school, and in the sub-dimension of giving up on comfort, those who had a smartphone during primary school and university years had a higher average rank. In the nettles phobia scale, the average rank of those who had a smartphone during university was found to be higher.

Table 5: Averages and Kruskal Wallis Test Results between Nomophobia and Nettles Phobia Scales and Sub- Dimensions According to the Leisure Time Activities of Child Development Undergraduate Students (n=195)

Scale	Sub-Dimension	Leisure Activity	n	Ranks average	x <sup>2</sup>	df	p	Significance difference
Nomophobia	Inability to access information	Reading books <sup>1</sup>	24	63,33	135,64	3	.000	1-3
		Travelling <sup>2</sup>	48	43,53				1-4
		Listening to music <sup>3</sup>	115	134				2-3
		To do sport <sup>4</sup>	8	11,31				2-4
	Lose connection	Reading books <sup>1</sup>	24	82,92	27,45	3	.000	1-2
		Travelling <sup>2</sup>	48	102,88				1-4
		Listening to music <sup>3</sup>	115	105,23				2-4
		To do sport <sup>4</sup>	8	10,13				3-4
	Not being able to communicate	Reading books <sup>1</sup>	24	65,50	87,68	3	.000	1-2
		Travelling <sup>2</sup>	48	61,22				1-3
		Listening to music <sup>3</sup>	115	126,53				1-4
		To do sport <sup>4</sup>	8	6				2-3
	Don't give up on comfort	Reading books <sup>1</sup>	24	172,75	110,63	3	.000	2-4
		Travelling <sup>2</sup>	48	41,63				1-2
		Listening to music <sup>3</sup>	115	100,83				1-3
		To do sport <sup>4</sup>	8	171,31				2-4
Nettles Phobia	Reading books <sup>1</sup>	24	77,08	99,82	3	.000	1-2	
	Travelling <sup>2</sup>	48	156,25				1-4	
	Listening to music <sup>3</sup>	115	72,95				2-3	
	To do sport <sup>4</sup>	8	171,38				3-4	

In Table 5, a significant difference was found between the Nomophobia scale sub-dimensions and the Nettles phobia scale according to the activities in their spare time that child development undergraduate students ( $p < .05$ ). In the sub-dimension of not being able to access information, it is seen that the average rank of students who spend their free time listening to music and travelling

is high. In other words, students who spend their free time traveling or listening to music experience anxiety about not being able to access information. In the sub-dimension of losing connection the average rank of students who spend their free time doing sports is lower. Therefore, students who do sports do not worry about losing connection. In the sub-dimension of not being able to communicate, the average rank of students who listen to music is lower. Therefore, students who spend their free time listening to music do not worry about not being able to communicate. In the sub-dimension of giving up comfort the average rank of students who spend their free time reading books or doing sports is higher. In other words, students who read books and do sports are worried about giving up comfort. On the Nettles phobia scale, the average rank of students who spend their free time travelling or doing sports is higher, and these students experience more intense anxiety when they are left without internet.

Table 6: Spearman Correlation Analysis Results between the Nomophobia Scale and its Sub-Dimensions and the Nettles Phobia Scales

	Inability to access information	Lose connection	Not being able to communicate	Don't give up on comfort
Nettles Phobia	$r=-.64$ $p<.005$	$r=-.25$ $p<.005$	$r=-.67$ $p<.005$	$r=-.11$ $p>.005$

Table 6 shows the Spearman correlation analysis results between the Nomophobia scale sub-dimensions and the Nettles phobia scales. According to the table, there is a strong and negative correlation between the Nettles phobia scale and the inability to access information sub-dimension ( $r=-.64$ ;  $p<.005$ ). Losing connection sub-dimension includes weak and negative direction ( $r=-.25$ ;  $p<.005$ ). A strong and negative ( $r=-.67$ ;  $p<.005$ ) significant relationship was found between the inability to communicate sub-dimension. However, no relationship was found between the Nettles phobia scale and the don't give up on comfort.

## **Discussion**

As a result of the research conducted to examine the nomophobia and nettles phobia levels of child development undergraduate students according to some variables, the average rank of female students was found to be high in the nomophobia scale sub-dimensions of not being able to access information and losing connection, according to the gender of the students. In other words, female students are more concerned about not being able to access information and losing connection. For

male students, a significant difference was found in the abandonment of comfort and nettles phobia scale. In today's technological world, access to information is very important. It is thought that it is possible to explain this finding obtained in the research by connecting it to the state of the education system and the different through system between female students and male students. The research was conducted in the spring semester of 2022-2023. These dates have a special importance. Depending on the situations in the county on the dates stated schools have switched to the distance education system. In distance, distance education, not everyone has had the some chance. Many studies had difficulty participating in online education due to infrastructure problems and faced the problem of disconnection as soon as they attended classes (Fıratlı Türker, 2023; Telli Yamamoto and Altun, 2023). In addition, it's generally emphasized that men and women use the internet and smart mobile phones for different purposes. It is generally stated that women use these tools and sites to obtain information or study, while men use them to benefit from social networks (Şişman and Eren, 2014). It is thought that these stated situations support the results of the research between male and female students. Similar to the findings obtained as a result of the research, research results have been found that there is a significant difference between the nomophobia and nettles phobia levels of university students according to their gender (Bakken et. al., 2009; Bardak and Yalçınkaya Alkar, 2016; Choi et. al., 2015; Gezgin, Çakır and Yıldırım, 2018; Kaur and Sharma, 2015; Kwon et. al., 2013; Tavolacci et. al., 2015).

Another finding obtained as a result of the research is that students in the 18-20 age group feel uncomfortable when they cannot access information or communicate, while students in the 21-26 age group feel more uncomfortable when they are without internet. It's possible to explain this situation according to the developmental status of the students. While the 18-20 age group constitutes adolescence, the 21- 26 age group constitutes the first adulthood. What is important during adolescence is the adolescent's need to communicate with his friends. The adolescent makes an effort to communicate with his friends in every situation and under all circumstances. However, when this situation is prevented, it can cause great trouble (Santrock, 2016). In addition, during this period smart mobile phones can be one of the channels where the young person who leaves his family and comes to another city and does not have sufficient knowledge about this city can get information (Altunbaş, 2020; Özkan and Yılmaz, 2010). However, the young person's failure to obtain these may also cause him/her to become helpless. For this reason, it can be considered as an expected situation that university students in the 18-20 age group have difficulties in

communicating and accessing information. However, the 21-26 age group can be described as a period of breakthrough in life, corresponding to the last years of university. During this period the young person's expectations and wishes can be considered as looking for a job based on the characteristics he/she has developed and gaining new experiences. The environment that will provide this to the young individual is undoubtedly the internet (Dursun and Aytaç, 2012; Güney and Çelik, 2019; Özkan and Yılmaz, 2010). For this reason, it can be said that being without internet in the 21-26 age group is a situation that upsets them and creates tension. Similar to the research results, the differentiation of nomophobia and nettles phobia variables according to age confirms the research findings (Durmuş et. al., 2018; Gezgin et. al. 2017).

As a result of the research, it was determined that 1<sup>st</sup> grade students had the least anxiety about not being able to access information. Regarding losing connection, the scores of 2<sup>nd</sup> and 3<sup>rd</sup> grade students were found to be high. In the sub-dimension of giving up comfort, 1<sup>st</sup> and 4<sup>th</sup> grade students are more anxious. It was determined that the scores of 1<sup>st</sup> and 2<sup>nd</sup> grade students were high in the sub-dimension of not being able to communicate. Regarding being without internet, first grade students' scores were found to be high. It is possible to interpret the findings according to the department in which the students study. Child development department is a department consisting of four years of education. In accordance with the regulations of the higher education program, students generally take basic general culture courses in the first year, while they start to take vocational courses intensively in the 2<sup>nd</sup> and 3<sup>rd</sup> years and carry out internship practices in the 4<sup>th</sup> year (ÇUÇEP, 2016). At the same time, after the Kahramanmaraş earthquake, classes were held online. In this context, losing connection can be considered a big problem for 2<sup>nd</sup> and 3<sup>rd</sup> grade students, where vocational courses are the busiest. At the same time, first year students will have the least anxiety about not being able to access information since they take the courses they have already taken within the scope of the general culture courses they have previously taken, and they may also show fewer symptoms of anxiety because they do not know the school and the courses (Sezgin and Alabay, 2021). However, their high level of anxiety about being without internet can also be considered as an effort to adopt to the environment. In addition, the high scores of 1<sup>st</sup> and 4<sup>th</sup> grade students regarding giving up comfort can be explained by the 1<sup>st</sup> grade students' introduction to vocational courses and the 4<sup>th</sup> grade students' anxiety about the future as mentioned above. As a matter of fact anxiety about what will happen after school ends may indicate the difficulty of giving up the current situation, in other words, the difficulty of giving up comfort and

the increase in the level of anxiety in this situation (Yaşar Ekici and Balcı, 2018). The fact that the average rank of the students in the 1<sup>st</sup> and 2<sup>nd</sup> grades in the sub-dimension of not being able to communicate is high can be explained by the students' actions to adapt to school and their friends (Yılmaz and Zembat, 2019). As a matter of fact, if the young person does not have internet or a smartphone during the process of getting used to it. It may prevent the young person from communicating, and this will be reflected in the research results.

As a result of the research, it was found that students who had smart mobile phones of an earlier age had higher scores in the nomophobia scale sub-dimensions. In other words, as the ownership of a smart phone decreases, nomophobic behaviours increase. This situation can be explained by the fact that students have had smart mobile phones from very early ages and it has become a lifestyle for them. In other words, as a result of the smart mobile phones that students have from a very early age, it causes them to develop addiction to smart mobile phones from a very early age (Gezgin and Çakır, 2016; Kang and Jung, 2014; Nagpal and Kaur, 2016; Sırakaya, 2018). Such a situation also increases the levels of nomophobia, which is defined as not being able to reach a smart phone (King et. al., 2014; Yıldırım and Correia, 2015). Studies have found that individuals who have had smart mobile phones from a very early age have high nomophobia levels, which supports the research result (Darga, 2021; Gözüm and Kandır, 2020; Harsh, Chakrabarty and Isha Mahajon, 2018; Paulus et. al., 2018; Üstündağ, 2019; Wu et. al., 2014). The research also showed that the level of nomophobia is high in students who have smart mobile phones at university. In addition, students who own smart phones have high scores on the nomophobia scale sub-dimensions of giving up comfort. This situation can be explained by linking it to students' communication with their peers. When we examine the functions of smart mobile phones today, we see that they generally search the internet and social media sites are visited more frequently. It can be stated that such a situation will cause the young person want to constantly use his smart phone to reach his peers as a result of having opportunities that he did not have before, his score will increase because he will experience the situation of giving up comfort when he is away from it, and his scores will increase due to his inability to realize his wishes without internet access (Arı, 2022). Studies have concluded that as the rate of owning a smart mobile phone increases, the level of internet addiction and abandonment of convenience increases (Daysal and Yılmazel, 2020; Fidan, 2016; Kuyucu, 2017; Kwon et. al., 2013; Şar and Işıklar, 2012).

As a result of the research, it was determined that students who spend their free time listening to music are worried about not being able to access information. It has been determined that students who spend their free time travelling have high levels of not being able to access information and nettles phobia. It is seen that students who spend their free time reading books have high levels of giving up comfort and students who do sports have high levels of giving up comfort and nettles phobia. It is possible to explain the findings with the combination of technology and activities that students can do other than smart phones and the internet. In this context, in today's technological world, the information available on the internet includes activities such as e-books, sports and music. Thus, people can perform the activities they love and are interested in through technology without paying any extra money or going to a different gym (Blanco, 2014; Yengin, 2019). Therefore, it can be thought that cutting off the technological connection or not being able to access the preferred activity in spare time will also affect the results, as in the research results.

The last result reached in the research is the relationship between nomophobia and nettles phobia. A strong and negative relationship was found between Nettles phobia and not being able to access information, a negative and weak relationship with losing connection, and a negative and strong relationship with not being able to communicate. This shows that as the level of nomophobia increases, nettles phobia decreases. Nomophobia is expressed as not being able to access a smart phone, and nettles phobia is expressed as not being able to access the internet. In this case, it shows that if the person cannot access information from his smart phone, he can access information, establish a connection or communicate with a tablet or computer. In other words, as long as the individual cannot use his smart mobile phone, he ends up doing all the transactions he wants to do with his smart mobile phones in another environment, which is the internet (Çınar Özbay et. al., 2023; Talan, Doğan and Kalınkara, 2023).

## **Conclusion and Recommendations**

As a result of the research conducted to determine the nomophobia and nettles phobia levels of child development undergraduate students, there was a significant difference between the students' gender, age, grade level, the age at which they own a smartphone and the way they spend their free time, and their nomophobia and nettles phobia scales. A negative relationship was found between

nomophobia ad nettles phobia scales. Based on the results obtained it is possible to make the following recommendations.

- Directing students to different activities to reduce students' nomophobia and nettles phobia levels,
- Conducting research with different samples,
- Raising awareness of smart phone and internet use by providing informative studies to students about their roles and responsibilities in their future professional lives,
- It may be recommended to plan and implement mixed method research.

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