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RELATIONSHIP PATTERN BETWEEN INTERNET ADDICTION, ATTACHMENT STYLES AND SELF-DIFFERENTIATION IN UNIVERSITY STUDENTS: A STRUCTURAL EQUATION MODELLING

İbrahim TAŞ

Asst. Prof. Dr., İstanbul Sabahattin Zaim University, ibrahimtas34@gmail.com
ORCID: 0000-0002-5752-2753

Okan BİLGİN

Asst. Prof. Dr., Bülent Ecevit University, bilgin.okan@gmail.comi
ORCID:https: 0000-0001-6233-4290

ABSTRACT

Internet addiction attracts the attention of researchers and experts working in the field as a serious type of behavioural addiction. The fact that Internet addiction affects a wide area such as work, school, family and social life of the individual makes it important to investigate the phenomenon. In this context, the aim of this study was to investigate the relationship between Internet addiction and attachment styles and self-differentiation. In the study, correlational survey model was used. Based on the literature, the proposed model was tested with Structural Equation Modelling (SEM). The study was conducted on 386 university students aged between 18 and 39 years. Data were collected by using Internet Addiction Scale, Differentiation of Self Inventory and Attachment Styles Scale. According to the results of the study, avoidant attachment positively predicts Internet addiction and self-differentiation; while secure attachment predicts Internet addiction negatively and self-differentiation positively. Anxious ambivalent attachment predicts self-differentiation negatively. Differentiation of the self predicts Internet addiction negatively. Attachment styles explain 20% of the variance related to self-differentiation, while attachment styles and self- differentiation together explain 23% of the variance related to Internet addiction. According to the results of the study, the model of the relationship pattern between attachment styles and Internet addiction and self-differentiation was confirmed. When working with Internet addicts, experts in the field may also consider the effects of individualization and attachment styles. Researchers can test the results obtained from this study by researching in other samples.

Keywords: Internet addiction, individualisation, attachment styles

INTRODUCTION

The number of Internet users is increasing day by day. The number of Internet users increased by 1.125% worldwide between 2000 and 2019 (Internetworldstats, 2019). The widespread use of the Internet has caused people to be online almost as much as they are offline. Being online so much can be problematic (Yao and Zhong, 2014). The problems created by the Internet show a wide range of effects from family life to social relations, from education to business life.

Although the Internet makes life easier and improves the quality of life of human beings, the non-functional excessive use of the Internet may cause some problems. Sleep problems, eating problems, problems with work life, academic problems (Cao and Su, 2006) are some of these problems. Non-functional use of the Internet has been conceptualized in the literature in different ways. Non-functional use has been addressed with different concepts such as Internet addiction (Young, 1998), pathological Internet use (Davis, 2001) and problematic Internet use (Shapira, Goldsmith, Keck, Khosla and McElroy, 2000). Conceptualization of Internet addiction in so many different ways with its widespread use is related to the lack of criteria to clearly define Internet addiction (Tao et al., 2009).

The lack of criteria to clearly define Internet addiction also triggers discussions about the existence of such a type of addiction (Suler, 2004). However, Griffiths (2005) states that Internet addiction exists even if it affects a small audience and proposes six criteria for defining non-functional Internet use as addiction. These are the Internet being the most important activity in a person's life, the use of the Internet as a coping strategy to get rid of negative emotions, the increasing use of the Internet to capture the mood created by the individual in the early times, exhibiting withdrawal symptoms such as irritability, moodiness and tremors when the use of the Internet is reduced or discontinued, an individual's conflicts with others around him and internal conflict or the loss of control due to Internet use and repeated emergence of the behaviour of Internet use after an individual discontinues Internet use. There are also researchers who have previously proposed different criteria for Internet addiction (Young, 1998; Shapira et al., 2003; Shaw and Black, 2008). With the publication of DSM V (American Psychiatric Association, APA, 2013), nine criteria for online gaming addiction have been proposed (APA, 2013, s. 795). The World Health Organization (WHO) declaring online gaming addiction to be a mental health problem and publishing relevant criteria (WHO, 2019) helped clarify the diagnostic criteria for gaming addiction. These developments have helped clarify not only the diagnostic criteria for online gaming addiction but also the diagnostic criteria for other technological addictions such as Internet addiction and social media addiction. As a matter of fact, the development of scales such as Internet addiction scales (Pontes and Griffiths, 2016; Taş and Bilgin, 2018) and social media addiction scales (van den Eijnden, Lemmens, and Valkenburg, 2016) in line with these criteria support this opinion.

In recent years, there has been a rapid increase in the number of studies on Internet addiction in the literature. The relationship between Internet addiction and various concepts has been examined. In studies conducted on

Internet addiction, Internet addiction has been found to be positively correlated with preoccupied attachment, indifferent attachment and fearful attachment (Morsünbül, 2014; Savcı and Aysan, 2016), indifferent and preoccupied attachment (Odacı and Çıkrıkçı, 2014), low metacognitive awareness level (Kılınç and Doğan, 2014), impulsiveness (Meerkerk, Van Den Eijnden, Franken and Garretsen, 2010), hopelessness and boredom (Velezmoro, Lacefield and Roberti, 2010), shyness (Ayas, 2012), loneliness in social, emotional and family relationships (Anlı, 2018a) and interpersonal sensitivity (Anlı, 2018b); while it has been found to be negatively correlated with secure attachment (Morsünbül, 2014; Savcı and Aysan, 2016), subjective well-being (Odacı and Çıkrıkçı, 2014), and social support (Taş and Öztosun, 2018).

The infant's bond with his mother or first caregiver will have an impact on his future, habits and personality traits. While healthy bonding creates healthy behavioural patterns, unhealthy bonding can bring many problems and problematic behavioural patterns. One of the unhealthy behaviours of an individual who cannot establish a secure bond with the mother or first caregiver is Internet addiction (Morsünbül, 2014; Savcı and Aysan, 2016). In this context, it is important to investigate Internet addiction and attachment styles.

Although attachment theory entered literature with the work of Bowlby and Ainshworth, Bowlby laid the foundation for the theory (Bretherton, 1992). The attachment theory, the focus of which is the relationship between the infant and the first person taking care of him, is considered as a biosocial behavioral system that allows the infant to remain close to his mother and is thought to be evolutionarily in the infant (Kirkpatrick and Shaver, 1990). The physical weakness of infants at the time of birth obliges them to bond with an adult to survive. For this reason, infants instinctively connect emotionally with those who raise them in order to survive (Sümer, Oruçlular and Çapar, 2015). After this bond, they internalize their experiences with them and form a prototype to shape the relationships with individuals other than family members (Bartholomew and Horowitz, 1991). In other words, the social relationships, private relationships and interpersonal relationships with family members that the individual will establish in adulthood will be shaped as the result of the prototype.

The attachment figure basically serves two key functions. The first is that it represents a safe and comfortable harbour to which the infant can return when the infant feels threatened or worried. The second is that it is a safe base with which to explore the environment in times free of danger and anxiety (Kirkpatrick and Shaver, 1990). In short, the attachment figure primarily ensures that the unprotected individual is physically and psychologically safe, and also accompanies the infant on his journey to explore the environment.

Ainsworth Blehar, Waters and Wall (2014) tested Bowlby's theory experimentally on studies conducted with infants. At the end of this study, they found that there are three types of attachment behaviours and that each has its own behavioural symptoms. The attachment styles they found in their study were avoidant attachment, anxious ambivalent attachment and secure attachment styles. These attachment styles detected in children were adapted differently to adults. The theory was reconsidered by other researchers (Bartholomew and Horowitz, 1991) in four dimensions based on the positive and negative perception of the self and others. Adult

attachment styles are secure attachment (positive self-perception, others positive), preoccupied attachment (negative self-perception, others positive), indifferent attachment (positive self-perception, others negative) and fearful attachment (both self and others negative).

When studies about attachment styles are examined, it can be seen that attachment styles are associated with Internet addiction (Savcı and Aysan, 2016; Şenormancı, Şenormancı, Güçlü and Konkan, 2014), social media addiction (Blackwell, Leaman, Tramposch, Osborne and Liss, 2017; Monacis, Palo, Griffiths and Sinatra, 2017), compassion (İşgör, 2017), loneliness (Deniz, Hamarta and Arı, 2005), autonomy (Karabacak and Demir, 2017) and social attachment (Gültekin and Arıcıoğlu, 2017).

Similar to attachment styles, differentiation of self is also shaped within the framework of the relationship established with parents. While self-differentiated individuals act more autonomously, non-self-differentiated individuals act more dependent on others, indicating that they tend to develop behavioural addictions. In this context, it can be said that differentiation of self, in other words individualization, is related to Internet addiction, which is a behavioural type of addiction.

Self-differentiation is a concept that shapes the structure of Bowen's Family System Theory (Mert and Çetiner, 2018). Sexton, Weeks and Robbins (2003) define differentiation of self as the psychological separation of the individual from the intellectual and emotional systems and as a result of this separation and independence of the individual from the family and the individuals within the social system to which it is connected. According to Gladding (2012), the differentiation of self is the ability to be objective enough to separate emotions from thoughts by staying in healthy emotional distance. Işık and Bulduk (2015) emphasized that the differentiation of self is a process and stated that the process that starts with birth begins to show stability during the early adulthood university years. Acar and Acar (2013) express the process of self-differentiation as an individual having a strong self, being able to take decisions without being influenced by others and taking responsibility for the decisions made. Differentiated individuals have a strong sense of self, are able to recognize their feelings and thoughts, and can make choices of their own accord without being influenced by anyone (Kesici, Mert, Köklü-Bayrakçı and Kiper, 2017). According to Bowen (1994), differentiated individuals are different from their family emotionally and cognitively. Differentiated individual can act logically by distinguishing the difference between thoughts and feelings in stressful situations. Individuals who have failed to differentiate are dependent on others, whereas individuals who have managed to differentiate are aware of their feelings and can feel this (Becvar and Becvar, 2006). According to Bowen, differentiated individuals can behave more harmoniously and flexibly in many situations, can direct their lives according to the beliefs and principles they determine, and can maintain their emotional relationships without being dependent on others (Işık and Bulduk, 2015). Individuals who are not differentiated need more unity and experience a high level of anxiety when their needs are not met (Ersevim, 2008). Even if their physical dependence on their family members decreases, they still live emotionally dependent on them (Gladding, 2012).

The differentiation of self consists of two main dimensions connected to one's own and others and four sub-dimensions dependent on these two dimensions. While I position and emotional responsiveness are addressed as sub-dimensions of the main dimension of one's own world, dependence on others and emotional dissociation represent the sub-dimensions of one's main dimension towards others (Skowron and Friedlander, 1998; Skowron and Schmitt, 2003). While taking the I position, which is one of the sub-dimensions of the main dimension towards one's own inner world, expresses the tendency of the individual to show his / her own feelings, thoughts, values, beliefs and perspectives even in the face of a stressful situation; emotional responsiveness sub-dimension states that the individual lives in the world of emotions. Individuals with low level of emotional responsiveness can react more calmly and more positively with less emotional intensity in stressful situations. Dependence on others, one of the sub-dimensions of the main dimension on the relationship between the person and others, expresses individuals who have remained committed to their family origins, who do not exist individually and who are constantly seeking approval and acceptance; while emotional dissociation expresses an individual's desire to emotionally withdraw in his own shell, escape, and avoid in the face of a stressful situation (Bowen, 1978, cited from Mert and Çetiner, 2018).

It is seen that whether the individual is differentiated or not is of great importance for the interpersonal and inner world of individuals (Kağıtçıbaşı, 2000). When the literature is examined, it is seen that low level of self-differentiation is associated with many mental problems. It can be seen that individuals who are not differentiated have higher levels of depression, not being physically healthy (Hooper and Doehler, 2011), need for social approval (Hill, Hasty and Moore, 2011), perceived depression and trait anxiety (Hanımoğlu, 2014), general psychiatric distress, behavioural disorders and depression (Solomon, Dekel, Zerach, Horesh, 2009), stress and psychological distress (Krycak, Murdock and Marszalek, 2012). Studies conducted show that individuals who have succeeded in self-differentiating process are advantageous in many ways. Individuals who have high level of self-differentiation were found to have significantly high levels of couple harmony (Polat, 2014), altruism (Mert and Gülmez, 2018), openness to the process of forgiveness (Hill, Hasty and Moore, 2011), sexual communication and marriage satisfaction (Timm and Keiley, 2011), life satisfaction in relationship (Spencer and Brown, 2007) and adaptation to university life (Mert and Çetiner, 2018).

It is seen that the environment in which the child grows and parents have an effect on the development of the concepts of both attachment styles and self-differentiation. Individuals raised in environments where the physiological and emotional needs of infants and children are met will develop secure attachment styles and will experience individualization processes in a healthier way. When it is considered that parental attitudes are effective in the formation of Internet addiction (Taş, 2018), it can be said that all three variables are related to the environment in which the individual grows. It can be seen that Internet addiction is higher in individuals who are not securely attached (Morsünbül, 2014; Savcı and Aysan, 2016). In addition, substance abuse (Caspers, Cadoret, Langbehn, Yucuis and Troutman, 2005) and alcohol dependence (Wyrzykowska, Glogowska and Mickiewics, 2014) levels of the individuals who are not securely attached were found to be significantly

higher than those of the individuals who are securely attached. Research shows that there is a relationship between attachment and addictive behaviour. It can be seen that self-differentiation, in other words, low level of individualization is associated with general psychological problems (Krycak et al., 2012; Solomon et al., 2009). Similarly, it can be seen that Internet addiction is associated with psychological problems such as depression, stress and anxiety (Ceyhan, Ceyhan and Kurtyılmaz, 2012; Ostovar et al., 2016) and interpersonal sensitivity (Anlı, 2018b). When the variables Internet addiction, attachment styles and self-discrimination are related with are considered, it can be said that concepts are related to each other. No studies were found in literature in which Internet addiction, attachment styles and self-discrimination were addressed together. Investigating the variables that Internet addiction is related to is important in terms of coping with addiction and determining the domains of addiction. For this purpose, a model has been proposed based on the literature in order to determine the pattern of relationships between Internet addiction and attachment styles and self-differentiation among university students and the proposed model is presented below.
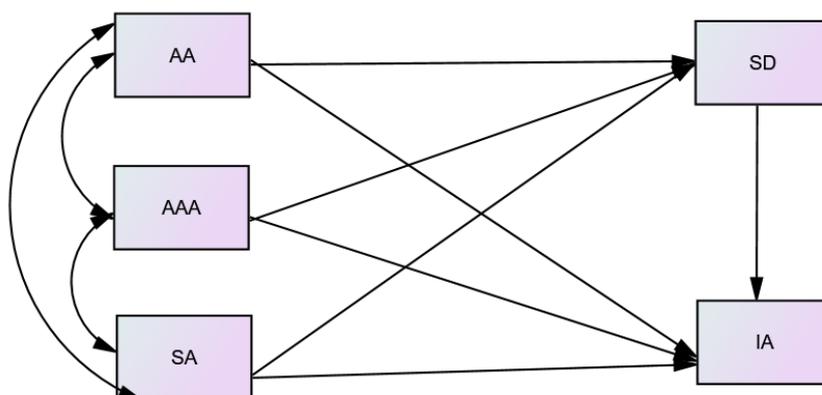
IA: Internet addiction, AA: Avoidant attachment, AAA: Anxious ambivalent attachment, SA: Secure attachment, SD: Self differentiation

Figure 1. The Proposed Structural Equation Modelling

According to the model proposed in Figure 1, there is a bilateral relationship between avoidant attachment and anxious ambivalent attachment and secure attachment. There is a direct unilateral relationship between avoidant attachment, anxious ambivalent attachment and secure attachment with self-differentiation and Internet addiction. There is also a direct unilateral relationship between self-discrimination and Internet addiction.

METHOD

Research Model

Correlational survey model was used in this study in which the relationship between Internet addiction and attachment styles and self-differentiation was investigated in university students. In correlational survey model, the relationship between two or more variables is examined without interfering with the variables

(Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2010). The relationships between the variables were tested with Structural Equation Modelling (SEM). The suitability of theoretical models explaining the relationships between variables is tested in structural equation modelling (Hu and Bentler, 1998). Structural equation modelling is a model that can perform many analyses at once, analyse complex models successfully, propose corrections for the relationships in the model and take into account the errors that may arise from the measurement. With these features, it can be used to test theories as well as to test the proposed new models functionally (Dursun and Kocagöz, 2010).

Research Group

The research group consists of 386 university students. 249 (64.5%) of the participants are female and 137 (35.5%) are male. Their ages range from 18 to 39 and their mean age is 21 years.

Data Collection Tools

Personal Information Form

Data on age, gender and grade levels of the participants were obtained by the personal information form prepared by the researcher.

Internet Addiction Scale

Young Internet Addiction Scale was turned into short form by Pawlikowski et al. (2013) and adapted into Turkish culture by Kutlu, Savcı, Demir and Aysan (2016). Likert type (5-point) scale consists of 12 items and one factor. .91 KMO (Kaiser-Meyer-Olkin) coefficient obtained as a result of exploratory factor analysis and Barlett Sphericity test χ^2 value of 2077.04 (p <0.001) indicate that the scale is suitable for factor analysis. Fit indices obtained by confirmatory factor analysis (χ^2 = 144.93, sd = 52, RMSEA = 0.072, RMR = 0.70, GFI = 0.93, AGFI = 0.90, CFI = 0.95 and IFI = 0.91) show that the values of the scale are within acceptable limits. The Cronbach Alpha internal consistency coefficient obtained in the reliability study was .91. Cronbach Alpha internal consistency coefficient obtained in this study is .88.

Attachment Styles Scale

The attachment styles scale was developed by Erzen (2016). The Likert-type (5-point) scale consists of 18 items and 3 sub-dimensions (avoidant, anxious ambivalent and secure attachment). Kaiser Meyer Olkin (KMO) value = .84 obtained as a result of exploratory factor analysis and Barlett test (p <.01) values showed that the scale was suitable for factor analysis. It was found that the three sub-dimensions of the scale explained 45.73% of the total variance of the scale. The fit indices found as a result of the confirmatory factor analysis (GFI .93, AGFI .90, CFI .90, RMSEA .05 and χ^2 / sd = 2.48) were found to be within acceptable limits. Cronbach Alpha internal consistency coefficients obtained from the reliability study were found to vary between .69 and .80 for all dimensions. In this study, internal consistency coefficient of the scale was found to be .71.

The Differentiation of Self Inventory

The scale developed by Skowron and Schmit (2003) was adapted by Işık and Bulduk (2015). The Likert-type (6) scale consists of 20 items and 4 sub-dimensions (Emotional Reactivity, Emotional Cutoff, I Position and Fusion with Others). As a result of exploratory factor analysis, it was seen that the four-factor structure explained 50.4% of the variance. Chi square and agreement index values obtained as a result of confirmatory factor analysis ($χ2 / sd = 1.65$, GFI = .93, AGFI = .91, CFI = .92, RMSEA = .04.) indicate that the scale is a valid scale. The internal consistency coefficient of the total score of the scale within the scope of reliability analysis was found to be .81 and test-retest correlation value was .74. In this study, internal consistency coefficient was found as .73.

Data Collection and Analysis

The data of the study were collected face to face from students on a voluntary basis. The participants were informed about the research and it was stated that the information obtained would be used only for scientific purposes and that their personal information would be kept confidential. It was also stated that they could withdraw from the study at any time. The study was approved by Istanbul Sabahattin Zaim University Ethics Committee (Ethics Committee Decision date 19/02/2019, No 2019/02). 400 data were collected for the research. However, the analyses were performed on the remaining 386 data after leaving out 14 data sets which were left blank. Pearson correlation and Structural Equation Modelling (SEM) were used to analyse the data. For Pearson correlation, normal distribution is required. For this, firstly, the univariate normality of the data was tested and it was found that the obtained values were between -1 and -1 and they were found to meet the assumption of normality (-.029-.824) (Büyüköztürk, 2014). Next, linearity, multivariate normality and univariate and multivariate correlations (Ulman, 2015), which are the assumptions of structural equation modelling, were examined. The scattering diagram of the variables was examined for multivariate normality and linearity, and it was found that the distribution was ellipse, in other words, the assumption of multivariate normality and linearity was provided. Variance increase factors (VIF) and tolerance values for multiple linear connection problems were measured. The VIF values (1.117 and 1.373) were below the acceptable values of 10, and the tolerance values (.664-.895) were higher than .10 and within acceptable limits (Çokluk, Şekercioğlu and Büyüköztürk, 2012). The obtained values show that the model is suitable for testing with Structural Equation Modelling. Data were analysed with SPSS 25 package program and AMOS 25 package program.

FINDINGS (RESULTS)

First, the relationship between the variables was examined and the obtained results are given in Table 1.

Table 1. The Relationship between Internet Addiction and Attachment Styles and Self-Differentiation

Variables	IA	AA	AAA	SA	SD
IA	1				
AA	.294**	1			
AAA	.288**	.433**	1		
SA	-.244**	-.303**	-.181**	1	
SD	-.385**	-.106*	-.429**	.143**	1

*p<.05, **p<.01; IA: Internet addiction, AA: Avoidant attachment, AAA: Anxious ambivalent attachment, SA: Secure attachment, SD: Self differentiation

According to Table 1, there is a positive low relationship between Internet addiction and avoidant attachment (r = .294, p <.01) and anxious ambivalent attachment (r = .288, p<.01), while there is a negative low relationship between secure attachment (r = -.244, p<.01) and Internet addiction. There is a negative moderate (r = -.385, p <.01) relationship between Internet addiction and self-differentiation.

While a positive moderate (r = .433, p <.01) relationship was found between avoidant attachment and anxious ambivalent attachment, a negative moderate (r = -.303, p<.01) relationship was found between avoidant attachment and secure attachment.

A negative low (r = -.106, p <.01) relationship was found between self-differentiation and avoidant attachment, while a negative moderate (r = -.429, p<.01) relationship was found between anxious ambivalent attachment and self-differentiation and a positive low (r = .143, p<.01) relationship was found between secure attachment and self-differentiation.

Values for Proposed Structural Equation Model

Figure 2 gives the values for the proposed model. Bidirectional arrows indicate correlation values and unidirectional arrows represent regression values.
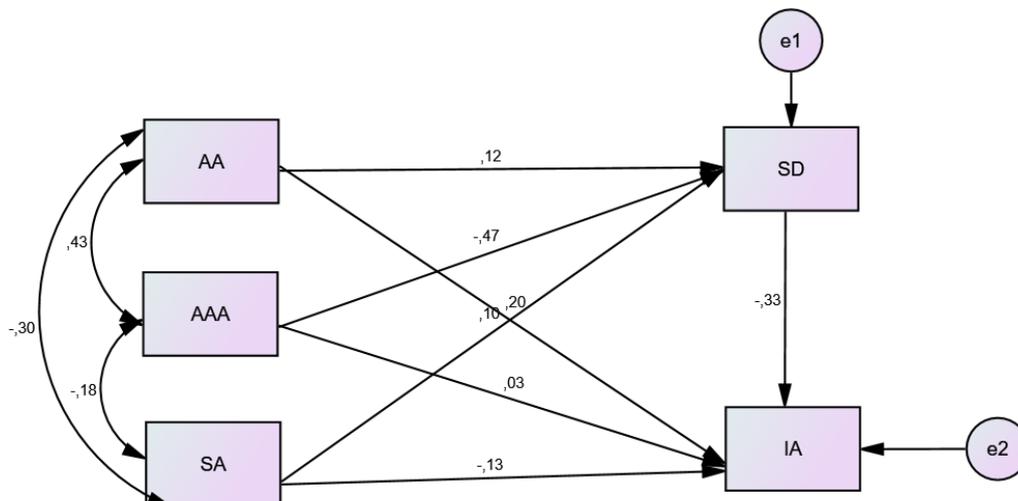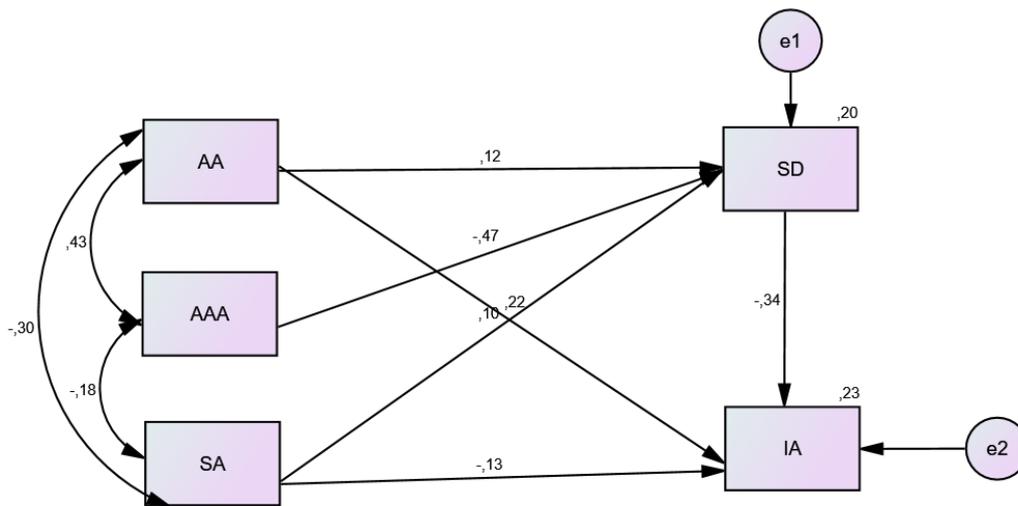
IA: Internet addiction, AA: Avoidant attachment, AAA: Anxious ambivalent attachment, SA: Secure attachment, SD: Self differentiation

Figure 2. Values for the proposed model

Acceptance of the proposed model as a valid model depends on certain conditions. These conditions are that chi-square value, index of fit, regression coefficients and variance values are within acceptable limits and significant (Şimşek, 2007). When the above values are examined, it is seen that there is a non-significant parameter ($R2 = .03$, $p> .05$) between anxious ambivalent attachment and Internet addiction. In the light of the literature, this parameter was removed from the model and the model was re-analysed. The re-analysed model was found to be a valid model and the obtained values are given in Figure 3.

Valid Model and Findings of the Model

IA: Internet addiction, AA: Avoidant attachment, AAA: Anxious ambivalent attachment, SA: Secure attachment, SD: Self differentiation

Figure 3. Diagram of the Valid Model

The unidirectional arrows in Figure 3 show the correlation coefficients and the bidirectional arrows show the regression coefficients. When the findings are analysed, a positive moderate ($r=.43$, $p<.05$) relationship was found between avoidant attachment and anxious ambivalent attachment; a negative moderate ($r=-.30$, $p<.05$) relationship was found between avoidant attachment and secure attachment; and a negative low ($r=-.18$, $p<.05$) relationship was found between anxious ambivalent attachment and secure attachment.

When the regression coefficients of the model were examined, it was seen that avoidant attachment significantly predicted Internet addiction ($R^2 = -.22$; $p <.000$) and self-differentiation ($R^2 = .12$; $p <.05$). It was seen that anxious ambivalent attachment significantly predicted only the differentiation of the self ($R^2 = -.47$; $p <.000$), whereas secure attachment significantly predicted Internet addiction ($R^2 = .10$; $p <.000$) and the differentiation of the self ($R^2 = -.13$; p). $<.000$).

When the variance values of the model were examined, it was found that avoidant attachsent and anxious ambivalent attachment and secure attachment explained 20% of the variance regarding self-differentiation,

while avoidant attachment, secure attachment and self-differentiation explained 23% of the variance regarding Internet addiction.

When the chi-square value and fit indices of the model are examined, it is seen that the model has a good fit. Chi-square value obtained and model fit indices and acceptable fit indices are given in Table 2.

Table 2. Chi Square and Fit Index Values and Acceptable Values of the Model

Values	Obtained value	Criterion value[*]
χ2/sd	.394	≤ 2- 5
SRMR	.0059	≤.05 - .08
GFI	1.000	≥0.90- 1.000
AGFI	.994	≥0.90- 1.000
CFI	1.000	≥0.90- 1.000
NFI	.999	≥0.90- 1.000
RMSEA	.000	≤.05- .08

[*]cited from. Çokluk et al, 2012, p. 271-272

When the values in Table 2 are examined, the value of χ2 / sd is .394, SRMR: .0059, GFI: 1,000, AGFI; .99.4, CFI: 1,000, NFI: .999, and RMSEA .000, and the model appears to have a perfect fit.

CONCLUSION and DISCUSSION

In this study, the relationship pattern between Internet addiction and attachment styles and self-differentiation in university students was investigated. In the model, it was found that avoidant attachment and secure attachment had a direct effect on Internet addiction, and avoidant attachment, anxious ambivalent attachment and secure attachment had a direct effect self-differentiation.

In the study, it was found that avoidant attachment explained Internet addiction significantly in a positive way. When the literature was examined, no studies examining the relationship between avoidance attachment and Internet addiction directly were found. However, it can be seen that the results of the study are in parallel with studies examining the relationship between indifferent attachment and Internet addiction (Savcı and Aysan, 2016; Odacı and Çıkrıkçı, 2014), social media addiction and avoidant attachment (Blackwell et al., 2017) and mobile phone addiction and avoidant attachment (Ghasempour and Mahmoodi-Aghdam, 2015). When the results obtained from the present study and the studies in literature are evaluated as a whole, it can be said that individuals with avoidant attachment style are more dependent on the Internet than individuals with secure attachment and anxious attachment styles.

In the study, it was found that secure attachment explained Internet addiction significantly in a negative way. When the literature was examined, limited numbers of studies were found examining the relationship between secure attachment and Internet addiction. In a study conducted by Savcı and Aysan (2016), a negative relationship was found between secure attachment and Internet addiction, similar to the findings of the present study. In addition, Eroğlu's (2015) studies on the relationship between secure attachment and facebook addiction and Monacis and others (2017) studies on the relationship between secure attachment and

social media addiction also support the findings of the present study. Eichenberg, Schott, Decker, and Sindelar (2017) state that individuals with insecure attachment have significantly higher Internet addiction behaviour than those with secure attachment. When the results obtained from the present study and the studies in literature are evaluated as a whole, it can be said that individuals with secure attachment style are less dependent on the Internet than individuals with insecure attachment and secure attachment has a negative effect on Internet addiction.

In the study, it was found that differentiation of self explained Internet addiction significantly in a negative way. No studies examining the relationship between differentiation of self and Internet addiction were found. Self-differentiated individuals have completed the process of individuation in a healthy way. These individuals both have a strong sense of self and can choose by their own will (Kesici et al., 2017) and are not dependent on others (Becvar and Becvar, 2006).

It is seen that individuals who are not differentiated experience depression (Hooper and Doehler, 2011), depression, stress and anxiety (Hanımoğlu, 2014) and psychological problems and behaviour disorders (Solomon et al., 2009). Individuals with Internet addiction are seen to experience psychological problems such as depression and anxiety (Nam et al., 2018) psychological symptoms (Taş, 2018), impulsivity (Meerkerk, Van Den Eijnden, Franken and Garretsen, 2010) and anxiety (Tonioni et al., 2012). Considering that individuals with Internet addiction and individuals who are not differentiated experience common problems and also considering the characteristics of differentiated individuals, it is an expected result that self-differentiation will explain Internet addiction negatively. In other words, it can be said that not having differentiation of self is an important factor in the formation of Internet addiction.

The study also examined the relationship between attachment styles and self-differentiation. According to the findings, it was found that secure attachment and avoidant attachment explained self- differentiation in a positive way and anxious ambivalent attachment explained self- differentiation in a negative way.

It is known that individuals with secure attachment have positive cognitions, positive self and others perception about themselves and others (Bartholomew and Horowitz, 1991). In addition, it is seen that individuals who are securely attached can cope with stress more easily and can make active planning (Terzi and Cihangir Çankaya, 2009). It is seen that differentiated individuals are adaptable and flexible, able to direct their lives in accordance with the principles they determine, and able to maintain their emotional relationships without being dependent on others (Işık and Bulduk, 2015). It is seen that individuals with both characteristics develop similar behaviour patterns. In the light of the findings of the present study and studies in literature, it can be said that individuals with secure attachment can experience the process of self-differentiation in a health way and thus experience individualisation.

In this study, it was found that avoidance attachment style is positively associated with self-differentiation. Avoidant attachment style is an insecure attachment style. It is seen that children who have avoidant attachment style are not affected by their moments of separation from their mothers and they avoid contact with them when they are reunited (Sümer and Güngör, 1999). It is seen that individuals who have avoidant attachment are disconnected from their mothers in an unhealthy way, their existence or absence does not mean much to them, and they try to survive on their own. Individualization of individuals with avoidant attachment in an unhealthy way by breaking away from their mother/first caregiver makes the result obtained from the study more understandable. In other words, since these individuals are individualized even if in an unhealthy way, their level of individualization in the study was found to be high. However, it should be taken into consideration that this level is not individualization in a healthy way and it is an unhealthy break away.

It can be seen that anxious ambivalent attachment explained self-discrimination significantly negatively. Similarly, Yazıcı (2019) found a negative relationship between individualization and anxious ambivalent attachment. The findings of the study can be interpreted that individuals who have anxious ambivalent attachment style, which is an insecure attachment style, experience problems in the areas of individualization, in other words, in making their own decisions and living independently.

As a conclusion, it can be seen that the attachment styles developed based on the relationship of the individual with the caregivers are effective in the formation of Internet addiction and individualization of the person. In addition, it is seen that individualization is also effective in the formation of Internet addiction.

RECOMMENDATIONS

In practice, experts working with Internet addicts may consider treating the attachment problems of Internet addicts first, taking into account the relationship between attachment styles and Internet addiction. Considering that the inability to individualize has an effect on Internet addiction, it can be said that working on the individualization problems of Internet addicts can be effective in the treatment of addiction. Experts working in the field can add attachment styles and individualization dimensions to the study as a separate module in coping with Internet addiction psycho-education studies. Based on the relationship obtained as a result of the research, the relevant ministries may include attachment styles and individualization issues in activity and education booklets they will organize for parents in Internet addiction coping programs. Researchers can test the results of this study by examining the relationship between Internet addiction, which is a serious behavioural addiction type, and individualization and attachment styles in similar samples. In addition, the same variables can be investigated especially in the population of children and adolescents who are considered to be a serious risk factor in Internet addiction. The results of the study are limited to the sample used in this study. The relationship between variables can be explored in a wider population.

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