



**JHMT**

**Editorial**

International Journal Of Health Management And Tourism

**AN EXAMINATION OF THE RELATIONSHIP BETWEEN THE  
ATTACHMENT STYLES AND INTERNET ADDICTION IN MEDICAL  
SECRETARIES**

Aysegul AYDIN\*, Demet UNALAN\*\*, Zaliha Akkadin CANDAN\*\*\*,  
Fatih ALTAN\*\*\*\*, Sinem SOMUNOĞLU İKİNCİ\*\*\*\*\*

\*Lecturer, Erciyes University Halil Bayraktar Health Services Vocational College, Kayseri, Turkey,  
aysegulaydin@erciyes.edu.tr

ORCID Number: 0000-0002-6965-610X

\*\* Prof.Dr. Erciyes University Halil Bayraktar Health Services Vocational College, Kayseri, Turkey,  
unalandemet@gmail.com

ORCID Number: 0000-0002-7245-4592

\*\*\* Dr., Ministry of Health Kayseri City Education and Research Hospital, Kayseri, Turkey  
[zkokbudak@gmail.com](mailto:zkokbudak@gmail.com)

ORCID Number: 0000-0002-5907-6865

\*\*\*\* Lecturer, Erciyes University Halil Bayraktar Health Services Vocational College, Kayseri, Turkey,  
fatihaltan91@gmail.com

ORCID Number: 0000-0003-3913-309X

\*\*\*\*\*Prof.Dr. Uludağ University Health Vocational Collage, Bursa, Turkey,  
[ssomunoglu@uludag.edu.tr](mailto:ssomunoglu@uludag.edu.tr)

ORCID Number: 0000-0001-9123-5662

Received:13.09.2022

Accepted: 21.10.2022

Research Article

**Abstract**

**Aim:** The aim of study is to examine the relationship between internet addictions and attachment styles of medical secretaries.

**Methods:** The population of this study comprises 280 medical secretaries working at University Hospital. Personal information form, Three-Dimensional Attachment Styles (TDAS) and Internet Addiction Scale (IAS) were used as data collection tools in the study.

**Results:** According to the results obtained as a result of the study, it was determined that the most preferred activity for the medical secretaries to spend their free time was going on the internet with the rate of 35,6%. IAS total score average is  $4.24\pm 0.66$  and the highest mean score in its sub-dimensions is the social isolation dimension with  $4.49\pm 0.76$  points. The total mean score of the TDAS is  $2.68\pm 0.43$  and the highest mean score in the sub-dimensions of the scale is the secure attachment dimension with  $3.91\pm 0.64$ . It was determined that only anxious/ambivalent attachment style had a negatively significant effect in explaining internet addiction.

**Conclusion:** Consequently, in this study, which was conducted to examine the relationship between attachment styles of medical secretaries and their internet addiction, a weak and negatively significant relationship was found between internet addiction and anxious/ambivalent attachment style.

**Keywords:** Attachment styles, internet addiction, medical secretary

## INTRODUCTION

In providing health services with high quality, efficiency and at a level that meets the expectations of the society, the approaches and methods adopted by the employees in the working environment also have great importance (Ozata and Yorulmaz, 2020:42) as well as the level of knowledge and skills they have (Tanriverdi Hergun, 2018:33). Considering that working environment affects employees and employees affect working environment, it is expected that the working styles and social interactions adopted depending on the changing conditions will differ (Ozata and Yorulmaz, 2020:43-44).

In this respect, there are different reflections of the attachment styles and internet addictions of employees, and, due to spending excessive time on the internet, other aspects of life is neglected, sleep disturbances occur, social life is affected negatively and employee performance reduces. Internet addiction, which is accepted as one of today's current problem areas and affects working life, varies depending on the attachment styles of employees, apart from their socio-cultural characteristics (Morsunbul, 2014:358).

Based on these considerations, it was aimed in this study to examine the relationship between medical secretaries' attachment styles and internet addiction. Therefore, it was planned to explain

attachment styles first, handle the perception of internet addiction then, and present the findings of this study finally.

### **Attachment Styles**

Attachment is based on the feeling of trust and is defined as the bond established between the baby and the primary caregiver (Kocairi et al, 2020:12; Yildizhan, 2017:67). Attachment theory has started to be developed by John Bowlby (Celik, 2018:28; Yildizhan, 2017:67) during the World War II. As a result of the activities conducted on this issue, attachment styles are classified in different forms (Yildizhan, 2017:67). Bowlby focused on the internal working model in his studies (Celik, 2018:28; Ozkan, 2013:13), and argued that adequate attention and support during childhood had an important effect on shaping the feeling of trust (Celik, 2018:28).

The model developed by Ainsworth et al. (1978) as a result of their studies based on childhood is expressed as the three-dimensional attachment model. According to this model, there are secure, ambivalent and avoidant attachment styles (Erzen, 2016:6). Studies after Ainsworth have been carried out with the idea that continuous attachment is also shaped within the framework of the Ainsworth model in other periods of life. In this context, Hazan and Shaver (1987) conducted comprehensive research between the ages of 14-82 in order to adapt three-dimensional attachment to different life periods and revealed that attachment styles are a lifelong process within the framework of the Ainsworth model (Hazan and Shaver, 1994:2).

Depending on the continuity of the studies in this field over time, different attachment styles based on childhood and adulthood periods and romantic affairs emerged.

***In the secure attachment style***, individuals have the belief that attachment figures such as parents and spouses will be effective and reliable when under any threat, and behave accordingly (Yildizhan, 2017:67). It is stated that individuals having learnt to trust are able to improve themselves and have the skill of empathy (Erzen, 2016:6). It is stated that balance is achieved in this attachment style and the relationships established are satisfactory (Ozkan, 2013:15).

***In the ambivalent attachment style***, it is seen that individuals do not like physical intimacy, but in case of separation, they develop protest attitudes against separation from the person they are attached to, and they continue to protest even if they get together (Erzen, 2016:6). It is stated that lack of trust is effective for the emergence of this attachment style, and individuals struggle in order to keep others around themselves (Ozkan, 2013:15).

*In the avoidant attachment style*, it is emphasized that the protest attitude of individuals against separation from the person they are attached to is important in reducing the anger experienced and creates a defense mechanism effect (Erzen, 2016:6). The desire of others to get close and maintain this closeness causes discomfort to individuals who adopt this attachment style, and it is noted that having difficulty in trusting and avoiding to attach are among their main characteristics (Ozkan, 2013:15).

Another attachment model is the one which was developed as a result of the studies conducted by Bartholomew and Horowitz. In this model, the Four-Category Attachment Model, which is categorized as secure, preoccupied, dismissive-avoidant and fearful attachment, is focused on, and it is aimed to explain attachment behavior and the underlying reasons. According to this model, it is suggested that positive and negative mental perception levels of the individuals that they have both for themselves and others affect and differentiate their attachment styles (Celik, 2018:28).

### **Internet Addiction**

Internet addiction, which is accepted as one of the increasing problem areas of today, is stated as the excessive use of the internet, the inability to prevent this situation, the inability of individuals to prevent themselves, and, from another point of view, the inability to give up internet, and is defined as a situation in which the signs of irritability and aggression manifesting themselves in the case of being deprived of the internet (Celebi and Celebi, 2020:40). According to another statement, using the internet unrestrainedly is described as internet addiction (Aycanoglu and Unsal, 2017:166). It is believed that the loneliness individuals experienced and inadequate social relationship situation are among the most important reasons of internet addiction emergence (Celebi and Celebi, 2020:40).

Considering that attachment styles individuals have are determinant for social relationships and affect their socialization skills, it is stated that there is also a relation between the attachment style adopted and internet addiction. In the literature, it is pointed out that attachment styles are among the important factors affecting internet addiction and indicated that determining the factors that cause internet addiction will contribute to the steps to be taken to overcome this problem (Celebi and Celebi, 2020:40). Another finding obtained as a result of the studies analyzing the relation between attachment styles and internet addiction is that the relation between the attachment styles and internet addictions of the individuals adopting the secure attachment style is negative (Morsunbul, 2014:359).

## 1. RESEARCH METHODOLOGY

### 1.1. Data and Sample

The population of this cross-sectional study includes a total of 280 medical secretaries working at Erciyes University Health Research and Application center between the dates of July - August 2018. The size of the sample was determined as 163 at 95% confidence interval with the 5% error margin, and 180 medical secretaries reached within the study were included.

### 1.2. Measures

A personal information form including the demographic and socio-cultural characteristics of the participants, the Three-Dimensional Attachment Style Scale and the Internet Addiction Scale were used in the study as data collection tools. The data collection tools were applied face-to-face interview method on a voluntary basis.

#### *Internet Addiction Scale*

The Internet Addiction Scale, which was developed by Günüç and Kayri (2010) and of which validity and reliability studies were conducted, is a 5-point likert scale including 35 questions. It includes 4 subscales as withdrawal (1<sup>st</sup> – 11<sup>th</sup> questions), controlling difficulty (12<sup>th</sup> – 21<sup>st</sup> questions), disorder in functionality (22<sup>nd</sup> – 28<sup>th</sup> questions) and social isolation (29<sup>th</sup> – 35<sup>th</sup> questions). The scale was scored from 5 to 1, and while “Totally Agree” is 5 point, “Totally Disagree” is 1 point. All the items in the scale are for addiction, so there is no need to transpose. As the score increases, internet addiction also increases. Cronbach’s Alpha ( $\alpha$ ) value of the scale was found as 0.94 in this research.

#### *Three-Dimensional Attachment Styles Scale*

The 5-point likert scale, which was developed by Erzen (2015) and the validity and reliability studies were conducted, includes 18 items and 3 subscales. The scale aims to measure the secure attachment style (4<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup>, 13<sup>th</sup> and 16<sup>th</sup> items), avoidant attachment style (1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup>, 15<sup>th</sup> and 18<sup>th</sup> items) and anxious/ambivalent attachment style (2<sup>nd</sup>, 6<sup>th</sup>, 8<sup>th</sup>, 11<sup>th</sup>, 14<sup>th</sup> and 17<sup>th</sup> items). There are no reverse coded items in the scale. The participants are asked to evaluate the scale as Strongly Disagree 1 (one), Disagree 2 (two), Neutral 3 (three), Agree 4 (four) and Strongly Agree 5 (five) in the 5-point likert interval. It is not possible to evaluate the total score of the scale since the Secure Attachment Style subscale measures positive characteristics and the others negative characteristics. In this study, the total Cronbach’s Alpha value of the scale was calculated as 0.73,

and Cronbach Alpha internal consistency coefficients determined for withdrawal, secure and anxious/ambivalent attachment styles as 0.60, 0.76 and 0.75.

### *1.3. Statistical Analysis*

SPSS 25.0 and AMOS 24 were used in the analysis. In between-groups comparisons, independent two-sample *t* test and one-way analysis of variance were used for quantitative variables. Tukey method was used as the multiple comparison analysis (post-hoc test). In the evaluation of the relation between the variables, Pearson correlation coefficient was calculated. Multiple linear regression analysis was conducted in the multivariate analysis between internet addiction and attachment styles subscales. The relation of internet addiction and attachment styles, which is the conceptual model created, was tested by structural equation modelling and the results were shown on a graph. In addition, summary of fit and the size of the relations were shown by standardized beta values. In statistical evaluations, the significance level was accepted as **p < 0.05**.

### *1.4. Ethics Committee Approval*

The Ethics Committee of Erciyes University, Faculty of Medicine, approved this study (18.04.2018 dated and 216 numbered), and informed consent was obtained from the participants.

## **2.FINDINGS**

This study was conducted on 180 medical secretaries working at Erciyes University Health Research and Application Center. 49.4% of the individuals in the research group were between the age range of 31-35, 72.8% were females, 74.4% were married and 56.7% had associate degree. The working period in the profession of the 38.3% of the participants was between the range of 6-10 years and the working period in the institution of the 38.9% was 6-10 years. 66.1% of the medical secretaries stated that their current job was related to their education. 61.1% of the medical secretaries gave the answer of “ambitious and hardworking” to the question of “Specify traits that match your personality.” It was determined that 25.6% of the medical secretaries were smoking, and 1.1% were drinking alcohol regularly. It was found that 41.1% of the participants spent less than 1 hour on average in a day on the internet and 83.9% of them were members of social networking sites. The most preferred activities by the medical secretaries to spend free time were, respectively, using internet with the 35.6%, listening to music with 26.7%, reading a book with 25.6%, doing sports with 22.8%, playing computer games with 3.9% and doing other things with 60%.

**Table 1. The Distribution of the Scores Medical Secretaries Obtained from Internet Addiction Scale and Three-Dimensional Attachment Styles Scale**

Scales and Subscales	Min.	Max.	Mean	Std. Deviation
<b>Internet Addiction Scale</b>				
Withdrawal	1.64	8.00	3.96	0.81
Controlling Difficulty	1.60	5.00	4.34	0.63
Disorder in Functionality	1.43	5.00	4.31	0.84
Social Isolation	1.57	9.43	4.49	0.76
Total Score	1.83	5.89	4.24	0.66
<b>Three-Dimensional Attachment Styles Scale</b>				
Secure Attachment	1.80	5.00	3.91	0.64
Avoidant Attachment	1.00	5.00	2.08	0.66
Anxious/Ambivalent Attachment	1.00	5.00	2.35	0.68

The total score average of the Internet Addiction Scale was  $4.24 \pm 0.66$ , and *social isolation* subscale had the highest average with the score of  $4.49 \pm 0.76$ .

The highest score average in the subscales of Three-Dimensional Attachment Styles Scales belonged to the *secure attachment* with  $3.91 \pm 0.64$  (Table 1).

**Table 2: The Distribution of the Internet Addiction Styles and Three-Dimensional Attachment Style Scale Scores in terms of Various Variables**

Variables	n(%)	Internet Addiction Scale Subscales					Three-Dimensional Attachment Style Subscales		
		Withdrawal	Controlling Difficulty	Disorder in Functionality	Social Isolation	Total Score	Secure Attachment	Avoidant Attachment	Anxious/Ambivalent Attachment
<b>Age</b>									
20-25	12 (6.7)	3.53	4.25	3.86	3.89	3.87	3.85	1.75	2.62
26-30	30 (16.7)	4.08	4.42	4.48	4.51	4.34	4.20	1.97	2.23
31-35	89 (49.4)	3.92	4.25	4.20	4.43	4.17	3.86	2.19	2.39
36-41	36 (20)	4.06	4.47	4.52	4.77	4.41	3.76	2.13	2.34
Above 41	13 (7.2)	4.11	4.47	4.43	4.65	4.39	4.09	1.75	2.19
<b>p value</b>		0.250	0.342	0.070	<b>0.008**</b>	0.077	<b>0.046*</b>	<b>0.047*</b>	0.442
<b>Gender</b>									
Female	131(72,8)	4.01	4.34	4.26	4.45	4.24	3.93	2.07	2.37
Male	49 (27.2)	3.84	4.33	4.43	4.60	4.25	3.86	2.10	2.31
<b>p value</b>		0.200	0.969	0.144	0.232	0.914	0.496	0.786	0.665
<b>Marital Status</b>									
134(74.4)		4.04	4.37	4.32	4.56	4.30	3.91	2.07	2.30
Married	46(25.6)	3.72	4.23	4.27	4.28	4.09	3.93	2.11	2.52
Single		<b>0.037*</b>	0.239	0.709	<b>0.026*</b>	0.066	0.867	0.723	0.054
<b>p value</b>									
<b>Education</b>									
High School	8 (4,4)	3.98	4.23	4.05	4.25	4.12	3.67	2.10	2.35
Associate	102(56.7)	3.96	4.31	4.24	4.42	4.21	3.94	2.07	2.34
Deg.	70 (38,9)	3.95	4.39	4.44	4.61	4.30	3.90	2.09	2.37
Bachelor's		0.993	0.660	0.212	0.204	0.571	0.496	0.963	0.964
Deg.									
<b>p value</b>									

<b>Working Period in the Occupation</b>										
1-5 years	26(14.4)	3.69	4.06	3.94	3.95	3.90	4.01	1.91	2.41	2.41
6-10 years	69(38.3)	3.88	4.30	4.22	4.42	4.18	3.99	2.06	2.41	2.41
11-15 years	63(35.0)	4.12	4.43	4.46	4.69	4.39	3.86	2.23	2.34	2.34
16 years above	22 (12.2)	4.09	4.52	4.57	4.74	4.44	3.70	1.90	2.16	2.16
<i>p value</i>		0.087	<b>0.037*</b>	<b>0.019*</b>	<b>0.000*</b>	<b>0.005*</b>	0.238	0.100	0.485	0.485
<b>Personality Trait</b>										
Ambitious, Hardworking	110(61.1)	4.00	4.34	4.33	4.53	4.27	3.92	2.13	2.31	2.31
Emotional	59(32.8)	3.83	4.24	4.16	4.37	4.12	3.87	1.95	2.32	2.32
Passive	11(6.1)	4.30	4.85	4.92	4.67	4.66	4.09	2.24	2.97	2.97
<i>p value</i>		0.148	<b>0.012*</b>	<b>0.21*</b>	0.297	<b>0.039*</b>	0.574	0.171	<b>0.009*</b>	<b>0.009*</b>
<b>Smoking</b>										
Yes	46(25.6)	4.05	4.44	4.46	4.60	4.36	3.90	2.14	2.26	2.26
No	134(75.4)	3.93	4.31	4.25	4.45	4.21	3.92	2.06	2.39	2.39
<i>p value</i>		0.396	0.201	0.164	0.240	0.195	0.923	0.471	0.258	0.258
<b>Time spent on the internet</b>										
Less than 1 hour	74(41,1)	4,2334	4,5203	4,3687	4,6197	4,4197	4,0324	2,1525	2,2838	2,2838
1-2 hours	73(40,6)	3,8755	4,2877	4,3288	4,3503	4,1789	3,7945	1,9961	2,2877	2,2877
3-4 hours	23(12,8)	3,5968	4,0304	4,0559	4,5901	4,0112	3,8783	2,1988	2,4420	2,4420
More than 5 hours	10 (5.6)	3,4909	4,1500	4,3286	4,3429	4,0171	4,0400	1,9143	3,2000	3,2000
<i>p value</i>		<b>0.000**</b>	<b>0.004*</b>	0.480	0.148	<b>0.019*</b>	0.138	0.335	<b>0.001**</b>	<b>0.001**</b>
<b>Social Media Membership</b>										
Yes	151(83.9)	3.93	4.30	4.26	4.47	4.21	3.92	2.10	2.34	2.34
No	29 (16.1)	4.16	4.54	4.55	4.60	4.43	3.91	1.99	2.42	2.42
<i>p value</i>		0.153	0.060	0.099	0.421	0.096	0.954	0.444	0.592	0.592

\* p&lt;0.05 /\*\* p&lt;0.01

Internet Addiction Scale Social Isolation subscale scores of the medical secretaries between the ages of 36-41 who participated in the study were found significantly higher than the other medical secretaries. Internet Addiction Scale Withdrawal and Social Isolation subscales scores of the married medical secretaries were significantly higher than the single ones. Internet Addiction Scale total scores and Controlling Difficulty, Disorder in Functionality and Social Isolation subscales scores of the medical secretaries working in the occupation more than 16 years were found significantly higher than the other groups. Internet Addiction Scale total scores, Controlling Difficulty and Disorder in Functionality subscale scores, and Three-Dimensional Attachment Styles Scales Anxious/Ambivalent Attachment Style subscale scores of the medical secretaries who stated their personality traits as “passive” were found significantly higher than those stating their personality traits as “ambitious, hardworking” and “emotional” (Table 2).

Internet Addiction Scale total scores, withdrawal and controlling difficulty subscales scores, Three-Dimensional Attachment Styles Scale Anxious/Ambivalent Attachment scale subscale scores of the medical secretaries who spent less than 1 hour in a day on the internet were found significantly higher than the other groups (Table 2).

**Table 3. The Correlation Matrix between the Internet Addiction Scale and Three Dimensional Attachment Style Scale Scores of the Medical Secretaries**

Subscales		Three-Dimensional Attachment Styles Scale		
		Secure Attachment	Avoidant Attachment	Anxious/Ambivalent Attachment
Internet Addiction Scale	Withdrawal	r= 0.125 p= 0.095	r= -0.079 p= 0.292	r= -0.227 p= 0.002**
	Controlling Difficulty	r= 0.089 p= 0.236	r= -0.163 p= 0.028*	r= -0.254 p= 0.001**
	Disorder in Functionality	r= 0.106 p=0.156	r= -0.013 p= 0.860	r= -0.159 p=0.033*
	Social Isolation	r= 0.095 p= 0.204	r= -0.028 p= 0.707	r= -0.160 p=0.032*
	Total Score	r= 0.121 p= 0.106	r= -0.084 p= 0.260	r= -0.233 p=0.002**

\* p<0.05 \*\* p<0.01

In the study, a weak and negatively significant relation was determined between avoidant attachment style and controlling difficulty subscale scores and between anxious/ambivalent subscale scores and withdrawal, controlling difficulty, disorder in functionality, social isolation subscales and internet addiction total scores (p<0.05) (Table 3).

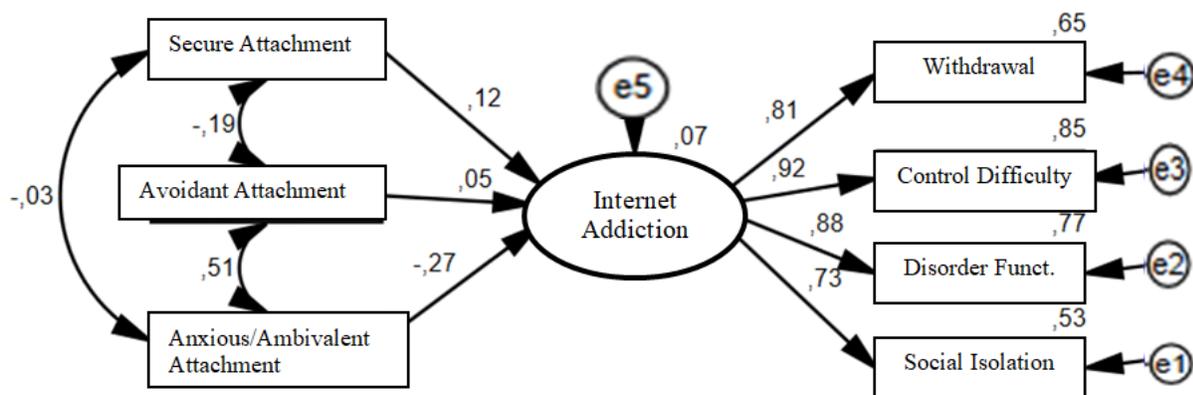
**Table 4. The Multiple Regression Analysis Results on Predicting the Internet Addiction of Medical Secretaries**

Variables	B	S. Error	$\beta$	t	p	r
Invariant	4.179	0.374		11.171	0.000**	
Secure Attachment	0.133	0.077	0.128	1.724	0.086	0.121
Avoidant Attachment	0.076	0.086	0.076	0.882	0.379	-0.084
Anxious/Ambivalent Attachment	-0.259	0.082	-0.268**	-3.172	0.002**	-0.233**

\*\*p<0.01 Not. R<sup>2</sup>=0.07; Cor. R<sup>2</sup>=0.56; F<sub>(3,176)</sub>= 4.521 p=0.004

Multiple linear regression analysis was performed in order to analyze how secure attachment, avoidant attachment and anxious/ambivalent attachment styles determined the internet addiction levels of the medical secretaries. Mean, standard deviation and correlation coefficients and

multiple regression analysis results were given in Table 4. Multiple regression analysis results were found statistically significant [ $F(3,176) = 4.521$   $p=0.004$ ]. Corrected  $R^2$  value is 0.07. This result reveals that the variance at the rate of 7% in the internet addiction is explained by secure, avoidant and anxious/ambivalent attachment styles. However, when Beta coefficients in the table are examined, it is seen that only anxious/ambivalent attachment contribute to explain internet addiction when all independent variables are included in the regression model ( $\beta = -0.268$ ,  $p < 0.01$ ). The analysis of the relationship between the attachment styles scale and internet addiction by structural equation modeling is presented in Figure 1.



**Figure 1. The structural equation modeling analysis of the relation between attachment styles and internet addiction**

In the SEM analysis, it was determined that anxious/ambivalent attachment style has a significant effect on internet addiction at the level of  $\beta = -0.27$  ( $t = -3.172$ ) ( $p < 0.001$ ). It is seen that the internet addiction subscales represent the whole significantly and strongly. The goodness of fit values chi-square/degree of freedom were determined as  $(13,930/10) = 1,393$ ,  $GFI = 0,979$ ,  $AGFI = 0,941$ ,  $TLI = 0,985$ ,  $NFI = 0,976$ ,  $CFI = 0,993$ , and  $RMSEA$  value as  $0,047$ . It is stated that if  $RMSEA$  value is below  $0.05$ ,  $\chi^2/sd$  below  $3$  and  $GFI$ ,  $AGFI$ ,  $TLI$ ,  $NFI$  and  $CFI$  above  $0.95$ , then the model is in good fit (Gurbuz and Sahin 2018:345). According to the goodness of fit values, the model is in good fit with the data and acceptable. The descriptive coefficient of the model is  $R^2 = 0,74$ .

### 3. CONCLUSIONS AND RECOMMENDATIONS

In this study, which was conducted to analyze the relation between the attachment styles and internet addictions of medical secretaries, the Internet Addiction Scale total score average of the medical secretaries was found as  $4.24 \pm 0.66$ , and the highest average in the subscales belonged to

*social isolation* subscale with  $4.49 \pm 0.76$ . As the score obtained increases, internet addiction also increases. In Muezzin's study (2017), which is titled as Examining the Internet Addiction of High School Students in the context of Withdrawal, Controlling Difficulty, Disorder in Functionality and Social Isolation, it is reported that social isolation, controlling difficulty and disorder in functionality subscales have the highest score averages due to the internet use for 8 hours and above, and there is a statistically significant difference in controlling difficulty, social isolation and disorder in functionality depending on the daily time of internet use. On one hand, internet increases interpersonal communication on social ground, on the other hand it causes face to face communication to be restricted, therefore it leads people to go into a social isolation process. Hence, the social isolation score was found to be the highest in our study. At this point, the high score is related to the fact that the attention is directed to the virtual world as well as time is spent in the virtual environment rather than the real environment.

In our study, it was determined that the highest score average was in the secure attachment subscale with  $3.91 \pm 0.64$ . People adopting secure attachment style do not have problems in establishing trust and intimacy in their relationships, and they also see themselves as valuable individuals (Bartholomew and Shaver, 1998).

Internet Addiction Scale Social Isolation subscale scores of the medical secretaries between the age range of 36-41 was found significantly higher than the others. Bolat et. al reported in their study titled Examining the Factors Affecting Internet Addiction in Healthcare Professionals by Logistic Regression Analysis that as the age increased the addiction decreased (Bolat E, 2019). Kumcagiz (2019), in her study on internet addiction among university students, reported that university student's internet addiction scores were negatively correlated with age. The rate of relationships with the environment and tending to different interests at young ages is high. Due to many interests and responsibilities such as the processes in working life, relationships with the environment, social life and education and rising processes of children in the family, the tendency to virtual environment will be less. On the other hand, since both in working life and responsibilities in the family and communication processes will settle, the tendency to virtual environment can come to the forefront. Accordingly, in our study, Internet Addiction Scale total scores and Controlling Difficulty, Disorder in Functionality and Social Isolation subscale scores of the medical secretaries working in the occupation more than 16 years were found significantly higher than the other groups. The fact that the length of working time in the occupation and age

increase are parallel is natural, and an increase in the internet use with the increasing age is an expected situation in accordance with the reasons mentioned above.

Internet Addiction Scale total scores, Controlling Difficulty and Disorder in Functionality subscale scores and also Three-Dimensional Attachment Style Scale Anxious/Ambivalent Attachment Style subscale scores of the medical secretaries describing themselves as “passive” were found significantly higher than those describing themselves as “ambitious, hardworking and emotional.” This is an expected result, and passive personality can increase the tendency to virtual environment since it causes weakness in social relationships.

In the study, a weak and negatively significant relation was determined between avoidant attachment style and controlling difficulty subscale scores, between anxious/ambivalent attachment style subscale scores and the subscale scores of withdrawal, controlling difficulty, disorder in functionality, social isolation and internet addiction total scores. Multiple linear regression analysis was performed to examine how secure attachment, avoidant attachment and anxious/ambivalent attachment styles determine the internet addiction levels of the medical secretaries. It was determined that only anxious/ambivalent attachment had significant contribution to explain internet addiction. Individuals with “anxious-avoidant” attachment style have the weakest sense of trust in the relationship, have negative expectations about the relationship, and avoid close relationships (Ainsworth et. al, 1978: 55). “Anxious/ambivalent” attachment emerges with the lack of trust (Hazan and Shaver, 1994). In people with anxious/ambivalent attachment style, tendency to internet aims at spending time and recovering the communication restrictions with the outer world rather than a specific target. Therefore, the internet use time of these people can be shorter and further from continuity when compared to target-specific attachment.

In Celebi and Celebi’s study, it is reported that there is a significant relation between attachment styles and internet addictions of teenagers (Celebi and Celebi 2020). In Morsunbul’s study titled as The Relationship of Internet Addiction with Attachment Styles, Personality Traits, Loneliness and Life Satisfaction, while secure attachment of attachment styles predicts internet addiction in a negative way, indifferent and preoccupied attachment styles that are distinctively characterized by anxiety and avoidance predict internet addiction in a positive way (Morsunbul 2014). In the same study, it is reported that the attachment patterns of the individuals who can be described as internet addicts are mostly shaped by anxiety and avoidance.

In the study conducted on the patients with internet addiction by Senormancı et al. (2014:203), it is stated that the anxious attachment levels of those suffering from internet addiction are found high.

Individuals with high attachment anxiety may reveal a tendency to connect to the internet to feel social belonging and to relax by receiving feedback (Hart et al. 2015: 33). They may use social media as a shelter in order to cope with the distrust when they have negative feelings (Rom ve Alfasi 2014: 24).

In the study, the Internet Addiction Scale total scores, withdrawal and controlling difficulty subscale scores and Three-dimensional Attachment Styles Scale Anxious and Ambivalent Attachment Style subscale scores of the medical secretaries spending less than 1 hour on the internet a day were found significantly higher than the other groups. Those who connect to the internet for a short time for any reason will have high scale scores as a result of not being able to connect sufficiently.

As a result, it has been observed that there is a negative relationship between internet addiction and anxious/ambivalent attachment style in medical secretaries. In order to obtain more comprehensive results, focus group interviews will be held with different occupational groups in the field of health, so that the relationship between internet addiction and attachment styles will be better explained.

### **Limitations**

Research data were obtained by self-report survey method. They were limited by the medical secretaries working at Erciyes University Health Research and Application Center. Our study results cannot be generalized to the population.

### **Acknowledgement**

The authors declare that they did not receive any funding or support for the present study and that there are no potential conflicts of interest related with it.

### **Funding**

The authors received no financial support for the research, authorship, and/or publication of this article.

**Conflict of Interest:** The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## References

- Ainsworth, M.D., Blehar, M., Waters, E., and Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation, *NY: Psychology Press Taylor and Francis*.
- Aycanoğlu, C., and Ünsal, G. (2017). Attachment Styles and Impacts of Internet Addiction to the Marital Adjustment. *JAREN*, 3(3):163-168.
- Bartholomew, K., and Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61(2), 226–244
- Bolat, E., Ayvaz, Ö., and Yurtseven, E. (2019). Investigation of factors affecting internet addiction in healthcare workers by logistic regression. *Journal of Social and Humanities Sciences Research (JSHSR)*, 6 (37):1370-1375.
- Celebi Gulin, Y., and Celebi B. (2020). Analysis of The Relationship Between Attachment Styles and Internet Addiction Levels of Adolescents. *ACU International Journal of Social Sciences*, 6(2): 37-48.
- Erzen, E. (2016). Three Dimensional Attachment Style Scale. *Inonu University Journal of the Faculty of Education* 17(3), 01-21. DOI: 10.17679/iuefd.17323631.
- Gunuç, S. and Kayri M. (2010). The Profile of Internet Dependency in Turkey and Development of Internet Addiction Scale: Study of Validity & Reliability. *H. U. Journal of Education*, 39, 220-232.
- Gurbuz, S. and Sahin F. (2018). *Research Methods in Social Sciences*, (5<sup>th</sup> Edition), Seckin Publishing: Ankara.
- Hart, J., Nailling E., Bizer G., and Collins C.K.(2015). Attachment Theory as A Framework For Explaining Engagement With Facebook. *Personality and Individual Differences*, 77, 33–40.
- Hazan, C. and Shaver P.R.(1994). Attachment as an Organizational Framework For Research on Close Relationships. *Psychological Inquiry*, 5 (1), 1- 22.
- Kocairi, C., Yuksel R., Arslantas H. and Soylemez B. (2020). The Relationship of Attachment Styles of High School Student Adolescents with Technology Dependencies: A Cross-Sectional Study. *Yeni Symposium*, 58(1), 11-17.
- Kumcagız H. (2019). Examination of Turkish University Students' Internet Addiction in Relation to Their Parental Attachment Styles and Sociodemographics. *SAGE Open*. 1-11, doi:10.1177/2158244019845946
- Morsunbul, U. (2014). The Association of Internet Addiction with Attachment Styles, Personality Traits, Loneliness and Life Satisfaction. *International Journal of Human Sciences*, 11(1), 357-372. doi: 10.14687/ijhs.v11i1.2727.
- Ozata, M. and Yorulmaz M. (2020). A Research on Working Conditions of Medical Secretaires and Stress Factors. *Kirsehir Ahi Evran Universty Journal of the Institute of Health Sciences*, 1(1),41-52.
- Ozkan, O. (2013). Examining The Variables Related to Internet Use in Terms of Gender, Personality Traits, Life Satisfaction and Attachment Styles, *Master Thesis*, Ankara University Institute of Social Sciences: Ankara.
- Rom, E, and Alfasi Y. (2014). The Role of Adult Attachment Style in Online Social Network Affect, Cognition, and Behavior. *Journal of Psychology and Psychotherapy Research*, 1, 24–34.
- Senormancı, O., Senormancı G., Guclu O. and Konkan R. (2014). Attachment and Family Functioning in Patients with Internet Addiction. *General Hospital Psychiatry*, 36(2), 203–207. doi: 10.1016/j.genhosppsy.2013.10.012.

- Tanriverdi Hergun, H. (2018). A Study on The Workload Analysis and Job Satisfaction of Medical Secretaries. *Journal of Ankara Health Sciences*, 2, 32-47. Doi: 10.1501/Asbd\_0000000085.
- Yildizhan, E. (2017). Attachment Theory and an Overview of Attachment Disorders. *Anatol Clin*, 22(1), 66-72. DOI: 10.21673/anadoluklin.237462.