

## Research Article

# Determining the Relationship between Social Media Addiction and Sleep Quality of Students, Faculty of Sports Sciences

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## Abstract

**Purpose:** In this study, to determine the social media addiction and sleep quality level of students; The aim of this study was to examine the relationship between sleep quality and social media addiction.

**Methods:** This study was planned as a descriptive relational study. The study was carried out in the Faculty of Sports Sciences of a university. A total of 208 students studying at the faculty of sports sciences formed the sample of the research. In data collection; A personal information form, prepared by researchers and questioning socio-demographic characteristics, Social Media Addiction Scale and Pittsburgh Sleep Quality Index were used. Independent two-sample t-test and One-Way Anova were used for normally distributed data. The results were evaluated at 95% confidence interval and  $p < 0.05$  significance level.

**Results:** When the sociodemographic characteristics of the students were examined, the mean age was  $20.88 \pm 2.40$ , 47.1% of them were female, 52.9% were male, 29.3% of their mothers were primary school graduates, 51.0% of them were female. It was determined that their fathers were high school graduates, 38.5% described their income as medium, 41.8% perceived their health as good, and 58.2% lived in the city for the longest time. It was found that the students' social media addiction total score average was  $69.11 \pm 16.19$  and the average sleep quality score was  $10.97 \pm 3.39$ .

**Conclusions:** In line with the results of the study, it was seen that the students included in the sample were in a risky position in terms of social media addiction, and their sleep quality was also quite bad. It was found that there was a significant relationship between students' social media addiction and their sleep quality. It was concluded that the students had worse sleep quality as the level of social media addiction increased.

## Introduction

Today, new communication technologies and social media can trigger social, cultural, economic and political transformations, as well as cause some radical changes in the daily lives and lifestyles of individuals. In addition to the benefits of these technologies such as easy and fast access to information, communication by overcoming time-space constraints, [2] and facilitating daily life, there is also the other side of the coin. Social media addiction and lifestyles isolated from social life stand in front of us as acute problems, with negative effects such as personal pri-

vacuity being compromised, the difficulty of filtering useful information from the information stack, and the rapid circulation of manipulative/fake news [6]. Grau et al. As (2019) put forward, while the internet and social media emerged as an alternative communication medium, it emerged as an opportunity for individuals who are afraid of expressing themselves especially in the public sphere/social environment. Social networks, which provide opportunities for young people to make their voices heard, produce content, create networks by coming together with people who think like them, and increase their democratic participation by expressing their opinions on political and social is-

sues, have also had positive effects in this context (Zivnuska et al. 2019). However, transferring the needs such as communication, self-expression and entertainment, which were met in social life before the internet and social media, to the virtual environment can trigger addiction to social media and cause people to experience some mental problems by living in isolation from social life [6-8]. Social media use is also used for purposes such as social and political participation, feeling good, and a cure for loneliness, but in this sense, excessive reliance on social networks can be a factor that feeds social media addiction (Robinson et al. 2019). In addition, today, social media is in a functional position in a wide variety of fields such as public relations, marketing, shopping, advertising, journalism, political campaigns, and non-governmental organizations. sleep quality; It is the individual's feeling of being fit, fit and ready for a new day after waking up. sleep quality; It is affected by various factors such as lifestyle, environmental factors, work, social life, economic situation, general health and stress (Kawyannejad et al. 2019, Lin et al. 2019, Wong et al. 2020). It is thought that spending most of the time on social media may affect the sleep quality of individuals. At the same time, it will guide the intervention studies to be carried out on the subject in line with the results to be obtained. For these reasons, in this study, to determine the social media addiction and sleep quality level of students; The aim of this study was to examine the relationship between sleep quality and social media addiction.

### Research Questions

1. What are the sociodemographic characteristics of the students?
2. Does social media addiction change according to the socio-demographic characteristics of the students?
3. Does the quality of sleep change according to the socio-demographic characteristics of the students?
4. Is there a relationship between the level of social media addiction and sleep quality of individuals?

### Methods

#### Type of Research

This study was planned as descriptive relational.

#### Location and Features of the Research

The study was carried out in the Faculty of Sports Sciences of a university.

#### Study Group of the Research

The sample size in the study was calculated in the G\*Power 3.1.9.2 analysis program. With an effect size of 0.31, a power of 95%, and a margin of error of 5%, Aktan (2018)'s total social media addiction score average was calculated as 208, taking into account (48.92 ± 4.57).

All students studying at the faculty of sports sciences formed the inclusion criteria of the *research*.

**Dependent variables**, social media addiction and sleep quality; **The independent variables** were determined as socio-demographic characteristics.

#### Data Collection Technique and Tools

The data of the research will be collected by face-to-face in-

terview technique in the classroom environment between 5-30 December 2022. The data collection process was terminated after the sufficient number of samples was reached. In data collection; A personal information form, prepared by researchers and questioning socio-demographic characteristics, Social Media Addiction Scale and Pittsburgh Sleep Quality Index were used.

#### Social Media Addiction Scale-Adult Form (SMDS-YF):

Developed by Bakır Ayğar and Uzun [8], the scale designed to measure the social media addiction of adults (between 18-60 years old); It consists of 20 items prepared in 5 Likert type (1 = not suitable for me at all, 5 = very suitable for me). The lowest score that can be obtained from the scale is 20, and the highest score is 100. As the score increases, there is an increase in the level of social media addiction. Items 5 and 11 in the scale are reverse coded. The scale has two sub-dimensions: Virtual Tolerance (items 1-11) and Virtual Communication (items 12-20). Cronbach's Alpha internal consistency coefficient for the overall scale was .94; It was found as .92 for virtual tolerance and .91 for virtual communication from sub-dimensions. A high total score is significant in terms of social media addiction.

#### Pittsburgh Sleep Quality Index (PUKI)

It was developed by Buysse et al. (1989). The validity and reliability of the index in Turkey was determined by Ağargün et al. [7] A self-report scale of PSQI assesses sleep quality and sleep disturbance over a one-month period. There are a total of 24 questions in the scale. PSQI has 7 sub-dimensions: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbance, use of sleeping pills, and daytime dysfunction. The total PUKI score is the sum of the 7 dimension scores. Each item is evaluated over 0-3 points, and the total score varies between 0-21. Higher scores indicate poor sleep quality. A total PSQI score of ≤5 indicates "good" and >5 indicates "bad" sleep quality. A PUKI score above 5 indicates that the person has serious trouble in at least two areas of sleep or mild or moderate distress in more than three areas. The Cronbach alpha coefficient of the index was reported as 0.80 [7].

#### Evaluation of Data

The data of the study were evaluated using the statistical package program SPSS for Windows 22.0 (Statistical Package for Social Science). Number of units (n), percent (%), mean ± Standard Deviation (mean (SD)) values were used as summary statistics. The normal distribution of the data was evaluated with Kolmogorov-Smirnov test and Q-Q graph. Independent two-sample t-test and One-Way Anova were used for normally distributed data. The results were evaluated at 95% confidence interval and p<0.05 significance level.

#### Ethical Dimension

Ethical permission of the research was obtained from the Ethics Committee of the Faculty of Sport Sciences of Selçuk University (Meeting Decision no: 2022/156). Before starting the study, informed consent form was obtained from the individuals. The purpose of the research, its duration and the procedures to be carried out during the research were briefly explained in a language they could understand, the principle of "Informed Consent", the principle of "Autonomy" by stating that individuals could withdraw from the research at any time, and the principle of "Confidentiality and Confidentiality" by stating that individual information would be protected after

sharing it with the researcher.

### Limitations of the Research

This study, which was conducted to determine the relationship between social media addiction and sleep quality of university students, is limited to students enrolled in a university's faculty of sports sciences and accepted to participate in the research. It cannot be generalized to all university students.

### Results

When the sociodemographic characteristics of the students are examined, the mean age is  $20.88 \pm 2.40$ , 47.1% of them are female, 52.9% are male, 29.3% of their mothers are primary school graduates, 51.0% of their fathers are high school graduates. 38.5% described their income as medium, 41.8% perceived their health as good, and 58.2% lived in the city for the longest time. It was found that the students' social media addiction total score average was  $69.11 \pm 16.19$  and the average sleep quality score was  $10.97 \pm 3.39$ .

When the sociodemographic characteristics of the students and their social media addiction mean scores were compared, the social media addiction level of men was found to be higher than that of women, and the difference was statistically significant ( $p < 0.05$ ). A statistically significant difference was found between maternal education status and social media addiction, and it was seen that the difference was caused by high school graduates ( $p < 0.05$ ). A statistically significant difference was found between perceived health status and social media addiction, and it was seen that the difference was caused by those who perceived their health poorly ( $p < 0.05$ ). A statistically significant difference was found between the perceived economic status and social media addiction, and it was seen that the difference was caused by those who perceived their income poorly ( $p < 0.05$ ). The average social media addiction score of those living in the metropolitan city for the longest time was found to be higher than those living in the city, and the difference was statistically significant ( $p < 0.05$ ). In addition, no significant difference was found between father's educational status and social media addiction ( $p > 0.05$ ) (Table 1).

When the sociodemographic characteristics of the students and the sleep quality scale mean scores were compared, it was seen that the women's sleep quality score averages were higher than the men's, and the difference was statistically significant ( $p < 0.05$ ). A statistically significant difference was found between the perceived economic status and the sleep quality mean score, and it was seen that the difference was caused by those who perceived their economic status poorly ( $p < 0.05$ ). In addition, no statistically significant difference was found between the education level of the mother, the education level of the father, the perceived health status and the place where they lived for the longest time, and the sleep quality scale mean scores ( $p > 0.05$ ) (Table 1).

When the relationship between students' age, social media addiction and sleep quality was evaluated, no statistically significant relationship was found between age, social media addiction and sleep quality ( $p > 0.05$ ). A strong negative relationship was found between individuals' social media addiction and sleep quality. It was observed that as individuals' social media addiction mean scores increased, their sleep quality mean scores decreased ( $r: -0.892$ ,  $p < 0.05$ ). Therefore, it can be said that as social media addiction increases, sleep quality decreases (Table 2).

**Table 1:** Comparison of Students' Sociodemographic Characteristics and Social Media Addiction and Sleep Quality Mean Scores.

	Social Media Addiction Scale Total Score	Sleep Quality Scale Total Score
<b>Gender</b>		
Female	65,31 ± 15,55	13,96 ± 3,47
Male	72,82 ± 16,77	7,98 ± 3,34
Test value, p	t:0,067, p:0,02*	t:0,234, p:0,01*
<b>Mother Education Status</b>		
Primary education	69,14 ± 16,05	10,84 ± 3,53
High school	<b>72,97 ± 14,30</b>	11,21 ± 3,18
Associate's/Bachelor's	68,92 ± 17,65	10,53 ± 3,05
Test value, p	t:0,965, p:0,02*	t:1,078, p:0,08
<b>Father Educational status</b>		
High school	68,40 ± 15,66	10,86 ± 3,45
University	69,89 ± 16,61	11,09 ± 3,35
Test value, p	t:2,257, p:0,10	t:1,257, p:0,52
<b>Perceived Health Status</b>		
Good	65,50 ± 15,82	10,74 ± 3,30
Middle	68,36 ± 16,10	11,15 ± 3,59
Bad	<b>74,79 ± 15,52</b>	11,00 ± 3,26
Test value, p	F: 0,923, p:0,02*	F:0,923, p:0,84
<b>Perceived Economic Situation</b>		
Good	69,11 ± 15,97	10,50 ± 3,35
Middle	66,57 ± 16,85	10,42 ± 3,65
Bad	<b>71,05 ± 15,78</b>	<b>12,07 ± 3,00</b>
Test value, p	F: 3,309, p:0,02*	F: 0,274, p:0,04*
<b>Longest Living Place</b>		
Big city	72,54 ± 14,88	11,16 ± 3,19
City	66,09 ± 17,05	10,84 ± 3,53
Test value, p	t:0,923, p:0,001*	t:2,109, p:0,33

t: t test, F: One Way ANOVA test, \* $p < 0,05$

**Table 2:** Evaluation of the Relationship between Students' Age, Social Media Addiction and Sleep Quality.

	Age	Social Media Addiction	Sleep Quality
<b>Age</b>	1,00		
<b>Social Media Addiction</b>	r:0,023 p:0,720	1,00	
<b>Sleep Quality</b>	r:0,029 p:0,475	r:-0,885 p:0,001*	1,00

r:Pearson Correlation analysis, \* $p < 0,05$

### Discussion

It was found that the level of social media addiction of the students was quite high. In our study, it was observed that the social media addiction level of men was higher than that of women. Sun and Zhang [2] reported in their study that women's social media addiction is more than men's. In the study of Çiftçi (2018), in which he evaluated the level of social media addiction in university students, it was reported that the social media addiction score of men was higher, different from our study finding. It has been observed that social media addiction is higher in those whose mothers are high school graduates. In studies conducted on the subject, it has been reported that mater-

nal education is an important factor in social media addiction and that the risk of addiction in children of mothers with higher education levels may be less [3,6]. Perceived health status and social media addiction. There was a statistically significant difference between addiction and addiction and it was seen that the difference was caused by those who perceived their health badly. In the study of prosecutor and Aysan (2017), it was reported that among the individuals in the sample group, those who felt their health bad were in the risk group in terms of social media addiction. A statistically significant difference was found between the perceived economic situation and social media addiction, and it was seen that the difference was caused by those who perceived their income poorly. Özdemir [5] study finding was similar to our study finding in this aspect.

In our study, it was found that the average sleep quality score of women was higher than that of men. In the study of Brown et al. [9] it was reported that women's sleep quality was better, similar to our study finding. A statistically significant difference was found between the perceived economic situation and the sleep quality score average, and it was seen that the difference was caused by those who perceived their economic situation poorly. Wood and Scott [10] reported that income level is important in sleep quality in their study evaluating sleep quality in students. Brown et al. [9] and Wood and Scott (2016)'s [10] study results were similar to our study results in this respect.

A strong negative relationship was found between individuals' social media addiction and sleep quality. It was observed that as the social media addiction score averages of the individuals increased, the sleep quality score averages decreased. Wood and Scott (2016) reported in their study that they found a significant relationship between social media addiction and sleep quality. Afandi et al. [12] evaluated the factors affecting social media addiction in university students and mentioned a strong negative relationship between social media addiction and sleep quality. Graham et al. [11], in their study evaluating the factors affecting social media addiction in university students, they mentioned a strong negative relationship between social media addiction and sleep quality, similar to our findings in other studies and the current study. Therefore, it can be said that as social media addiction increases, sleep quality decreases.

## Conclusion

In line with the results of the study, it was seen that the students included in the sample were in a risky position in terms of social media addiction, and their sleep quality was also quite bad. It was found that there was a significant relationship between students' social media addiction and their sleep quality. It was concluded that the students had worse sleep quality as the level of social media addiction increased. In our study, also, in

terms of social media addiction, men, those whose mothers are high school graduates, those who perceive their health as bad, those who define their economic situation as bad, and those who live in the metropolitan city for the longest time were included in the risk group. In terms of sleep quality, women and those who perceive their economic situation as bad are in the risk group.

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