

Investigation of the Relationships Between Phubbing, Attachment Styles and Social Anxiety Variables in Adults

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ABSTRACT: This study was aimed to examine the relationships between phubbing, attachment styles and social anxiety variables in adults; also, to examine the predictors of individuals' socio-demographic characteristics on the variables of the study. The sample of the study consisted of 260 adult people. According to the first findings of the study, there was a significant negative relationship between the the Adult Attachment Style (AASS) and the the Liebowitz Social Anxiety (LSAS), a significant negative relationship between (AASS) and the Generic Scale of Phubbing (GSP), and a positive relationship between (LSAS) and the (GSP) was found. Secondly, it was determined that there was no significant difference between the socio-demographic characteristics of the phubbing variable, and there was a significant difference in the purpose of using the smart phone and the duration of using the smart phone. While the variable of attachment styles differs significantly according to gender. Finally, although the social anxiety variable does not differ according to income level, age groups and duration of social media use, it has been found to differ according to gender. According to the results of the regression analysis, it is concluded that simple linear regression can be established by seeing that these equations support the assumption of normality.

KEYWORDS: Attachment Styles, Social Anxiety, Phubbing

I. INTRODUCTION

Communication tools, which are the most important tools in interpersonal communication, have developed and changed since the birth of human beings. The development of technology not only changes the means of communication, but also indirectly changes the behavior and psychology of individuals. In today's world, developing technology can make people's life easier while making it difficult. The effects of today's technology which strengthens and weakens interpersonal communication, on people are being investigated by many researchers. With the developing technology day by day, the smart phone has an important place and effect in our lives. According to the 2021 Turkey Statistics report data obtained from the digital world research prepared by We Are Social and Hootsuite on a global scale, it has been determined that 97.2% of people between the ages of 16-64 in Turkey use smartphones. Along with the increase in smart phone usage, there is an increase in internet and social media usage rates. According to the results of the research, social media users are found to be equal to 70.8% of the population, with 6 million people. The number of Internet users is 65 million, which is equal to 77.7% of the population [1]. Due to the great increase in smartphone use, individuals may become addicted to smartphones. Individuals may be exposed to some negative psychological effects with the use of smartphones and addiction. Phubbing is one of these effects [2]. Phubbing is when individuals stay away from interpersonal communication by mentally giving their attention and perception to mobile devices (smartphone, tablet, etc.) despite being physically present in the environment while communicating and interacting with other individuals [3]. According to studies, phubbing which is one of the types of telephone addiction, is considered the most dangerous among addictions for individuals. In addition, it is seen as a combination of social media, internet, game and phone addictions that affect individuals psychologically [3,4]. Phubbing which is a problem for individuals, can cause psychological and sociological disorders that cause significant effects on individuals' lives [2]. In two studies in the literature, it has been determined that the phubbers status of individuals does not differ according to gender, and phubbing is more common in younger individuals. In addition, it is seen that the incidence of phubbing has increased due to the increase in internet use, social media use and playing games depending on the duration of smartphone use [5,6].

When we look at interpersonal communication and interaction, the researches emphasize the importance of the bond that individuals establish with other people and the quality of this bond in terms of relationships. The quality of the interpersonal bond affects the quality of interpersonal communication [7]. The attachment of individuals to other people and the quality and variety of this attachment constitute the theory of attachment. When we look at the attachment theory developed by Bowlby and Ainsworth, the relationship established between the infant and the primary caregiver

in the first years of life is called "attachment". John Bowlby is the pioneer of the attachment theory, which includes emotions and actions such as the baby calms down when the baby needs a primary caregiver and the baby's crying when the baby is left with the caregiver [8]. According to attachment theory, people have a natural tendency to bond with other people who are stronger and mature from birth. For this reason, people engage in attachment behavior to bond with other people [9]. Bowlby argued that people form attachments with other individuals from the moment they open their eyes to life and that this attachment continues its effects in the following years. Attachment is a concept that has been shaped since infancy and that affects and shapes the individual's relationship with other people and the way of establishing relationships in the future. While Ainsworth was developing his attachment theory, he defined the concept of attachment in its operational sense with his experiment named "Strange Situation". In the strange situation test, stages such as the separation of the baby and the primary caregiver when they are together and the entry of a stranger into the environment were tested. As a result of the experiment, it was concluded that the infant was attached to the primary caregiver as a secure or insecure attachment (ambivalent and avoidant) [10]. The concept of attachment, which is structured in childhood and affects the quality of individuals' relationships in adulthood, has been examined by Hazan and Shaver. They investigated and modeled the effects of attachment styles on individuals' romantic relationships with the opposite sex. People who are supported by their primary caregivers, whose needs are met on time, and who have a secure attachment style growing up in a safe environment can be a kind of people who can trust people, easily, establish strong relationships with other people, be sensitive to the needs of others, and have low levels of anxiety in the future. People whose needs are not satisfied on time by their primary caregivers, who are not supported, who grew up in an insecure environment and who are insecurely attached may become people who have weak relationship skills, can hardly trust people, have difficulty in establishing relationships with other people, remain insensitive to other people's needs, and have high levels of anxiety. According to the studies in the literature, it has been determined that there is a relationship between attachment styles and psychopathologies. People with an insecure attachment style may experience high levels of anxiety and depression symptoms. It is stated that especially insecure attachment causes social phobia [7, 8, 11].

The concept of social phobia can also be defined as social anxiety [7]. For some people, being in social situations, socializing and interpersonal interaction become anxious, stressful and frightening. The fact that the individual is in the society and being in contact with people becomes anxious is called "social anxiety". The individual with social anxiety feels that he is constantly watched by other people, that he will be criticized negatively by other people and that he will be funny. These feelings make life difficult for the individual and isolate the individual by keeping them away from interpersonal interaction and communication. According to studies, the use of smartphones and social media increases by individuals who avoid communication and have social anxiety. When individuals avoid meeting face-to-face with other people, the areas they take refuge in are digital environments. From another point of view, the increase in social media use causes social anxiety in individuals [12, 13]. In a study conducted by Görür, the level of fear of being negatively evaluated was found to be high in adolescents with a high level of smartphone use. In addition, it has been determined that the smartphone addiction levels of adolescent individuals who trust their primary caregivers are low [14]. In a study conducted by Bıyıklı on randomly selected adult individuals in Istanbul, it was found that social anxiety levels increased with the increase in individuals' internet addiction levels [13]. When the etiology of social anxiety is examined in the literature, it has been determined that the fear of losing the mother's attention and love in childhood causes an increase in the expectation of being accepted in the interpersonal interaction in the future. As a result, the individual may experience social anxiety as a result of insecure attachment to his primary caregiver [13]. In addition, in a study conducted with 444 medical students in Turkey, it was found that positive (secure) attachment to primary caregivers reduces the level of social anxiety [15].

When the literature is examined, it is seen that there are few studies on the relationship between social anxiety and attachment in adults. It has been determined that the concept of sociotellism has taken its place in the literature in recent years and there are very few studies. In this context, in this study, the relationships between sociotellism, attachment styles and social anxiety levels in adult individuals were investigated.

II. RESEARCH METHODS

2.1. Research Model

In this research, the relational (correlational) survey model will be used, since the relationships between sociotellism, attachment styles and social anxiety levels in adult individuals are examined.

2.2. Population and Sample

The population of the research consists of adult individuals aged 18 and over. To participate in this research, it is necessary to be an individual over the age of 18 and to voluntarily participate in the research.

2.3. Data Collection Tools

2.3.1. Socio-Demographic Information Form:

It is a form created to collect demographic and personal information of adults over the age of 18 participating in the research.

2.3.2. Generic Scale of Phubbing (GSP):

This scale, which was developed by Chotpitayasunondh and Douglas in 2018, was adapted into Turkish by Orhan Göksün in 2019, and reliability and validity studies were performed. The questions of the scale which consists of 15 items, are answered with a 7-point Likert system [16].

2.3.3. Adult Attachment Style Scale (AASS):

This scale which was created with the study of Hazan and Shaver in 1987, was adapted to Turkish in 2012 and the reliability and validity studies were carried out by Kesebir, Kökçü and Dereboy. In this 18-item scale, the Likert system was abandoned and it was decided to give the answers as true/false [17].

2.3.4. Liebowitz Social Anxiety Scale (LSAS):

It is a scale created by Liebowitz et al. in 1987 to learn about social anxiety and fear levels. In 2003, the scale was adapted to Turkish within the scope of the studies of Soykan, Özgüven and Gençöz, and validity and reliability studies were carried out. For this scale which consists of 24 items, the sub-dimensions of anxiety and fear are evaluated with a 4-point Likert scale [18].

2.4. Analysis of Data

Ethical approval permissions were obtained before the research was conducted, and then the scales used in the research were distributed electronically via Google Forms as an online questionnaire. The data collected from the individuals were measured and evaluated under the SPSS program. Parametric or non-parametric tests were applied, considering whether the variables of Sociotetism, Attachment Styles and Social Anxiety levels were normally distributed. When the normality assumptions were examined, Spearman or Pearson Correlation analyzes were applied in the correlation analyzes, and in the difference tests, in case the sample was normally distributed, T-test in bivariate analyzes; ANOVA was applied in more than two-variable analyses. In cases where the sample was not normally distributed, more than two variables were subjected to the Kruskal Wallis test. Finally, simple linear regression analysis was applied to examine the predictive level of the independent variable for the dependent variable.

III. RESULTS

In order to determine the method to be applied for the correlation analysis, it was discussed whether the scales were normally distributed or not. When the skewness and kurtosis values of the first scale, adult attachment styles (AAS) were examined, the skewness and kurtosis values were obtained as $-.149$ and $.026$ respectively. In this context, it was determined that the normality assumption for the AAS scale was met.

When the skewness and kurtosis values of the second scale, Generic Scale of Phubbing (GSP), were examined, the skewness and kurtosis values were obtained as $.867$ and $.562$ respectively, and it was determined that the GSP scale met the assumption of normality.

Finally, when the skewness and kurtosis values of the third scale, Liebowitz Social Anxiety (LSA), are examined, the skewness and kurtosis values were found to be 1.074 and 1.112 respectively, and it is seen that the LSA scale also meets the normality assumption.

Table 1. Pearson's Rank Differences Correlation Coefficient

	AAS_Score	LSA_Score	GSP_Score
AAS_Score			
Pearson Correlation	1	$-.228^{**}$	$-.287^{**}$
Sig. (2-tailed)		,000	,000
N	260	260	260
LSA_Score			
Pearson Correlation	$-.228^{**}$	1	$.402^{**}$
Sig. (2-tailed)	,000		,000
N	260	260	260
GSP_Score			
Pearson Correlation	$-.287^{**}$	$.402^{**}$	1
Sig. (2-tailed)	,000	,000	
N	260	260	260

When Table 1 given above is examined, there are correlation values resulting from the combinations of each of the variables. When the Liebowitz Social Anxiety (LSA) and Adult Attachment Style (AAS) scale variables were examined, a significant negative correlation was found between them ($r=-.228$). When the variables of Generic Scale of Phubbing (GSP) and Adult Attachment Style (AAS) scales were examined, it was also found that there was a significant negative correlation ($r=-.287$). Finally, when the correlation values between the variables of the Liebowitz Social Anxiety (LSA) and Generic Scale of Phubbing (GSP) scales are taken into account, it is seen that there is a positive significant correlation, unlike other correlations ($r=.402$).

3.1. Phubbing And Income Level In Adult Individuals For The Differences Shown According To The Qualitative Variables

When Table 2 is examined, it was found that the proposition "H1: Being a phubber differs according to income level" was rejected statistically ($p = .080$; $p < 0.05$).

Accordingly, no significant difference was found between phubbing and income level variables in adult individuals.

Table 2. Phubbing and Income Level of Participants Kruskal-Wallis Test Results

Total N	260
Test Statistic	8,322
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,080

3.2. Phubbing And Gender In Adult Individuals For Differences Shown According To Qualitative Variables

The analysis results shown in Table 3 showed that the proposition "H0: Being a phubber does not differ according to gender" was statistically accepted ($p = .627$; $p < 0.05$). According to this result, no significant difference was found between the phubbing and gender variables in adult individuals.

Table 3. Phubbing and Gender Levene's Test Results of The Participants

	Levene's Test for Equality of Variances		T-Test For Equality Of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
GSP_Score Equal variances assumed	,065	,799	-,486	258	,627	-1,13745	2,34003	-5,74544	3,47055
Equal variances not assumed			-,492	168,508	,623	-1,13745	2,31242	-5,70248	3,42759

3.3. Phubbing And Age Group In Adult Individuals For The Differences Shown According To The Qualitative Variables

As seen in Table 4, the proposition "H1: Being a phubber differs according to age group" was found to be rejected statistically ($p = .315$; $p < 0.05$). Thus, no significant difference was found between phubbing and age group variables in adult individuals.

Table 4. Phubbing and Age Group Kruskal-Wallis Test Results Of The Participants

Total N	260
Test Statistic	4,737
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,315

3.4. Phubbing And Marital Status In Adult Individuals For Differences Shown According To Qualitative Variables

Looking at Table 5, it is seen that the proposition "H0: Being a phubber does not differ according to marital status" was accepted statistically ($p = .209$; $p < 0.05$). For this reason, no significant difference was found between phubbing and marital status variables in adult individuals.

Table 5. Phubbing and Marital Status ANOVA Test Results Of The Participants

GSP Score	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	973,213	2	486,607	1,574	,209
Within Groups	79431,033	257	309,070		
Total	80404,246	259			

3.5. Phubbing And Educational Status In Adult Individuals For The Differences Shown According To The Qualitative Variables

According to the values given in Table 6, the proposition "H1: Being a phubber differs according to marital status" is statistically rejected ($p = .811$; $p < 0.05$). As a result, there is no significant difference between phubbing and educational status variables in adult individuals.

Table 6. Phubbing and Educational Status of Participants Kruskal-Wallis Test Results

Total N	260
Test Statistic	,420
Degrees of Freedom	2
Asymptotic Sig. (2 sided-test)	,811

3.6. For The Differences Shown According To The Qualitative Variables, Phubbing In Adults And The Purpose Of Using Smartphones

Since the P-value is lower than the threshold value according to the values given in Table 7, the proposition "H1: Being a phubber differs according to the purpose of using a smartphone" is accepted ($p = .000$; $p < 0.05$). As a result of this information, there is a significant difference between the variables of phubbing and the purpose of using smartphones in adult individuals.

Table 7. Phubbing and Purpose of Smart Phone Use of Participants Kruskal-Wallis Test Results

Total N	260
Test Statistic	22,382
Degrees of Freedom	2
Asymptotic Sig. (2 sided-test)	,000

Considering the groups with differences, as indicated in Table 8 below, a significant difference was observed between the groups using the smartphone as communication & Messaging - Social Media ($p = .000$; $p < 0.05$).

Table 8. Post-Hoc test Results Of The Participants' Phubbing and Purpose of Using Smartphones

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Communication & Message-Entertainment&Photo/Video & Internet	-7,590	17,641	-,430	,667	1,000
Communication and Message-Social Media	-45,274	9,824	-4,609	,000	,000*
Entertainment & Photo/Video & Internet-Social Media	-37,685	17,292	-2,179	,029	,088

3.7. Phubbing And Time Spent On The Phone In Adults For Differences Shown By Qualitative Variables

Since the P-value is lower than the threshold value according to the values given in Table 9, the proposition "H0: Being a phubber does not differ according to the time spent on the phone" is rejected. (p= .000; p< 0.05). Thus, a significant difference was observed between the variables of phubbing and time spent on the phone in adult individuals.

Table 9. Kruskal-Wallis Test Results Of The Participants' Phubbing and Time Spent on the Phone

Total N	259
Test Statistic	24,044
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,000

When the groups with differences were examined as indicated in Table 10 below, a significant difference was observed between the groups that used the smartphone for 1 hour or less and the groups that used it between 2 and 4 hours (p=.007; p<0.05). Similarly, there was a respectively significant difference between the groups using smartphones for 1 hour or less and that groups using smartphones for 5-7 hours (p=001), that groups using smartphones for 8-10 hours (p=001) and lastly that groups using smartphones for 11 hours or more (p=000).

Table 10. Post-Hoc Test Results Of The Participants' Phubbing and Time Spent on the Phone

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
1 hour and less than 2-4 hours	-79,131	23,473	-3,371	,001	,007*
1 hour and less than 5-7 hours	-89,763	23,044	-3,895	,000	,001*
1 hour and less than 8-10 hours	-93,383	23,680	-3,944	,000	,001*
1 hour or less 11 or more	-120,917	25,348	-4,770	,000	,000*

3.8. Attachment Styles And Income Level In Adult Individuals For The Differences Shown According To The Qualitative Variables

When we look at the Table 11, it was found that the proposition "H0: Attachment styles do not differ according to income level" was accepted statistically, since the P-value was greater than the threshold value (p= ,357; p< 0.05). Accordingly, no significant difference was found between attachment styles and income level variables in adult individuals.

Table 11. Attachment Styles and Income Level of Participants Kruskal-Wallis Test Results

Total N	260
Test Statistic	4,379
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,357

3.9. Attachment Styles And Gender In Adults For Differences Shown According To Qualitative Variables

Table 12 is considered, it was found that the proposition "H0: Attachment styles do not differ according to gender" was statistically rejected because the P-value was greater than the threshold value (p= .000; p< 0.05). Accordingly, it is seen that there is a significant difference between attachment styles and gender variable in adult individuals.

Table 12. Attachment Styles and Gender of Participants Levene's Test Results

Levene's Test for Equality of Variances		T-Test For Equality Of Means						95% Confidence Interval of the Difference	
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	

AAS_Score Equal variances assumed	1,418	,235	3,535	258	,000	1,30519	,36927	,57803	2,03236
Equal variances not assumed			3,458	154,690	,001	1,30519	,37749	,55949	2,05090

3.10. Attachment Styles And Age Group In Adults For Differences Shown According To Qualitative Variables

Considering the findings of Table 13, the proposition "H0: Attachment styles do not differ according to age group" is accepted statistically, since the P-value is greater than the threshold value ($p = .214$; $p < 0.05$). Accordingly, there is no significant difference between attachment styles and age group variables in adult individuals.

Table 13. Attachment Styles of Participants and Age Group ANOVA Test Results

AAS Score	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	47,070	4	11,767	1,464	,214
Within Groups	2050,234	255	8,040		
Total	2097,304	259			

3.11. Social Anxiety And Income Level In Adult Individuals For The Differences Shown According To The Qualitative Variables

According to the values given in Table 14, it was found that the proposition "H1: Social anxiety differs according to income level" was statistically rejected because the P-value was higher than the threshold value ($p = .071$; $p < 0.05$). Accordingly, no significant difference was observed between social anxiety and income level variables in adult individuals.

Table 14. Social Anxiety and Income Level of Participants Kruskal-Wallis Test Results

Total N	260
Test Statistic	8,634
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,071

3.12. Social Anxiety And Gender In Adults For Differences Shown According To Qualitative Variables

Considering the values in Table 15 below, the proposition "H1: Social anxiety differs according to gender" is statistically accepted ($p = .015$; $p < 0.05$). Thus, it was determined that there was a significant difference between social anxiety and gender variables in adult individuals.

Table 15. Social Anxiety and Gender Levene's Test Results Of The Participants

	Levene's Test for Equality of Variances		T-Test For Equality Of Means						
	F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
LSA_Score Equal variances assumed	4,065	,045	2,445	258	,015	8,06331	3,29817	1,56855	14,55807

Equal variances not assumed			2,687	208,625	,008	8,06331	3,00101	2,14712	13,97950
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3.13. Social Anxiety And Age Group In Adults For Differences Shown According To Qualitative Variables

Considering the findings of Table 16, the proposition "H0: Social anxiety does not differ according to age group" is accepted statistically, since the P-value is greater than the threshold value (p=.171; p< 0.05). Accordingly, there is no significant difference between social anxiety and age group variables in adults.

Table 16. Social Anxiety and Age Group Kruskal-Wallis Test Results Of The Participants

Total N	260
Test Statistic	6,408
Degrees of Freedom	4
Asymptotic Sig. (2 sided-test)	,171

3.14. Social Anxiety And Time Spent On Social Media In Adults For Differences In Qualitative Variables

Considering the findings of Table 17, the proposition "H0: Social anxiety does not differ according to the time spent on social media" is statistically accepted (p= ,315; p< 0.05), since the P-value is greater than the threshold value. Accordingly, it was determined that there was no significant difference between social anxiety and time spent on social media in adults.

Table 17. Participants' Social Anxiety and Time Spent on Social Media ANOVA Test Results

LSA Point	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1467,835	2	733,918	1,161	,315
Within Groups	161777,354	256	631,943		
Total	163245,189	258			

3.15. Regression Analysis

3.15.1. Regression Analysis Results Between Phubbing and Attachment Styles

Table 18. The Effect of the Variable Phubbing on Attachment Styles Regression Validity Score

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172,867	1	172,867	23,175	,000 ⁱ
	Residual	1924,437	258	7,459		
	Total	2097,304	259			

i: independent variable * p = ,000; p < 0,05

In the first regression equation, the predictor of attachment styles of phubbing was found to be p=.000. The analysis was found to be significant because the P-value was lower than the threshold value according to the values given in Table 18 (p = .000; p < 0.05). According to the regression analysis findings, R2= 0.082; p= 0.079 was determined. In other words, GSP explains 7.9% of AAS.

Table 19. The Effect of the Variable Phubbing on Attachment Styles Regression Coefficients and Significance Scores of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Hata	Beta	t	p

1	(Constant)	29,448	,454	64,837	,000
	GSP_Score	-,046	,010	,287 -4,814	,000

Note: Constant= β_0 ; GSP_scale_score= β_1

According Table 19, $\beta_0 = 29,448$ and $\beta_1 = -,046$. It is seen that both values are statistically significant and the hypothesis β_0 , which is the hypothesis that the coefficient of these two variables is not significant, is rejected ($p = .000$; $p < 0.05$).

When the GSP_scale_score variable is not in the regression, the attachment styles variable will measure 29,448. When the GSP_scale_score variable is included in the equation, the attachment styles variable will decrease by .046 for every 1 unit increase; likewise, for every 1 unit decrease, the variable of attachment styles will increase by .046.

3.15.2. Regression Analysis Results Between Phubbing and Social Anxiety

Table 20. The Effect of the Variable Phubbing on Social Anxiety Regression Validity Score

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26341,263	1	26341,263	49,629	,000 ⁱ
	Residual	136937,875	258	530,767		
	Total	163279,138	259			

i: independent variable * $p = ,000$; $p < 0,05$

When the second regression equation, phubbing predicted social anxiety, $p = .000$ was found. The analysis was found to be significant because the P-value was lower than the threshold value according to the values given in Table 20 ($p = .000$; $p < 0.05$). According to the measured regression analysis findings, $R^2 = 0.161$; $p = 0.158$ was determined. In other words, GSP represents 15.8% of LSA.

Table 21. The Effect of Phubbing Variable on Social Anxiety Regression Coefficients and Significance Scores of Coefficients

Model		Unstandardized Coefficients	Standardized Coefficients	t	p
		B	Std. Hata	Beta	
1	(Constant)	13,772	3,831		3,595 ,000
	GSP_Score	,572	,081	,402	7,045 ,000

Note: Constant= β_0 ; GSP_scale_score= β_1

Considering the findings in Table 21, it was calculated as $\beta_0 = 13,772$ and $\beta_1 = ,572$. Both of these values were found to be statistically significant. For this reason, the β_0 hypothesis of 'the coefficient of these two variables is not significant' is rejected ($p = .000$; $p = .000$; $p < 0.05$).

When the GSP_scale_score variable is not included in the regression, the social anxiety variable will be measured as 13,772. When the GSP_scale_score variable is included in the equation, the social anxiety variable will increase by ,572 for every 1 unit increase; likewise, for every 1 unit decrease, the social anxiety variable will decrease by ,572.

3.15.3. Regression Analysis Results Between Attachment Styles and Social Anxiety

Table 22. The Effect of Attachment Styles Variable on Social Anxiety Regression Validity Score

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8510,729	1	8510,729	14,187	,000 ⁱ
	Residual	154768,409	258	599,878		
	Total	163279,138	259			

i: independent variable * $p = ,000$; $p < 0,05$

When the last regression equation, attachment styles predicted social anxiety, $p=.000$ was found. When Table 22 is examined, it is seen that the analysis is significant according to the specified values ($p = .000$; $p < 0.05$). According to the obtained regression analysis data, $R^2= 0.052$; $p= 0.048$ was determined. From a different perspective, AAS explains 4.8% of LSA.

Table 23. The Effect of Attachment Styles on Social Anxiety Regression Coefficients and Significance Scores of Coefficients

		Unstandardized	Coefficients	Standardized Coefficients		
Model		B	Std. Hata	Beta	t	p
1	(Constant)	94,050	14,743		6,379	,000
	AAS_Puan	-2,014	,535	-,228	-3,767	,000

Note:Constant= β_0 ; ASS_scale_score = β_1

Looking at the data in Table 23, it was measured as $\beta_0= 94,050$ and $\beta_1= -2,014$. Both of these values were found to be statistically significant. For this reason, the β_0 hypothesis of 'the coefficient of these two variables is not significant' is rejected ($p=.000$; $p=.000$; $p<0.05$).

When the AAS_scale_score variable is not included in the regression, the social anxiety variable will be measured as 94,050. When the AAS_scale_score variable is included in the equation, the social anxiety variable will decrease by 2.014 for each 1 unit increase; likewise, for every 1 unit decrease, the social anxiety variable will increase by 2.014.

As a result of the analysis, three regressions were found that were significant. The first of these is the effect of the phubbing variable on attachment styles; second, the effect of phubbing variable on social anxiety; The third is the equations of the effect of attachment styles on social anxiety.

IV. CONCLUSION

In this study, the relationship between sociotelism, attachment styles and social anxiety levels in adult individuals was examined. Considering the findings obtained from the Generic Scale of Phubbing Inventory, Adult Attachment Styles inventory, and Liebowitz Social Anxiety Inventory, it was determined that there was a negative linear relationship between the Adult Attachment Styles and Social Anxiety Levels inventories. In a study on this subject in the literature, as the scores obtained from the parent attachment inventory increase, social anxiety, fear and avoidance levels decrease. In other words, as social anxiety levels decrease, positive attachment increases [15]. Thus, the finding of a negative linear relationship between the Adult Attachment Styles and Social Anxiety Levels inventories determined in this study shows parallelism with other studies in the literature. As commented above, it is thought that the level of social anxiety may decrease as people experience positive attachment.

Another finding in the study is a negative linear relationship between Adult Attachment Styles and Generic Scale of Phubbing Inventories. When we look at the studies in the literature examining the relationship between attachment styles and phubbing, it was found in one study that people with secure attachment use less mobile phones, and thus phubbing decreases. In addition, it was found that the phubbing behaviors of insecurely attached people increased [19]. In another study in the literature, it was found that people with anxious attachment have stronger phubbing behaviors [20].

The last finding of the relationship between the scales used in the study is a positive linear relationship between the Liebowitz Social Anxiety and Generic Scale of Phubbing inventories. Considering the findings similar to this finding in the literature, a significant positive relationship was found between social anxiety and phubbing according to the findings calculated from a sample of 1067 people from different provinces of Turkey in the study conducted [21]. According to another study, it has been observed that people with high social anxiety do more phubbing [22]. Thus, the result of a positive linear relationship between the Liebowitz Social Anxiety and Generic Scale of Phubbing inventories found in this study is in line with several other studies in the literature. As mentioned above, it is thought that the higher the level of social anxiety in people, the more phubbing may be seen.

When the qualitative variables of this study were examined, it was determined that while the sociotelism variable did not differ according to the income level, gender, age group, marital status and education level, contrary to expectations, it differed according to the purpose of using the smartphone and the time spent on the phone. Accordingly, it has been observed that the groups using smartphones for Communication & Messaging and Social Media differ from other groups. In addition, when the difference according to the duration of smartphone use is examined, respectively the groups that use a smartphone for 1 hour or less, the groups that use it for 5-7 hours, the groups that use it between 8-10 hours, and the groups that use it for 11 hours or more, are divided into other groups difference was observed. When the literature is scanned, there is not enough research in Turkey examining the purpose and duration of smartphone use and phubbing. In a study found, it was found that individuals with phubbing mostly use their smartphones to receive news from people on social media, to share, to view comments and photos, and then they turn to their smartphones to

message, receive news and communicate with their partners [3]. Considering the aforementioned study and this research, it is thought that people who engage in phubbing behavior will use their smartphones for communication, messaging and social media. In another study, it was determined that phubbing is higher in single women, who consider themselves to be smart phone addicts, and those who spend time with a smart phone before sleep [23]. In future studies, it is suggested that phubber people use smartphones for what purpose and examine the duration of smartphone use.

Attachment styles which are another variable of the research, do not differ according to income level and age group, but differ according to gender. According to the results found in a study, it was determined that attachment styles differ according to gender. In the sample of this study which was not homogeneously distributed in terms of the number of women and men, the avoidant attachment levels of male participants were high, while the levels of commitment and anxious attachment of women were high [24]. It is thought that there may be a difference due to the unequal distribution of male and female participants in the sample of this study. It is recommended to conduct a study with a more homogeneous gender distribution for future studies.

Social anxiety variable which is the last variable of the research, does not show a significant difference according to income level, age group and time spent on social media, but it differs according to gender. Looking at the literature review, it is seen that the findings of gender differences in social anxiety are inconsistent. In a few studies, the level of social anxiety in men was found to be different, while in some studies no difference was observed [25, 26]. In a study conducted on students who were homogeneously distributed in terms of gender, a significant difference was found in terms of gender when the scores obtained from the Fear of Negative Evaluation Inventory, Social Avoidance Inventory and Restlessness Inventory of male and female students were calculated [27].

When the regression analyzes of the research are examined, it is seen that the independent variables predict the dependent variables in each regression analysis. When these analyzes were examined, it was first determined that the independent variable of phubbing was a predictor of the dependent variable of attachment styles. Phubbing explains 7.9% of Attachment Styles. Within the scope of the negative relationship between these two variables, it is seen that while the average scores of phubbing increase, the mean scores of attachment styles decrease on the contrary. When we look at a similar study in the literature related to this subject, it was determined that the phubbing levels of elderly women and women with high anxiety attachment were relatively higher than other groups. At the same time, it was found that avoidant attachment women had lower phubbing levels. In men, it was determined that anxious and avoidant attached men were associated with a high level of phubbing perception. Thus, it was emphasized that the age, relationship satisfaction and attachment styles of individuals predict the phubbing levels of individuals [25]. In another regression analysis, it was stated that the independent variable of phubbing predicted social anxiety, which is the dependent variable. Phubbing explains 15.8% of social anxiety. As a result of this analysis, it is seen that the average scores of phubbing will increase in line with the positive relationship, while the average scores of social anxiety will increase in the same direction. As a result of the data collected from 1,401 Chinese undergraduates in a study conducted in China in the literature review, it is seen that students with a low income level in their family have increased peer phubbing and it has been determined that there is an increased level of social anxiety in this direction [26]. In another study in the literature, it was observed that peer phubbing supports social exclusion, and as a result, social anxiety increases [27]. Within the scope of the mentioned studies and this study, it is seen that there is a positive relationship between phubbing and social anxiety. It was found that the independent variable of attachment styles which was the last regression analysis, predicted the dependent variable of social anxiety. Attachment styles represent 4.8% of social anxiety. It was concluded that there is a negative relationship between the mean scores of these two variables. In a study on this subject, a sample of 118 individuals with social anxiety was used. In the study, two groups with social anxiety were identified in terms of attachment styles. People in the anxious attachment group had less comfort in establishing close relationships, less willingness to trust other people, and more anxiety about the possibility of rejection or abandonment, compared to the non-clinical control sample. It was observed that the securely attached group had a similar attachment profile compared to the non-clinical controls. In addition, it was determined that anxiously attached patients had more distress, more fear of social interaction, and more fear of negative evaluation. The results of this study show that attachment styles are an important predictor of how individuals with social anxiety are in social relations and how they interpret their social world [28].

Within all these results, it is seen that there are some limitations in the sample, method and analysis of the research. The variables examined in this study are limited to the inventories used. It should be noted that the sample used has limitations due to its characteristics and gender not being homogeneously distributed. It should be considered that this study was conducted under pandemic conditions. It should be taken into account that the probabilities of the sample group being affected psychologically due to the conditions of the pandemic, and the difference between the variables and their prediction status may be affected depending on the conditions of the pandemic. Considering all these reasons, it is suggested that future studies can investigate this subject by using a sample homogeneously distributed in terms of gender and different scales.

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