Rev Esp Nutr Hum Diet. 2021; 25(1).
doi: 10.14306/renhyd.25.1.1094 [ahead of print]

Freely available online - OPEN ACCESS

Revista Española de Nutrición Humana y Dietética

Spanish Journal of Human Nutrition and Dietetics

RESEARCH – *post-print* version

This is the accepted peer-reviewed version for publication. The article can receive style and format modifications.

The relationship between social media use, eating attitude and body mass index among nutrition and dietetic female students: A cross-sectional study

Relación entre el uso de las redes sociales, la actitud alimentaria y el índice de masa corporal entre estudiantes mujeres de nutrición y dietética: Un estudio transversal

Şule Aktaç[a,*], Dicle Kargin[a], Fatma Esra Güneş[a]

[a] Beslenme ve Diyetetik Bölümü, Sağlık Bilimleri Fakültesi, Marmara Üniversitesi, Istanbul, Turkey.

* suleaktac@hotmail.com

Recibido: 30/06/2020; Aceptado: 17/10/2020; Publicado: 19/10/2020

CITA: Aktaç Ş, Kargina D, Güneş FE. The relationship between social media use, eating attitude and body mass index among nutrition and dietetic female students: A cross-sectional study. Rev Esp Nutr Hum Diet. 2021; 25(1). doi: 10.14306/renhyd.25.1.1094 [*ahead of print*]

La Revista Española de Nutrición Humana y Dietética se esfuerza por mantener a un sistema de publicación continua, de modo que los artículos se publican antes de su formato final (antes de que el número al que pertenecen se haya cerrado y/o publicado). De este modo, intentamos poner los artículos a disposición de los lectores/usuarios lo antes posible.

The Spanish Journal of Human Nutrition and Dietetics strives to maintain a continuous publication system, so that the articles are published before its final format (before the number to which they belong is closed and/or published). In this way, we try to put the articles available to readers/users as soon as possible.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

KEY MESSAGES

- We evaluated eating behaviour and social media relationship in female nutrition and dietetic students.
- Students with abnormal eating attitude showed positive attitude towards to social media.
- Having a social media membership and spending time on social media had effect on eating attitude.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

ABSTRACT

Introduction: This study aimed to investigate the relationship between media using habits, frequency and duration, and body mass index on eating attitudes.

Material and methods: The cross-sectional study was conducted with female students who received nutrition and dietetics education in Istanbul. A questionnaire consisting of a socio-demographic questionnaire, Eating Attitude Test (EAT-40), and Social Media Attitude Scale was applied to 1248 female volunteers by the face-to-face interview method.

Results: It was found that 35.7% of the participants had abnormal eating attitudes and 89.6% showed a positive attitude towards social media. 93.7% of the group with abnormal eating attitudes indicated a positive attitude towards social media, 0.4% had a negative attitude and the difference was statistically significant (p=0.001). It was observed that a significant difference between EAT-40 and thought of an eating problem, having a social media membership, and spending time on social media (p<0.05).

Conclusions: Social media have an effect on nutrition dietetics students on abnormal eating attitude; it did not show a significant effect on BMI.

Keywords: Body Mass Index; Feeding Behavior; Social Media; Female; Students; Universities.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

RESUMEN

Introducción: Este estudio tuvo como objetivo investigar la relación entre los hábitos de uso de los medios, la frecuencia y duración, y el índice de masa corporal sobre las actitudes alimentarias.

Material y métodos: El estudio transversal se realizó con alumnas que recibieron educación en nutrición y dietética en Estambul. Se aplicó un cuestionario que constaba de un cuestionario sociodemográfico, una Prueba de Actitud Alimentaria (EAT-40) y una Escala de Actitud en las Redes Sociales a 1248 voluntarias mediante el método de entrevista cara a cara.

Resultados: Se encontró que el 35,7% de los participantes presentaba actitudes alimentarias anormales y el 89,6% mostró una actitud positiva hacia las redes sociales. El 93,7% del grupo con actitudes alimentarias anormales indicó una actitud positiva hacia las redes sociales, el 0,4% tuvo una actitud negativa y la diferencia fue estadísticamente significativa (p = 0,001). Se observó una diferencia significativa entre EAT-40 y pensar en un problema de alimentación, tener una membresía en las redes sociales y pasar tiempo en las redes sociales (p <0.05).

Conclusiones: Las redes sociales tienen un efecto en los estudiantes de dietética nutricional sobre la actitud alimentaria anormal; no mostró un efecto significativo sobre el IMC.

Palabras clave: Índice de Masa Corporal; Conducta Alimentaria; Medios de Comunicación Sociales; Femenino; Estudiantes; Universidades.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

INTRODUCTION

Increased rapid developments in technology and communication in the 21st century, the need to access information and use it effectively has become an integral part of daily life[1,2]. Media, the name was given to all of the major communication and broadcasting tools while defining "whole communication environment"[3]; social media, on the other hand, can be defined as a user-based form of electronic communication such as websites for social networking where users build online communities to share information; to express their thoughts and personal messages; to discuss ideas and other content[4,5]. Social media is at the same time an electronic form of communication that enables users to produce and use content, providing social interaction, and appointment[6]. Communication of individuals born in the digital world (ages 15-24) takes place on social media or social networks[7]. It was found that 13% of young people in Turkey spent more than six hours on social media, 86% of them connect to social media at least once a day[8].

Whereas eating disorder studies conducted to date were examined, although they did not show a clear consistency, nutrition and dietetics students were more risk-prone than others[9-13]. The knowledge of nutrients, weight gain and body compositions, and/or thought of appearance effect on their future careers are identified as factors that increase the risk[14,15]. Given the high popularity of social media among young adults who spends much time on these platforms, nutrition and dietetic students attract attention by sharing health-related nutrition information, food preparation, recipe collection, or recipe preparation for others. Social media, on the other hand, is a platform where these posts are made the most and its usage is becoming widespread day by day. Besides nutrition and dietetics students are a more remarkable group in terms of nutritional behaviors due to the education they receive, younger female adults are more susceptible to eating disorders. A review[16] aimed to find epidemiology of eating disorders in Europe found that 2.0–3.0% of women reported eating disorders while men reported 0.3–0.7%. Therefore, in most of the nutrition studies, young women are selected as target groups and examined in terms of nutritional properties.

The aim of the present research is to determine the tendency, frequency, and duration of social media membership in the daily lives of female students in the Nutrition and Dietetics Department and to examine the effects of media on BMI and eating disorder.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

MATERIAL AND METHODS

This cross-sectional study was carried out with the students of the Department of Nutrition and Dietetics, who studied at universities in Istanbul between November 2017 and May 2018. 1280 participants who accepted to participate voluntarily from 2nd, 3rd, and 4th-grade female students were included in the study. Exclusion criteria were: being 1st-grade students due to a lack of professional knowledge. Participants, who did not have a social media account (n=23) and who did not complete the questionnaire form (n=9) were excluded, and the final number of participants was 1248. Ethical approval was taken from Bilgi University Ethical Committee (2017-50016-26).

A face-to-face questionnaire form consisting of three parts was applied to participants. The first part is socio-demographic characteristics that include information about height and weight, diet and physical activity status, social media use based on their statements; the second part is the Social Media Attitude Scale (SMA) for determining a person's social media attitude; the third part was the Eating Attitudes Test (EAT-40) scale was used to determine eating disorders.

The SMA was developed by Argın and Otrar (2015), aimed to measure individuals' attitudes towards social media[17]. It is a 5-point Likert-type with 23 items. Items 3, 7, 11, 14, 22, and 23 are reverse coded because they are negative. The minimum score is 23, and the maximum score is 115[17]. Finally, the average scores of the data between 1.0-2.33 were evaluated as "negative attitude", those between 2.34 and 3.66 are considered as "partially positive attitude" and those between 3.67 and 5 is "positive attitude"[18].

Eating attitude is a self-report scale EAT-40 was developed by Garner and Garfinkel in 1979 and it is a general screening measure for abnormal eating attitudes[19]. EAT-40 test is a 6-point Likert type scale consisting of 40 items and the cut-off score was determined to be 30[19]. The scale's validity and reliability to Turkish were made by Savaşır and Erol[20]. Those who obtain 30 or more scores at risk of eating disorders, but the test results are not sufficient for a definitive diagnosis.

Windows SPSS 21.0 Statistical Software was used for the statistical evaluation of the data. Mean, standard deviation (SD), minimum, and maximum values were determined to evaluate the data to be obtained as a result of the sociodemographic questionnaire. Categorical data in the questionnaire were evaluated as number (n) and percentage (%). The significance of the difference between the averages of the data that showed normal distribution was examined in two independent groups with the t-test. For more than two groups, it was analyzed by a one-way analysis of variance. For non-normally distributed data, chi-square and Kruskal-Wallis as

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

nonparametric tests were applied. The margin of error is p=0.05 and it has been worked with 95% confidence.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

RESULTS

The mean age of the participants was 20.7 ± 2.2 years. The average body weight was 56.9 ± 8.2 kg, the average height was 165.0 ± 5.9 cm, and the average BMI was 20.9 ± 2.7 kg/m^2. According to BMI classification, most (69.2%) of the participants were normal, 20% were overweight, 9.7% underweight, and 1.1% were obese. 42.6% of the participants have never been on a diet. At the same time, 58.3% of the participants think that they have a moderate problem with eating. Based on self-reported physical activity status most of (66.2%) the participants were active several times in a month. When the EAT-40 scores of the participants are analyzed, it has been found that 64.3% of them had a normal eating attitude. According to the SMA scale, 89.6% were found to be partial positive attitudes (Table 1).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Table 1. General characteristics.

		$\bar{X}$ ±SD	minimum	maximum
Anthropometric measurements	Weight (kg)	56.9±8.2	38	115
	Height (cm)	165.0±5.9	135	195
	BMI (kg/m^2)	20.9 ± 2.7	12.89	35,89
Scales	EAT-40	20.8±14.3	0	90
	SMA	74.1±8.5	40	101
		n		**%**
Classification of BMI	Underweight	121		9.7
	Normal weight	864		69.2
	Overweight	250		20.0
	Obese	13		1.1
Dieting status	Often	224		18.0
	Rarerly	492		39.4
	Never	532		42.6
Thought of an eating problem	Not	414		33.2
	Moderate	728		58.3
	Overmuch	106		8.5
Physical activity	Every day	55		4.5
	Several times a week	333		26.7
	Several times a month	827		66.2
	Never	33		2.6
EAT-40	Normal eating attitude	802		64.3
	Abnormal eating attitude	446		35.7
SMA	Negative attitude	19		1.5
	Partial positive attitude	1118		89.6
	Positive attitude	111		8.9

EAT-40: Eating Attitudes Test-40, SMA: Social Media Attitude Scale.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Information about the social media usage of the participants was given in Table 2. According to this information, 77.8% of the participants reported that they have been using social media for 4 years and more, 65.1% have used social media many times, and 42.5% spent 11-30 minutes on social media in a day.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Table 2. Information about social media use.

Social media use	n	%
Duration of use		
< 1 year	43	3.4
1-2 years	69	5.5
2-3 years	165	13.2
≥ 4 years	971	77.8
Frequency of use social media		
≤ 1 a week	32	2.6
2-3 times a week	30	2.4
1-2 times a day	186	14.9
Many times in a day	812	65.1
Always online	188	15.1
Time spent on social media		
5-10 minutes	323	25.9
11-30 minutes	531	42.5
31-60 minutes	262	21.0
61-120 minutes	80	6.4
≥121 minutes	52	4.2

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

93.7% of the abnormal eating attitude group showed partial positive attitude towards social media, 0.4% showed negative attitudes; while 87.3% of the group normal eating attitude showed partial positive attitudes, 2.1% showed negative attitudes ($p<0.05$) (Table 3).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Table 3. The relationship between EAT-40 and SMA.

SMA	EAT-40				p
	Normal eating attitude		Abnormal eating attitude		
	n	%	n	%	
Negative attitude	17	2.1	2	0.4	0.001*
Partial positive attitude	700	87.3	418	93.7	
Positive attitude	85	10.6	26	5.9	
Total	802	100.0	446	100.0	

Chi square test, *p<0.01, EAT-40: Eating Attitudes Test-40, SMA: Social Media Attitude Scale.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

When the eating attitude test scores and the frequency of social media usage of the participants were evaluated, there was a significant difference between the groups. It was observed that the differences were significant between the always online group with the groups using social media 2 or 3 times a week ($p = 0.019$), 1 or 2 times a day ($p= 0.007$), and multiple times a day ($p<0.001$), respectively (Table 4).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Table 4. The relationship between the frequency of social media use and the EAT-40.

Frequency of use social media	EAT-40				p
	n	median	minimum	maximum	
≤ 1 a week	32	15.0	3.0	49.0	0.002*
2-3 times a week	30	10.0	4.0	39.0	
1-2 times a day	186	15.0	2.0	64.0	
Many times in a day	812	15.5	0.0	67.0	
Always online	188	27.0	0.0	90.0	

Kruskal Wallis Test *p<0.01, EAT-40: Eating Attitudes Test-40, SMA: Social Media Attitude Scale.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Information on the comparison of the participatory characteristics of the participants and EAT-40 and SMA scores are given in Table 5. The entire group with the abnormal eating attitude has social media membership, 39.5% of them spend 11-30 minutes on social media during the day ($p<0.05$). There was no statistically significant difference between the social media attitude of the participants and their BMI, diet, and thought of an eating problem ($p>0.05$).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Table 5. Comparison of the participants' characteristics with EAT-40 and SMA.

Participants' characteristics	EAT-40					SMA						
	Normal eating attitude		Abnormal eating attitude		p	Negative attitute		Partial positive attitute		Positive attitute		p
	n	%	n	%		n	%	n	%	n	%	
Classification of BMI (kg/m²)												
Underweight	139	17.3	76	17.0		3	15.8	193	17.3	19	17.1	
Normal weight	607	75.7	339	76.0	0.9	14	73.7	846	75.7	86	77.5	0.9
Overweight	48	6.0	27	6.1		2	10.5	67	6.0	6	5.4	
Obese	8	1.0	4	0.9		0	0	12	1.1	0	0	
Dieting status												
Often	137	17.0	87	19.5		5	26.3	194	17.4	25	22.5	
Rarerly	314	39.2	178	39.9	0.4	4	21.1	438	39.1	50	45.1	0.08
Never	351	43.8	181	40.6		10	52.6	486	43.5	36	32.4	
Obese	7	0.9	6	1.3		0	0	13	1.2	0	0	
Thought of an eating problem												
No	268	33.4	146	32.7		7	36.8	372	33.3	35	31.5	
Moderate	484	60.4	244	54.7	0.001*	11	57.9	650	58.1	67	60.4	0.9
Overmuch	50	6.2	56	12.6		1	5.3	96	8.6	9	8.1	
Social media membership												
Yes	788	98.3	446	100.0	0.002*	16	84.2	1107	99.0	111	100	0.000*
No	14	1.7	0	0		3	15.8	11	1.0	0	0	

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

Duration ofsocial media membership												
<1 year	27	3.4	337	75.6		3	15.8	39	3.5	1	0.9	
1-2 years	40	5.0	29	6.5	0.50	4	21.1	64	5.7	1	0.9	0.000*
2-3 years	101	12.5	64	14.3		2	10.5	146	13.1	17	15.3	
≥4 years	634	79.1	337	75.5		10	52.6	869	77.7	92	82.9	
Frequency of use social media												
≤ 1 a week	21	2.6	11	2.5		2	10.5	29	2.6	1	0.9	
2-3 times a week	21	2.6	9	2.0		3	15.8	27	2.4	0	0	
1-2 times a day	120	15.0	66	14.8	0.25	7	36.8	165	14.8	14	12.6	0.000*
Many times in 1 day	539	67.2	273	61.2		6	31.6	740	66.2	66	59.5	
Always online	101	12.6	87	19.5		1	5.3	157	14.0	30	27.0	
Spending time on social media												
5-10 minutes	221	27.6	102	22.9		5	26.3	289	25.8	29	26.1	
11-30 minutes	355	44.3	176	39.5		6	31.6	90.6	43.0	44	39.6	
31-60 minutes	150	18.7	112	25.1	0.01*	7	36.8	232	20.8	23	20.7	0.7
61-120 minutes	46	5.7	34	7.6		1	5.3	69	6.2	10	9.0	
≥121 minutes	30	3.7	22	4.9		0	0	47	4.2	5	4.5	

Chi square test, between EAT-40 with variables in the column and between SMA with variables in the column.
*p<0.05, EAT-40: Eating Attitudes Test-40, SMA: Social Media Attitude Scale.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

DISCUSSION

In this study, it was aimed to investigate the relationship between the media usage habits of female students of nutrition and dietetics in Istanbul and the risk of eating attitude and behavior. In the study conducted to evaluate eating attitudes of female university students, the mean age and BMI of the participants were found as 20.0 ± 1.8 years, 20.1 ± 2.2 kg/m^2, respectively[21]. According to the findings obtained from this study, the mean of age (20.7 ± 2.2 years) and mean of BMI (20.9 ± 2.7 kg/m^2) were the same as the previous study. Percentages of individuals who were normal according to BMI classification were found to be similar to the results of Woo et al. (2014)[22]. According to the 2018 Turkey Demographic and Health Survey report, women in the 20-29 age range in Turkey were found a mean BMI of 25.1, and 50.7% of them have normal BMI[23]. Similar to our study, in another study conducted with female students on nutrition and dietetics 77.2% of them were found to be normal BMI[24]. In our current study, it is thought that the reason for the lower mean of BMI is due to the university population of the younger age group.

In 2018, the number of Internet users worldwide was 4.021 billion with an annual increase of 7%, the number of social media users was 3,196 billion, with an annual increase of 13%[25]. According to TurkStat data; Computer and Internet using rates in Turkey were 50.6% and 65.5% respectively in female individuals in the 16-74 age group in 2018[26]. When the frequency of social media use was examined in our study, it was seen that 65.1% of the participants used social media.

In studies conducted to measure the eating attitudes and behaviors of Turkish university students, it was observed that the rate of eating behavior disorder of female individuals ranged from 6.6% to 13.4%[27,28]. In another study conducted in the following years with the participation of 314 female university students, the average of EAT-40 test score was found 14.38 and the rate of eating disorders by 8%[29]. In the current study, the risk of eating disorders was observed in 35.7% of the participants, and the mean of the EAT-40 score was found at 20.8 ± 14.3. In light of these data, we observe that the risk of eating attitudes increases with female university students in our country over time.

In a study examining the eating attitude components of university students, the participants reported that they were influenced by the media[30]. General Problematic Internet Usage Scale (GPIUS) was applied to 383 university students (70.2% women) with an average age of 23.8, and it was found that body esteem indicators mediate the relationship between the use of social networking sites and eating disorders. After more use of social media sites, it causes serious weight

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

and appearance dissatisfaction associated with eating disorder[31]. In our study, when the participants' EAT-40 scores and the frequency of social media usage were evaluated, a difference was found between the group that is always online and the groups that use social media 1-2 times or 1-3 times a week. It can be said that the risk of eating disorders increases in proportion to the time spent on social media.

Studies examining the relationship between BMI and social media use are limited. While some of these studies had an effect of social media on BMI[32-34], others indicated no significant associations. In line with studies that did not find a relationship[35,36], no significant relationship was found between the social media attitudes of the participants and their BMI in the present study. It is predicted that several reasons may have been effective in this regard. One of these reasons is that nutrition and dietetics students may be using social media for personal or educational reasons[37]. Sampasa-Kanyinga et al. found a relationship between social media and body mass index in a study conducted on male adolescents[35]. Another reason is that our group in the current study consists only of the female population.

The use of only women is a strong aspect, as dietetics professionals and students are consisting mostly of women, thereby they represent the vast majority of the group. EAT-40 and anthropometric measurements are based on their statements, and high nutritional training may cause biased responses. Despite its limitations, this study has quite a large sample size, validated, and reliable measurement items. The present study was conducted in Istanbul which is represented a small sample of Turkey (18.7% of the whole population).

Given the rapid rise in social media use on gender can be improved by adding male participants to the study. Concurrently, comparing the nutrition and dietetics departments with others will enable a better understanding of the effects of social media on nutrition and dietetics students.

CONCLUSIONS

Due to its increasingly widespread use and the relation between health, social media usage deserves further relevance in the field of nutrition dietetics. The current study, the effect of social media, in the formation of eating disorders, was emphasized. Findings suggest that while there was a significant relationship between the effects of media use on eating disorders and there was no significant effect on BMI. In addition to conducting advanced research to better understand the role of social media among nutrition dietetics students, as a consequence that from student to

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

professional education of nutrition and dietetics social media appears crucial, it may be a useful approach to design and present a curriculum for instructors on the nutritional attitudes, nutritional status and professional practices of social media with an evidence-based approach in trainings.

FUNDING

Authors state that there has been no funding to carry out this study.

COMPETING INTERESTS

Authors state that there are no conflicts of interest in preparing the manuscript.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

REFERENCES

(1) Buabeng-Andoh C. Factors influencing teachersâ adoption and integration of information and communication technology into teaching: A review of the literature. International Journal of Education and Development using ICT. 2012;8(1).

(2) Vanden Abeele MM. Mobile youth culture: A conceptual development. Mobile Media & Communication. 2016;4(1):85-101.

(3) T.C. Turkish Language Society (TDK) (2020, April 5). Retrieved from: http://tdk.gov.tr/(4) Waring ME, Jake-Schoffman DE, Holovatska MM, Mejia C, Williams JC, Pagoto SL. Social media and obesity in adults: a review of recent research and future directions. Current diabetes reports. 2018;18(6):34.

(5) Aktaş S. Influences of media on women's aesthetics and the role of midwife. Anatolian Journal of Nursing and Health Sciences. 2014;17(3):187-195.

(6) Chassiakos YL, Radesky J, Christakis D, Moreno MA, Cross C. Children and adolescents and digital media. Pediatrics. 2016;138(5):e20162593.

(7) Ayres EJ. The impact of social media on business and ethical practices in dietetics. Journal of the Academy of Nutrition and Dietetic. 2013;113(11):1539-1543.

(8) Bulut M. Ministry of Youth and Sports. Youth and Social Media Research Report 2014.

(9) Kiziltan G, Karabudak E. Risk of abnormal eating attitudes among Turkish dietetic students. Adolescence. 2008;43(171):681-690.

(10) Mehr RJ, Clemens LH, Roach RR, Beec, BM. Prevalence of eating disorders in dietetic and other health-related majors: A study of college students. Journal of the Academy of Nutrition and Dietetics, 2005;105(8): 29.

(11) Houston CA, Bassler E, Anderson J. Eating disorders among dietetics students: an educator's dilemma. Journal of the American dietetic association. 2008;108(4):722-724.

(12) Mealha V, Ferreira C, Guerra I, Ravasco P. Students of dietetics & nutrition; a high risk group for eating disorders?. Nutr Hosp. 2013;28(5):1558-1566.

(13) Yu Z, Tan M. Disordered Eating Behaviors and Food Addiction among Nutrition Major College Students. Nutrients. 2016;8(11):673.

(14) Korinth A, Schiess S, Westenhoefer J. Eating behaviour and eating disorders in students of nutrition sciences. Public health nutrition. 2010;13(1):32-7.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

(15) Poínhos R, Alves D, Vieira E, Pinhão S, Oliveira BM, Correia F. Eating behaviour among undergraduate students. Comparing nutrition students with other courses. Appetite. 2015;84:28-33.

(16) Keski-Rahkonen A, Mustelin L. Epidemiology of eating disorders in Europe: prevalence, incidence, comorbidity, course, consequences, and risk factors. Curr Opin Psychiatry. 2016;29:340–345.

(17) Otrar M, Argın FS. A scale development study to determine the attitude of students' towards social media. Journal of Research in Education and Teaching. 2015;4(1):391-403.

(18) Alican C, Saban A. Secondary and high school students' attitudes in terms of social media usage: Ürgüp sampling. Journal of Social Sciences Institute of Erciyes University. 2013;35(2):1-14.

(19) Garner DM, Garfinkel PE. The eating attitudes test: an index of the symptoms of anorexia nervosa. Psychol Med. 1979;9:273-9.

(20) Savaşır I, Erol N. Yeme tutumu testi: Anoreksiya nevroza belirtileri indeksi. Psikoloji Dergisi. 1989;7(23):19-25.

(21) Kim J. Experiences in Healthy Dieting of Male College Students with Obesity in Korea. Osong Public Health and Research Perspectives. 2015;6(1):59-63.

(22) Woo J. A survey of overweight, body shape perception and eating attitude of Korean female university students. Journal of Exercise Nutrition & Biochemistry. 2014;18(3):287-292.

(23) General Directorate of Health Research, Turkey Republic Ministry of Health. 2018 Turkish demographic health survey Retrieved from: http://www.hips.hacettepe.edu.tr/tnsa2018/rapor/TNSA2018_ana_Rapor.pdf

(24) Garipoğlu G, Arslan M, Öztürk SA. Beslenme ve diyetetik bölümü'nde okuyan kız öğrencilerin ortoreksiya nervoza eğilimlerinin belirlenmesi. İstanbul Sabahattin Zaim Üniversitesi Fen Bilimleri Enstitüsü Dergisi. 2019;1(3):23-27.

(25) Kemp S. Global Digital Report 2018. Retrieved from: https://digitalreport.wearesocial.com/

(26) Turkish Standardization Institute (TSI). Hanehalkı Bilişim Teknolojileri (BT) Kullanım Araştırması, 2018 Sayı: 27819. Retrieved from: www.tuik.gov.tr/

(27) Aşçı FA, Tüzün M, Koca C. An examination of eating attitudes and physical activity levels of Turkish University students with regard to self-presentational concern. Eating Behaviors. 2006;7:362–367.

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

(28) Büyükgöze Kavas A. Eating Attitudes and Depression in a Turkish Sample. European Eating Disorders Review. 2007;15:305–310.

(29) Oruclular Y, Bariskin E. Autonomous-related self, eating attitude and body satisfaction in young females. International Journal of Eating and Weight Disorders. 2015;20:337–343.

(30). Deliens T, Clarys P, Bourdeaudhuij I, Deforche B. Determinants of eating behaviour in university students: a qualitative study using focus group discussions. BMC Public Health. 2014;14:53.

(31) Murray M, Maras D, Goldfield GS. Excessive Time on Social Networking Sites and Disordered Eating Behaviors Among Undergraduate Students Appearance and Weight Esteem as Mediating Pathways. Cyberpsychology, Behavior, And Social Networking. 2016:19(12).

(32) Sampasa-Kanyinga H, Chaput JP, Hamilton HA. Associations between the use of social networking sites and unhealthy eating behaviours and excess body weight in adolescents. British Journal of Nutrition. 2015;114(11): 1941-1947.

(33) Marshall SJ, Biddle SJ, Gorely T, Cameron N, Murdey I. Relationships between media use, body fatness and physical activity in children and youth: a meta-analysis. International journal of obesity. 2004;28(10):1238-1246.

(34) Melkevik O, Haug E, Rasmussen M, Fismen AS, Wold B, Borraccino A, Matos MG. Are associations between electronic media use and BMI different across levels of physical activity? BMC Public Health. 2015;15(1): 497.

(35) Sampasa-Kanyinga H, Colman I, Goldfield GS, Hamilton HA, Chaput JP. Sex differences in the relationship between social media use, short sleep duration, and body mass index among adolescents. Sleep Health. 2020.

(36) Alley S, Wellens P, Schoeppe S, Vries H, Rebar AL, Short CE, et al. Impact of increasing social media use on sitting time and body mass index. Health Promotion Journal of Australia. 2017;28:91–95.

(37) Knight A, Brown F, Reidlinger D. Social media use by registered dietitians and pre-registration dietetic students in the UK and Ireland. Proceedings of the Nutrition Society 2017 76(OCE4).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License