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## SOCIAL MEDIA ADDICTION IN PRIMARY SCHOOL TEACHER CANDIDATES: WHAT IS THE ROLE OF SOCIAL MEDIA FEATURES AND USER BEHAVIOURS?

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### Abstract

The aim of the study is to investigate the relationship between social media usage behaviors of primary school teacher candidates and their social media addiction levels. The study was designed using relational screening model. The study group is composed of 230 primary school teacher candidates from the education faculty of a state school in the school year of 2018-2019. With a view to establishing differences between the groups, independent sampling t-test and ANOVA test were used, and Pearson correlation coefficient was used to determine the relationship between the variables. Data obtained through the analysis suggests that while there is a significant difference between the groups in terms of the variables of gender, duration of daily social media use and frequency of daily social media account check, no significant difference was observed between the groups in terms of social media addiction based on year grades. In addition, the outcome of the correlation analysis demonstrates a weak positive correlation between the respective social media account and the level of social media addiction and a moderate positive correlation between the number of stories posted from social media accounts per month and the level of social media addiction. The findings were discussed throughout the article and some suggestions were offered.

**Keywords:** Social media, addiction, teacher candidates, user behaviours.

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## **1. Introduction**

Human beings are programmed to be active to a certain extent by their nature to socialize. While people socialized face to face back in the days when communication technologies such as the Internet and social media were hardly developed, they have now begun socializing virtually over social media applications with the use of the Internet and technological devices. Social media can be defined as any technology assisted by interactive computers and mobile devices which can facilitate the forming and sharing of information, ideas, career interests and other expressions (Ozturk and Talas, 2015). In other words, social media can be described as any digital device that enables users to create content quickly and make it public. A recent report has indicated that there are over 95 social media applications that are being used actively (Makewebsites,2020). Based on a report regarding the Internet, social media, and mobile users' statistics by We Are Social 2020, there are 3,80 billion social media users throughout the world, which means that one out of every two persons worldwide is a social media user (We are social, 2020). With 2,49 billion users, Facebook ranks the first; Youtube ranks second with 2 billion users, followed by Whatsapp with 1,6 billion users. Next comes Facebook Messenger and Instagram with 1,3 billion users and 1 billion users, respectively (Dijilopedi, 2020). As can be seen, social network sites are the most widely used of all social media applications because they serve mainly to connect people to one another, a fact that does not apply to most other social media applications (Kuss and Griffiths, 2017). Results of a study carried out with the participation of 1200 social media users by Brandtzæg and Heim (2009) to establish the purposes of social media use indicate that the top three purposes of social media use are to communicate with new people, stay in touch with friends and socialize. Much as social network sites are used by all individuals, they are especially popular with the youth, with many of the young people gathering in these platforms (Casale and Fioravanti, 2018).

### **1.1. Social Network Sites (SNSs) and Generation Z**

SNSs are settings where users from any socio-cultural and demographic background (geographic, linguistic, religious, racial, gender, economic etc) can be active and share posts independent of time and space (Çiftçi, 2018). The number of SNSs has increased significantly and they not only enable people to socialize and communicate but also offer activities such as playing digital games, learning, enjoying leisure time, following others, and searching for information (Tutgun-Ünal,2015). For such reasons, SNSs are particularly popular among individuals of Generation Z who were born between 1995 and 2010 (Bassiouni and Hackley, 2014; Seemiller and Grace, 2016). However, SNSs used by the young generation differ from those used by adults (Sarioğlu and Özgen, 2018). There are differences in the duration of daily use and usage behaviors as well. These findings are also supported by We Are Social in their 2020 Internet, social media and mobile user statistics report, which reveals that 65% of Whatsapp and Instagram users are in the 18-34 age group and that there is no significant difference between genders in terms of usage proportions. 32% of the users of Facebook, ranking first worldwide in terms of use, are in the 25-34 age group (Dijilopedi, 2020). Such data show that Whatsapp and Instagram are popular among the youth while Facebook is popular among adults. As for Twitter, age is equally distributed between adults and the youth (Dijilopedi, 2020).

Generation Z constitutes a major part of the population in Turkey. According to a 2019 report released by Turkish Statistical Institute, age groups of 10-14, 15-19 and 20-24 respectively comprise %7,70, %7,61 and %7,97 of the population in Turkey (TUIK,2019). Generation Z in Turkey accounts for one-fifth of the population. Individuals belonging to this group are acknowledged to be born into technology. They are highly adapted to and familiar with technology. Favoring virtual communication over face-to-face communication, Generation Z regards social media presence as almost an identity. Adopting no-rules policy and giving priority to entertainment (Sladek and Grabinger, 2013), Generation Z is no longer getting fashion tips from their older brothers; instead following trendsetters on blogs and Youtube channels from all around the world. A study in the literature demonstrates that Generation Z post original videos at least once a week and that sharing these posts make them very happy. 90% of this community watches Youtube every day; 80% use social media daily and 70% of them follow online activities through cable TV (Karadoğan, 2019). Not dissimilar to their counterparts throughout the world, Generation Z in Turkey spend a great amount of their time on social media using smartphones and the Internet. According to the "Digital 2020" January report by We Are Social and Hootsuite, there are 54 million social media users in Turkey, which means that 64% of the total population use social media. According to this report, Youtube, Instagram, Whatsapp, Facebook and Twitter are the top five social media applications preferred in Turkey (We Are Social, 2020). Of these, Instagram, Youtube and Whatsapp applications are the most popular ones among young people. In particular, Instagram is known to be the lovemark of Turks. (We Are Social, 2018). The primary reason for this is to get in touch with the opposite sex and friends and to follow friends' posts (Gezgin and Mihci, 2020).

### **1.2. Social Media Addiction**

Addiction is defined as the inability to stop using a substance or to be unable to show an attitude and to do it involuntarily (Günüç and Kayri, 2010). The most important symptom of addiction is the feeling of deprivation

when the addict cannot access the stimulus (Uğurlu, Şengül, and Şengül, 2012). When addiction is mentioned, substance addiction is defined first. However, with the recent development of technology and the widespread use of technology, the concept of technology addiction has emerged. Similarly, in technology addiction, when the addicted person cannot use the technological tool or cannot access it, he/she gets into moods such as stress, anxiety, and depression. Also, Technology addiction; covers concepts such as smartphone addiction, internet, and social media addiction, computer and game addiction (Ertemel and Pektaş, 2018).

Recently, social media has been used by a great many individuals and institutions. Thanks to social media, instant access is becoming easier and users are increasingly becoming able to see contents, articles, opinions, daily events, photographs and expressing their views. With the development of mobile devices and internet networks, social network sites are making it possible for individuals to get in touch with friends or others, thereby warding off feelings of loneliness and spending good time, which in turn increases the amount of time spent on social networks (Andreassen, Torsheim, Brunborg and Pallesen, 2012; Aktan, 2018). Since the increase in the amount of time spent on social media causes individuals to constantly update their status, they become dependent on social media all the while trying to follow the posts shared by others (Yıldırım and Kışioğlu, 2018). However, this intense commitment to using social media brings with it certain problems. Among these problems are social media addiction (Hawi and Samaha, 2017) or social network site addiction (Kuss and Griffiths, 2011), with each having different definitions in the literature. Social media addiction refers to an individual's excessive use of social media beyond his or her control and a constant need for it, which in turn negatively affects his or her daily life and relations at work, with friends and in the family (Zorbaz, 2013). Another definition of social media addiction points to the compulsive use of the social media (Hawi and Samaha, 2017), which manifests itself with behavioral addiction symptoms such as salience, tolerance, conflict, withdrawal, relapse, and mood modification (Griffiths, 2005).

While there are a number of studies conducted into social media addiction (Olowu and Seri, 2012; Al-Menayes, 2015; Nakaya, 2015; Yu et al., 2015; Bányai et al., 2017; Balakrishnan and Griffiths, 2017; Griffiths and Kuss, 2017; Hawi and Samaha, 2017; Monacis et al., 2017; Azizi, Soroush and Khatony, 2019; Casale, Rugai and Fioravanti, 2018; Grau, Kleiser and Bright, 2019; Hou et al., 2019; Sun and Zhang, 2020), this study focuses on other studies that have been conducted in Turkey and that deal with social media addictions of teacher candidates. Studies undertaken in Turkey concentrate on Generation Z. Studies conducted on undergraduates and teenagers evaluate social media addiction on the basis of a demographic variables (Çam and İşbulan, 2012; Aydın and Çelik, 2017; Baz, 2018; Çiftçi, 2018; Tutgun-Ünal, 2015; Yılmazsoy and Kahraman, 2017; Sanal-Özcan and Özer, 2017). Şeyda and Diken, 2018; Deniz and Gürültü, 2018; Karaman and Kurtoğlu, 2009; Baş and Diktaş, 2020), social media usage behaviors (Kırık et al., 2015; Altın and Kivrak, 2018; Aktan, 2018; Tutgun-Ünal, 2019; Afacan and Özbek, 2019; Tutgun-Ünal, 2020; Yesilyurt and Turhan, 2020) and psychological factors and problems (Özgür, 2013; Balcı and Baloğlu, 2018; Uzun, Yıldırım and Uzun, 2016; Sahin, 2017; Kırcaburun, 2016; Bilgin, 2018; Balcı, Bekiroğlu and Karaman, 2019; Karadağ and Akçınar, 2019; Eşer and Alkaya, 2019; Köse and Doğan, 2019; Baltacı, 2019; Hamutoglu, Topal and Gezgin, 2020).

There are various studies into social media addiction in the literature with different participant groups. However, this study focuses on the social media addiction levels of candidates who will be teachers in the future. In a study carried out on 191 social studies teacher candidates by Bas and Diktas (2020) into the social media addiction levels of teacher candidates, male participants were found to display higher levels of social media addiction than female participants, with first graders exhibiting greater risk of addiction than students in the other grades. The study found that teacher candidates used mostly Instagram, Facebook, Twitter, and Snapchat, looking for entertainment, daily events, activities by close friends, photo and video shares, flirtation with the opposite sex, KPSS, course notes and shared interests. Another study performed on 189 science teacher candidates by Gul and Diken (2018) showed that teacher candidates had moderate social media addictions, with no significant difference observed between candidates as regards gender. First graders were found to have lower social media addiction levels than those in the other grades. Yet another study conducted by Çam and İşbulan (2012) found a significant difference between genders and year grades in terms of Facebook addiction, with male teacher candidates exhibiting higher levels of addiction than females. In addition, seniors were found to be significantly more addicted to social media by comparison with juniors, sophomores, and freshmen. The study found that social media use was popular among teacher candidates and that they carried the risk of social media addiction.

The study includes a population of Generation Z individuals who are primary school teacher candidates at different year grades because apart from being members of the Generation Z, primary school teacher candidates play a pivotal role as educators in the formation of self-control and identity in children who are in the sub-group of Generation Z. As part of their profession, primary school teacher candidates need to be aware of the potential effects of social media on primary school students. In addition, primary school teacher candidates should develop social media usage behaviors such as professional sharing, educational sharing, educational pages-groups, communication, and information sharing in terms of their own fields and personal development (Duran and Bayar, 2020), just like primary school teachers who are currently working in the profession. It is thought that

displaying these possible educational social media usage behaviors is important for both primary school teacher candidates and their students. Therefore, the determination of social media usage behaviors and social media addiction levels of prospective primary school teachers are of paramount importance both for their own physical and mental health and for those students for whom they will be role models. Additionally, the detection of a potential problematic social media use through this study will serve to raise awareness among primary school teacher candidates, thus allowing them to come up with solutions to these problematic social media uses. In this study, the actions that can be taken from a social network site account are explained within the scope of social media usage behaviors and features. In particular, behaviors such as content and story sharing, live broadcasting ,and status change, which are the functional features of Whatsapp and Instagram applications(Soncu,2016), which are the most used by generation Z (Gümüş,2020), are considered as social media behaviors of the study. Accordingly, this study aims to examine social media usage behaviors and social media addiction levels of primary school teacher candidates.

### 1.3. The aim of the study

The study aims to investigate the relationship between social media addiction levels and social media usage behaviors of primary school teacher candidates studying at the Primary School Teaching Department at the Faculty of Education, Trakya University during the school year of 2018-2019. Several answers were sought to the research questions listed below:

1. What is the social media addiction level of the students?
2. Among the students displaying social media addiction, is there any difference between groups in terms of
  - a. gender,
  - b. year grades,
  - c. the amount of time spent daily on social media,
  - d. the frequency of daily check social media account?
3. Is there a significant correlation between students' level of social media addiction and social media behaviours as
  - a. the number social media accounts,
  - b. the number of contents posted on social media,
  - c. the number of stories posted on social media,
  - d. changes made to the status on the social media account?

## 2. Method

### 2.1. Research Model

The study is based on correlational model. Correlational models aim to describe a past or an existing situation as it is. Any event, individual or object that is the subject of research is evaluated in its own right. The correlational study aims to establish the existence or the level of change between two and more variables. (Karasar 2005). In this context, the relationship between the social media addiction level of the students and the number of social media accounts, the number of content published, the number of news published, and the change in the status of the social media account was examined.

### 2.2. Participants

The study group is composed of 234 primary school teacher candidates studying at the Primary School Teaching Department at the Faculty of Education, Trakya University. However, four candidates were removed from the study as they had incompletely filled in the research form. For this reason, the number of samples is made up of 230 participants, of whom 180 are female and 50 are male. 44 are freshmen; 56 are sophomores; 69 are juniors and 61 are seniors. The average age of students is  $M=21.19$ . Table 1 shows the frequency-percentage values of male and female students by grade.

Table 1. Participants' frequency-percentage values regarding gender and grade

Gender		Female		Male		The number of participants	
		f	%	f	%	f	%
Grade	1st year	32	17.8	12	24.0	44	19.1
	2nd year	43	23.9	13	26.0	56	24.4
	3rd year	55	30.5	14	28.0	69	30.0
	4th year	50	27.8	11	22.0	61	26.5
Total		180	100.0	50	100.0	230	100.0

### 2.3. Data Collection Tools

A questionnaire form was used by the researcher in the collection of data. The questionnaire is composed of three sections. The first section includes research questions on participants' demographic data such as gender and

grade. The second section consisting of multiple-choice questions asks participants how often they use social media and how often they check their social media accounts daily and why they use social media. In addition, to determine the social media usage behavior of the participants, "What is the number of social media accounts?", "What is the number of content you post on social media?", "What is the number of stories you post on social media?", "What is the number of changes in your social media account status?" questions were asked. In the last section, a social media addiction scale is used.

The study made use of the Social Media Addiction Scale (SMA-S), developed by Tutgun – Ünal (2015). The scale, consisting of 41 Likert type items, is composed of four sub-dimensions: “occupation”, “mood modification”, “relapse” and “conflict”, which are comprised of 12, 5, 5 and 19 items, respectively. The statements in the scale are “1= Never, 2= Rarely, 3= Sometimes, 4= Often, 5= Always”. According to the grading system of the scale, a grade range between 41-73 denotes No Addiction; 74-106 is Slight Addiction; 107-139 refers to Moderate Addiction; 140-172 means High Addiction and 173-205 shows Very High Addiction. The internal coefficient of consistency was found as .97 by researchers who developed the scale. The Cronbach Alfa value of the study is .96.

#### 2.4. Data Collection and Analysis Process

Data were collected by a researcher over the course of two months (April-May) from undergraduates in Primary School Teaching Department, Faculty of Education, Trakya University in the school year of 2018-2019. It took volunteers 15 to 20 minutes fill out the questionnaires. Firstly, the participants were informed about this study and then data were collected from participants on a voluntary basis.

Before progressing to analysis process, we used Shapiro Wilk test in order to test the normal distribution. At the end of the test, data were found to be normally distributed ( $p > .05$ ). Therefore, parametric tests were used in the study. Independent Samples T-test was used to demonstrate the differences in SMA in terms of the gender variable and one-way ANOVA test was used to see whether there was a statistically significant difference in terms of year grade. Finally, Pearson Correlation Coefficient was used to analyze the relationship between the variables of social media behaviours and Social Media Addiction.

Ethics committee approval of the study was received from Trakya University Social and Human Sciences Research Ethics Committee on 20 March 2019 (Decision No: 2019.03.02).

### 3. Findings

The study, which aimed to analyze the social media addiction levels of primary school candidates, found that 97.8% of the participants sign into their social media accounts almost every day. 7.0 % of the participants spend less than an hour on social media, 44.8% spend between 1 and 3 hours, 30.4% spend between 3 and 5 hours on their social media accounts, 10.9% spend between 5 and 7 hours while 7% of the participants spend 7 hours and over. Additionally, of all the candidate teachers, 3% post on social media every day, 10.9% post 3 to 4 times a week, 20.4% share posts 1 to 2 times every week and 65.7% of the participants post 1 to 2 times a month. Table 2 gives information about demographic data and social media usage behaviors of the participants.

Table 2. Participants’ frequency-percentage values regarding their social media usage behaviors

		f	%
Monthly Use	Every day	225	97.8
	3 to 4 times a week	2	.9
	Once or twice a week	2	.9
	Once or twice a month	1	.4
Daily use	Less than 1 hour	16	7.0
	1 to 3 hours	103	44.8
	3 to 5 hours	70	30.4
	5 to 7 hours	25	10.9
	7 hours and over	16	7.0
Monthly posts	Every day	7	3.0
	3 to 4 times a week	25	10.9
	Once or twice a week	47	20.4
	Once or twice a month	151	65.7

Visiting the social media account	1 to 20 times	88	38.3
	21 to 40 times	42	18.3
	41 to 60 times	37	16.1
	61 to 80 times	24	10.4
	81 to 100 times	39	17.0
	100 times over	-	0.0
Most visited social media account	Instagram	134	58.3
	Whatsapp	63	27.4
	Youtube	18	7.8
	Twitter	11	4.8
	Facebook	4	1.7
Purpose of social media use	Following friends	92	40.0
	Updating profiles	48	20.9
	Killing time	26	11.3
	Reading posts and tracking events	21	9.1
	Engaging in online conversation	18	7.8
	Finding friends	13	5.7
	Playing interactive games	12	5.2
Total		230	100.0

According to Table 2, over half of the participants (58.3%) display an extensive use of the Instagram application. The other applications such as Whatsapp, Youtube, Twitter, and Facebook are used by 27.4%, 7.8%, 4.8% and 1.7% of the participants, respectively. Another finding suggests that 40% of the primary school teacher candidates use social media in order to follow friends, 20.9% to update their profiles, 11.3% to kill time, 9.1% to read posts and keep track of events, 7.8% to converse online, 5.7% to find friends and 5.2% to play interactive games.

### 3.1. Findings regarding the Social Media Addiction of the Candidate Teachers

The study, which aimed to analyze the social media addiction levels of primary school teacher candidates, produced a mean score of 101.34 in the whole of the scale. This score indicates that the social media addiction level of the teacher candidates falls under the category of “slight addiction” (score range=74-106). An analysis of the sub-dimensions shows that participants in the occupation sub-dimension (M=38.42) are “moderately addicted”; those in the mood modification sub-dimension (M=14.44) are “moderately addicted”; those in the relapse sub-dimension (M=12.04) are “slightly addicted” and participants in the conflict sub-dimension (M=36.44) are “slightly addicted”. Table 3 shows mean and standard deviation values of the scale and the sub-dimensions.

Table 3. Findings regarding SMA levels

Variables	Minimum	Maximum	Mean	Std. deviation
SMA	41.00	170.00	101.34	27.792
Occupation	12.00	58.00	38.42	.910
Mood Modification	5.00	25.00	14.44	5.115
Relapse	5.00	24.00	12.04	4.649
Conflict	19.00	79.00	36.44	13.715

According to Table 2, the mean value taken from the total scale along with the mean value taken from the “occupation” sub-dimension are significantly higher when compared to other sub-dimensions. Mean values taken from “mood modification”, “relapse” and “conflict” sub-dimensions show that the level of addiction is significantly lower in these dimensions. Additionally, since the SMA scale has a segmented structure, addiction levels of the participants were established on the basis of the total scale and sub-dimensions. According to this, 21 (9.1%) teacher candidates are “highly addicted” in terms of SMA; 75 (32.6%) candidates are “moderately addicted”; 95 (41.3%) candidates are slightly addicted, and 39 (17.0%) candidates are “not addicted”. Table 4 shows data on SMA levels according to the scale and sub-dimensions.

Table 4. Participants' frequency-percentage values regarding their SMA levels

The scale and sub-dimensions	SMA Level	f	%
SMA Level	Very High Addiction	-	-
	High Addiction	21	9.1
	Moderate Addiction	75	32.6
	Slight Addiction	95	41.3
	No Addiction	39	17.0
Occupation	Very High Addiction	23	1.,0
	High Addiction	73	31.7
	Moderate Addiction	77	33.5
	Slight Addiction	43	18.7
	No Addiction	14	6.1
Mood Modification	Very High Addiction	22	9.6
	High Addiction	65	28.3
	Moderate Addiction	64	27.8
	Slight Addiction	42	18.3
	No Addiction	37	16.1
Relapse	Very High Addiction	8	3.5
	High Addiction	31	13.5
	Moderate Addiction	61	26.5
	Slight Addiction	76	33.0
	No Addiction	54	23.5
Conflict	Very High Addiction	1	.4
	High Addiction	12	5.2
	Moderate Addiction	32	1.,9
	Slight Addiction	70	30.4
	No Addiction	115	50.0
Total		230	100.0

According to Table 4, teacher candidates are mostly in the “Moderate and Slight Addiction” category in terms of SMA level. In addition, such sub-dimensions as “Occupation” and “Mood Modification” are where the participants show high levels of addiction.

### 3.2. Findings regarding SMA in terms of the gender variable

Independent sampling t-test was performed to see whether teacher candidates displayed differences in terms of social media addiction on the basis of gender. The test produced statistically significant differences. Female teacher candidates ( $M=2.52$ ) were found to have significantly higher levels of social media addiction than male teacher candidates ( $M=2.28$ ) ( $p<.05$ ). In light of these findings, female candidates can be said to be more predisposed to social media addiction than male participants. Table 5 shows findings regarding the gender variable.

Table 5. Findings regarding the gender variable

Gender	N	Mean	Std. Dev.	sd	p
Female	180	2.52	.661	228	.03*
Male	50	2.28	.715		

\*  $p<0.05$  significant difference

### 3.3. Findings regarding SMA in terms of the year grade variable

One-way ANOVA test was used to see whether there was a statistically significant difference in teacher candidates in terms of year grade. The tests produced no significant difference in the level of social media addiction in terms of year grade ( $p<.05$ ). In light of these findings, the change in the year grade cannot be said to result in a difference in social media addiction levels. Table 6 shows the results of the test.

Table 6. Results of the ANOVA test regarding the year grade variable

Source	Total of Squares	df	Mean of Squares	F	p
Intergroups	1.372	3	.457	.993	.39
Within Groups	104.105	226	.461		
Total	105.477	229			

\* p<0.05 a significant difference

### 3.4. Findings regarding SMA in terms of the amount of time spent daily on social media

ANOVA test was used to see whether there was a statistically significant difference in teacher candidates' duration of daily social media use in terms of social media addiction. The test produced a statistically significant difference in the social media addiction levels in terms of duration of daily social media use (p<.05). TUKEY test was performed to establish between which groups this difference occurred. Findings of the study showed that teacher candidates who used social media for 7 hours and over (M=2.94) were found to be more addicted to social media than those who used social media for less than an hour (M=1.65), 1 to 3 hours (M=2.46) and 3 to 5 hours (M=2.47). Additionally, it is safe to assume that teacher candidates who spend less than an hour on social media are not addicted to social media when compared to the other groups [ 1 to 3 hours (M=2.46), 3 to 5 hours (M=2.47), 5 to 7 hours and 7 hours and over (M=2.94)]. Table 7 shows the results of the ANOVA test.

Table 7. Results of the ANOVA Test regarding the Duration of Social Media Use

Source	Total of Squares	df	Mean of Squares	F	p
Intergroups	16,413	4	4.103	10.366	.00*
Within Groups	89,064	225	.396		
Total	105,477	229			

\* p<0.05 a significant difference

### 3.5. Findings regarding SMA in terms of the frequency of daily check social media account

ANOVA test was used to see whether there was a statistically significant difference in teacher candidates' frequency of daily visiting social media account in terms of social media addiction. The test produced a statistically significant difference in the social media addiction levels in terms of the frequency of daily visiting social media account (p<.05). TUKEY test was performed to establish between which groups this difference occurred. Findings of the study showed that teacher candidates who check daily social media account for 1-20 times (M=2.21) were found to be less addicted to social media according to other groups who check daily social media account for over 20 times [21-40 times (M=2.56), 41-60 times (M=2.57), 61-80 times (M=2.69) and 81-100 times (M=2.72)]. Table 8 shows the results of the ANOVA test.

Table 8. Results of the ANOVA Test regarding the amount of daily visiting social media account

Source	Total of Squares	df	Mean of Squares	F	p
Intergroups	10,015	4	2.504	5.902	.00*
Within Groups	95,461	225	.424		
Total	105,477	229			

\* p<0.05 a significant difference

### 3.6. Data regarding the relationship Between Social Media Usage Behaviors and SMA

Pearson Correlation Coefficient technique was used to establish the relationship between the teacher candidates' social media ownership along with their social media usage behaviors and social media addiction. Table 9 shows the results of the test.

Table 9. The results of Pearson Correlation Analysis

	Number of Social Media Accounts	Posts	Stories	Live Posts	Changing Status	SMA	Occupation	Mood Modification	Relapse	Conflict
Number of Social Media Accounts	1	.060	.163*	-.036	.020	.252**	.240**	.182**	.145*	.220**
Posts		1	.094	.008	.100	.014	.084	-.030	-.072	.003

Stories	1	.138*	.136*	.514**	.361**	.308**	.412**	.525**
Live Posts		1	.031	.095	.104	.029	.058	.088
Changing Status			1	-.037	-.019	-.103	-.062	-.001
SMA				1	.832**	.765**	.783**	.875**
Occupation					1	.657**	.593**	.517**
Mood Modification						1	.558**	.514**
Relapse							1	.610**
Conflict								1

\* 0.05 a significant relation

\*\*0.01 a significant relation

According to the test results, there was a weak positive correlation between the number of social media account and the level of social media addiction ( $r=.252$ ). In addition, there was a median positive correlation between the number of stories posted monthly from social media accounts and the level of social media addiction ( $r=.514$ ). No significant correlation was detected between social media addiction and the other variables. In light of the findings, it is reasonable to assume that ownership of a social media account and the increase in the number of stories posted may be factors leading to social media addiction.

#### 4. Discussion and Results

This study, which aims to investigate the way primary school teacher candidates use social media use and their social media addiction levels, found primary school teacher candidates to be “slightly addicted” to social media. Findings obtained through the investigation into the sub-dimensions of social media addiction demonstrate that teacher candidates were “moderately addicted” in the occupation sub-dimension, “moderately addicted” in the mood modification sub-dimension, “slightly addicted” in the relapse sub-dimension and “slightly addicted” in the conflict sub-dimension. A study conducted on a group of undergraduates, among whom there were teacher candidates reached a similar conclusion, stating that students were “slightly addicted” to social media (Ekşi, Turgut and Sevim, 2019). In their study regarding sub dimensions, participants were “moderately addicted” in the occupation sub-dimension, “slightly addicted” in the mood modification sub-dimension, “slightly addicted” in the relapse sub-dimension and “not addicted” in the conflict sub-dimension. A review of the literature will generally produce similar results to the findings of the study (Özgür, 2013; Balcı and Baloğlu, 2018). However, contrary to the findings of the study, in the study conducted by Olowu and Seri (2012) with the participation of students from eight universities, it was revealed that the majority of the respondents showed a tendency to addicted to social networking sites and therefore could not do without looking at their online profiles every day. It is pleasing that primary school teacher candidates' social media addiction levels are low in the study. In addition, it can be said that the correct and effective use of social media without any problems will have a positive effect on both primary school teacher candidates and students in their professional lives.

As for gender, female teacher candidates were found to have a higher level of social media addiction than their male counterparts. In the study, it may be thought that the higher number of female teacher candidates than male teacher candidates may have an effect on the finding, but the fact that the unit number of male teacher candidates consists of fifty shows that there is no statistically sampling problem and that generalization can be made (Yenihan, Yertüm ve Sever, 2019). This is supported by another study involving 285 teacher candidates, where female teacher candidates exhibited more desire to use social media and share posts than did their male counterparts (Kırnık, Pepeler and Özbek, 2018). In another study conducted by Cömlekci and Basol (2019) with the participation of university students, it was observed that students spent an average of 4 hours and 16 minutes a day on social media and women spent 40 minutes more on social media than men did. In contrast to this, there are more studies in the literature indicating that male teacher candidates display a higher level of Internet addiction, which may be linked to the level of social media use, social media addiction and heavy social media use (Çam and İşbulan, 2012; Özgür, 2013; Kır and Sulak, 2014; Yaman, 2016; Aydın and Çelik, 2017; Eroğlu and Yıldırım, 2017; Serdar, Harmandar-Demirel and Demirel, 2018; Baş and Diktaş, 2020). There are other studies that find no difference between genders regarding the level of social media addiction (Tutgun-Unal and Deniz, 2016; Yılmazsoy and Kahraman, 2017; Baz, 2018; Demir and Kumcağız, 2019). The literature is teeming with different findings regarding gender. This study found female teacher candidates to be more predisposed to social media addiction than their male counterparts.

No significant difference was observed in social media addiction levels of teacher candidates from different year grades. By contrast with this, there are studies reporting that seniors spend more time on social media and that they have a higher level of social media addiction than do freshmen (Çam and İşbulan, 2012; Özgür, 2013). Other studies indicate that freshmen are more at risk from social media addiction than are senior teacher

candidates (Baş and Diktaş, 2020). In light of the findings in the study, year grades do not have any effect on the level of social media addiction.

When it comes to evaluating teacher candidates on the basis of the daily amount of time they spend on social media, those teacher candidates who spend 7 or more hours on social media every day have a higher level of social media addiction than those who spend less time on social media every day. This is supported by a study performed by Özgür (2013) which reports that teacher candidates who spend 39 hours or more on social media every week have a higher level of social media addiction when compared to those who spend less time. In another study conducted on 374 teacher candidates by Demir and Kumcağız (2019), it was reported that teacher candidates who spent more time on social media had a higher level of social media addiction than those who spent less time of day on social media. Therefore, it is reasonable to assume that spending longer periods of time on the Internet and social media poses a risk for social media addiction in teacher candidates (Berigel, Kokoc and Karal, 2012; Savci, Ercengiz and Aysan, 2018).

In the study, when another finding is examined, teacher candidates' frequency of daily checking social media account in terms of social media addiction was a significant difference. Findings of the study showed that teacher candidates who check daily social media account for 1-20 times were found to be less addicted to social media according to other groups who check daily social media account for over 20 times. As a result of this finding, it is seen that daily checking social media accounts is an important user behavior for social media addiction. Supporting the findings of the study, it is stated that controlling social media accounts during the day and staying active throughout the day are risky behaviors in terms of technology addiction (Ucer, 2016; Polat, 2017; Hoşgör, et al., 2017).

Finally, the study found a significant correlation between social media addiction and story sharing, a type of behavior associated with social media use and ownership of social media. Findings of the study indicated that there was a weak positive correlation between the social media account teacher candidates possessed and the level of social media addiction and a median positive correlation between the number of stories posted over the course of a month and the level of social media addiction. As the number of social media accounts increases and as the number of instant story postings increases especially from Instagram and Whatsapp (Baş and Diktaş, 2020), two applications most favored by teacher candidates, we can safely assume that social media addiction will increase, as well.

## **5. Conclusions**

Findings of the study indicate that female teacher candidates have a greater tendency to spend time on social media. As such, female teacher candidates can be said to be more at risk from social media addiction. However, studies conducted into social media addiction in the literature report that any difference likely to arise owing to gender may be caused by the diverging interests, expectations and desires of students in different age groups (Baş and Diktaş, 2020). In addition, the fact that female teacher candidates are more likely to be addicted to social media is associated with the fact that their social media posts are highly likely to be liked and that they enjoy commenting, sharing, following people and friends with similar interests, participating in events to be organized and spending time on social media sites and that they have a stronger attitude towards social media use (Kırnik, Pepeler and Özbek, 2018). Another study evaluating the issue of social media addiction in terms of personality types reported that shy and young, extroverted, and single neurotic women were more likely to develop addictive behavior towards social media, much as excessive use of social network sites are not officially recognized as behavioral addiction (Koc and Akbiyik, 2020).

The increase in the amount of time spent on social media triggers the risk of social media addiction. As well as the negative situations likely to be experienced both physically and mentally (Sevilla, 2012) owing to social media addiction, teacher candidates may display academic procrastination behaviors as the time spent on social media increases (Uztemur, 2020). If prospective teachers find themselves in a situation including problematic behaviors such as social media addiction resulting from excessive social media use during school period when they are supposed to take in information related to their professions, they may fail to achieve academic success. Therefore, teacher candidates are advised to take precautions against social media addiction not only for themselves but also for students for whom they will be role models and they should raise their awareness of this issue.

Teacher candidates whose social media accounts increase in number and who share stories excessively are highly likely to be at risk from social media addiction. In a technological age when posts are shared at a breakneck pace, it is thought that such favorite applications as Instagram (Cömlekci and Basol, 2019) and the ability to post stories through such applications and their content pose a risk for social media addiction. In a study on Instagram, the majority of the participants stated that they used the Photo and Video sharing feature, followed by the new feature Story feature and Live broadcast (Sozkesen and Bicer, 2018). An increase in the number of social media accounts, especially those with story sharing features, of a teacher candidate can cause the level of social media addiction to be heightened both in terms of quantity and content. A study into Fear of Missing Out (FoMO), one of the precursors of social media addiction (Przybylski, Murayama and DeHaan,

2013), supports the findings by reporting that teacher candidates with 7 social media accounts or more display a significantly higher level of FoMO than those with fewer social media accounts (Gezgin, Hamutoglu, Gemikonakli and Raman, 2017). In addition, it is known that one of the characteristics of individuals with FOMO is the desire to constantly check their social media accounts. FoMO, which can predict social media addiction, does so by pointing to the increasing number of one's social media accounts, frequently daily checking social media accounts and story sharing mechanisms of these accounts.

As a conclusion, it is reasonable to assume that teacher candidates who will be the first in line in shaping the future are, like the other undergraduates in Generation Z, are at risk from social media addiction. As such, primary school teacher candidates should take certain precautionary actions about their excessive social media use and social media addiction not only for themselves but also for their students. Here, the onus is on universities as well. Universities should encourage students to socialize through some events where they can communicate face to face. This is of crucial importance considering the teacher candidates' professional missions. In addition, given that the use of social networks in educational settings may enrich education (Çelen, 2018), primary school teacher candidates should be aware of the potential risks likely to rise out of heavy and problematic use, and they should be instrumental in keeping these risks in check both for themselves and for their students that they will guide in life. Any future modeling study to be conducted on which behaviors might play a role in social media addiction will definitely contribute to the literature. In this respect, it is recommended that the courses within the scope of addiction and combating addiction, which are taught as elective courses in universities, are taken by prospective teachers in the academic process.

### **Compliance with Research and Publication Ethics**

In the study, the participants were informed about the study in advance and a consent form was signed in terms of volunteering.

### **Contribution Rate of the Researchers**

In addition, the contribution rate in the study was evenly distributed among the researchers.

### **Conflict of Interest Statement**

Finally, there is no conflict between the authors or any other institution in the context of the study.

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