

# The Relationship of Internet Addiction with Social Media Use Purposes and Loneliness of Adolescents\*

## Abstract

**Background:** Internet use has become widespread among young people, and internet addiction has become one of the most common social problems. Internet addiction of students can change the purpose of social media use and create feelings of loneliness.

**Aim:** In this study, it was aimed to identify the relationship of Internet addiction with social media use purposes and loneliness levels in adolescents.

**Methods:** The analytical cross-sectional type study was conducted with 520 students who agreed to participate in the study and attended the 9th, 10th, 11th, and 12th grades of 6 high schools in the province of Erzincan, Turkey, during the 2017-2018 academic year. The "UCLA Loneliness Scale Short Form," "Young's Internet Addiction Test-Short Form," "Social Media Use Purposes Scale," and "Question Form" were used in the study. In the analysis of the data, numbers, percentage, minimum and maximum values, mean and standard deviations, the analysis of variance, independent-samples *t*-test, and correlation analysis were used.

**Results:** A statistically significant, positive, and weak relationship was found between the Young's Internet Addiction Test-Short Form score and the interaction between individuals sub-scale ( $r=0.359, P < .001$ ) and the total score of the Social Media Use Purposes Scale ( $r=0.236, P < .001$ ). A statistically significant, positive, and weak relationship was found between the Young's Internet Addiction Test-Short Form score and the UCLA Loneliness Scale Short Form score ( $r=0.181, P < .001$ ).

**Conclusion:** As the Internet addiction increases, the use of social media for interaction between individuals and loneliness also increases. Therefore, information about the Internet use statuses of students should be collected in schools periodically from the students and parents, and awareness of students and parents should be raised regarding the Internet addiction.

**Keywords:** Internet, social media, loneliness

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## Introduction

The Internet is a widely used and constantly growing communication network in the world.<sup>1</sup> Internet contains many features such as sound, image, text, and graphics.<sup>2</sup> Internet use is very common among children and teenagers. The Internet is used for many purposes such as socializing, playing games, and preparing homework.<sup>3</sup> According to the Turkish Statistical Institute (2021) data, it has been observed that 82.7% of the children aged 6-15 use the internet, and 86.2% of the children in this age group who use the internet regularly for participation in online classes and 83.6% for homework or learning purposes.<sup>4</sup> In the New Media Usage Habits of Children and Cyber Bullying 2018 Research conducted by the Radio and Television Supreme Council, it is stated that 95.1% of secondary school students use the internet, and among the daily activities of the students on the internet, "movies/videos/music, etc. watching, uploading, downloading, and sharing," "surfing the internet in general," and "researching curious subjects" are in the first 3 places.<sup>5</sup>

Social media, which is within the scope of the Internet, has entered almost every aspect of our lives.<sup>6</sup> Children and young people tend to use social media for reasons such as obtaining information, playing games, and communicating.<sup>7</sup> Internet and social media use has the risk of turning into a habit over time and change from a habit to an internet or social media addiction.<sup>8</sup> Children and young people constitute a large part of the number of internet users, as well as the risky group.<sup>9</sup>

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Internet addiction is currently one of the most common and most serious social problems.<sup>10</sup> Internet addiction among children and adolescents varies between 1.6% and 13.8% in many countries.<sup>11-13</sup> In our country, it has been found in studies that the frequency of internet addiction among children and adolescents can vary between 4.9% and 56.9%.<sup>14-18</sup>

Internet addiction negatively affects the physical, mental, psychosocial development and growth of adolescents.<sup>19</sup> Internet addiction can put the individual in a process that leads to loneliness.<sup>20</sup> It is stated that as the level of loneliness increases in adolescents, the level of internet addiction also increases.<sup>21</sup> It has been found that excessive and unhealthy internet use of students will increase their feelings of loneliness over time.<sup>22</sup> However, no study has been found to determine the relationship between adolescents' internet addiction status with both social media usage purposes and loneliness together.

## Aim

The aim of this study is to determine the relationship of internet addiction with social media use purposes and loneliness levels in adolescents.

## Research Questions

- Is there a relationship between adolescents' internet addiction and the purpose of social media use?
- Is there a relationship between internet addiction and loneliness in adolescents?
- Do the social media use purposes, internet addiction, and loneliness scores of the adolescents change according to their socio-demographic characteristics?

## Materials and Methods

This analytical cross-sectional study was carried out in 6 high schools located in the city center of Erzincan during the academic years of 2017-2018.

### Population and Sample of the Study

The population of the research consists of 9th-, 10th-, 11th-, and 12th-grade students of 28 high schools located in the city center of Erzincan. According to the 2017-2018 academic year data of Erzincan Provincial Directorate of National Education, the number of universe is 10 000. The sample consists of a branch of the 9th, 10th, 11th, and 12th grades of 6 high schools, which were determined by lot among the schools representing 3 different socio-economic conditions. The number of students in each school included in the study was determined by the stratified sampling method. A questionnaire was applied to randomly selected students from each branch of the 9th, 10th, 11th, and 12th grades in the specified schools. The sample size in the study was determined by using the sample calculation formula in cases where the universe of the research ( $n = Nt^2pq/d^2(N-1) + t^2pq$ ) was known.<sup>23</sup> According to the results of the calculation made by using the sample calculation formula in cases where the universe was known in the sample selection (95% CI, 4.3% margin of error, 50% incidence), it was found that 494 students should be included in the sampling. It was aimed to reach 544 students since there may be 10% data loss, but the study was completed with 520 students because it was observed that 20 students filled the questionnaires halfway and 4 students voluntarily withdrawn from the study.

The research was carried out with a total of 520 students who were randomly selected during the 2017-2018 academic years and agreed to participate in the research.

Students who did not have any communication problems, had used the internet for at least one day, were at school at the time of data collection and volunteered to participate in the study were included in the study.

## Data Collection Tools

In the research, "Question Form," "UCLA Loneliness Scale Short Form", "Young's Internet Addiction Test-Short Form," and "Social Media Use Purposes Scale" were used.

### Question Form

This form was created as a result of literature review.<sup>7,19</sup> In the form, there are 7 questions about the socio-demographic characteristics of the adolescents, the characteristics of using the internet, and the frequency of using social media.

### UCLA Loneliness Scale Short Form

The UCLA Loneliness Scale was developed by Russell, Peplau, and Ferguson<sup>24</sup> to measure an individual's loneliness. The UCLA Loneliness scale is a self-report scale that aims to determine the loneliness level of the individual. The UCLA (University of California, Los Angeles) Loneliness Scale has been revised by Russell, Peplau, and Cutrona.<sup>25</sup> The scale was later revised by Hays and DiMatteo<sup>26</sup> and turned into an 8-item shortened form. The Turkish validity and reliability of the "UCLA Loneliness Scale Short Form" (ULS-8) for adolescents was conducted by Yildiz and Duy<sup>27</sup>. The scale is single factor. The response format of the scale is a Likert-type scale with 4 options as follows: "(1) never, (2) rarely, (3) sometimes, and (4) always". It is a self-report scale. "I can find a friend when I want" item is reverse scored. As a result of the sum of 7 items of the scale, a general loneliness score is found. Scores from the scale range from 7 to 28. The low scores of the adolescents from the scale indicate that the feeling of loneliness is low; higher scores indicate an increase in the intensity of the feeling of loneliness experienced. Yildiz and Duy<sup>27</sup> found  $\alpha = 0.74$  of the ULS-8. In this study,  $\alpha$  was found to be 0.73.

### Young's Internet Addiction Test-Short Form

The scale was developed by Young<sup>28</sup> to measure individuals' internet addiction. The scale was later converted into short form by Pawlikowski et al.<sup>29</sup> This scale was adapted into Turkish by Kutlu, Savci, Demir, and Aysan<sup>30</sup>. The scale consists of 12 items and is a single factor. It is a 5-point Likert scale (1=never and 5=very often). Higher scores obtained from the scale indicate a high level of dependency. There is no reverse scored item in the scale. This scale is the self-report scale. It is a valid and reliable scale for adolescents and university students. In the Turkish validity and reliability study of the Young's Internet Addiction Test-Short Form, the Cronbach's  $\alpha$  coefficient was reported as 0.91 in university students and 0.86 in adolescents.<sup>30</sup> In this study,  $\alpha$  was determined to be 0.86.

### Social Media Use Purposes Scale

The Social Media Use Purposes Scale was developed by Eren<sup>7</sup> to determine the students' social media usage purposes. The scale is in the form of 12 items and a 5-point Likert scale. This scale is a self-report scale. The scale has 2 sub-dimensions: "interaction between individuals" and "preparation for the course." While scoring the scale,

the scores given to each item are added together and the total score of the scale is obtained. When the scores given to the items containing the interaction between individuals sub-dimension of the scale (items 2, 4, 6, 8, 9, 10, and 12) are added, the interaction between individuals sub-dimension score is obtained, and when the scores given to the items containing the preparation for the course sub-dimension (items 1, 3, 5, 7, and 11) are added, the preparation for the course sub-dimension score is obtained. The internal consistency coefficient of the whole scale was 0.89, and the reliability coefficients of the first and second factors were determined as 0.88 and 0.80, respectively.<sup>7</sup> In this study, the Cronbach's  $\alpha$  value of the scale was determined as 0.85, the interaction between individuals sub-dimension as 0.85, and the preparation for the course sub-dimension as 0.78.

### Data Collection

Questionnaires were distributed and collected by the researcher, accompanied by high school teachers, on the dates of the research and at an appropriate lesson time, by interviewing the high schools within the scope of the research. Filling the forms took an average of 15-20 minutes. It was ensured that the data collection forms were filled under observation with the method of self-report.

### Statistical Analysis

The data were analyzed with the Statistical Package for the Social Sciences 17 package program (SPSS Inc.; Chicago, IL, USA). In the analysis of the data, number, percentage, minimum and maximum

**Table 1. Socio-Demographical Characteristics of the Participants**

Characteristics			n	%							
Age	14		16	3.1							
	15		83	16.0							
	16		131	25.2							
	17		196	37.7							
	18		94	18.1							
Gender	Female		340	65.4							
	Male		180	34.6							
Internet use frequency	Everyday		387	74.4							
	1-2 times a week		71	13.7							
	3 or more per week		62	11.9							
Internet use history (year)	1 and less		105	20.2							
	2-3		191	36.7							
	4-6		133	25.6							
	7 and above		91	17.5							
Duration of daily internet usage (hour)	<1		97	18.7							
	1-2		164	31.5							
	3-4		96	18.5							
	> 4		163	31.3							
<b>Frequency of using social media</b>		<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>							
		n	%	n	%	n	%	n	%		
Facebook		234	45.0	75	14.4	99	19.0	39	7.5	73	14.0
Instagram		104	20.0	35	6.7	80	15.4	102	19.6	199	38.3
Twitter		385	74.0	52	10.0	35	6.7	19	3.7	29	5.6
Messenger/Myspace		301	57.9	52	10.0	72	13.8	28	5.4	67	12.9
Youtube		66	12.7	61	11.7	122	23.5	96	18.5	175	33.7
Forum		427	82.1	31	6.0	40	7.7	12	2.3	10	1.9
Skype		414	79.6	41	7.9	27	5.2	13	2.5	25	4.8
Other (WhatsApp, Wattpad, Snapchat, Connect me, Scorp, Swarm, Viatori, Vkontakte, Discord)		398	76.5	10	1.9	7	1.3	21	4.0	84	16.2

value, mean, and standard deviation were used. In addition, analysis of variance, and the least significant difference (LSD) test as advanced analysis, independent-samples *t*-test, and correlation analysis were performed. The internal validity of the scale was examined with the Cronbach's  $\alpha$  coefficient.

### Ethical Aspects

Approval from the Atatürk University Nursing Faculty Ethics Committee (Number: 2017-3/3, Date: April 17, 2017) and written permissions from Erzincan Provincial Directorate of National Education (Number: 7608121, Date: May 26, 2017) were obtained for the study. Before the data were collected, the purpose of the research was explained to the parents and students, and written and verbal consent was obtained from the students and their parents.

### Results

In this study, 37.7% of adolescents are 17 years old, and 65.4% of adolescents are girls. It was determined that 74.4% of the adolescents use the internet every day, 31.5% of them use the internet daily for 1-2 hours, and 36.7% of them use the internet for 2-3 years. Considering the percentage of use of social media, which is always used by adolescents, it is seen that 14% of them use the Facebook, 38.3% of them use the Instagram, 5.6% of them use the Twitter, 12.9% of them use the Messenger/Myspace, 33.7% of them use the YouTube, 4.8% of them use the Skype, 1.9% of them use the forum, and 16.2% of them use other applications (Table 1).

The means of scores obtained by adolescents from the Social Media Use Purposes Scale and the interaction between individuals sub-scale, the preparation for the course sub-scale, Young's Internet Addiction Test-Short Form, and ULS-8 were consecutively  $35.42 \pm 9.91$ ,  $20.54 \pm 7.11$ ,  $14.88 \pm 4.46$ ,  $27.69 \pm 9.8$ , and  $12.16 \pm 4.42$  points, respectively (Table 2).

The difference between the interaction between individuals sub-dimension scores of the Social Media Use Purposes Scale according to the adolescents' frequency of internet use, internet use history, and duration of daily internet usage was statistically significant ( $P < .001$ ). The LSD (Least significant difference) test as advanced analysis performed to determine which groups this difference originates from, it was determined that those who use the internet 1-2 times a week have lower the interaction between individuals scores than those who use the internet every day and use the internet more than 3 days a week.

Table 2. Social Media Use Purposes Scale, Young's Internet Addiction Test-Short Form, and UCLA Loneliness Scale Short Form Mean Scores			
	n	$X \pm SD$	Min-Max
Social Media Use Purposes Scale total mean scores	520	$35.42 \pm 9.91$	12.00-60.00
Interaction between individuals sub-dimensional mean scores	520	$20.54 \pm 7.11$	7.00-35.00
Preparation for the course sub-dimensional mean scores	520	$14.88 \pm 4.46$	5.00-25.00
Young's Internet Addiction Test-Short Form total mean scores	520	$27.69 \pm 9.8$	12.00-60.00
UCLA Loneliness Scale Short Form total mean scores	520	$12.16 \pm 4.42$	7.00-25.00
SD, standard deviation.			

It has been determined that those who use the internet for 1 year or less have lower interaction between individuals scores than those who use the internet for 2-3, 4-6, and more than 7 years. In addition, it was determined that the interaction between individuals scores of those who use the internet less than 1 hour a day are lower than those who use the internet for 1-2, 3-4, and more than 4 hours. The difference between the interaction between individuals sub-dimension scores of adolescents according to age ( $P=.714$ ) and gender ( $P=.465$ ) was not statistically significant (Table 3).

Table 3. Sub-dimensional Mean Scores of Social Media Use Purposes Scale According to Socio-Demographic Characteristics

Characteristics	n	Interaction Between Individuals		Preparation for the Course
		$X \pm SD$	$X \pm SD$	
Age	14	16	$18.13 \pm 7.68$	$14.13 \pm 4.50$
	15	83	$20.59 \pm 6.49$	$15.07 \pm 4.42$
	16	131	$20.41 \pm 7.04$	$15.12 \pm 4.54$
	17	196	$20.66 \pm 6.90$	$15.12 \pm 4.43$
	18	94	$20.85 \pm 8.08$	$13.99 \pm 4.42$
	Test and <i>P</i>		$F = 0.350$ $P = .714$	$F = 1.332$ $P = .257$
Gender	Female	340	$20.38 \pm 7.05$	$15.00 \pm 4.39$
	Male	180	$20.86 \pm 7.23$	$14.65 \pm 4.60$
	Test and <i>P</i>		$t = -0.731$ $P = .465$	$t = 0.850$ $P = .396$
Internet use frequency	Everyday	387	$21.51 \pm 6.83$	$14.81 \pm 4.37$
	1-2 times a week	71	$15.89 \pm 6.74$	$14.73 \pm 4.84$
	3 or more per week	62	$19.81 \pm 7.12$	$15.45 \pm 4.61$
	Test and <i>P</i>		$F = 20.614$ <b><math>P &lt; .001</math></b>	$F = 0.588$ $P = .556$
Internet use history (year)	1 and less	105	$18.24 \pm 7.57$	$14.84 \pm 4.30$
	2-3	191	$20.34 \pm 6.61$	$15.17 \pm 4.35$
	4-6	133	$21.65 \pm 6.79$	$14.73 \pm 4.68$
	7 and above	91	$22.01 \pm 7.43$	$14.53 \pm 4.59$
Test and <i>P</i>		$F = 6.277$ <b><math>P &lt; .001</math></b>		$F = 0.515$ $P = .672$
Duration of daily internet usage (hour)	<1	97	$15.87 \pm 6.68$	$14.62 \pm 4.86$
	1-2	164	$19.70 \pm 6.62$	$15.24 \pm 4.45$
	3-4	96	$20.63 \pm 5.97$	$14.71 \pm 4.29$
	>4	163	$24.13 \pm 6.61$	$14.77 \pm 4.35$
Test and <i>P</i>		$F = 34.058$ <b><math>P &lt; .001</math></b>		$F = 0.555$ $P = .645$
SD, standard deviation. Significant values are in bold.				

The difference between the preparation for the course sub-dimension scores of the Social Media Use Purposes Scale according to age ( $P=.257$ ) and gender ( $P=.396$ ) of the adolescents was not statistically significant. The difference between the preparation for the course sub-dimension scores of the Social Media Use Purposes Scale according to frequency of internet use ( $P=.556$ ), internet use history ( $P=.672$ ), and duration of daily internet usage ( $P=.645$ ) was not statistically significant (Table 3).

The difference in mean scores of Young's Internet Addiction Test-Short Form was not significant according to age ( $P=.087$ ), gender ( $P=.567$ ), and internet use history ( $P=.152$ ). The difference in mean scores of Young's Internet Addiction Test-Short Form was significant according to the frequency of Internet use and the duration of daily

Internet usage ( $P < .001$ ). In the further analyses (LSD) conducted to determine which groups the difference originates from, it has been determined that the average score of those who use the internet every day and those who use the internet more than 4 hours a day is higher. The difference in the mean scores of the ULS-8 was not significant according to age ( $P=.281$ ), gender ( $P=.825$ ), frequency of internet use ( $P=.984$ ), internet use history ( $P=.909$ ), and duration of daily internet usage ( $P=.870$ ). (Table 4).

A statistically significant, positive, and low-level relationship was found between Young's Internet Addiction Test-Short Form scores and the interaction between individuals sub-dimension of Social Media Use Purposes Scale scores or between Young's Internet Addiction Test-Short Form scores and the Social Media Use Purposes

**Table 4. Mean Scores of Young's Internet Addiction Test-Short Form and UCLA Loneliness Scale Short Form According to Socio-Demographic Characteristics**

Characteristics	n	Young's Internet Addiction Test-Short Form		UCLA Loneliness Scale Short Form
		X ± SD	X ± SD	
Age	14	16	22.37 ± 8.92	11.56 ± 3.69
	15	83	28.08 ± 9.02	11.95 ± 4.52
	16	131	27.33 ± 8.47	12.22 ± 4.62
	17	196	28.70 ± 10.61	12.60 ± 4.46
	18	94	26.66 ± 10.35	11.42 ± 3.99
	Test and P		F = 2.047 P = .087	F = 1.270 P = .281
Gender	Female	340	27.87 ± 10.12	12.13 ± 4.54
	Male	180	27.35 ± 9.18	12.22 ± 4.17
	Test and P		t = 0.573. P = .567	t = -0.221. P = .825
Internet use frequency	Everyday	387	29.31 ± 9.87	12.14 ± 4.56
	1-2 times a week	71	21.52 ± 8.04	12.24 ± 4.33
	3 or more per week	62	24.64 ± 7.51	12.18 ± 3.53
	Test and P		F = 24.376 <b>P &lt; .001</b>	F = 0.016 P = .984
Internet use history (year)	1 and less	105	26.43 ± 10.49	12.35 ± 3.87
	2-3	191	27.72 ± 8.70	12.15 ± 4.50
	4-6	133	27.36 ± 9.79	12.19 ± 4.62
	7 and above	91	29.58 ± 10.99	11.89 ± 4.56
Test and P		F = 1.768. P = .152	F = 0.182. P = .909	
Duration of daily internet usage (hour)	<1	97	22.41 ± 8.28	12.08 ± 3.95
	1-2	164	24.88 ± 8.45	12.02 ± 3.97
	3-4	96	28.21 ± 8.69	12.05 ± 4.43
	>4	163	33.37 ± 9.69	12.40 ± 5.07
Test and P		F = 39.304. <b>P &lt; .001</b>	F = 0.238. P = .870	

SD, standard deviation.

Significant values are in bold.

**Table 5. The relationship between the Social Media Use Purposes Scale, its Sub-Dimensions and UCLA Loneliness Scale Short Form and Young's Internet Addiction Test-Short Form scores of the adolescents**

		UCLA Loneliness Scale Short Form	Interaction Between Individuals	Preparation for the Course	Social Media Use Purposes Scale
Young's Internet Addiction Test-Short Form	<i>r</i>	0.181	0.359	-0.047	0.236
	<i>P</i>	<b>&lt;.001</b>	<b>&lt;.001</b>	.289	<b>&lt;.001</b>
UCLA Loneliness Scale Short Form	<i>r</i>	-	-0.022	0.042	0.003
	<i>P</i>	-	.625	.340	.937

Significant values are in bold.

Scale total scores. As the Young's Internet Addiction Test-Short Form scores increased, the interaction between individuals sub-dimension scores and the Social Media Use Purposes Scale total scores also increased. There was no statistically significant relationship between Young's Internet Addiction Test-Short Form scores and preparation for the course sub-dimension scores of the Social Media Use Purposes Scale ( $P=.289$ ). There was no statistically significant relationship between the ULS-8 scores and the Social Media Use Purposes Scale total scores ( $P=.937$ ) or between the ULS-8 scores and the preparation for the course sub-dimension scores of the Social Media Use Purposes Scale ( $P=.340$ ) or between the ULS-8 scores and the interaction between individuals sub-dimension scores of the Social Media Use Purposes Scale ( $P=.625$ ) (Table 5).

A statistically significant, positive, and low-level relationship was found between Young's Internet Addiction Test-Short Form scores and ULS-8 scores ( $r=0.181$ ,  $P < .001$ ). As Young's Internet Addiction Test-Short Form scores increases, so does the ULS-8 scores (Table 5).

## Discussion

The results of this study investigating the relationship of adolescents' internet addiction with the purpose of social media use and loneliness show that internet addiction is significantly, positively, and in low-level related with the purpose of social media use and loneliness.

In this study, it was found that adolescents' use of social media for interpersonal interaction was more than their use for lesson preparation. Tuğlu<sup>31</sup> reported that the students participating in the research mostly used social media to communicate with their friends. In the study of Eroğlu and Yıldırım<sup>32</sup>, it is seen that 68.7% of the students use social media networks to "communicate with friends." Yenay and Deniz<sup>33</sup> found that middle and high school students use social media mostly for "interpersonal interaction." The results of the study are in agreement with previous studies.

In this study, it was determined that students who have more internet use frequency, duration of daily internet usage, and internet use history are also more likely to use social media for interpersonal interaction. Şışman Eren<sup>7</sup> found that as the daily and weekly use of the Internet by students increases, their use of social media for interpersonal interaction purposes increases. In the study of Yenay and Deniz<sup>33</sup>, it is seen that as the duration of using the internet increases, the use of social media for interpersonal interaction also increases. The results of the study are in agreement with previous studies. According to these results, it can be said that as adolescents' internet usage time increases, their use of social media for interpersonal

interaction increases, and as the rate of use of social media for interpersonal interaction increases, the risk of being exposed to negative effects of the internet such as internet addiction increases.

In this study, it is seen that the internet addiction mean scores of the students does not differ according to age, gender, and how long they have used the internet. In some studies, students' internet addiction levels significantly differ according to gender<sup>10,34,35</sup> and grade level.<sup>34</sup> In some other studies; it was determined that there was no significant difference between students' grade levels and internet addiction levels.<sup>35,36</sup> In addition, some studies determined that students' internet addiction levels did not show a significant difference according to gender.<sup>37,38</sup> It is thought that the difference in the study findings is due to the different internet usage characteristics of the sample group in the studies, and how long the students use the internet in this study is not an important variable on internet addiction.

In this study, the internet addiction mean score is different according to the frequency of internet use of the students and the duration of daily internet usage. Students who use the internet every day and who use the internet more than 4 hours a day have a higher internet addiction score average. In some studies, it was found that internet addiction increased as students' duration of daily internet usage increased.<sup>18,34,37</sup> Koyuncu et al<sup>15</sup> found that the prevalence of internet addiction increased with increasing frequency of use of the internet. According to these results, it is seen that the level of internet addiction changes according to the frequency of internet use and daily internet use time. In this study, it can be said that adolescents are in the risk group in terms of internet addiction because the majority of them use the internet every day and the daily internet use time is more than 2 hours.

In this study, the difference in the average loneliness score of the students according to age, gender, frequency of internet use, internet use history, and duration of daily internet usage is not significant. In some studies, it was found that gender and class variables did not make a statistically significant difference on students' loneliness levels.<sup>39,40</sup> Bayram and Gündoğmuş<sup>40</sup> found that the "loneliness scale" scores of the students did not differ significantly according to the duration they used the internet. The results of the study are consistent with the results of the previous study. According to these results, it can be said that there is no change in the level of loneliness according to the students' age, gender, frequency of internet use, internet use history and duration of daily internet usage. In this study, it is thought that most of the students do not feel lonely because they use social media for interpersonal interaction, and therefore, their loneliness scores do not differ according to their internet usage characteristics.

In this study, there is a significant relationship between Young's Internet Addiction Test-Short Form scores of the students and the interaction between individuals sub-dimension scores of the Social Media Use Purposes Scale. Aslan and Yazıcı<sup>41</sup> found that the most frequently used internet activities in students with internet addiction were chat and social sharing, whereas information, research and news reading sites were found in the group without internet addiction. Ümmet and Ekşi<sup>42</sup> found that individuals whose socialization levels and virtual sharing behaviors increase in the virtual environment experience more internet addiction. According to these results, it is thought that using the internet or social media for interpersonal interaction has an effect on internet addiction. In this study, since there is a significant relationship between students' internet addiction and their use of social media for interpersonal interaction and most of the students use social media for interpersonal interaction, it can be considered that using social media for interpersonal interaction is an important variable on internet addiction.

In this study, there is a positive, low-level, and significant relationship between students' Young's Internet Addiction Test-Short Form scores and ULS-8 scores. In some studies, it was found that there is a positive relationship between internet addiction and loneliness.<sup>43,44</sup> According to these results; Internet addiction and loneliness seem to be related to each other. In this study, it can be said that most of the students have the risk of internet addiction and being alone. The results of the study are in agreement with previous studies.

#### Limitations of the Research

The results of this study are limited to the answers given by the students to the questionnaire forms. In this case, if students fill out the questionnaires randomly or taking sides, false findings may occur as a result. For this reason, students were asked to fill out the questionnaires completely, they were given enough time to easily mark the options that fully express themselves, and the questions in the questionnaires were explained in detail with their options. In addition, the fact that the research was conducted in a single province creates a limitation in terms of the generalizability of the study results.

#### Conclusion

According to the results of the research, students use social media mostly for interpersonal interaction. As internet addiction increases, it is seen that loneliness and the use of social media for interpersonal interaction increases as well. Education about social media use, healthy internet use, and internet addiction can be given to the society by health professionals. Studies can be carried out to increase awareness about internet use in health institutions or schools.

**Ethics Committee Approval:** Ethics committee approval was received for this study from the Atatürk University Nursing Faculty Ethics Committee (number: 2017-3/3, date: 17.04.2017).

**Informed Consent:** Verbal and written consent was obtained from the students participating in the study and their parents.

**Peer-review:** Externally peer-reviewed.

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