Determination of the relationship between the participation level of university students to physical activity and their social media addiction

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Abstract

Purpose: This study was made in order to assess the relationship between the social media addiction of the students studying in the physical education and sports academy and their level of participation to physical activity according to some variables, starting from the importance of social media addiction creating the sedentary life based on the popular usage of internet.

Method: The research group consisted of 143 students studying in the Physical Education and Sport Academy, Bartın University. In the research, as the data collection tool, developed by (Craig et al., 2003). The validity and reliability study of UFAA, the "international physical activity survey" done by (Öztürk, 2005) and the social media addiction scale, developed by (Ünal, 2015) were used. The data obtained for the research were primarily transferred to the computer environment and then, analyzed via SPSS 22 package software. The error margin level was taken as $p < 0.05$ in the research.

Findings: Considering the physical characteristics of the students participating in the research, the age, length and body weight of the male students were found out as respectively: $21,57 \pm 1,96$ year, $178,41 \pm 6,67$ cm, $74,92 \pm 10,16$ kg, and of the female students: $20,48 \pm 2,65$ year, $166,33 \pm 5,58$ cm, $54,83 \pm 9,91$ kg Of the students, 20 study for teaching, 67 for trainer, 36 for sport management, and 20 for recreation departments. Again, of the students participating in the research, 79 stated that they study normal education and 67 evening education.

Result: Statistical meaningfulness was found between the social media addiction level of the students participating in the research and the program they study. The meaningfulness was also seen in the result of the analysis done just after according to the gender variable of the physical activity participation statuses. In addition to this, a meaningful relationship was found out in the positive direction between sub-factors of social media addiction scale.

Keywords: University, Student, Social Media and Physical Activity

Introduction

The rapid development of the technology and industrialization brings the sedentary life with it. The long working hours at the desk in the office and high calorific nutrition style, when merging with sedentary life, create the risk factors which substantially affect the human health. The role of physical activity is big in the process of elimination of these risk factors (İmamoğlu et al., 2001).

While sport is defined as the bodily activities, which aim increasing the strength and power of the body and usually done with game, competition approach (Sevilay G., 2007), physical activity (PA) is defined as the activities, including energy consumption by using our muscles and joints in the daily life, increasing heart and breathing rate, which can be done with different intensities and which usually end with tiredness (Baltacı, 2008; Acsm, 2009). With the improvement of the technology in the recent years, the situations such as the decrease in the walking distance and time allocated for walking because of the increase in the transportation vehicles, the increase in the time passed on the computer and popularization of using e-mail with co-workers cause that the level of physical activity (LPA) decreases (Haskell, 1996; Ball et al., 2001; Patton Gorman 2012).

The human body needs movement as required by its nature. However, today's technological developments provide easiness for the individual and therefore direct people to immobility (inactivity) since the childhood age. This situation causes life style habit, not compatible with the human organism. Inactive life style provides the grounds for children and youth get sick and increases the health problems (Çamlıgüney, 2010). Misusing the social media networks (internet) most of the time and tying individuals to the desks more than necessary, with the sedentary life, may be the sign of many diseases.

The internet, the main purpose of which is a global communication tool and technology, enabling that data is stored and conveyed, is a giant media consisting of the combination of the computer networks spread across the world. Considering the point where internet comes, depended on the development of information networks performed for military purposes at the first stage, it is seen that individuals at every age, small to elder, use internet in many areas such as obtaining information, using dating sites, video film downloading, shopping, making banking procedures (Oskay Yurttaş, 2013). Therefore, almost all people, from elder to small, use social media and are starts to convert inactivity to a life style without noticing.

With this purpose, in the study, the relationship of social media usage of the university students with the physical activity level is researched. It is thought that this study, we made, may constitute a new literature for the physical training and sport fielt.

Material and Method

143 volunteer students consist of the research group who study in the Physical Education and Sports Academy of Bartın University in the 2018 – 2019 education year.

Collecting Data

Within the subject of the research, the personal information form survey, which is required for determining the characteristics, was created and it was collected with IPAQ Short Form - International Physical Activity Questionnaire Short Form.

International Physical Activity Questionnaire (IPAQ) short form

International Physical Activity Questionnaire (IPAQ) was developed by Craig et al. (2003) in order to determine the physical activity level of the participants in the age interval of 15 - 65. The validity and reliability study on IPAQ in Turkey was done by Öztürk (2005). When assessing all activities, making each activity at least for 10 minutes at once is taken as the criterion. By multiplying minutes, day and MET value, a score is obtained as "MET min./week). Physical activity levels are classified as physically inactive (MET min/week<600), low physical activity level (600 – 3000 MET min/week) and one with adequate physical activity level (which is beneficial for health) (MET min/week >3000) (Craig et al., 2003).

Social media addiction scale

The social media addiction scale, used in the research, was created by using the social media addiction scale, which Ünal (2015) used in his study called "Social Media Addiction, A Research on University Students). The scale, consisting of Likert type conclusions of 41 questions, consists of 4 sub-factors as "occupation, emotional status, repetition, and conflict". Occupation factor consists of 12 clauses, emotional status factor of 5, repetition factor of 5, and conflict factor of 19. The statements in the scale was addressed as "1= never, 2= rarely, 3= sometimes, 4= frequently, 5= always".

Analysis of the data

For analyzing the data, SPSS 22.0 (Statistical Package for Social Sciences 22.0) package software was used and the frequency (f) and percentage (%) distributions of the variables were calculated. In order ensure normal distribution of the data, skewness and kurtosis was evaluated and checked. For analyzing the data, the relationship between variables were looked at via Pearson correlation. If there is difference according to gender variable was looked at via Sample T-Test. The significance level was determined as ($p<0.05$) for all tests.

Findings

Table 1. Physical characteristics of the students participating in the study

	N	age (year) (Mean±SD)	Length (cm) (Mean±SD	Body weight (kg) (Mean±SD
Male	75	21,57±1,96	178,41±6,67	74,92±10,16
Female	68	20,48±2,65	166,33±5,58	54,83 ±9,91

Evaluating the physical characteristics of the students participating in the study in the Table 1, the age, length and body weight of the male students are respectively 21,57±1,96 year, 178,41 ± 6,67 cm and 74,92 ± 10,16 kg, female students 20,48±2,65 year, 166,33 ± 5,58 cm, 54,83 ± 9,91 kg/m

Table 2. Frequency and percentage distributions of the students participating in the study according to the demographic variables

Variables		N	%	
Gender	Female	68	47,6	
	Male	75	52,4	
	Total	143	100,0	
Department	Teaching	20	14,0	
	Training	67	46,9	
	Sports management	36	25,2	
	Recreation	20	14,0	
	Total	143	100,0	
Education status	Normal education	79	55,2	
	Evening education	67	44,8	)
	Total	143	100,0	

Considering the table 2, it was found out that of the students, 20 study for teaching, 67 for trainer, 36 for sport management, and 20 for recreation departments. Again, of the students participating in the research, 79 stated that they study normal education and 67 evening education. Again considering the same table, it is seen that 79 persons study normal education and 67 evening education.

Table 3. Distribution of social media addiction level of the participants

Scale/Sub-scale	$\overline{X}$	Sd
Social media addiction	108,81	31,06
Occupancy factor	36,32	9,86
Emotional status regulation factor	17,21	6,27
Repetition factor	18,13	6,86
Conflict factor	37,15	10,01

Assessing the table, it is understood that the social media addiction of the participants is ($\overline{X}$= 108.81) at the "moderately addicted" (score interval = 107 – 139) according to the total scores they got in the framework of the scoring table. In spite of this, assessing the addiction levels of the participants with respect to the sub-factors, it is seen that they are at the "moderate addiction" level (score interval = 32 – 41) for the occupancy factor ($\overline{X}$= 36.32), "high addiction" (score interval = 17 – 20) in the emotional status regulation factor ($\overline{X}$= 17.21),

"high addiction" (score interval = 17 – 20) in the repetition factor ($\bar{X}$= 18.13), and "little addicted" (score interval = 34 - 48) in the conflict factor ($\bar{X}$= 37.15).

Table 4. T-test results per gender of the participants' physical activity participation status

GENDER	N	$\bar{X}$	Std	t	p
FEMALE	68	3108,5294	2598,62753	-1,669	0,049*
MALE	75	4092,4933	4095,86533		

Assessing the Table 5, it is seen that the physical activity participation statuses of the students participating in the research indicate significant difference per gender (p<0.05). It was found out that the physical activity participation statuses of the female students ($\bar{X}$: 3108.5294) provides participation at a level higher than it is. It was found out that the male participants, it was found out that they are at high level too, with the average score ($\bar{X}$: 4092.4933) participate in physical activities more frequently compared to female participants.

Table 6. T-test results for the participants' physical activity participation status per education status

EDUCATION STATUS	N	$\bar{X}$	Std.	t	p
NORMAL EDUCATION	79	4219,4688	3836,43249	-748	0,030*
EVENING EDUCATION	64	3427,8354	3191,17944		

p<0,05*

Assessing the Table 6, it is seen that the physical activity participation statuses of the students participating in the research indicate significant difference compared to the education status (p<0.05). It was found out that the physical activity participation statuses of the normal education students ($\bar{X}$: 4219.4688) provides participation at a level higher than it is. It was found out that the evening education students, it was found out that they are at high level too, with the average score of ($\bar{X}$: 3427. 8354) participate in physical activities less often compared to the students studying normal education.

Table 7. The relationship between sub-dimensions of the social media addiction levels of the participants and physical activity participation levels

Variables		Physical activity level
	R	,382
Social media addiction	P	,001
	N	143

According to the findings in the table 7, it was found out that there is a positive, low level, statistically significant relation (r=-0.382; p<0.05) between physical activity level and social media addiction.

Table 8. Arithmetical average table for social media addiction levels and physical activity participation of the participants

VARIABLES	N	X̄ ± Std.
Social media addiction	143	108,81±31,06
Physical activity level	143	3017,00±2895,02

In the table 8, it is confirmed that the physical activity level of the participants (high level) is 3017.00±2895.02 MET-min/week, social media addiction averages 108.81±31.06 (moderate addictive).

Table 9. Correlation of the sub-factors of social media addiction

VARIABLES		Occupancy factor	Emotional status factor	Repetition factor	Conflict factor
Occupancy factor	R	1			
	P				
	N	143			
Emotional status factor	R	,628**	1		
	P	,000			
	N	143	143		
Repetition factor	R	,549**	,621**	1	
	P	,000	,000		
	N	143	143	143	
Conflict factor	R	,441**	,548**	,724**	1
	P	,000	,000	,000	
	N	143	143	143	143

As a result of the correlation analysis applied in order to find out the relationship between the sub-factors of the social media addiction scale, it is seen that the strongest relationship is between occupancy factor and emotional status regulation factor (r=.628, p<0.01). In other words, there is a positively, high level and significant relationship between occupancy factor and emotional status factor. In addition to this, it was found out that there is a positively, medium level and significant relationship between again occupancy factor and repetition (r=.549, p<0.01) and conflict (r=.441, p<0.01) factors. Starting from the table, we can say that a positive, medium level and significant relationship was found out between the emotional status regulation factor and repetition factor (r=.621, p<0.01) and conflict (r=.548, p<0.01) factors. In spite of this, there is no positive, high level, significant relationship between repetition factor and conflict factor (r=.724, p<0.01).

Discussion and Conclusion

In this part, the findings are discussed and interpreted where the relationship between the physical activity participation statuses of the students, participating in this research, studying in the Physical Education and Sports Academy, Bartın University, and the social media addiction according to certain variables.

Considering the social media addiction levels of the students, while it was found out that their social media addiction score is "medium level addiction" with ($\bar{X}$= 108.81), also considering the sub-factors of the addiction levels at the same time, it was determined that they are "moderately addictive" with ($\bar{X}$=36.32) in occupancy sub-factor, "highly addictive" with ($\bar{X}$=17.21) in the emotional status regulation sub-factor, "highly addictive" with ($\bar{X}$=18.13) in the repetition sub-factor, and finally "less addictive" with ($\bar{X}$=37.15) in the conflict sub-factor. Based on these scores, it can be said that the addition of the students to the social media in the developing internet world is over normal. In the research done by (Ercan, 2018), as a result of researching the social media addition levels of the participants, with respect to the sub-factors, the result is obtained that they have moderate level of addiction level with respect to the occupancy, emotional status regulation and repetition behavior in the social media; in spite of this, they have low level addiction with respect to the conflict sub-factor. Because it will be dealt with positively that they don't have a problem caused by conflict because the participants are low addictive with respect to the conflict sub-factor in our study result too, it shows similarity with this study.

Evaluating the physical activity participation levels according to the gender factor of the students participating in the research, it was found out that male students participate in physical activity more frequently than female students. It supports our study that (Cengiz C., İnce M.L. and Çiçek, Ş., 2009) found similar result on behalf of males between the gender, finding that physical activity level of males is higher than females. Again in another finding we obtained, it was found out that the program in which the students study affects the physical activity participation status on behalf of the students studying normal education.

Another result obtained in the study is that there is a significant relationship between physical activity participation status of the students and social media addition. (Karademir M. 2017) has reached a conclusion indicating that as the social network usage level increases, the physical activity levels decreases concordantly. It was found out that there is a positive, low level relationship between social media addiction level and physical activity participation levels of the students in our study too. This result we obtained indicates statistical significance.

In conclusion, a significant difference was observed between social media addictions and physical activity participation statuses based on gender and education status variables of the students participating in the research. At the same time, a significant relationship was seen between sub-factors of social media addiction. It can be observed that the repetition factor and emotional status regulation factor, taking place in the social media, extends the time in which the university students pass in the social media. Because of this, the students may tend to a sedentary life, not having any physical activity during the time they pass in the social media. Inactive life slightly opens the door of obesity disease, therefore, the means should be provided for preserving and developing the health of the university students, we think that when the facilities necessary for increasing the physical activity are created and means are provided, healthier environments would be created for the future generations too.

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