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Effects of Gender and Personality Differences on Twitter Addiction among Turkish Undergraduates

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Abstract
In this study, it was aimed to examine the association between gender, personality traits and Twitter addiction (TA) among undergraduates. Study group consisted of 365 undergraduate students who are enrolled at the state university in western region of Black sea. Big Five Inventory, TA Scale and personal information form were used for data collection. In order to analyze the data, descriptive statistics, t test, Pearson's correlation and multiple regression analyses were utilized. As a result of the study, it was found that while 37.5% of the participants were mildly addicted to Twitter, 14.5% of them were addicted moderately. Another finding suggested that addiction levels of the male students were significantly higher than females. Results also indicated that while gender was positive predictor of TA, agreeableness, conscientiousness and extraversion were significantly negatively predicting the TA levels of the Turkish undergraduates.
Keywords: Twitter, addiction, personality, undergraduate

1. Introduction

Internet and social media use are becoming wider all over the world everyday. According to data from 2015, there are 3.4 billion internet users and 2.3 billion active social media users. These numbers imply %10 rise compared to 2014 (Smith, 2016). As we look at the domestic statistics, research indicates resemblance in rise of internet and social media users in Turkey as well. Number of internet users have scaled up from 12 million (18% of the total population) to 46 million (58%) between 2006 and 2016 (Internet Live Stats, 2016). Also, out of this 46 million, 42 million of them were active social media users (We Are Social, 2016). These statistics refer that levels of internet and social media use are increasing and most of the internet users are also active social media users domestically and globally.

Social media involves social networks and provides individuals to communicate and interact with each other through technological platforms (Corbeil & Corbeil, 2011). Twitter is one of the social networking platforms that have gained drastic popularity recently. In the last six years, number of active Twitter users has gone up from 30 million to 320 million globally. Recent study revealed that 22% of the total internet users around the world are using Twitter actively (Statista, 2016). These rates rank Twitter at fourth place regarding number of active users among social networking platforms after Facebook, Youtube and Instagram (Smith, 2016). The situation in Turkey is similar to the global statistics as well. Twitter is the third largest social networking platform after Facebook and Whatsapp and 17% of the Turkish internet users are also using Twitter actively (We Are Social, 2016). Another study signified that, according to 2014 data, Turkey is the second most frequent user of Twitter among other countries (Chaffey, 2016). These figures suggest that Twitter is being used actively and popularly both in Turkey and in the world.

1.1. Twitter And Addiction

Twitter was developed in microblogging structure which is sort of blogging. Microblogs differ from traditional blogs by its smaller sizes of files and content. They provide setting which enables its users to share bit of contents such as short sentences, instant photos and video links (Kaplan & Haenlein, 2011). In this sense, Twitter allows participation in any topic with "tweet"s that are limited to 140 characters. Different from Facebook, Twitter users have followers instead of friends. Since users don't have to give information about their identity, Twitter enables its users to be more anonymous and rather focus on what they have to share (Huberman, Romero & Wu, 2009). Followers may interact with posted tweets by retweeting, liking or quoting them. Furthermore, there are "hashtag"s in Twitter that facilitate complete strangers who are not following each other to interact and communicate on the same topic. When too many replies are given under the same topic, hashtag of the topic is shown in the main page of Twitter in a list called "trend topics". Users are able to observe the hot topics which are being discussed on this list. Recent survey concluded that while 41% of the users were logging in to Twitter for reading the news, 36% of them checked on what is going on, 35% of them were curious about the trending topics and 34% of the users went online to interact and socialize with their followers and followings (Statista, 2016). These ratios suggest that Twitter usage for getting information and the news is important side of this platform as much as socializing with others. From this aspect, Twitter enables its users to become integrated with the world, to access instant and up-to-date information and to socialize by communicating and interacting with random strangers as well as their acquaintances. Although these features may seem positive and beneficial for individuals, this overwhelming flow of information and tweets may lead individuals to negative outcomes such as addiction.

Various definitions of addiction are present in the literature. According to Armstrong & Pickard (2013), addiction is strong and habitual desire which brings harm to individuals; arise from powerlessness in controlling the situation of the behavior. Another one is Goodman's (1990) that defined addiction as lacking in stopping the behavior despite its negative outcomes due to the provided good feelings and lessening effects over inner unrest. Moving from these definitions, it may be stated that addiction is a weakness in controlling the behavior of use and demonstrating it involuntarily because of the pleasure received. Aside from "general addiction" definitions, since Twitter should not be considered separately from the internet, definition of internet addiction was also examined. Yellowlees & Marks (2007) described the symptoms of internet addiction as being unable to control the time spent online, getting bored in life outside of internet, distancing from the real life interactions and relations and increased feeling of depression and loneliness. Based on these definitions of general addiction and internet addiction, TA may be described as amount of time spent on Twitter that will effect one's daily routine and real life social relations negatively and also as individual is not logged in to Twitter showing symptoms such as feeling of deprivation for being used to provided limitless interactions and flow of information, feeling of fall behind because of not being able to see the trending topics and up-to-date news and lastly, feeling of depression and loneliness based upon the lack of interactions with followers and followings. According to Ndasauka et al. (2016), amount of time spent on Twitter is significant predictor of TA. Therefore, one could state that spending time on Twitter is leading individuals to be exposed to addictive features of Twitter which were mentioned above and because of this exposure, individuals become dependent on Twitter in time.

1.2. Personality Traits

Numerous definitions of personality could be obtained in the literature. Doğan (2013) construed personality as the elements that distinguish individuals from others were both brought from birth and also built-up by experience. Conforming to Doğan's (2013) definition, Tınar (1999) (as cited in Yelboğa, 2006) also stated that influence of individual's surroundings is effective as much as innate traits on construction of one's personality. By reason of many existing definitions of personality, various scales have been developed for measuring the personality traits accordingly. Goldberg (1981) claimed that it was possible to generalize these varied traits with the five fundamental factors that are neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. One of these factors is neuroticism. McCrae & Allik (2002) described neurotics as individuals who perceive life as turbulent, menacing and troublesome. Also, they are in a state of negative feelings such as dread, shame and fury. Another trait is extraversion that expresses the relations of individuals with their surroundings. Extraverts tend to demonstrate willingness and confidence on building new social connections and also they are dominant, forthcoming, energetic and cheerful. Openness to experience means active search and compassion for having new experiences. Individuals who are open to experience are always looking for out of ordinary and unprecedented experiences and they are creative, open to others' opinions and analytical thinkers. Agreeableness is also one of the personality traits that reflects individuals' relations with their surroundings as extraversion. However, different from extraversion, agreeableness is interested in explaining the quality and tone of this relationship. Agreeable persons tend to be polite, to have better understanding of others' situations, to be humble, to be open to cooperation with others and to demonstrate peaceful approach to people. Lastly, conscientiousness focuses on the adaptation to new situations, to be persistent in behavior and to be able to control the feelings when necessary. Conscientious individuals are stable, reasonable, systematic, determined and ambitious in achieving their goals (McCrae & Allik, 2002).

1.3. Literature Review

When the literature reviewed, studies that have investigated the association of personality traits with internet addiction (Andreassen et al., 2013; Batıgün & Kılıç, 2011; Hwang et al., 2014; Kayiş et al., 2016; Randler, Horzum & Vollmer, 2014; Servidio, 2014; Wang et al., 2015) and with social media use (Correa, Hinsley & De Zuniga, 2010; Dal & Dal, 2015; Liu, Wang & Jiang, 2016; Selfhout et al., 2010; Wang et al., 2015; Wang et al., 2012; Wehrli, 2008) have been noticed. One of the studies that examined the relations between personality traits and internet addiction was conducted by Randler, Horzum & Vollmer (2014) with 616 university students. According to the findings of this study, while male students' internet addiction levels were significantly higher than females, agreeableness and conscientiousness were predicting internet addiction negatively. This means less agreeable and less conscientious students had higher internet addiction scores. It was also reported that internet addiction levels of the students was not significantly associated with openness to experience, extraversion and neuroticism. In another study, Wang et al. (2015) have examined the effects of personality on social media addiction levels of secondary school students. As a result it was reported that while addiction levels were not differentiated by gender, it was predicted positively by neuroticism and extraversion. In a similar study that was aimed to determine the effects of personality traits on social networking use behaviors, Dal & Dal (2015) stated that males were spending more time on social networking sites than females and also students that were agreeable and open to experience had stayed significantly longer on social networks than others. Another finding of this study was that students who

were active Twitter users had higher scores on openness than those who were not.

As the past studies investigated, it was observed that number of research regarding Twitter use and addiction was limited. One of these researches was conducted by Ndasauka et al. (2016) that aimed to examine the excessive Twitter use of university students. According to this study, excessive Twitter use and real life social interactions of the students were negatively correlated. Furthermore, amount of time spent on Twitter was not differentiated by gender and it was significant predictor of TA. In another study, Hughes et al. (2012) have compared Twitter and Facebook use in regard to personality differences and reported that while Facebook was positively correlated with only neuroticism and sociability, students who were conscientious and open to experience used Twitter significantly more than others for socializing and the ones that accessed Twitter for information purposes were more likely conscientious, stable and introvert students. Aside from these studies, Quercia et al. (2011) examined whether personalities of the individuals could be predicted by Twitter use behaviors or not. Findings revealed significant correlation on popular and effective users with extraversion positively and neuroticism negatively. Furthermore, while popular users and openness were positively associated, effective users were significantly positively related to conscientiousness. As a result of the study it was claimed that personality traits of the individuals were predicted by number of followers, followings and listed counts on Twitter.

1.4. Present Study

In the literature, there are various researches about internet addiction, social network use, social media addiction and personality traits. However, no study was noticed that have investigated the relation of personality and TA. In this sense, purpose of this study is to examine the effects of gender and personality differences on TA among undergraduates. In this context, questions below were aimed to be answered:

1- What are the TA levels of the Turkish undergraduates?
2- Do TA levels of males and females significantly differ from each other?
3- Are gender and personality traits predicting TA of the university students?

2. Method

2.1. Participants

Study was carried out with 365 students that are enrolled at the state university in western region of Black sea who had active Twitter accounts. Since 28% of the total active Twitter users around the world are between age of 16 to 24 (Chaffey, 2016), selecting the study group from university students was considered to be beneficial. Characteristic features of the students are shown in Table 1.

Table 1
Characteristics of the Participants

		Frequency	%
Gender	Female	233	63.8
	Male	132	36.2
Faculty	Education	112	30.7
	Medical	65	17.8
	Engineering	49	13.4
	Arts and Sciences	40	11
	Management	32	8.8
	Forestry	22	6
	Technology	19	5.2
	Health	13	3.6
	Art and Design	12	3.3

2.2. Instruments

In this study, "Big Five Inventory (BFI-10)", “Twitter Addiction Scale (TAS)” and personal information form was used for data collection.

*Big Five Inventory (BFI-10):*BFI-10 consists of 10 items in 5 sub scales which are extraversion, agreeableness, conscientiousness, neuroticism and openness to experience. BFI-10 was developed by Rammstedt & John (2007) and it was adapted into Turkish by Horzum, Ayas & Padır (in press). Cronbach’s Alpha coefficient values of the extraversion, agreeableness, conscientiousness, neuroticism and openness to experience are .88, .81, .89, .85 and .84 respectively.

Twitter Addiction Scale (TAS): TAS is customized version of Internet Addiction Test (IAT). IAT was developed by Young (1998) and it was adapted into Turkish by Bayraktar (2001). The test was used by replacing the word “Internet” with “Twitter”. Because of this customization, validity and reliability analyses were conducted to determine if the scale was able to measure TA validly and reliably. As a result of the analyses, it was observed that the scale was consisted of 19 items in 2 sub factors which are named as social effect and linger. Lowest and

highest scores of the scale are 19 and 114. Cut points of the scale which were determined based on Young's (1998) study are as between 19-35 means no addiction; between 36-56 means mildly addicted; between 57-90 means moderately addicted and between 91-114 means severely addicted. As a result of the validity and reliability analyses, consistency of the total scale, social effect and linger factors were found as .92, .88, .88 respectively. For the current study, Cronbach's alpha coefficient values were .92, .89 and .86.

2.3. Data Analysis

Firstly, validity and reliability analyses were conducted. For examining the validity of the scale, exploratory and confirmatory factor analyses were utilized. Then inner consistencies of total scale and sub factors have been calculated. For determining the TA levels and its association with gender and the personality traits of the students, descriptive statistics, t test, Pearson's correlation and standard multiple regression analyses have been utilized.

2.4. Process

In order to determine the validity and reliability of the scale, 408 volunteered students who are in faculties of Education, Arts and Sciences and Management were chosen by using purposeful sampling method. After data collection was completed, validity and reliability analyses were utilized. As a result of the analyses, since one item load was high in both factors, it was cast out. Final form of the scale was consisted of 19 items in 2 factors. This process was finalized in 2 weeks. Then second data collection was conducted by using personal information form and TA scale. Total process time of data collection and analyses lasted nearly 5 weeks.

3. Findings

3.1. Results of Validity And Reliability Analyses

3.1.1. Exploratory Factor Analysis (EFA)

In this section, findings regarding the EFA and Cronbach's alpha coefficient values were given. Before the EFA, results of the Kaiser-Meyer-Olkin (KMO) and Barlett's sphericity test were examined. Since the values of KMO (.94) and Barlett's test (x^2=3726.19, p=.00) were at good levels (Büyüköztürk, 2015), it was carried on with EFA. Findings of the EFA are shown in Table 2.

As a result of EFA, it was determined that the scale consisted of two sub factors which were named as social effect and linger. While social effect factor was able to explain the 43.09% of the variance, linger factor was explaining 8.99% of it. Total variance explained by two factors was 52.08%. As item loads were examined, it was observed that the item loads were between .39 and .91.

Table 2

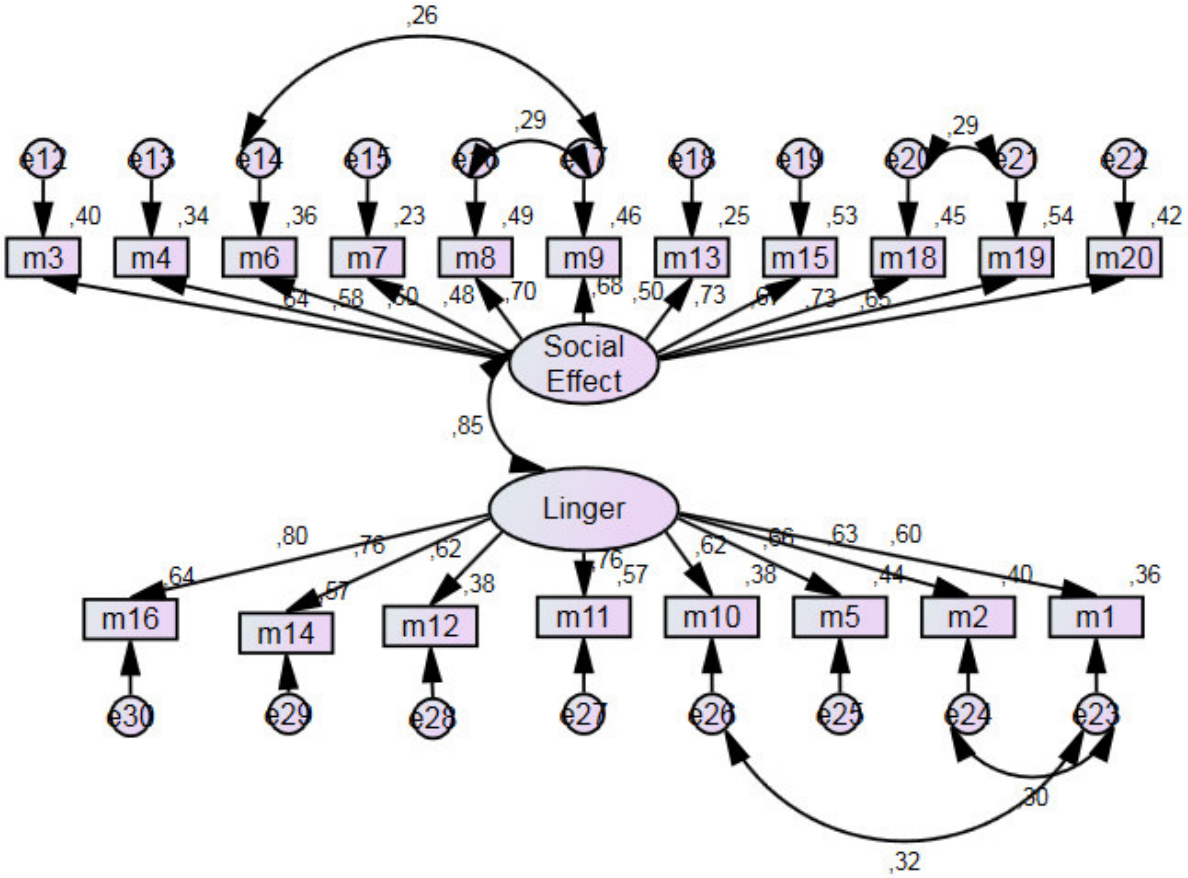
Exploratory Factor Analysis

	Items	X	Sd	Social Effect	Linger	Explained Variance(%)
Total						52.08
Social Effect						43.09
	M3	1.51	.84	.51		
	M4	1.88	1.06	.47		
	M6	1.33	.84	.81		
	M7	1.76	1.16	.39		
	M8	1.60	1.07	.61		
	M9	1.45	.86	.77		
	M13	1.82	1.25	.53		
	M15	1.64	1.02	.54		
	M18	1.43	.86	.83		
	M19	1.38	.91	.89		
	M20	1.53	1.09	.56		
Linger						8.99
	M1	2.81	1.23		.86	
	M2	1.73	1.04		.51	
	M5	2.34	1.31		.67	
	M10	2.90	1.39		.91	
	M11	2.01	1.18		.58	
	M12	1.97	1.31		.44	
	M14	1.93	1.30		.58	
	M16	2.04	1.34		.55	

3.1.2. Confirmatory Factor Analyses (CFA)

In order to confirm the findings of EFA, first level CFA was conducted. Items of the factors are shown in Figure 1.

As seen in Figure 1, some items that have indicated noticable errors in modification indices were bound (Byrne, 2013). These covariances improved the values of the model indexes. Standardized regression weights (Λ), t values (t) and squared multiple correlations (R^2) of the items are shown in Table 3.



Chi-square = 451.23, df =146, p-value = .00, RMSEA = .07

Figure 1. Standardized Values and Squared Correlations Between Items and Factors

Table 3

Standardized Regression Weights, T Values and Squared Multiple Correlations

Social Effect	**M3**	**M4**	**M6**	**M7**	**M8**	**M9**	**M13**	**M15**	**M18**	**M19**	**M20**
λ	.64	.58	.60	.48	.70	.68	.50	.73	.67	.73	.64
t	11.80	10.24	10.50	8.73	11.87	11.58	9.03	12.33	11.47	12.36	11.17
R^2	.40	.34	.36	.23	.49	.46	.25	.53	.45	.54	.42
Linger	**M1**	**M2**	**M5**	**M10**	**M11**	**M12**	**M14**	**M16**			
λ	.60	.63	.66	.62	.76	.62	.76	.80			
t	12.03	12.56	10.89	12.52	11.94	10.29	11.94	12.35			
R^2	.36	.40	.44	.38	.57	.38	.57	.64			

Standardized solution values (λ) between items and social effect factor differed from .48 to .73; items and linger factor were between .60 to .80 and items were significantly associated with the factors (p<.00). Also as we look at the squared multiple correlations of the items (R^2), since all the values were higher than 20%, it could be said that values of the items were at good levels. Also, in order to confirm the inner validity of the sub factors, model indexes of social effect and linger factors were examined separately. Good fit, acceptable values (Hu& Bentler, 1999) and results of this study are given in Table 4.

Table 4
Model Indexes

Indexes	TAS	SEF	LF	Good Fit	Acceptable Values
X^2/df	3.09	3.47	2.06	X^2/df < 2	X^2/df < 5
RMSEA	.072	.078	.054	RMSEA <. 05	.05 < RMSEA <. 08
SRMR	.05	.04	.03	SRMR < .05	.05 < SRMR < .10
GFI	.90	.94	.98	.95 < GFI < 1	.90 < GFI < .95
CFI	.92	.94	.99	.95 < CFI < 1	.90 < CFI < .95
NFI	.88	.92	.97	.95 < NFI < 1	.90 < NFI < .95
IFI	.92	.94	.99	.95 < IFI < 1	.90 < IFI < .95
AGFI	.86	.91	.95	.90 < AGFI < 1	.85 < AGFI < .90
NNFI	.90	.92	.98	.95 < NNFI < 1	.90 < NNFI < .95

*Abbreviations: TAS, Twitter Addiction Scale; SEF, Social Effect Factor; LF, Linger Factor

All model indexes of the TAS, social effect factor and linger factor were at acceptable values. These results indicate that the 2 factor structure of the scale was confirmed.

3.1.3. Results of the Reliability Analysis

Lastly, calculated Cronbach's alpha coefficient values for the total scale, social effect and linger factors were found to be .92, .88, .88 respectively. As a result of the EFA, CFA and consistency values of both total scale and sub factors, it could be said that TAS was valid and reliable for measuring TA levels of the undergraduate students.

3.2. Results of the Analyses Regarding Gender, Personality Traits and TA

In this section, descriptive statistics of TA levels of the students, t test results regarding gender and TA, results of the Pearson's correlation analysis between personality traits and TA and lastly findings of standard multiple regression analysis have been given. Addiction levels of the participants are shown in Table 6.

Table 6
TA Levels of the Students

	n	%
Not Addicted	173	47.4
Mildly Addicted	137	37.5
Moderately Addicted	53	14.5
Severely Addicted	1	.00

While none addicted users of Twitter proportion among students was 47.4%, 37.5% of them were mildly addicted and 14.5% were moderately addicted. In order to find out the differences in TA, social effect, linger according to gender, t test was utilized. Results are shown in Table 7.

Table 7
Differences in TA, Social Effect and Linger Regarding Gender

	Gender	n	$\overline{X}$	sd	t	p
Twitter Addiction	Female	233	38.02	12.72	-3.82	**.00**
	Male	132	43.92	16.40		
Social Effect	Female	233	33.80	13.06	-4.75	**.00**
	Male	132	41.42	17.30		
Linger	Female	233	43.81	16.03	-1.94	.05
	Male	132	47.34	17.74		

Findings suggest that male students' addiction levels were significantly higher than females. Also social effect of TA on the female students was significantly lower. This means female students' Twitter usage levels effect their social life lesser compared to male students. Lastly, linger sub-factor was not significantly differentiated by gender. For determining the relations between personal traits and TA, Pearson's correlation analysis was conducted. Results are given in Table 8.

Table 8
Results of the Pearson's Correlation Test

	1	2	3	4	5	6
1.Twitter Addiction	.					
2.Extraversion	-.19**	.				
3.Neuroticism	-.02	-.13*	.			
4.Openness	-.13*	.21**	-.12*	.		
5.Conscientiousness	-.16**	.28**	-.07	.13**	.	
6.Agreeableness	-.22**	.11*	-.20**	.09	.06	.

*p<.05, **p<.01

Significant negative correlations have been observed between extraversion, openness, conscientiousness, agreeableness and TA. To examine the significant predictors of TA, regression analysis was utilized with the significantly correlated variables. Results are shown in Table 9.

Findings of the multiple regression analysis put forward that gender, agreeableness, conscientiousness and extraversion were significant predictors of TA and they were predicting 11% of the total variance. Although openness was significantly correlated with TA, it was not causing significant effect in the model among other variables.

Table 9
Results of the **Standard** Multiple Regression Analysis With TA as Dependent Variable

Independent Variable	B	SE	β	t	p
Model (R^2= .12, ΔR^2= .11, F= 10.28, p = .00)					
Gender	.30	.08	.19	3.78	**.00**
Agreeableness	-.19	.05	-.18	-3.69	**.00**
Conscientiousness	-.10	.05	-.11	-2.11	**.03**
Extraversion	-.09	.04	-.11	-2.10	**.04**
Openness to Experience	-.07	.04	-.08	-1.57	.12

4. Discussion

In this research, effects of gender and personality traits on TA have been studied. In order to measure the addiction levels of the students, TA scale have been formed based on Young's (1998) internet addiction inventory. Validity and reliability analyses proved that the scale was valid, reliable and consistent on measuring the TA levels of the university students. First finding of the study is that 52% of the students were addicted to Twitter mildly or moderately. It means more than half of the participants were spending time in Twitter on pathological levels.

As the addiction levels of the students examined regarding gender, it was observed that male students were significantly more addicted to Twitter than females. TA levels of the undergraduates were significantly affected from and predicted by gender. Although no study have been conducted regarding TA and gender, finding of this study is parallel with the study of Dal & Dal (2016) which investigated the effect of gender on social media use and the study of Randler, Horzum & Vollmer (2014) which investigated the effect of gender on internet addiction and differs from other studies that suggested social media use was not differentiated according to gender significantly (Correa, Hinsley & De Zuniga, 2010;Wang et al., 2015; Wehrli, 2008).

Also when we look at the influence of gender on social effect sub factor and linger sub factor, addiction levels of the males were significantly impacting their social life more than females. Social effect factor is comprise of items such as "how often do you prefer spending time in Twitter rather than with your friends?", “how often do you talk offensively and behave angrily when someone disturbs you while you are in Twitter?" and “how often do you get complaints from your surroundings about the time you spent in Twitter". In this sense, it may be said that male students were experiencing more problems in their real life social relations due to the excessive use of Twitter than female students. Ndasauka et al. (2016) also reported that excessive use of Twitter is affecting individuals' social life negatively. No significant associations were found between gender and linger factor. Linger factor consists of items such as "how often do you stay on Twitter longer than you planned?", "how often do you think that life would be boring, empty and unamusing without Twitter?" and “how often do you find yourself saying "just couple of minutes more" when you are in Twitter?". It could be stated that linger factor is mainly focused on measuring the levels of dependency on Twitter and powerlessness in controlling the behavior of use.

Important finding of the study is that TA was negatively correlated with extraversion, openness to experience, conscientiousness and agreeableness. No relationship was found between neuroticism and TA. Regression analyses with the correlated variables determined that, agreeableness, conscientiousness and extraversion were significant negative predictors of TA. Although openness was correlated with TA, it was not a significant predictor.

Finding of extraversion being a negative predictor of TA contradicts some of the studies investigated the

association of social media use with extraversion (Correa, Hinsley & De Zuniga, 2010; Dal & Dal, 2015; Wang et al., 2015; Wehrli, 2008). Although most of the studies reported positive relationships between extraversion and social media use, Hughes et al. (2012) stated that accessing Twitter for informational purposes was negatively related to extraversion. This may be explained by that introverts prefer Twitter for having information and news rather than having it from their real life friends or surroundings and it may be implied that participants of this study use Twitter mostly for informational purposes rather than socializing.

Another trait correlated with TA negatively was openness to experience. This finding differs from results of some studies suggested that social media use was positively correlated with openness to experience (Correa, Hinsley & De Zuniga, 2010; Dal & Dal, 2015). However, Hughes et al. (2012) reported positive association between use of Twitter for socializing and openness. This finding also supports the implication above which participants of this study were mostly not using Twitter for social purposes. Furthermore, as we look at the finding of the study by Quercia et al. (2011), it may be said that students participated in this study were also unpopular Twitter users.

As for the negative relation between conscientiousness and TA, while finding of the Wehrli (2008) was parallel to our result, Hughes et al. (2012) reported positive correlation between conscientiousness and Twitter use. Opposite to Hughes et al. (2012), Randler, Horzum & Vollmer (2014) expressed that since virtual interactions are more comfortable than real life social interactions, less conscientious individuals had higher levels of internet addiction due to their disorganized nature. Maybe this situation is similar for TA as well and they prefer communicating through Twitter instead of face-to-face. Also Quercia et al. (2011) concluded that effective Twitter users had higher scores on conscientiousness. From this point of view, it may be signified that participants of this study were also mostly uneffective Twitter users.

Result of the analysis also showed that less agreeable individuals were more addicted to Twitter. As some researchers reported no relationship between social media use and agreeableness (Correa, Hinsley & De Zuniga, 2010; Wang et al., 2015; Werhli, 2008), Dal & Dal (2015) claimed positive association. Different from these, Randler, Horzum & Vollmer (2014) reported similar result to our finding, suggested that agreeableness was predicting internet addiction negatively. This incosistent results may be interpreted by which, studies stated positive or no relation have mostly investigated the social media use behaviors. Perhaps the situation differs as the addiction factor gets involved. McCrae & Allik (2002) described agreeable individuals as polite, humble, open to cooperation with others and peaceful. These features may lead agreeable individuals to build up real social relationships and interactions easily. Therefore, they would not need or find time for virtual interactions at addiction levels. Opposite of agreeable individuals, since they are tend to be hard to get along, rude and arrogant, less agreeable individuals will not be able to construct real life relations and this may lead them to become pathological users of virtual platforms such as Twitter.

Analysis indicated no significant association between neuroticism and TA. Neurotics perceive life as turbulent, menacing and troublesome. Also, they are in a state of negative feelings such as dread, shame and fury (McCrae & Allik, 2002). While this result coincides with the study of Dal & Dal (2015) , it differs from others (Correa, Hinsley & De Zuniga, 2010; Wang et al., 2015; Wehrli, 2008). These varied results may have caused by the different instruments and study groups that were used.

5. Conclusion

In this study, differences in TA regarding gender and personality traits were examined. Consequently, male, less agreeable, less conscientious and introvert students had higher scores of TA.

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