Ann Med Res

Current issue list available at AnnMedRes

Annals of Medical Research

journal page: www.annalsmedres.org

The relationship between social media addiction and emotion regulation skills and sleep quality of university students

Nesrin Ozer[a], Derya Tanriverdi[b,*], Safiye Ozguc[b]

[a] *Gaziantep Provincial Health Directorate, Gaziantep, Türkiye*
[b] *Gaziantep University, Faculty of Health Sciences, Department of Psychiatric Nursing, Gaziantep, Türkiye*

ARTICLE INFO

Keywords:
Emotion regulation skill
Sleep quality
Social media addiction

Received: Jun 03, 2024
Accepted: Jul 18, 2024
Available Online: 26.07.2024

DOI:
10.5455/annalsmedres.2024.05.099

Abstract

Aim: In current study, we aimed to determine relationship between social media addictions, emotion regulation skills and sleep quality of university students.

Materials and Methods: Research was conducted in descriptive design. The sample of study consisted of 450 university students. Personal information form, Social Media Addiction Scale (SMAS), Cognitive Emotion Regulation Questionnaire (CERQ) and Pittsburgh Sleep Quality Index (PSQI) were used to obtain the data.

Results: The mean total score of the SMAS of the students is 97.33±26.78. Mean scores of sub-dimensions of CERQ "Self-Blame", "Acceptance", " Rumination", "Positive Refocusing", "Refocusing on Plan", "Positive Reappraisal ", " Putting into Perspective", " Catastrophising " and "Blaming Others" are respectively; 11.23±2.78, 11.85±2.80, 13, .32±3.17, 12.19±2.81, 13.78±3.24, 13.44±3.32, 12.36±2.90, 10.40±2.95, 10.61±2.97. The mean total score of was PSQI 7.91±3.01.

Conclusion: It was found that 31.5% of university students are moderately addicted to social media and their sleep quality is poor. As social media addiction increases, sleep quality worsens.

Introduction

Social media, which refers to new forms of communication, is used intensively by individuals throughout the day thanks to widespread use of internet in an environment based on sharing and interaction [1]. Social media meets the daily needs of the individual, facilitates his/her life and brings the distances between people closer [2]. However, in addition to positive benefits of social media, it also has significant disadvantages [3]. It is stated that the frequency of social media use is associated with various sleep problems among adolescents. Adolescents who frequently use social media during the day report poorer sleep quality [4]. Frequency of social media use, especially in the evening, is associated with delayed bedtime [5], greater difficulty falling asleep, and poorer sleep quality [4,6].The development of addiction due to intensive and prolonged use of social media is also an important problem.

The intensive use of social media and internet technologies triggers internet/social media addiction. Increasing frequency of internet use for purpose of accessing information and socializing has the effect of increasing addiction [7].

An addiction to social media is a psychological problem that acts together with cognitive, emotional and behavioral processes, occupies a large part of daily life such as private, work/academic and social areas, and causes problems such as mood regulation, repetition and conflict [8]. We can state that social media addiction is also effective on the emotional states of individuals. Emotions have experiential, behavioral and physiological dimensions [9].

All stages of recognizing the emotions experienced, reacting to the recognised emotions and expressing emotions effectively can be defined as emotion regulation [10]. Maladaptive behaviors (suicidal tendency, smoking-substance use, behavioural disorders, etc.) can be seen in individuals with inadequate emotion regulation, and these problems are a result of having difficulty in emotion regulation [11]. It is stated that individuals with difficulties in emotion regulation tend more towards behavioral addictions in order to get away from their troubles and avoid negative emotional states [11]. In addition, it can be considered as a risk factor for social media addiction, which is a type of addiction [11], as the lack of skills in managing emotions is associated with substance use and addiction. In this context, it is stated that there is a positive relationship

*Corresponding author:
Email address: deryalper@hotmail.com (Derya Tanriverdi)

between dysfunctional emotion management and smartphone addiction [12].When this information is examined in the literature, we can say that there is a mutual interaction between emotion regulation difficulties and social media addiction.

The use of social media at level of addiction can also damage the coordination between mind and body, not allowing enough time for rest and affecting sleep quality. it is clear that excessive use of social media by reducing sleep hours will weaken daily life activities, cause insomnia and have a negative impact on life [13].

In this context, the current study was conducted to determine relationship between social media addictions and emotion regulation skills and their sleep quality of university students. It is thought that research will contribute to accumulation of data in terms of literature and to the studies on intervention and prevention of social media addiction, which have been proven to cause psychopathological conditions especially in young people.

Materials and Methods

Ethical approval for our study was received from Gaziantep University Clinical Research Ethics Committee, dated January 26, 2022, with approval number 2022/46. A descriptive design was used for research. The study population included of students enrolled in a public university's health sciences faculty. The sample size was determined using G Power software. Previous studies were examined [14,15] and expected confidence intervals of "Social Media Addiction Scale" were determined and confidence interval was $\alpha = 0.05$, the power of test (1-β) was 0.95, the effect size d = 0.2857143 was ascertained as 162 people in total. Sample of study consisted of 450 students who volunteered to participate in the study.

Criteria for inclusion in the study

1. Volunteering to participate in the study
2. Being a student at Gaziantep University Faculty of Health Sciences
3. Using social media

Exclusion criteria from the study

Not volunteering to participate in the study.

Data collection

Data were obtained by face-to-face interviews after researchers gave information about research.

Personal Information Form: The researchers created this form, which contains details on the individuals' sociodemographic traits.

Social Media Addiction Scale (SMAS): SMAS was developed by Tutgun-Ünal and Deniz (2015) in order to measure social media addiction of university students [16]. Scale consists of 41 items and has a 5-point likert type. The highest score that can be obtained from the Social Media Addiction scale is 205 and the lowest score is 41. High score indicates an increase in social media addiction. Those with a total score between 41-73 from the scale were defined as "no social media addiction", 74-106 as "low addicted", 107-139 as "medium addicted", 140-172 as "high addicted", 173-205 as "very high addicted". The Cronbach Alpha internal consistency coefficient of scale was found to be 967 [16]. In this research, Cronbach's Alpha value of the scale is .95.

Cognitive Emotion Regulation Questionnaire (CERQ): CERQ scale was developed by Garnefski et al., (2001) [17]. Its Turkish adaptation was conducted by Onat and Otrar (2010) [18]. The Cronbach Alpha value of scale was α=,784 and the test-r-test reliability coefficient was found as "r=. 1,00". The scale consists of 36 items in total with 9 subscales answered in five-point Likert type (1: Never, 2: Sometimes, 3: Regularly, 4: Frequently, 5: Always) and 4 items in each subscale. Each subscale is scored between 4 and 20. The subscales that make up the scale are "Self-Blame", "Acceptance", " Rumination", "Positive Refocusing", "Refocusing on Plan", "Positive Reappraisal ", " Putting into Perspective", " Catastrophising " and "Blaming Others". Cronbach's alpha value of scale ranges between .67 and .81.

Pittsburgh Sleep Quality Index (PSQI): It is a scale developed in 1989 for the evaluation of sleep quality [19] and validity and reliability studies in our country were performed by Ağargün et al. [20]. The PSQI, which assesses sleep quality in past one month, is a scale consisting of 19 items and 7 sub-dimensions including 'Subjective Sleep Quality, Sleep Latency, Sleep Duration, Habitual Sleep Efficiency, Sleep Disorder, Sleep Medication Use and Daytime Dysfunction'. In this scale, there are 24 questions in total, 19 of which are self-report questions and 5 of which are asked to be answered by the spouse or the people sharing the same room. The total score of the 7 components that make up the sub-dimension, each component of which is evaluated on a 0-3 point scale, gives total score of PSQI. The total score takes a value between 0-21. Those with a total score of $\leq$5 and below are considered to have "good" sleep quality, while >5 indicates "poor" sleep quality. The scale's Cronbach's alpha value in this investigation was 84.

Statistical analysis

SPSS 22.0 package program was used to evaluate the data. To calculate the required sample size for our study, we used an effect size of 0.28, a significance level of 0.05, and a power of 95%. Means and standard deviations were used to represent descriptive analyzes for variables that conformed to normal distribution. Percentage, arithmetic mean and standard deviation were used to examine the descriptive characteristics of the participants. Pearson correlation analysis was used to determine the relationship between the scale averages and a p value of <0.05 was considered statistically significant.

Results

When the research data is examined, 86.4% of the participants are women, 98% are between the ages of 18-25, 34.4% are in the first grade, 62.2% spend time on social media and 33.1% It was determined that he spent 16-30 minutes on social media before sleeping.

Table 1. Participants' Mean Scores on the Total and Subscales of the Social Media Addiction Scale (SMA). Cognitive Emotion Regulation Questionnaire (CERQ) and Pittsburgh Sleep Quality Index (PSQI).

Scale	Sub-Scale	95% Confidence Interval for Mean Lower Bound	Lower Bound	Minimum and Maximum Points	X ± SD
Social Media Addiction Scale (SMAS)	Busyness	32.19	33.87	12-60	33.03±9.05
	Emotion State Regulation	12.69	13.51	5-25	13.11±4.45
	Repetition	11.07	11.89	5-25	11.48±4.42
	Conflict	38.3847	40.99	19-95	39.69±714.05
	SMAS Total	94.85	99.81	41- 205	97.33±26.78
Cognitive Emotion Regulation Questionnaire (CERQ)	Self-blame	10.97	11.49	4-20	11.23±2.78
	Acceptance	11.58	12.10	4-20	11.85±2.80
	Rumination	13.02	13.61	4-20	13.32±3.17
	Positive Refocusing	11.93	12.45	4-20	12.19±2.81
	Refocus on Planning	13.47	14.07	4-20	13.78±3.24
	Positive Reappraisal	13.13	13.75	4-20	13.44±3.32
	Putting into Perspective	12.09	12.62	4-20	12.36±2.90
	Catastrophising	10.12	10.67	4-20	10.40±2.95
	Other-blame	10.33	10.88	4-20	10.61±2.97
Pittsburgh Sleep Quality Index (PSQI)	Component 1	1.71	1.90	0-3	1.80±1.04
	Component 2	1.43	1.60	0-3	1.52±0.90
	Component 3	.59	.76	0-3	.67±0.92
	Component 4	.61	.80	0-3	.70±1.00
	Component 5	1.47	1.59	0-3	1.53±0.64
	Component 6	.1312	.23	0-3	0.18±0.53
	Component 7	1.40	1.48	0-3	1.49±0.91
	PSQI Total	7.63	8.18	0-21	7.91±3.01

SMAS:Social Media Addiction Scale; CERQ:Cognitive Emotion Regulation Questionnaire; PSQI:Pittsburgh Sleep Quality.

Mean total score of the social media addiction scale of the students participating in the study is 97.33±26.78. According to the total score of social media, it was determined that the students were "less addiction". In addition, students were found to be "moderately addiction " in the occupation sub-dimension; "moderately addiction " in the emotion regulation sub-dimension; "less addiction " in the repetition sub-dimension; and "less addiction " in the conflict sub-dimension.

Mean scores of Cognitive Emotion Regulation Questionnaire "Self-Blame", "Acceptance", "Rumination", "Positive Refocusing", "Refocusing on Plan", " Positive Reappraisal", " Putting into Perspective ", " Catastrophising" and "Blaming Others" sub-dimensions were 11. 23±2.78, 11.85±2.80, 13, .32±3.17, 12.19±2.81, 13.78±3.24, 13.44±3.32, 12.36±2.90, 10.40±2.95, 10.61±2.97.

The mean total score of Pittsburgh Sleep Quality Index was 7.91±3.01 (Table 1).

According to Table 2, a positive significant relationship was detected between social media addiction scale total score and PSQI total score (p=000).

There was a significant positive correlation between social media addiction scale, cognitive emotion regulation scale sub-dimensions of "Self-Blame"(p=.000), "Acceptance" (p=.000)," Rumination (p=.004), Putting into Perspective (p=.007), " Catastrophising"(p=.000), "Blaming Others" (p=.000).

It was determined that there was a significant positive correlation between PSQI total score and cognitive emotion regulation scale sub-dimensions of "Self-Blame"(p=.001), "Acceptance"(p=.007), "Rumination"(p=.000), " Catastrophising"(p=.018), and "Blaming Others" (p=.015).

There is a significant negative relationship between sub-dimensions of cognitive emotion regulation scale, refocusing on the plan (p=.001), and, positive reappraisal "(p=.005), and the conflict sub-dimension of social media addiction scale (Table 2).

Discussion

Although use of social media provides many benefits in modern society, excessive or problematic use of social media can have negative consequences on the physical and mental health of minority individuals, especially young adults [21,22]. For some individuals, this can lead to problematic social media use and (in extreme cases) social media addiction [23].

As a result of this study, it was determined that 31.5% of participants had moderate social media addiction. In addition, it was observed that participants were "moderately addicted" in sub-dimensions of the social media addiction scale in sub-dimensions of occupation and emotion regulation, while they were "less addicted" in sub-dimension of repetition and conflict. When literature is examined, similar research results are available [15,24-26]. According to the data of this study, we can say that students mostly spend their time in social media platforms, which is an important risk factor for social media addiction.

Sleep quality is known to be an important indicator of health and well-being. However, social media addicted

Table 2. The Relationship Between the Participants' Average Scores of SMAS. CERQ and PSQI Total and Sub-Dimensions.

	Scales	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
Social Media Addiction Scale (SMAS)	1. Busyness	1																					
	2. Emotion State Regulation	.632**	1																				
	3. Repetition	.548**	.493**	1																			
	4. Conflict	.518**	.543**	.689**	1																		
	5. SMAS Total	.805**	.746**	.792**	.903**	1																	
Cognitive Emotion Regulation Questionnaire (CERQ)	6. Self-blame	.297**	.283**	.249**	.210**	.299**	1																
	7. Acceptance	.290**	.227**	.213**	.190**	.270**	.572**	1															
	8. Rumination	.264**	.154**	.124**	0	.134**	.487**	.523**	1														
	9. Positive Refocusing	0.092	0.017	0.051	-0.024	0.029	.123**	.340**	.389**	1													
	10. Refocus on Planning	0.053	-0.051	-0.066	-.161**	-0.087	.190**	.293**	.524**	.580**	1												
	11. Positive Reappraisal	0.077	-0.059	-0.049	-.133**	-0.062	.170**	.291**	.482**	.596**	.739**	1											
	12. Putting into Perspective	.186**	.115*	.110*	0.053	.127**	.276**	.439**	.431**	.516**	.538**	.605**	1										
	13. Catastrophising	.268**	.317**	.271**	.317**	.355**	.383**	.327**	.230**	.186**	0.021	0.028	.301**	1									
	13. Other-blame	.297**	.280**	.289**	.351**	.378**	.282**	.348**	.188**	.201**	.098*	0.048	.236**	.581**	1								
Pittsburgh Sleep Quality Index (PSQI)	15. Component 1	0.044	-0.011	.093*	0.018	0.038	.159**	.116*	.214**	0.01	.100*	.114*	0.082	0.032	0.042	1							
	16. Component 2	.137**	.133**	.147**	.116*	.154**	.107*	0.092	.139**	0.057	0.015	0.017	0.009	0.063	.127**	.323**	1						
	17. Component 3	0.033	0.038	0.052	0.051	0.052	0.069	0.035	.114*	-0.069	-0.032	-0.004	0.045	0.07	-0.012	0.087	.098*	1					
	18. Component 4	-0.052	-0.054	-0.001	0.034	-0.009	-0.061	-0.044	0	-0.007	-0.051	-0.037	0.017	-0.023	-0.065	0.033	0.009	.194**	1				
	19. Component 5	.167**	.222**	.215**	.250**	.261**	.184**	.110*	.148**	0.036	0.015	0.015	0.024	.185**	.167**	.461**	.275**	.129**	0.043	1			
	20. Component 6	-0.047	0	0.083	.152**	0.077	-0.047	-0.018	-.102*	0.005	-0.069	-0.074	0	0.074	0.079	-0.066	-0.033	0.038	.158**	0.078	1		
	21. Component 7	.164**	.187**	.168**	.176**	.207**	.131**	.136**	.116*	0.036	0.02	0.018	0.053	0.05	.122**	.138**	.162**	.101*	-0.012	.275**	.094*	1	
	22. PSQI Total	.126**	.134**	.204**	.202**	.205**	.159**	.126**	.200**	0.017	0.01	0.027	0.072	.111*	.114*	.611**	.547**	.495**	.440**	.608**	.252**	.502**	1

*P<0.05 **P<0.001 SMAS:Social Media Addiction Scale; CERQ:Cognitive Emotion Regulation Questionnaire; PSQI:Pittsburgh Sleep Quality.

individuals are at risk of poor sleep quality, including difficulty falling asleep and/or maintaining sleep [27]. As a matter of fact, 79% of participants in current study were found to have poor sleep quality. Aldhawyan's (2020) study with a similar sample also reported that students' use of social media only before bedtime was associated with a higher risk of poor sleep quality [28]. Wolniczak et al. (2013) found a relationship between social media addiction and poor quality sleep among university students in Peru, and reported that more than half of students participating in study had poor quality sleep [29]. Similarly, in a study conducted by Wang et al. (2018), sleep problems increase with increase in social media use [30]. According to these findings, the majority of college students have bad sleeping habits [31]. These two characteristics were found to be strongly correlated in teenagers in another study, and social media addiction was found to be a substantial predictor of sleep issues [32]. In addition to having an adverse long-term effect on their physical health, students with poor sleep patterns and quality may find it difficult to focus on their academics. This can lead to a vicious cycle of low academic performance, depression or anxiety, and poor sleep quality [33]. Hjetland et al. (2021) show that social media screen use plays an important role in students' sleep quantity and quality, with evening screen time having a stronger relationship with sleep than total daily screen time [34]. Parallel to these data, in current study, it was determined that 33.1% of students spent 16-30 minutes on social media without sleeping. As a result, as a result of this research, it is seen that sleep quality decreases as social media addiction increases. In this direction, it can be said that increase in social media addiction negatively affects sleep quality. Because constantly spending time on social media platforms can disrupt sleep patterns. In this case, it is inevitable that it will negatively affect sleep quality. In addition, deteriorated sleep quality can negatively affect one's mental and physical health. In order to be protected from these negative effects, it is thought that it will be useful to limit social media use, regularly move away from social media and other digital platforms, ensure mental and emotional rest, maintaining to sleep routine, reduce screen time, stay away from screens before going to sleep, reduce blue light exposure, improve your falling asleep process and make social media use conscious.

Sleep disturbances are also associated with impaired emotional regulation and coping strategies, and lack of sleep plays an important role in emotional regulation [35]. The secret to everyday adaptation to environmental influences is adaptive emotion regulation, which helps people better control and manages emotional experiences or present events [36]. In this study, as students' use of maladaptive cognitive emotion regulation strategies such as self-blame, rumination, catastrophizing and blaming others increases, their sleep quality decreases. Cognitive emotion regulation, defined as ability to recognize, understand and manage individuals' emotions, affects emotional experiences. In this case, it can be indirectly associated with sleep quality.

Among cognitive emotion regulation skills, self-blame, blaming others, rumination and catastrophizing are seen

as maladaptive coping strategies. In this study, when the relationship between maladaptive coping strategies and social media addiction is examined, as maladaptive emotion regulation skills increase, the level of social media addiction also increases. In Rozgonjuk and Elhai's (2019) study, it was reported that dysfunctional emotion management increased maladaptive emotion regulation skills with smartphone addiction, which is considered as a type of addiction study [12].

Limitations

The limitations of this study include the small sample size and the use of self-report questionnaires.

Conclusion

It was found that 31.5% of university students are moderately addicted to social media and their sleep quality is poor. It was determined that they used more positive emotion regulation strategies and more negative strategies such as rumination. The fact that students spend most of their time on social media is a factor that negatively affects sleep quality. As social media addiction increases, sleep quality worsens. As students' use of maladaptive cognitive emotion regulation strategies such as self-blame, rumination, catastrophizing and blaming others increases, their sleep quality also decreases. In order to increase sleep quality, it is recommended to implement initiatives aimed at reducing social media use, especially late at night, developing adaptive emotion regulation strategies and reducing the use of maladaptive strategies.

Authorship contributions

DT: Conceptualization, Design, Supervision, Materials, Data collection and processing, Analysis and/or Interpretation, Literature review, Writing, Critical Review. SÖ: Analysis and/or Interpretation, Literature review, Critical Review Writing. NE: Conceptualization, Design, Materials, Data collection and processing.

Ethical approval

Gaziantep University, Faculty of Health Science, Gaziantep University Faculty Of Medicine Clinical Research Ethics Committee, Approval No:2022/46.

References

1. Güler E Ö, Veysikarani D, Keskin D (2019) Üniversite öğrencilerinin sosyal medya bağımlılığı üzerine bir araştırma. Çağ Üniversitesi Sosyal Bilimler Dergisi 16(1): 1-13.
2. Babacan M E (2016) "Sosyal medya kullanım alanları ve bağımlılık ilişkisi". Addıcta: The Turkısh Journal On Addıctıons 3(1):7-28 DOI 10.15805/addicta.2016.3.0017.
3. Abi-Jaoude E, Naylor K T, Pignatiello A (2020) Smartphones, social media use and youth mental health. Cmaj 192(6): E136-E141. https://doi.org/10.1503/cmaj.190434.
4. Woods HC, Scott H. (2016) Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. J. Adolesc 51:41–49. doi: 10.1016/j.adolescence.2016.05.008.
5. Scott H, Woods H C. (2018) Fear of missing out and sleep: Cognitive behavioural fac-tors in adolescents' night-time social media use. J. Adolesc 68:61–65. doi: 10.1016/j.adolescence.2018.07.009.
6. Akçay D, Akçay B D. (2018) The influence of media on the sleep quality in adoles-cents. Turk. J. Pediatr 60:255–263. doi: 10.24953/turkjped.2018.03.004.
7. Feindel H (2009) İnternet bağımlılığı. 1. Basım. İstanbul: İletişim Yayınevi.
8. Tutgun Ünal A (2015) Sosyal medya bağımlılığı: üniversite öğrencileri üzerine bir araştırma (Doktora Tezi). Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
9. Duy B, Yıldız M A (2016) Ergenler için duygu düzenleme ölçeği'nin Türkçe'ye uyar-lanması. Turkish Psychological Counseling and Guidance Journal, 5(41).
10. Gökkaya Füsun (2018) "Duyguları Fark Etme ve İfade Etme", Duygu Psikolojisi, İçinde, Edt. Fatma Gül Cirhinlioğlu, Nobel Yayınları, Ankara: 27-42.
11. Mohajerin B, Dolatshahi B, Shahbaz A P, Farhoudian A (2013) Differences between expressive suppression and cognitive reappraisal in opioids and stimulant dependent pa-tients. International Journal Of High Risk Behaviors & Addiction 2(1): 8-14. https://doi.org/10.5812/ijhrba.8514.
12. Rozgonjuk D, Elhai J D (2019) Emotion regulation in relation to smartphone use: Pro-cess smartphone use mediates the association between expressive suppression and prob-lematic smartphone use. Current Psychology 1-10. https://doi.org/10.1007/s12144-019-00271-4.
13. Dewald J F, Meijer AM, Oort F J, Kerkhof G A, Bögels S M (2010) The influence of sleep quality, sleep duration and sleepiness on school performance in children and ado-lescents: A meta-analytic review. Sleep Medicine Reviews 14(3): 179–189. doi:10.1016/j.smrv.2009.10.004.
14. Uslu M (2021) Türkiye'de sosyal medya bağımlılığı ve kullanımı araştırması. Turkish Academic Research Review 6(2): 370-396. https://doi.org/10.30622/tarr.933479.
15. Özdemir Z (2019) Üniversite öğrencilerinde sosyal medya bağımlılığı. Beykoz Akademi Dergisi 7(2): 91-105. DOI: 10.14514/BYK.m.26515393.2019.7/2.91-105.
16. Deniz L, Tutgun-Ünal A (2019) Sosyal medya çağında kuşakların sosyal medya kullanımı ve değerlerine yönelik bir dizi ölçek geliştirme çalışması. OPUS Uluslararası Toplum Araştırmaları Derg. 11(18):1025–1057.
17. Garnefski N, Kraaij V, Spinhoven P (2001) Negative life events, cognitive emotion reg-ulation and emotional problems. Personality and Individual differences 30(8): 1311-1327. https://doi.org/10.1016/S0191-8869(00)00113-6.
18. Onat O, Otrar M (2010) Adaptation of cognitive emotion regulation questionnaire to Turkish: validity and reliability studies. Educational Research in International Con-text 31(31): 123-143.
19. Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ (1989) The pittsburgh sleep quality ındex: a new instrument for psychiatric practice and research. Psychiatry Research 28(2): 193-213.
20. Ağargün MY, Kara H, Anlar O (1996) Pittsburgh Uyku Kalitesi İndeksi'nin Geçerliği ve Güvenirliği. Türk Psikiyatri Derg 7: 107-111.
21. Ahsan N, Hakim F (2021) Is social media addiction in COVID-19 pandemic affecting students' academic performance and health. South Asian J Manage 15(2), 254-273. DOI: 10.21621/sajms.2021152.08.
22. Satici B, Kayis A R, Griffiths M D (2021) Exploring the association between social me-dia addiction and relationship satisfaction: psychological distress as a media-tor. International Journal of Mental Health and Addiction 21(4): 2037-2051. https://doi.org/10.1007/s11469-021-00658-0.
23. Kuss D J, Griffiths M D (2017) Social networking sites and addiction: Ten lessons learned. International journal of environmental research and public health 14(3), 311. doi:10.3390/ijerph14030311.
24. Balcı Ş, Gölcü A (2013) Facebook Addiction among University Students in Turkey:" Selcuk University Example". Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi 1(34): 255-278.
25. Karacı A, Piri Z (2017) Üniversite öğrencilerinin Facebook bağımlılığının farklı değişkenler açısından incelenmesi: Kastamonu Üniversitesi örneği. Kastamonu Eğitim Dergisi 25(4): 1547-1558.
26. Eroğlu O, Yıldırım Y (2017) Sosyal medya ağlarının kullanım amacı ve bağımlılığının uyku kalitesi ile ilişkisinin incelenmesi. Türkiye Spor Bilimleri Dergisi 1(1): 1-10.

27. Wong H Y, Mo H Y, Potenza M N, Chan M N M, Lau W M, Chui T K, Lin C Y (2020) Relationships between severity of internet gaming disorder, severity of problematic so-cial media use, sleep quality and psychological distress. International journal of envi-ronmental research and public health 17(6): 1879. doi:10.3390/ijerph17061879.
28. Aldhawyan A F, Alfaraj A A, Elyahia S A, Alshehri S Z, Alghamdi A A (2020) Deter-minants of subjective poor sleep quality in social media users among freshman college students. Nature and Science of Sleep 279-288. doi:10.2147/NSS.S243411.
29. Wolniczak Rodriguez I, Aguila C D, Alonso J, Palma-Ardiles G, Arroyo K J, Solés-Visscher R, Bernabe-Ortiz A (2013) Association between facebook dependence and poor sleep quality: a study in a sample of undergraduate students in peru. PLoS ONE 8(3): e59087. doi:10.1371/journal.pone.0059087.
30. Wang C, Li B, Guo X (2018) The association between social media use and sleep dis-turbance among young adults. Preventive Medicine Reports 12: 271-277.
31. Wang T J, Kang C L, Tsai J L, Song W T, Lien A S Y (2021) Social media (Facebook) improper use and the influence of sleeping quality in Taiwan's university stu-dents. Science progress 104:(2). https://doi.org/10.1177/00368504211011878.
32. Korkmaz Z, Çiçek İ, Yıldırım M, Ünsal F (2023) Sosyal Medya Bağımlılığı ve Uyku Kalitesi Arasındaki İlişki: Sanal Dünyanın Ergenler Üzerindeki Etkisi. Yaşadıkça Eğitim 37(3): 844-856. https://doi.org/10.33308/26674874.2023373654.
33. Wang Y, Guang Z, Zhang J, Han L, Zhang R, Chen Y, Wang S (2023) Effect of Sleep Quality on Anxiety and Depression Symptoms among College Students in China's Xi-zang Region: The Mediating Effect of Cognitive Emotion Regulation. Behavioral Sci-ences 13(10): 861. https://doi.org/10.3390/bs13100861.
34. Hjetland G J, Skogen J C, Hysing M, Sivertsen B (2021) The association between self-reported screen time, social media addiction, and sleep among Norwegian University students. Frontiers in public health 9: 794307. https://doi.org/10.3389/fpubh.2021.794307.
35. Palmer C A, Alfano C A (2017) Sleep and emotion regulation: An organizing, integra-tive review. Sleep medicine reviews 31: 6-16. https://doi.org/10.1016/j.smrv.2015.12.006.
36. Gross J J (2015) Emotion regulation: Current status and future prospects. Psychological inquiry 26(1): 1-26. https://doi.org/10.1080/1047840X.2014.940781.