

An investigation into the relationship between social media addiction and emotional eating behaviour of university students

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Abstract. *Background and aim:* The purpose of this study was to investigate the relationship between social media use and emotional eating behaviour. *Method:* The sample of the study was comprised of 301 students consisting of 153 male and 148 female students, studying at the Faculty of Sport Sciences at Kocaeli University. The “Social Media Addiction Scale” developed by Sahin and Yagci (2017) and the “Emotional Eating Scale” developed by Bilgen (2018) were used to obtain data in the study. The descriptive characteristics of the students participating in the study were determined using frequency and percentage analyses. Skewness and Kurtosis values were checked to see if the data had a normal distribution. While correlation analysis was used to determine the relationship between the study variables, regression analysis was used to determine the effect. *Results:* The social media addiction scale and the emotional eating scale were found to have a positive and significant relationship ($p < 0.05$). As a result of the regression analysis, it was seen that social media addiction explained 13,4% of the emotional eating scale, which was statistically significant. ($R=37,1\%$; $R^2= 13,7\%$; $AdjR^2=13,4\%$, $F=47,134$; $p < 0,01$). *Conclusions:* According to the findings of the study, as the use of social media increased, emotional eating attitudes also increased.

Key words: social media, emotional eating behaviour, university student

Introduction

Due to technological advancements, reduced working hours, and increase in people’s leisure time, individuals started to have more education and income levels. As a result of all these, there is an increased demand for recreational activities. Outdoor leisure activities allow for several possibilities to learn, explore, and discover. Furthermore, they have beneficial physiological, psychological, and social impacts on people. Also, they help individuals have increased self-confidence and self-esteem.

Today, the internet is one of the most widely utilized information and production technologies, and its use is growing by the day. It has become an

indispensable tool since it is used in numerous areas such as accessing information, providing communication, shopping, and entertainment opportunities. It makes life easier for individuals due to the many opportunities it provides (1, 2).

The global use of the internet is increasing every day. Along with the use of the Internet, social media has also entered our lives (3). Social media is known as social networking sites. Social media refers to websites or programs that enable users to exchange material with their online networks (4).

Social media has become one of the most essential communication tools used today, shortly after the emergence and spread of the internet. Social media as a new media product that provides a sharing platform

for people is increasing its number of users with new applications and features day by day. In this way, people maintain their social relations through social media, although they have no physical contact. Social media addiction is considered a type of internet addiction; in other words, individuals who spend much of their time on social media have the desire to be immediately aware of something in a way that may cause virtual tolerance, virtual communication, and virtual problems. This situation encourages people to refer to social media more, and these habits are called social media addiction (5).

According to research performed with university students, 94.2% of the students use at least one social network, and 55.6% of these students spend around four hours each day on social media (6). Thanks to its use for such a long time, social media can easily guide people on certain issues. What individuals see while browsing the virtual network can greatly affect their preferences on some issues such as nutrition, exercise, and travel (7).

The fact that the use of the internet and social media has increased so much today has shown that it can lead to undesired outcomes such as unhealthy social relationships and decreased life satisfaction (8). One of the negative effects of social media is associated with eating behaviours and body weight. Studies have shown that this virtual platform creates eating disorders with an effect it creates on eating behaviours (9, 10).

In terms of eating disorders, emotional eating is one of the factors that is considered to be affected by social media. Eating unhealthily with unstable emotions is defined as emotional eating (11). People may tend to eat to change their mood because of social media, which can also impact moods (12). Meeting an individual's nutritional needs is crucial for both psychological and physiological reasons. When people are furious, stressed, or upset, they may eat more than normal. Emotional eating is a sort of psychological eating in which an individual consumes more food than usual in reaction to an unpleasant impact.

Several elements stimulate and affect eating behaviour. Being overweight, body image, social media, religious views, environmental circumstances, social structure, hormones, kind of daily exercise, and heredity all influence eating behaviours (13).

In a study evaluating social media addiction among university students, social media addiction was reported at rates ranging from 9.7% to 41% (14). Simultaneously, in a study investigating the prevalence of eating disorders among university students, it was revealed that eating disorders ranged from 4.5% to 24.6% (15). It is believed that there is a relationship between the increased use of social media and the emergence of nutritional issues among young people. This study aimed to examine the relationship between social media use and emotional eating behaviour.

Materials and methods

Research method

The cross-sectional model, a quantitative research method, was used in the study. Cross-sectional models are research approaches that aim to describe a situation that exists either in the past or in the present. The event, individual, or object that is the subject of research, is attempted to be defined in its circumstances and in the way it is (16).

Participants

The sample of the study consisted of 301 (male: n=153; female: n=148) volunteers studying at the Faculty of Sports Sciences (physical education teaching, recreation, coaching education, sports management departments) at Kocaeli University.

Data collection tools

Social Media Addiction Scale - Adult Form (SMASAF): The "Social Media Addiction Scale-Adult Form" developed by Sahin and Yagci (2017) was used to collect the data in the study. The degrees of agreement with the statements in the 5-Likert type scale were formed as "Not at all Suitable for Me (1 point), Not Suitable for Me (2 points), Undecided (3 points), Suitable for Me (4 points), Very Suitable for Me (5 points). In addition, the scale in question consists of 20 items and 2 factors; Virtual Tolerance (VT) and Virtual Communication (VC). The highest point that

can be obtained from the scale is 100 and the lowest is 20 points. A high score is considered to mean that the individual perceives her/himself as a “social media addict”. The Cronbach Alpha internal consistency coefficient for the overall scale was 0.94 while it was found 0.92 for virtual tolerance and 0.91 for virtual communication sub-dimensions (17).

Emotional eating scale: The emotional eating scale developed by Bilgen (2018) was used. The degree of agreement with the statements in this 5-point Likert type scale is as follows: “Never (1 point), Rarely (2 points), Sometimes (3 points), Often (4 points), Almost always (5 points)”. The scale in question consists of 30 items and 4 factors; Eating in Stress Situations, Eating to Cope with Negative Emotions, Self-Control, and Control Against Stimulus. The highest point that can be obtained from the scale is 150 and the lowest is 30 points. The Cronbach Alpha internal consistency coefficient for the overall scale was 0.96 while it was found to be 0.944 for Eating in the Tension States, 0.926 for Eating to Cope

with Negative Emotions, 0.794 for Self-Control, and 0.636 for Control in the Face of Stimulus (18).

Data collection procedure

The study involved volunteers studying at the Faculty of Sports Sciences (physical education teaching, recreation, coaching education, sports management departments) at Kocaeli University. The participants were asked for their consent to participate in the study voluntarily. The data were obtained online between 01 December 2020 - 31 May 2021 through the application of questionnaires using the Google Form application. The results of one of that questionnaires in show in Table 1

Statistical analysis

In this study, the data gathered through the questionnaires and the internet were analysed using the

Table 1. Demographic attributes table.

Variables		n	%
Having a smartphone or not	Yes	292	97,0
	No	9	3,0
Internet access frequency	Everyday	282	93,7
	3-4 days per week	19	6,3
The most used tool for social media	Mobile devices	283	94,0
	Computer	18	6,0
Daily time devoted to social media	Less than 30 minutes	13	4,3
	30 minutes - 1 hour	25	8,3
	1-2 hour	85	28,2
	2-4 hour	85	28,2
	More than 4 hours	93	30,9
The primary preference of social networking sites	Facebook	27	9,0
	Instagram	217	72,1
	Twitter	21	7,0
	Youtube	24	8,0
	Other	12	4,0
For how long social media sites are used	Less than 1 year	11	3,6
	1-2 years	14	4,7
	3-4 years	46	15,3
	More than 4 years	230	76,4
Total		301	100,0

IBM SPSS Statistics 25 package application. The descriptive features of the participants were presented using frequency and percentage analyses (Table 2). Skewness and Kurtosis values were assessed to establish whether the data had a normal distribution. Correlation analysis was performed to find the relationships, and regression analysis was used to find the effect.

Results

When Table 3 is examined, since the limit for reliability is 0.7, the scale is considered highly reliable.

When Table 4 is examined, a significant positive correlation was found between the social media addiction scale and the emotional eating scale ($p < 0.05$).

Regression analysis was used to examine the effect of social media addiction and emotional eating levels (Table 5). The regression analysis revealed that social media addiction explained 13,4% of the

emotional eating scale, which was statistically significant ($R=37,1\%$; $R^2= 13,7\%$; $AdjR^2=13,4\%$; $F=47,134$; $p < 0,00$).

Discussion

The Internet has become an integral element of our lives in our ever-changing world. People use social media to learn and communicate with not only their region but also the whole world. Nevertheless, along with the beneficial consequences of evolving technology, we also see that it has led to the emergence of the term social media addiction, which is a type of addiction (19).

The highest score that can be obtained from the scale is 100 and the lowest score is 20. A high score indicates that the individual considers himself/herself to be a "social media addict". The students were determined to have an "intermediate" degree of social media

Table 2. Descriptive Statistics Regarding Social Media Addiction Scale and Emotional Eating Scale.

	n	Min	Max	Mean	SD
Virtual Tolerance	301	15,00	50,00	31,7110	7,35161
Virtual Communication	301	9,00	41,00	22,6312	6,86927
Social Media Addiction Scale	301	24,00	86,00	51,2824	11,99069
Eating in Stress Situations	301	11,00	55,00	23,6346	9,93979
Eating to Cope with Negative Emotions	301	9,00	45,00	18,3233	8,73383
Self-Control	301	6,00	30,00	16,0034	4,85583
Control Against Stimulus	301	3,00	15,00	8,7800	3,14184
Emotional Eating Scale	301	33,00	138,00	69,4094	22,82432

Table 3. Cronbach's Alpha, Skewness and Kurtosis Values of the Scales.

Scale	Cronbach's Alpha	Skewness	Kurtosis
Virtual Tolerance	,756	,103	-,560
Virtual Communication	,827	,322	-,187
Social Media Addiction Scale	,860	,279	-,227
Eating in Stress Situations	,917	,777	-,133
Eating to Cope with Negative Emotions	,934	,791	-,218
Self-Control	,659	,140	-,056
Control Against Stimulus	,720	-,042	-,692
Emotional Eating Scale	,941	,672	-,136

Table 4. Correlation Analysis Results of Social Media Addiction Scale and Emotional Eating Scale.

		1	2	3	4	5	6	7	8
Virtual Tolerance	r	1							
	p								
Virtual Communication	r	,589**	1						
	p	,000							
	n	301	301						
Social Media Addiction Scale	r	,906**	,870**	1					
	p	,000	,000						
	n	301	301	301					
Eating in Stress Situations	R	,358**	,257**	,354**	1				
	p	,000	,000	,000					
	n	301	301	301	301				
Eating to Cope with Negative Emotions	r	,306**	,216**	,301**	,894**	1			
	p	,000	,000	,000	,000				
	n	300	300	300	300	300			
Self-Control	r	,236**	,110	,210**	,461**	,363**	1		
	p	,000	,059	,000	,000	,000			
	n	298	298	298	298	298	298		
Control Against Stimulus	r	,276**	,202**	,269**	,447**	,415**	,337**	1	
	p	,000	,000	,000	,000	,000	,000		
	n	300	300	300	300	299	298	300	
Emotional Eating Scale	r	,379**	,259**	,371**	,955**	,920**	,614**	,576**	1
	p	,000	,000	,000	,000	,000	,000	,000	
	n	301	301	301	301	301	301	301	301

** Correlation is significant at the 0.01 level (2-tailed).

Table 5. Regression Analysis Results for Social Media Addiction Scale and Emotional Eating Scale.

Variables	R	R ²	Adj. R ²	B	Std Error	β	F
	,371	,137	,134				47,134
Emotional Eating Scale				,710	,103	,371	

*p< .001
Durbin Watson= 1,972

attitude. In this regard, it may be concluded that students have a moderate risk of social addiction. There is research in the literature that demonstrates that the participants are moderately hooked to social media (20, 21, 22).

The social media addiction scale and emotional eating scale were found to have a positive and

significant relationship. According to these results, it can be interpreted that as students' levels of social media addiction rise, their emotional eating is likely to increase as well. Eating has a positive emotional impact and helps individuals feel good because of its elements that provide pleasure to the individual and influence the reward system (23). When the literature

was reviewed, it was seen that Turkmen (2022) discovered a positive and high relationship between virtual tolerance, virtual communication, and social addiction, as well as a negative significant correlation with eating attitudes in her study (22). According to the results of a study carried out with university students, there was a positive and high relationship between problematic internet use and eating attitudes (24). According to Cam (2014), in the study in which internet addiction in adolescents and the relationship between psychopathological symptoms and obesity were examined, there was a relationship between eating disorders and internet addiction (25). In the study conducted by Yıldız (2014), internet addiction was found to be a factor in the occurrence of obesity in students (26). Obesity is a major risk factor for people who spend a lot of time in front of the computer and eat unhealthy food (25). It is stated that individuals with problematic internet use have behavioural problems related to alcohol, gambling, sex, and eating (27). Since people with problematic internet use behaviours are constantly busy, they often do not realize what they are doing, and as a result, they may skip meals without realizing it or consume unhealthy snacks and have weight problems while using the internet. After that, they may exhibit behaviours of removing what they eat or eating too little to lose the weight they have gained, and they may get the disease of eating disorders (28). Depression was found to be a partial mediator in the relationship between internet addiction and bulimia (29). Dalgacı (2016) found that there is a significant causal relationship between internet addiction and eating attitudes in high school students. (30). All participants' depression was revealed to be a partial mediator of the relationship between internet addiction and bulimia (29).

Several research studies on social media addiction have found a negative and significant relationship between athletic students' levels of social media addiction and their mental well-being (31). Researchers found a positive and statistically significant relationship between internet addiction and perceived stress (32, 33, 34).

Along with spending a long time on social media and becoming addicted to it, the individual may face various problems in the fields of education, work,

social, and health (35). All these problems encountered in cognitive, emotional, and physical terms suggest that the individual may have more stress levels. Research findings show parallelism with these results. Some researchers found a negative significant relationship between internet addiction and life satisfaction (36, 37, 38, 39, 31). There was a negative significant difference between social media addiction and life satisfaction (40).

The intense use of social media affects individuals in terms of their daily activities, responsibilities, real communication with other individuals, and physical health. It has been revealed that social media addiction causes social isolation, and it has been observed that it causes increasing worthlessness, unhappiness, and depressive symptoms in individuals. Social isolation creates physical problems such as obesity, and studies show that it has a detrimental impact on mental health (41, 42).

Conclusion

As a result, with the development of social media addiction, individuals' stress levels may increase and increasing worthlessness and sadness can cause depressive symptoms. Besides, sleep patterns and eating attitudes can be disrupted. According to the findings of the study, it was found that as the use of social media increases, emotional eating attitudes also increase. The students in recreational sports or arts activities may be suggested to be away from social media addiction and other harmful behaviours.

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