Examination of The Relationship Between University Students' Alexithymia Symptoms, Personality Types and Internet Use Behaviors

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Abstract

The main aim of this study is to examine the relationship between university students' alexithymia symptoms, personality traits, and internet use attitudes. The predictive power of personality types and internet use behaviors on alexithymia levels was examined. In addition, differences in the scores of alexithymia and personality types according to various demographic variables were examined. The study group consisted of 322 undergraduate students studying at four different universities in Istanbul. The Toronto Alexithymia Scale and the Eysenck Personality Brief Scale were used to collect data. According to the results obtained from the study, there was a significant relationship between alexithymia scores and personality types, while neuroticism and extraversion were found to have significant predictive power on alexithymia scores. Neuroticism and extraversion were found to have significant predictive power on alexithymia scores. Psychoticism, lying, duration of social network use, most used social network, and purpose of internet use variables did not have significant predictive power. It was found that women's alexithymia scale extroverted thinking scores were significantly higher, while men's personality traits lying scores were significantly higher.

Keywords: Alexithymia, Personality Types, University Students, Internet Use Attitude

Üniversite Öğrencilerinin Aleksitimi Belirtileri, Kişilik Tipleri ve İnternet Kullanma Davranışları Arasındaki İlişkinin İncelenmesi
Öz

Bu araştırmada, aleksitimi ve kişilik tipleri arasındaki ilişki, kişilik tipleri ve internet kullanım davranışlarının aleksitimiyi yordama gücü ve aleksitimi ile kişilik özelliklerinin çeşitli demografik değişkenlere göre farklılaşıp farklılaşmadığı incelenmiştir. Araştırmada ilişkisel tarama modeli kullanılmıştır. Araştırmanın çalışma grubu, 2019 yılında ikisi devlet ikisi vakıf üniversitesi olmak üzere İstanbul'da bulunan dört farklı üniversitenin sayısal ve sözel bölümlerinde öğrenim gören lisans öğrencilerinden oluşmuştur. Araştırmaya180'i kadın 142'si erkek olmak üzere toplam 322 kişi katılmıştır. Verilerin toplanması için Toronto Aleksitimi Ölçeği ve Eysenck Kişilik Kısa Ölçeği kullanılmıştır. Araştırmadan elde edilen sonuca göre aleksitimi toplam puanları ile nörotisizm dışadönüklük, yalan ve psikotisizm kişilik özellikleri arasında orta ve zayıf düzeyde, pozitif yönlü anlamlı ilişkiler bulunmuştur. Nörotisizm ve dışadönüklüğün aleksitimi puanları üzerinde anlamlı yordama gücü olduğu bulunmuştur. Psikotisizm, yalan, sosyal ağ kullanım süresi, en çok kullanılan sosyal ağ ve internet kullanım amacı değişkenlerinin anlamı yordama gücüne sahip olmadığı bulunmuştur. Elde edilen bulgular alanyazın çerçevesinde tartışılmıştır.

Anahtar kelimeler: Aleksitimi, Kişilik tipleri, Üniversite Öğrencileri, İnternet Kullanım Tutumu

INTRODUCTION

Alexithymia, a concept first defined by Sifneos (1977), is defined as the individual's difficulty in recognizing and defining emotions both in themselves and in others, and in distinguishing between bodily sensations, emotions, and cognitions (Parker, Keefer, Taylor, & Bagby, 2008). Alexithymia is a multidimensional personality structure that includes difficulty in identifying one's emotions and distinguishing them from bodily sensations; difficulty in expressing one's emotions to others; and a utilitarian and extroverted cognitive style that does not involve emotional reactions when faced with stressful situations (Li et al., 2023; Taylor et al., 1997; 2016). The concept of alexithymia, which can be found in Turkish sources with expressions such as thought slavery (Dökmen, 2000) and emotional crassness (Şahin, 1996), can also be defined as the lack of emotional awareness. This concept, which causes affect limitation in the individual, is summarized as the alienation of the individual from his/her own emotions (Parker, Keefer, Taylor, & Bagby, 2008). The relationship of alexithymic individuals with their own emotions is examined in four different stages as "difficulty in recognizing, distinguishing, and verbalizing emotions", "imagination, limitation in imagination", "functional, transactional thinking," and "cognitive structure for external-centered adaptation" (Taylor, 2000). Although alexithymia is discussed in four stages, the fact that its nature is still unclear and intertwined with many structures makes it difficult to make a precise definition (Carpenter & Addis, 2000). One of the main debates on alexithymia is whether it is a personality trait or a temporary finding due to stress or trauma (Epözdemir, 2012). Alexithymia is not a separate psychiatric diagnosis; it is observed both in many psychiatric disorders and in the general population (Nayok et al., 2023; Swiller, 1988). Although it was initially discovered to explain the symptoms seen in psychosomatic diseases (Bankier, Ainger, & Back, 2001), it is nowadays referred to as personality traits seen in different pathological groups as well as in the normal population rather than being defined as a disease (Batıgün & Büyükşahin, 2008; Şaşıoğlu, Gülol, & Tosun, 2014; Şener & Köseoğlu, 2019; Taylor, 2000; Zackheim, 2007). From this point of view, this study aims to examine the relationship between alexithymia and personality traits.

Personality can be defined as all of the characteristics that an individual is born with, that he/she acquires as a result of experience, and that distinguish him/her from other individuals (Cüceloğlu, 1993; Kaya, 2003). McCrae and Costa (1989) defined personality as a continuous, interpersonal, emotional, motivational, and experience-based interaction style that explains the behaviors of individuals in different situations. In short, personality is the basic structure shaped by factors such as temperament, physical structure, abilities, social attitudes, interests, values, and character (Baymur, 1978). The five-factor personality theory gathers different views on personality under one roof. These factors have been confirmed in many cross-cultural studies as extraversion, emotional stability/neuroticism, agreeableness, conscientiousness, and openness to experience/culture (Bacanlı, İlhan, & Aslan, 2009). It is thought that examining alexithymia, which has started to be included in the literature as a personality structure rather than a psychiatric disorder, and its interrelated structures will contribute to the literature. Although individuals with alexithymia are able to think, explain, and establish relationships in daily life, they have problems establishing and distinguishing connections between their feelings and thoughts and expressing them (Sifneos, 1988). Therefore, analyzing the personality structures of individuals with alexithymia is expected to contribute to treatment practices in the field of psychotherapy.

When the literature is examined, alexithymia is more common in people diagnosed with a disease in psychiatry (Sayar, Bilen, & Arıkan, 2001). However, there are an increasing number of studies suggesting that alexithymia is a personality trait. In a study, a positive relationship was found between alexithymia and neuroticism, the external locus of control, and unrealistic beliefs, and a negative relationship was found between alexithymia and extraversion and the internal locus of control. In addition, alexithymia is also associated with anxiety, anger, depression, and feelings of shame. It is reported that there is a negative correlation between alexithymia and altruism, and the reason for this correlation is that alexithymic individuals lack empathy and are dominated by self-oriented thinking (Zimmermann, Rossier, Stadelhofen, & Gaillard, 2005).

According to the psychoanalytic approach, which bases the view that alexithymia is a personality trait, it is stated that the inadequacy of the symbiotic relationship that an infant establishes with the mother will have a significant effect on the personality of that infant and may also cause alexithymia. Alexithymia is explained as a condition that occurs as a result of developmental failures or psychological traumas, emotional obsession, or regression (Krystal, 1979; Koçak, 2002), and alexithymic traits are triggered (Muller, 2000). In a study, the relationship between psychological symptoms and alexithymia was examined, and it was observed that individuals with high levels of alexithymia scored high in the interpersonal sensitivity, psychoticism, depression, anger hostility, obsessive-compulsive disorder, and phobic anxiety subscales of the SCL-90 test (Demet, Deveci, Özmen, Şen, & İçelli, 2002). In addition, alexithymia is thought to be associated with personality disorders (Coolidge,

Estey, Segal, & Marle, 2013). There is a positive relationship between schizoid, avoidant, dependent, and antisocial personality disorders and alexithymia, and a negative relationship with schizotypal personality disorder (Rick & Vanheule, 2007). Depending on these data, when other studies are examined, it is also stated that alexithymic individuals who cannot regulate their emotions effectively may tend to some emotional impulses and that this impulsivity strengthens the relationship between difficulty in emotion regulation and internet addiction (Akın, 2014). Alexithymia, which has recently started to be examined more intensively, draws attention as a variable that can be considered within the scope of social skills deficiency on the way to problematic internet use. It has been evaluated that alexithymia, which is reported to be associated with having problems in relationships (Besharat, 2010; Spitzer, Siebel-Jürges, Barnow, Grabe, & Freyberger, 2005) and low social support (Fukunishi, Berger, Wogan, & Kuboki, 1999; Tsai et al., 2009), can be understood together with interpersonal problems within the scope of a problematic emotion regulation system (Vanheule, Vandenbergen, Verhaeghe, & Desmet, 2010). It has been stated that individuals with high levels of alexithymia prefer online socialization by avoiding face-to-face communication; they can regulate their emotions better due to their increased control since they can control their profiles, the time they enter or leave the internet (Kandri, Bonotis, Floros, & Zaropoulou, 2014). These determinations show that it would be appropriate to investigate alexithymia characteristics together with personality types within the scope of personality traits of internet use behavior.

Alexithymic individuals who have difficulty recognizing and expressing their emotions also have distant social relationships. When the research was examined, it was reported that alexithymia was related to different types of addictions such as substance, gambling, or sex (Parker, Wood, Bond, & Shaughnessy, 2005; Reid, Carpender, Spackmen, & Willes, 2008); this situation attracted the attention of internet researchers. For this reason, it has been observed that it is important to address the relationship between alexithymia and internet addiction in the research on the subject (Craparo, 2011; Dalbudak et al., 2013; Scimeca et al., 2014).

Theories examining the relationship between personality types and internet use attitudes cluster around two different views. According to the social network theory, which categorizes people into introverted and extraverted individuals, extraverted individuals need to communicate more than introverted ones, and using the Internet is a motivational tool for them as it enables them to initiate interaction (Karaut, Kiesler, & Boneva, 2002). Social trade-off theorists, on the other hand, argue that the Internet benefits introverts because it reduces the anxiety of rejection and ridicule and thus increases their self-disclosure behavior (McKenna & Bargh, 2000; Pennebaker, 1989). According to a study using 16-factor personality traits, individuals with Internet addiction are self-confident, enjoy solitary activities, and avoid social activities (Young & Rodgers, 1998). As a result, alexithymic individuals with different personality structures are likely to avoid face-to-face communication and prefer online communication. This study, which was conducted with university students, an important population of society, aims to contribute to the explanation of the relationship between alexithymia, developing personality structures, and the internet use behavior of the young minds of society. In addition, examining the relationship between alexithymia, which is conceptualized as a trait that reflects emotional self-regulation difficulties in humans and is thought to be one of the few possible risk factors for various medical and psychiatric disorders (Taylor et al., 1997), personality traits, and internet use behaviors is expected to make a significant contribution to the literature by serving the field of diagnosis and treatment. Because studies show that alexithymia can be changed with therapeutic interventions (Cameron, Ogrodniczuk & Hadjipavlou, 2013).

Within the scope of the research, based on the literature, it was examined whether alexithymia predicts internet use in individuals, and the relationship between alexithymia, personality type, and internet use according to the variables of gender and field of study of the student was discussed. In line with the stated main objectives and the variables introduced, the questions sought to be answered in the research can be listed as follows:

1. Is there a significant relationship between personality types and alexithymia scores of university students?

2. Do personality types and internet use behaviors of university students have the power to predict their alexithymia levels?

3. Do personality types and alexithymia scores of university students differ significantly according to various demographic variables?

METHOD

In this part of the study, information about data collection tools, study group, statistical methods used in data analysis, and data collection are included.

Participants and Procedure

There are 322 college students in the research study group reached by the convenient sampling method in 2019. The participants consisted of undergraduate students studying at four different universities in Istanbul, two states, and two private universities. To reach the sample, first university administrations were contacted and required permissions were obtained to conduct the study. After this step, on the campuses, participants were approached randomly, informed about the study, and asked to participate voluntarily in the study. Among the participants, 44,1% (142) were male and 55,9% (180) were female. 69,6% of the participants are between the ages of 18-29, 30,4% are between the ages of 30-44, and 59,2% are between the ages of 45-64. 16,5% of the participants were freshmen, 43,2% were sophomores, 21,7% were juniors, and 18,6% were senior students. 19,3% of the participants use the internet for entertainment, 39,8% for social media, 22,2% for information exchange, and 18,3% for other purposes. 5,9% of the participants use Facebook, 41,3% Instagram, 33,9% WhatsApp, 14,9% Youtube, and 4% other social networks the most. 13,4% of the participants use social networks for less than 1 hour, 46% for 1-3 hours, 25,2% for 4-6 hours, and 15,5% for more than 7 hours. 69,9% of the participants do not have alexithymia risk, and 30,1% have alexithymia risk.

Instruments

First, data was collected using a form developed by the researchers. The form was prepared to collect information about the student's age, gender, department of education, purposes of using the internet, duration and social networks they use, etc.

Toronto Alexithymia Scale

Bagby and Taylor (1994) created this scale, which Beştepe (1997) and later by Güleç et al. (2009) translated into Turkish. TAS is a five-point Likert-type scale consisting of twenty items (1: Never, 2: Rarely, 3: Sometimes, 4: Frequently, 5: Always). This scale has 3 sub-factors. Difficulty in Recognizing Emotions factor consists of seven items (1, 3, 6, 7, 9, 13, and 14), the Difficulty in Verbalizing Emotions factor consists of five items (2, 4, 11, 12 and 17), the Extraverted Thinking factor consists of eight items (5, 8, 10, 15, 16, 18, 19 and 20). There are reverse-scored items (4, 5, 10, 18 and 19). In the internal consistency assessment of the scale and subscales, Cronbach's alpha=0,78 for the total scale, while the alpha values for the sub-factors were 0,80, 0,57, and 0,63, respectively. In addition, a cut-off score was determined on the scale. As a result of the study, it was determined that it was appropriate to take 51 as the lower value and 59 as the upper value. In this study, the Cronbach alpha of the total scale was found to be 0,81, while the alpha values for the sub-factors were 0,85, 0,67, and 0,69, respectively.

The Revised Eysenck Personality Brief Scale

It was initially designed as 48 items by Francis et al. (1992), but was then altered and reduced to 24 items. In 2007, the Turkish version of the questionnaire was done by Karancı et al. In addition to the personality sub-factors of extraversion (2, 4, 13, 15, 20, 23), neuroticism (1, 9, 11, 4, 18, 21), and psychoticism (3, 6, 8, 12, 16, 22). In addition, it includes a four-factor structure with the addition of the personality sub-factor of lying (5, 7, 10, 17, 19, 24) in order to prevent bias during the application and to ensure validity. There are 6 items in each factor, and items 3, 5, 7, 10, 15, 16, 17, 19, 20, and 22 are reverse scored. Cronbach's alpha values of the scale are 0,78, 0,65, 0,42, and 0,64 for extraversion, neuroticism, psychoticism, and lying sub-factors, respectively (Dursun, 2018). In this study, Cronbach's alpha values of the scale are 0,84, 0,74, 0,55, and 0,59 for extraversion, neuroticism, psychoticism, and lying sub-factors, respectively.

Data Analysis

Data analysis was done with the SPSS program. Initial analyzes were performed before starting the analyses. In this context, the accuracy of the data, missing values, and outliers were examined. First, the minimum and maximum values and frequency distributions of each variable were examined in order to examine the accuracy of the data. Afterward, normality tests were examined, and it was observed that the data were normally distributed, so it was decided to use parametric tests. Number, percentage, mean and standard deviation, kurtosis, skewness, and Cronbach's alpha values were used in the analysis of descriptive data. To examine the correlation between personality types and alexithymia scores, a Pearson correlation analysis was performed. The predictive power of personality type scores, the purpose of internet use, the most used social network, and the duration of social

network use on alexithymia scores were determined by multiple linear regression. Independent groups t-tests, ANOVA analyses, and the Kruskal Wallis test, for subgroups less than 30, were used to compare personality types and alexithymia scores according to demographic variables. Tukey, Scheffe, and Tamhane T2 post hoc tests were used to determine which groups differed after ANOVA analysis.

Research Ethics

Ethics Committee approval of the study was obtained from the Social Sciences Institute Ethics Committee of the affiliated university with the date of 04.04.2019 and number 2019/5. Additionally, all procedures carried out in research involving human subjects adhere to the 1964 Helsinki Statement and its later revisions or comparable ethical standards, as well as the ethical requirements of the institutional and/or national research committee.

FINDINGS

Table 1. Descriptive Statistics on the Scales Used in the Study

	N	x̄	sd	Skewness		Kurtosis	
Difficulty Recognizing Emotions	322	16,58	5,599	,557	,136	,141	,271
Difficulty Expressing	322	14,41	2,587	,176	,136	,565	,271
Extroverted Thinking	322	26,07	4,166	-,046	,136	,625	,271
Alexithymia Total	322	56,65	8,529	,364	,136	,393	,271
Neuroticism	322	17,90	4,543	,336	,136	,165	,271
Psychoticism	322	17,03	3,262	,549	,136	1,756	,271
Extraversion	322	18,15	3,232	-,260	,136	,239	,271
Lying	322	14,59	4,371	,778	,136	,768	,271

In Table 1, descriptive statistics about the scales used in the research are given. The Difficulty Recognizing Emotions scale has a mean of 16,58, a standard deviation of 5,599, skewness values of ,557/,136, and kurtosis values of ,141/,271. The mean of the Difficulty in Expressing Scale was 14.41, the standard deviation was 2,587, the skewness values were ,176/,136, the kurtosis values were ,565/,271. The mean of the Extroverted Thinking scale is 26,07, its standard deviation is 4,166, skewness values are -,046/,136, and kurtosis values are ,625/,271. The mean of the Alexithymia Total scale was 56,65, the standard deviation was 8,529, the skewness values were ,364/,136, and the kurtosis values were ,393/,271. The mean of the neuroticism scale was 17,90, the standard deviation was 4,543, the skewness values were ,336/,136, and the kurtosis values were ,165/,271. The mean of the psychoticism scale was 17,03, the standard deviation was 3,262, the skewness values were ,549/,136, and the kurtosis values were 1,736/,271. The extraversion scale's mean was 18,15, the standard deviation was 3,232, the skewness scale was -,260/,136, and the kurtosis values were ,239/,271. The mean of the lie scale was 14,59, the standard deviation was 4,731, the skewness values were ,778/,136, and the kurtosis values were ,768/,271.

Table 2. Correlation Analysis Results for the Relationship Between Personality Type Scores and Alexithymia Scores

		Neuroticism	Psychoticism	Extraversion	Lying
Difficulty Recognizing Emotions	r	,566**	,163**	,087	,200**
Difficulty Expressing	r	,313**	,160**	,025	,133*
Extroverted Thinking	r	,021	,189**	,222**	,056
Alexithymia Total	r	,478**	,256**	,168**	,193**

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

A correlation analysis of the alexithymia scale and personality type scores are given in Table 2. Accordingly, there is a statistically significant positive association between the neuroticism score and the Difficulty Recognizing Emotions subscale (r=,566), the difficulty in expressing subscale (r=,313), and the extroverted thinking subscale (r=,021). The psychoticism score significantly positively correlates with the Extroverted Thinking subscale (r=,189), the Difficulty Expressing Emotions subscale (r=,160), and the Difficulty Recognizing Emotions subscale (r=,163). The Difficulty Recognizing Emotions subscale and the Extroverted Thinking subscale also had substantial positive correlations with the Extraversion score (r=,087, r=,025, and

r=,222, respectively). The Difficulty Recognizing Emotions subscale (r=,200), the difficulty expressing subscale (r=,133), and the Extroverted Thinking scale (r=,056) all show a strong positive link with the lying score. There was a significant positive correlation between the alexithymia total scale and the neuroticism scale (r=,478), psychoticism scale (r=,256), extraversion scale (r=,168), and lying scale (r=,193).

Table 3. Results of Multiple Linear Regression Analysis Established to Examine the Predictive Effect of Personality Type Scores, Purpose of Internet Use, Most Used Social Network, and Duration of Social Network Use on Alexithymia Scores

	Predictors	B	Standard Error$_B$	β	t	p	Zero-order r	Partial r
Alexithymia	Constant	30,963	3,796		8,157	,000	-	-
	Neuroticism	,817	,098	,435	8,369	,000	,478	,427
	Psychoticism	,191	,142	,073	1,341	,181	,256	,075
	Extraversion	,315	,133	,120	2,374	,018	,168	,133
	Lying	,102	,103	,052	,984	,326	,193	,055
	PIU	-,031	,258	-,006	-,122	,903	-,043	-,007
	MUSN	-,175	,355	-,025	-,494	,622	-,061	-,028
	DSNU	,502	,561	,044	,896	,371	,062	,050
R=,511 ΔR²=,245 F$_{(7,314)}$=15,857 p=,000								

PIU: Purpose of Internet Use, MUSN: Most Used Social Network, DSNU: Duration of Social Network Use

In Table 3, the results of the multiple linear regression analysis established to examine the predictive effects of personality type scores, the purpose of internet use, the most used social network, and the duration of social network use on alexithymia scores are given. First, condition index (CI) values, the tolerance value, the eigenvalue, and the variance inflation factor (VIF) were examined in testing the multicollinearity. Accordingly, it was observed that the tolerance values were between 0,20-1,00 and the VIF values were between 1,00-10,00. However, it was determined that the eigenvalues were lower than 15 and the CI values were lower than 30, and it was determined that there was no multicollinearity. It was observed that the Durbin Watson coefficient was close to 2, and it was determined that the independence of the error terms was fulfilled. Regression analyses were carried out after it was determined that the regression assumptions were satisfied and that the data were appropriate for the study. While constructing the regression model, the 'Enter' method was used. In the established regression model, personality type scores, internet usage purpose, most used social network, and duration of social network usage were taken as predictors of alexithymia scores. The established model was found to be statistically significant ($F_{(7,314)}$=15,857, p=,000). Personality types, the purpose of internet use, most used social network, and duration of social network use have a moderately significant relationship with alexithymia scores (R=,511, ΔR2=,245, p=,000). Alexithymia scores of the mentioned variables explain 24,5% of the total variance.

The order of the predictor factors' relative weights on alexithymia scores is determined by the standardized regression coefficients (β); Neuroticism (β=,435, t=8,369, p=,000), Extraversion (β=,120, t=2,374, p=,018), psychoticism (β=-,073, t=1,341, p>,05), Lying (β=,052, t=,984, p>,05), duration of social network usage (β=,044, t=,896, p>,05), most used social network (β=- ,025, t=-,494, p>,05) and internet usage purpose (β=-,006, t=-,122, p>,05). Only neuroticism and extraversion are significant predictors of alexithymia scores, according to the analysis of the t-test results on the significance of the regression coefficients. Psychoticism, Lying, duration of social network usage, most used social network and internet usage purpose variables have no meaningful effect.

Table 4. Independent Sample T-Test Analysis of the Comparison of Alexithymia and Personality Type Scores by Gender

	Gender	N	x̄	sd	t	df	p
Difficulty Recognizing Emotions	Male	180	16,55	5,725	-,111	320	,912
	Female	142	16,62	5,455			
Difficulty Expressing	Male	180	14,61	2,348	1,506	320	,133
	Female	142	14,17	2,851			
Extroverted Thinking	Male	180	25,63	4,103	-2,133	320	,034
		142	26,62	4,193			
Alexithymia Total	Male	180	56,37	8,503	-,676	320	,500
	Female	142	57,01	8,578			
Neuroticism	Male	180	17,91	4,708	,008	320	,994

		142	17,90	4,341			
Psychoticism	Male	180	17,29	3,240	1,601	320	,110
	Female	142	16,70	3,272			
Extraversion	Male	180	17,91	3,289	-1,510	320	,132
	Female	142	18,46	3,143			
Lying	Male	180	15,77	4,401	5,712	320	,000
	Female	142	13,10	3,856			

In Table 4, the results of the independent sample t-test analysis regarding the comparison of the scale scores used in the research according to the gender variable are given. Accordingly, the Extroverted Thinking scores of women are significantly higher (t=-2,133; p=,034). Men's lie scores were significantly higher (t=-5,712; p=,000). The results of the other scales did not significantly differ based on gender (p>,05).

Table 5. Independent Sample T-Test Analysis of the Comparison of Alexithymia and Personality Type Scores by Age

	Age	N	x̄	sd	t	df	p
Difficulty Recognizing Emotions	18-20	224	16,76	5,563	,863	320	,389
	21-24	98	16,17	5,688			
Difficulty Expressing	18-20	224	14,48	2,633	,677	320	,499
	21-24	98	14,27	2,485			
Extroverted Thinking	18-20	224	26,04	4,062	-,192	320	,848
	21-24	98	26,13	4,416			
Alexithymia Total	18-20	224	56,97	8,706	1,021	320	,308
	21-24	98	55,92	8,106			
Neuroticism	18-20	224	18,11	4,505	1,216	320	,225
	21-24	98	17,44	4,617			
Psychoticism	18-20	224	16,91	3,152	-1,038	320	,300
	21-24	98	17,32	3,501			
Extraversion	18-20	224	18,31	3,174	1,347	320	,179
	21-24	98	17,79	3,350			
Lying	18-20	224	14,59	4,117	-,024	320	,981
	21-24	98	14,60	4,924			

The comparison of the scale scores utilized in the study according to the age variable is shown in Table 5 as a result of the independent sample t-test analysis. According to participant's age, there was no discernible difference (p>,05).

Table 6. Independent Sample T-Test Analysis on Comparison of Alexithymia and Personality Scores according to Alexithymia Risk

Scale	Groups	N	x̄	sd	t	df	p
Difficulty Recognizing Emotions	No risk	225	14,42	4,382	-13,048	320	,000
	Risky	97	21,60	4,860			
Difficulty Expressing	No risk	225	13,60	2,216	-9,703	320	,000
	Risky	97	16,29	2,415			
Extroverted Thinking	No risk	225	24,96	3,828	-7,954	320	,000
	Risky	97	28,64	3,778			
Alexithymia Total	No risk	225	52,39	5,526	-21,054	320	,000
	Risky	97	66,54	5,544			
Neuroticism	No risk	225	16,80	4,097	-7,172	320	,000
	Risky	97	20,47	4,503			
Psychoticism	No risk	225	16,65	2,970	-3,249	320	,001
	Risky	97	17,92	3,724			
Extraversion	No risk	225	17,91	3,375	-2,087	320	,038
	Risky	97	18,72	2,809			
Lying	No risk	225	14,09	3,987	-2,930	151,41	,004
	Risky	97	15,76	4,981			

In Table 6, the results of the independent sample t-test analysis regarding the comparison of the scale scores used in the study according to the variable of being in the risk group for alexithymia are given. Accordingly, those in the alexithymia risk group had significantly higher alexithymia total scores, all alexithymia subscales, and all personality type scores.

Table 7. ANOVA Analysis of the Comparison of Alexithymia and Personality Types Scores by Social Media Usage Purpose

Scale		Σ_{rank}	df	$\bar{x}_{rank}$	F	p
Difficulty Recognizing Emotions	Between Groups	90,40	3	30,135	,961	,411
	Within Groups	9971,99	318	31,358		
Difficulty Expressing	Between Groups	37,26	3	12,420	1,871	,134
	Within Groups	2110,80	318	6,638		
Extroverted Thinking	Between Groups	81,598	3	27,199	1,575	,195
	Within Groups	5490,03	318	17,264		
Alexithymia Total	Between Groups	107,33	3	35,779	,489	,690
	Within Groups	23243,70	318	73,093		
Neuroticism	Between Groups	170,83	3	56,946	2,806	,040
	Within Groups	6453,17	318	20,293		
Psychoticism	Between Groups	11,69	3	3,899	,364	,779
	Within Groups	3403,99	318	10,704		
Extraversion	Between Groups	3,48	3	1,162	,110	,954
	Within Groups	3350,05	318	10,535		
Lying	Between Groups	111,06	3	37,022	1,955	,121
	Within Groups	6020,63	318	18,933		

Table 7 presents the results of ANOVA analysis for the comparison of alexithymia and personality types scores according to the variable of purpose of social media use. Accordingly, a significant difference was found in neuroticism scores, but no difference was found between the groups according to the post hoc test (F=2,806; p=,040).

Table 8. ANOVA Analysis on the Comparison of Alexithymia and Personality Types Scores by Social Network Usage Duration

Scale		Σ_{rank}	df	$\bar{x}_{rank}$	F	p
Difficulty Recognizing Emotions	Between Groups	415,193	3	138,398	4,562	,004
	Within Groups	9647,207	318	30,337		
Difficulty Expressing	Between Groups	18,222	3	6,074	,907	,438
	Within Groups	2129,843	318	6,698		
Extroverted Thinking	Between Groups	58,818	3	19,606	1,131	,337
	Within Groups	5512,813	318	17,336		
Alexithymia Total	Between Groups	435,126	3	145,042	2,013	,112
	Within Groups	22915,918	318	72,063		
Neuroticism	Between Groups	178,625	3	59,542	2,938	,033
	Within Groups	6445,391	318	20,269		
Psychoticism	Between Groups	21,488	3	7,163	,671	,570
	Within Groups	3394,202	318	10,674		
Extraversion	Between Groups	17,438	3	5,813	,554	,646
	Within Groups	3336,105	318	10,491		
Lying	Between Groups	94,769	3	31,590	1,664	,175
	Within Groups	6036,936	318	18,984		

Table 8 presents the results of ANOVA analysis for the comparison of alexithymia and personality type scores according to the variable of duration of social media use. Accordingly, the Difficulty Recognizing Emotions

subscale (F=4,562; p=,004) and Neuroticism (F=2,938; p=,033) scores were thus significantly different. According to Scheffe's post hoc analysis, those who use social networks for more than four hours have significantly higher Difficulty Recognizing Emotions scores than those who use less than one hour. Neuroticism scores of those who use social networks for 1-3 hours are significantly higher than those who use less than one hour.

Table 9. Kruskal Wallis Analysis on Comparison of Alexithymia and Personality Types Scores by Most Used Social Network Status

Scale	Groups	N	$\bar{x}_{rank}$	χ^2	df	p
Difficulty Recognizing Emotions	Facebook	19	164,18	1,875	4	,759
	Instagram	133	167,59			
	WhatsApp	109	160,90			
	YouTube	48	146,71			
	Other	13	154,85			
Difficulty Expressing	Facebook	19	146,55	2,108	4	,716
	Instagram	133	163,96			
	WhatsApp	109	155,92			
	YouTube	48	175,14			
	Other	13	154,62			
Extroverted Thinking	Facebook	19	146,89	1,469	4	,832
	Instagram	133	162,51			
	WhatsApp	109	165,55			
	YouTube	48	151,80			
	Other	13	174,38			
Alexithymia Total	Facebook	19	144,79	3,389	4	,495
	Instagram	133	171,27			
	WhatsApp	109	157,14			
	YouTube	48	148,46			
	Other	13	170,62			
Neuroticism	Facebook	19	142,21	2,036	4	,729
	Instagram	133	159,50			
	WhatsApp	109	170,21			
	YouTube	48	156,66			
	Other	13	155,00			
Psychoticism	Facebook	19	118,92	6,403	4	,171
	Instagram	133	159,06			
	WhatsApp	109	170,77			
	YouTube	48	156,83			
	Other	13	188,15			
Extraversion	Facebook	19	153,92	4,461	4	,347
	Instagram	133	172,92			
	WhatsApp	109	156,94			
	YouTube	48	151,76			
	Other	13	129,88			
Lying	Facebook	19	153,61	,408	4	,982
	Instagram	133	164,55			
	WhatsApp	109	158,52			
	YouTube	48	163,07			
	Other	13	160,96			

The results of Kruskal Wallis analysis regarding the comparison of the scale scores used in the research according to the most commonly used social network status are given in Table 9. In addition, there is no difference in scale scores according to the most commonly used social network status (p>,05).

DISCUSSION AND CONCLUSION

Identifying the relationship between personality types and alexithymia, the predictive value of personality types and internet usage habits, and whether alexithymia and personality traits differ based on various demographic parameters are the goals of this study.

According to the information gathered from the study group, solutions to the research questions were sought within the parameters of the study. Accordingly, it was determined that there was a weak and moderately positive correlation between personality types and alexithymia. In addition, according to the research problem of whether personality traits predict alexithymia or not, neuroticism and extraversion sub-dimensions of personality traits predict alexithymia, while psychoticism and lying sub-dimensions do not predict alexithymia. Personality traits of alexithymic individuals are defined under four main headings as difficulty in identifying, differentiating, and verbalizing emotions, limitation in daydreaming, operational thinking, and cognitive structure for eccentric adaptation (Lesser, 1981; Sifneos et al., 1977). Neuroticism personality traits include anxiety, fear, low self-esteem, emotional and irrational behaviors (Eysenck & Eysenck, 1975; Karancı et al., 2007), difficulty recognizing, comprehending, and expressing their emotions, and their efforts to adapt to the outside. The coexistence of neurotic personality traits explains the relationship between alexithymia and neuroticism. The study discovered an association between alexithymia and extroverted personality traits. The other of the four basic personality traits explaining alexithymia is the cognitive structure for eccentric adaptation. The efforts of alexithymic individuals to over-adapt to their environment create trouble-free and harmonious relationships, but they do this with the help of external stimuli rather than internal factors and related emotions (İzci; 2016; Taylor et al., 1991). Studies have also found that unawareness and inability to express emotions lead to low self-esteem, psychosomatic symptoms, a lack of success, and depression in individuals (Cooper & Holmstrom, 1984; Taylor et al., 1989). For this reason, extroverted personality traits were found to be associated with alexithymic personality traits. According to this result, it can be said that; while the social adaptation of the individual in normal development is realized with the help of internal factors and the emotions related to them, the extroversion and social adaptation of an alexithymic person do not contain emotions. Psychoticism, on the other hand, defines the characteristics of aggressive, distant, antisocial, and insensitive behavior towards other people, and it is basically incompatible with the characteristics of alexithymic people. Alexithymic individuals have a pragmatic and mechanical mindset, a simple and mechanical life, away from their inner world. Unlike psychotics, they have features that strive to be extremely compatible to the extent that they can relate to their environment (İzci, 2016; Koçak, 2007). Therefore, no relationship was found between alexithymic traits and psychotic personality traits.

Another problem of the study was whether the social networks and internet usage behaviors used predicted alexithymia. Accordingly, it was understood that internet use behaviors did not predict alexithymia. One of the main reasons for this is thought to be the limitation of the study group and the alexithymic participants. The fact that the research has already been conducted on the Z generation, who has grown up with the internet and technology, is thought to be one of the other important reasons why it does not predict alexithymia. Since university youth, who represent today's Generation Z, are born directly into the world of the internet and technology, it is thought that the attitudes of young people to use the internet do not predict alexithymia. In addition, it has been determined that the findings obtained are those of a group that states that the purpose of using the internet by young people is often social media. It can be stated that the fact that access to smartphones is very easy (Özen & Topçu, 2017) is not a distinguishing factor for the Z generation to show alexithymia symptoms. Alexithymia includes features such as difficulty expressing one's feelings to others and limitation in daydreaming. It can be stated that their attitudes towards internet use do not predict alexithymia, since young people who use social media often prefer to experience their emotions through social media, which can even be a facilitator for alexithymic individuals. It is also stated that alexithymic individuals meet their unmet social needs through social media and smartphones due to the difficulties they experience in recognizing and expressing their emotions (Özen & Topçu, 2017).

Findings obtained according to demographic variables showed that women's alexithymia, an extraverted thinking sub-dimension was higher than men's. According to the literature, 80-90% of people with psychosomatic disorders are women (Yunus, 1994). In this study, in accordance with the literature, the extroverted alexithymic dimension of female participants was found to be high. Extroverted thinking, which McDoggal (1982) defines as false normality, and the fact that alexithymia is higher in women than in men (Dereboy 1990; Sifneos, 1977) explains that the effort of alexithymic individuals to be compatible is higher in women than in men.

The important limitations of the study include the fact that the research was collected from a limited sample group and that it was handled with questions created by the researcher instead of using a scale to measure internet

usage tendencies. According to the results of the research, alexithymia and personality traits were found to be related, neuroticism and extraversion personality traits were found to predict alexithymia, while internet use behaviors and psychoticism traits did not predict alexithymia. The above-mentioned research results should be evaluated considering the limitations of the participants in the study, such as the fact that they were not randomly selected and were selected from university students. It should also be taken into account that the cut-off score of the scale, which tests the state of being alexithymic, was not used in the study. It should be considered that the results obtained by selecting a sample that is not only university students, covers a more common age range, and considers the cut-off scores for alexithymic symptoms may be different. In addition, in order to examine internet usage behaviors in a more precise context, examining the relationships between alexithymic symptoms and personality by measuring smartphone, social media usage, or screen addiction attitudes separately will provide more specific results.

Statements of Publication Ethics

Ethics Committee approval of the study was obtained from the Social Sciences Institute Ethics Committee of the affiliated university with the date of 04.04.2019 and number 2019/5.

Researchers' Contribution Rate

Authors	Literature review	Method	Data Collection	Data Analysis	Results	Conclusion	(Other)
Ozlem Sener	☒	☐	☒	☐	☒	☒	☐
Süleyman Kahraman	☐	☒	☐	☒	☐	☐	☒

Conflict of Interest

This study does not have any conflicts of interest.

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