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# The Pattern of Relationship between Attachment Styles, Gaming Addiction and Empathetic Tendency among Adolescents

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ABSTRACT

**Purpose:** The purpose of this research was to investigate the pattern of relationship between attachment styles, gaming addiction and empathy among adolescents.

**Research Methods:** The correlational survey method was used herein. In order to explain the pattern of relationship between the variables, a theoretical model based on the literature was recommended, which was tested by the Structural Equality Modeling (SEM). The sample of the research consisted of 338 middle school and high school students studying in Istanbul Umraniye district. 117 of the students (52.5%) were female while 160 thereof (47.5%) were male. Student ages ranged between 10 and 17, and their age mean was 13. The data was collected by the Attachment Styles Scale, Gaming Addiction Scale and Empathetic Tendency Scale.

**Findings:** According the result of the Analysis, secure addiction significantly predicted gaming addiction in a negative way while it significantly predicted empathetic tendency in a positive way. Avoidant addiction significantly predicted gaming addiction in a positive way and empathetic tendency in a negative way. Anxious-ambivalent addiction, on the other hand, only predicted gaming addiction, in a positive way and significantly, and gaming addiction significantly predicted empathetic tendency in a negative way.

**Implications for Research and Practice:** The relationship between the attachment styles and gaming addiction and empathetic tendency can be tested on different samples. Practitioners working in the field can work more effectively in coping with gaming addiction by taking the attachment styles and empathetic tendencies into consideration. The psycho-educational programs aimed to mitigate the gaming addiction can include modules to raise awareness about the attachment styles and increase the empathetic tendency.

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## Introduction

The nature of the bond a baby develops with their mother affects their future life. The nature of the bond developed between a baby and their mother or first caretaker can affect many areas from the psychological problems they will experience to the social relationships they will establish, from marriage life to the relationship they will establish with their own children. If a secure bond is not developed between the mother or first caretaker and the baby, emotional, social and behavioral problems may occur in later life stages. One of the problems caused by insecure attachment is game addiction which is evaluated within the framework of behavioral addictions. Game addiction is a current problem affecting children and adolescents particularly. This can cause serious problems for children and adolescents in areas such as family relations, peer relations and academic status. One of the concepts that both attachment styles and game addiction is related to is the empathic tendency. Empathic tendency forms the basis of healthy social relations. Being sensitive to the feelings, thoughts and needs of others, understanding and reacting to what they feel is important in establishing and maintaining healthy social relationships. While the individuals who are attached securely establish healthy relationships with others, the interpersonal relationships of the individuals attached insecurely may be unhealthier. It is thought that individuals who develop behavioral dependence such as game addiction will have low empathic tendencies because these individuals, after the emergence of addictive behavior, do everything to win the game, to survive in the game. Therefore, they become insensitive to the needs of others both in the virtual world and in the real world and can only focus on themselves. The relationship between the concepts, and especially game addiction as an increasing problem make the research important.

The attachment theory, which entered the literature as a joint study by Bowlby and Ainsworth, however, the groundwork of which belonged to Bowlby, gave way to the rethinking of the bond between a baby and their mother as centered around separation, deprivation and death concepts (Bretherton, 1992). According to a theory that emerged as an alternative to the psychoanalytical theory of object relations, attachment is a bio-social behavioral system in a baby that evolutionarily allows them to maintain their intimacy with their mother. The system aims to protect the baby who is helpless and desperate by natural selection such as searching for food for feeding and developing sexual behaviors for procreation (Kirkpatrick & Shaver, 1990). According to the attachment theory, babies internalize the experiences they have with their caretakers. This internalization constitutes a prototype that will shape the relationship of individuals with others except the family members (Bartholomew & Horowitz, 1991). Accordingly, the relationship of an individual with others largely develops around this prototype. In other words, whether the attachment developed with a caretaker is healthy or unhealthy will affect whether the relationships with others are maintained in a healthy or unhealthy manner.

Experimental studies by Ainsworth, Blehar, Waters and Wall (2014) on babies identified three types of attachment styles. These are secure attachment, anxious-ambivalent attachment and avoidant attachment. The attachment style that has its origin in the infancy appears to affect the adult attachment styles, too (Deniz, 2006).

Hence, Bartholomew and Horowitz (1991) approached the attachment theory in a little more different way and adapted it to the adults. The model presents four types of attachment styles based on the positive and negative evaluations of the self and others. Considering that the self is affected by data received from the external world through senses (Hume, 2009 as cited by Ugurlu, 2014), the effect of the caretaker first appears in the perception of both the self and others. Accordingly, both the self and others are perceived positively insecure attachment, the self is perceived negatively and others are perceived positively in preoccupied attachment, the self is perceived negatively and others are perceived positively in dismissing attachment, and lastly, both the self and others are perceived negatively in the fearful attachment.

An individual develops different behavioral patterns depending on their attachment style. Individuals that are attached securely display healthier reactions, while individuals that are attached insecurely may display more problematic behaviors. A review of the literature for studies on the attachment styles shows that the secure attachment has a positive relationship with resorting to religion, active planning, concession-cognitive restructuring and seeking external help (Terzi & Cankaya, 2009) and compassion (Isgor, 2017), and a negative relationship with Internet addiction (Savci & Aysan, 2016), social media addiction (Monacis, Palo, Griffiths & Sinatra 2017) and loneliness (Deniz, Hamarta & Ari, 2005); that the avoidant attachment has a positive relationship with childhood abuse (Wekerle & Wolfe, 1998), social media addiction (Blackwell, Leaman, Tramposch, Osborne & Liss, 2017) and physical, emotional, verbal and sexual abuse (Oshri, Sutton, Clay-Warner & Miller, 2015); that anxious-ambivalent attachment has a positive relationship with childhood abuse (Wekerle & Wolfe, 1998), social media addiction (Blackwell et al., 2017), physical, emotional, verbal and sexual abuse (Oshri et al., 2015) and Internet addiction (Senormanci, 2013). Today, one of the serious risk factors for young adults is the digital gaming addiction. In view of the research results, digital gaming addiction is considered to be linked with attachment styles.

The virtual world's anonymous structure does not restrict the individual and is open to everyone, as well as its interactive features distinguish the online games from the traditional games and make them popular entertainment and leisure tools (Liu & Chang, 2016). Digital games have some elements that make it attractive to the individual. Establishing more easy-going and intimate relations in the online world through games, the fact that individuals with good gaming skills gain reputation in their circles and the fact that these skills help them realize themselves (Li &Wang, 2013) are some of these features. These features that are attractive to the individuals may cause them to focus more on the games and develop a gaming addiction behavior.

There are discussions among the subject-matter experts about gaming addiction. These discussions are based on addictions that involve a substance intake by the body versus behavioral addictions that do not involve a substance intake by the body (Spekman, Konijn, Roelofsma & Griffiths, 2013). However, the inclusion of the gaming addiction by the American Psychiatric Association (APA, 2013) in DSM 5 (Diagnostic and Statistical Manual of Mental Disorders), followed by the World Health Organization (WHO) that approaches the gaming addiction as a mental problem in

the Classification of Mental and Behavioral Disorders (ICD), seems to have changed the direction of these discussions. Both sources define gaming addiction with clear criteria. The gaming addiction criteria are handled in nine categories in DSM 5 (2013). These are the mind being constantly preoccupied with games within a 12-month period, spending more and more time gaming (tolerance), feeling tense, getting angry and uneasy when stopping playing (withdrawal symptoms), lying about the time spent gaming, having problems with others for over-gaming, losing either job, love or similar relationships, gaming to escape from negative feelings, continuing to play despite the desire of stopping playing, losing interest in former activities of interest (hobbies, traveling etc.). The World Health Organization (WHO, 2018) similarly defined three basic criteria as losing control over the game for at least 12 months (the starting, frequency, intensity, length of gaming, the context in which the game is played), gaming taking priority over other daily chores, interests, and continuing gaming despite its negative consequences for family, professional, social personal, educational and other important areas. Both definitions appear to define the criteria clearly. The fact that the criteria have been defined appears to have now diverted the studies toward the areas to which the gaming addiction is related, which it affects and by which it is affected. Although gaming addiction is a serious risk, there appears to be a limited number of studies on it. However, the literature suggests that gaming addiction is linked with various concepts. The studies have found that digital gaming addiction has a positive relationship with shyness (Ayas, 2012), the time spent playing computer games (Gokcearslan & Durakoglu, 2014), persistent anxiety (Mehroof & Griffiths, 2010), social anxiety (Yildiz, Tufekci & Aksu, 2016), attention deficit hyperactivity disorder, depression, anxiety and obsessive-compulsive disorder (Andreassen et al., 2016) and attention deficit hyperactivity disorder and depressed mood (Hyun et al., 2015), and has a negative relationship with emotion regulation skills (Ulum, 2016) and emotion regulation and attachment to school (Liu et al., 2017).

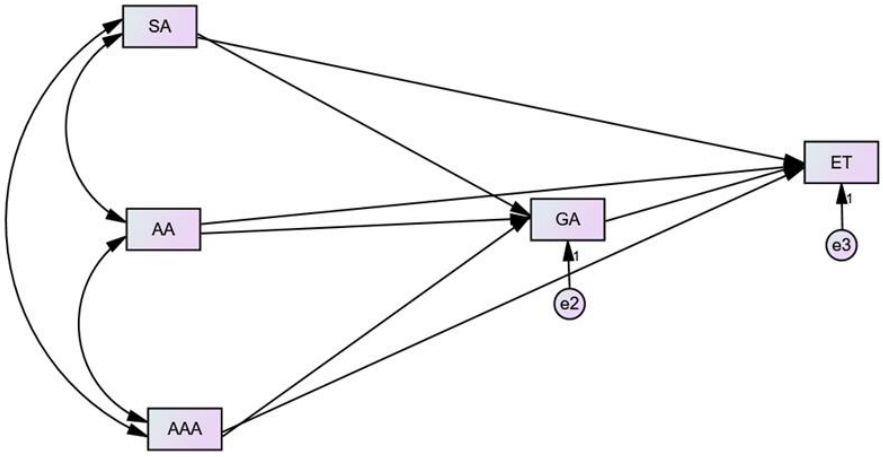
Another concept that is considered a personal trait and affected by gaming addiction is empathy. Being the capacity to place oneself in another's position, empathy represents the transition potential in emotional communication (Basch, 1983). In other words, with empathy, one can create changes also in his/her mood and feel different emotions than what he/she used to feel. Empathy is also possible by evaluating an event or circumstance from a different perspective. Empathy appears as a trait of individuals that have a positive personality also sensitive to the needs of others because their needs have been met (Yuksel, 2009). Empathy is related to children's understanding of others' problems and distress through symptoms and the maturation of their social, perceptive and cognitive abilities (Unal, 2007). The fact that individuals who are in touch with each other understand each other facilitates communication as well as minimizing the problems experienced (Rehber & Atici, 2009). A decreased empathetic tendency brings with itself the disruption of the psycho-social harmony (Kaya & Siyez, 2010). Psycho-social needs are those that emerge starting from the birth of an individual, enable individuals to live in harmony with their surroundings (Sahin & Ozcelik, 2016), and must be met for healthy development.

There is no firm information as to when empathy develops in children exactly. However, it is assumed based on the infant's reactions that a baby is born with an empathetic tendency (Ersoy & Kosger, 2016). On the other hand, Piaget (1965) reports that a child is self-centered during the time until the school period. This thought can be interpreted as that empathy cannot develop in children until the school period. Considering that empathetic tendency mostly begins to shape during the school period and the most mature response can be given in late adolescence (Stuss, Gallup & Alexander, 2001 as cited by Ersoy & Kosger, 2016), puberty and adolescence can be suggested to be critically important for the development of empathy. Risky behaviors displayed during this period may affect the development of empathy adversely. Digital gaming addiction appears as a seriously risky behavior in children and adolescents.

A review of the literature shows that there are studies suggesting that playing violent games is linked with decreased empathy (Bartholow, Sestir & Davis, 2005; Funk, Buchman, Jenks & Bechtoldt, 2003). Although these studies do not provide any information in respect of cause-effect, they can be suggested to provide information about the correlation of the concepts with each other and that this correlation is important. The literature also contains studies suggesting that empathetic tendency has a negative relationship with level of aggression (Cankaya & Ergin, 2015; Rehber & Atici, 2009) and bullying behavior (Kandemir & Ozbay 2009); has a positive relationship with the sub-dimensions of the family assessment scale including showing interest, communication, ability to give emotional reaction and behavior control (Yuksel, 2009).

When the literature is examined, no study examining the relationship between attachment styles and game addiction has been found. However, it is seen that attachment styles are related to internet addiction (Savci & Aysan, 2016; Senormanci, 2013) and social media addiction (Blackwell et al., 2017; Monacis et al., 2017), which are other types of technological addiction. Empathy appears to be related to violent games (Funk et al., 2003), digital game addiction (Kilic, 2019) and attachment styles (Kaplan & Aksel, 2013). In other words, when the studies in the literature are examined, it can be said that all three concepts are related to each other.

Gaming addiction among adolescents appears to be seriously risky behavior, and attachment styles appear to impact individuals displaying risky or risk-free behaviors. Empathy appears to be an important characteristic for an individual to adapt themselves to the social life. A less developed or damaged empathy may disrupt an individual's interpersonal relationships. The fact that game addicts have low empathy provides an insight into the impact of the games on this characteristic. Therefore, it is important that the relationship between these concepts be examined. To that end, a model is recommended and presented below, to explain the pattern of relationship between gaming addiction, attachment styles and empathy among adolescents.




SA: Secure attachment, AA: Avoidant attachment, AAA: anxious-ambivalent attachment, GA: Gaming addiction, ET: Empathetic tendency

Figure 1. *Recommended Path Analysis Diagram.*

According to Figure 1, there is a two-way relationship between secure attachment and avoidant attachment and anxious-ambivalent attachment. There is a direct one-way relationship between secure attachment, avoidant attachment, and anxious-ambivalent attachment, and gaming addiction, while there is a direct one-way relationship between secure attachment, avoidant attachment and anxious-ambivalent attachment, and empathetic tendency, and there is a direct one-way relationship between gaming addiction and empathetic tendency.

## Method

### *Research Design*

The correlational survey method was used in the present research which explores the pattern of relationship between attachment styles, gaming addiction, and empathetic tendency. In order to explain the pattern of relationship between the researched variables, a theoretical model based on literature was recommended, which was tested by the Structural Equality Modeling (SEM). With the structural equation model, it is tested whether the theoretical models explaining the relationship between the variables are congruent (Hu & Bentler, 1998). This model, with its features such as the ability to perform several analyses at one time, succeed in analyzing complex models, recommend corrections on the pattern of relationships in the model and take the errors resulting from the measurement into consideration, is used as a functional model for testing the theories and developing new models (Dursun & Kocagoz, 2010).

*Research Sample*

The study group consisted of 338 adolescents studying in a middle school and a high school in Umraniye , Istanbul during the 2018-2019 academic year. 117 of the students (52.5%) were female while 160 thereof (47.5%) were male. One of them left the gender box empty. The student ages ranged between 10 and 17, and their age mean was 13. It was determined that the sample size is sufficient for Chi-square tests (Barret, 2007) and Structural Equation Modeling (SEM) (Kline, 2011).

*Research Instruments and Procedures*

*Personal Information Form*: With the personal information form prepared by the researcher, information was gathered about the age, gender and grade of the participants.

*Gaming Addiction Scale*: The gaming addiction scale was developed by Lemmens, Valkenburg and Peter (2009) and adapted to the Turkish culture by Ilgaz (2015). The adapted scale consists of 21 items and 7 factors. 5-point Likert type scale was used for the scoring. The points are "Never", "Rarely", "Sometimes", "Often", and "Very Often." The structural validity of the scale was investigated using first-level and second-level factor analysis. The first-level factor analysis' fit index results ($x^2$ (165, N=265)=2.71.01, P< 0.000, RMSEA=0.049, S-RMR=0.046, GFI=0.91, AGFI=0.88, CFI=0.99, NNFI=0.98, IFI=0.99) and the second-level factor analysis results ($x^2$ (179, N=265)=331.68, P< 0.000, RMSEA=0.057, S-RMR=0.051, GFI=0.89, AGFI=0.86, CFI=0.98, NNFI=0.98, IFI=0.98) showed that the scale delivered good results. The scale's Cronbach's alpha was found to be 0.92. The reliability coefficient of the scale hereunder was found to be $\alpha$= .88.

*Empathetic Tendency Scale for Adolescents*: The scale was developed by Kaya and Siyez (2010). The scale consists of 17 items and two sub-dimensions. The scale which has emotional empathy and cognitive empathy sub-dimensions is a 5-point Likert type measurement tool. A high total score from the scale shows that the empathetic tendency increases. The scale's KMO value of .91and Barlett Sphericity Test ($X^2$=2843.160, df=136, p<.000) were found to be significant. The scale items explain 43.588% of the total variance for the scale. 33.23% of the explained variance is emotional empathy and 10.35% thereof is cognitive empathy. Cronbach's Alpha internal consistency coefficient is .87 for the entire scale, .82 for the emotional empathy sub-dimension and .82 for the cognitive empathy sub-dimension. Fit indices derived from the confirmatory factor analysis ($X^2$= 270.89, sd 125, $X^2$/sd =2.16, GFI .96, AGFI .95, CFI .96, RMSEA .02, SRMR .03) show that the scale is a good fit. The scale's internal consistency coefficient was re-checked in this study and found to be .84.

*Attachment Styles Scale*: The scale was developed by Erzen (2016). The scale consists of 18 items and three sub-dimensions. The sub-dimensions are secure attachment, anxious-ambivalent attachment and avoidant attachment. The scale's Kaiser Meyer Olkin (KMO) value was found to be .84 and Barlett test result was found to be (p<.01). The scale items explain 45.73 % of the total variance for the scale. The fit indices derived from the scale's confirmatory factor analysis (GFI .93, AGFI .90, CFI .90,

RMSEA .05 and $\chi 2/sd=2.48$) show that the scale is a good fit. The scale items' total correlation values range between .49 and .75. The Cronbach's Alpha internal consistency coefficients for the three dimensions vary between .69 and .80. The scale's internal consistency coefficient was re-checked in this study and found to be 0.60.

*Data Analysis*

The research data was collected from the students face to face. The research was explained to the students who were also informed that the data collected would be protected for confidentiality and used only for scientific purposes. It was also stated that participation was voluntary. It was added that they could quit the study anytime they wanted. Istanbul Sabahattin Zaim University Ethics Board's approval was obtained for the research (ethics board resolution 2019/02 of 19/02/2019). 345 data sheets were obtained from the students. Seven of the data sheets were incomplete; hence, they were not included in the analysis. Data analysis was performed on 338 datasheets. Data was analyzed using Pearson Correlation and Structural Equation Modeling methods. For the Pearson correlation, data must be distributed normally. The structural equation modeling has certain assumptions. These are linearity, multivariate normality, single and multi-collinearity (Ulman, 2015). Univariate normality was tested with kurtosis and skewness values. The skewness and kurtosis values of the variables ranged between -1 and +1, and therefore, the variables had a normal distribution. The assumption of multivariate normality was calculated on AMOS program, and the variables were found to have a normal distribution. Multi collinearity problem VIF was tested with Situation index (DI) and Tolerance values, and Variance Increase Factors (VIF) appeared to be less than 10 (1.134- 1.549), and the Tolerance values appeared to range between (.646 and .882), a lot higher than .10. The Situation index was seen to be less than 30 (25.818). These values showed that there was no multicollinearity problem (Cokluk, Sekercioglu & Buyukozturk, 2012). The lack of a high correlation between the variables showed that there was no single linearity problem. When the data obtained wastaken as a whole, they were consistent with the Structural Equation Model. Data were analyzed using SPPS 25 and AMOS 25 programs.

## Results

The correlation between the variables was checked before the data analysis. Later, data for the recommended model and the results regarding the valid model were provided.

**Table 1.**

*The Correlation between The Variables*

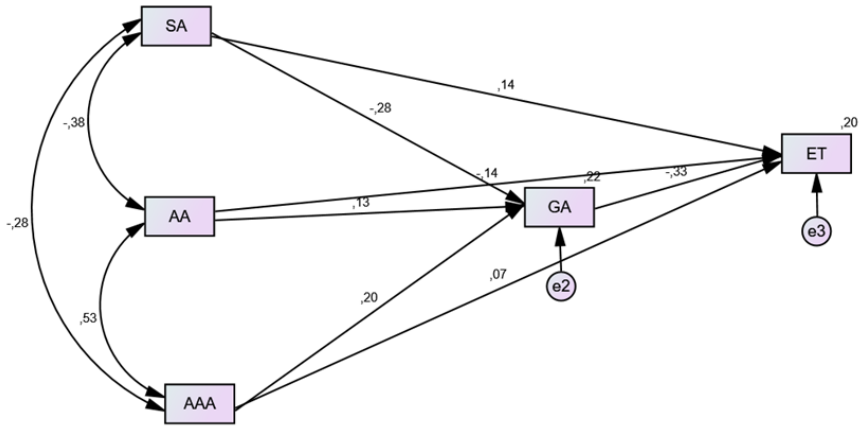
| | Mean/Sd | S/K | GA | SA | AA | AAA | ET |
|---|---|---|---|---|---|---|---|
| GA | 43.35/13.97 | .419/-.589 | 1 | -.389** | .345** | .347** | -.404** |
| SA | 20.35/3.37 | -.702/-.031 | | 1 | -.380** | -.276** | .300** |
| AA | 13.36/4.70 | .572/-.584 | | | 1 | .527** | -.270** |
| AAA | 14.30/4.95 | .364/-.360 | | | | 1 | -.153** |
| ET | 51.40/8.52 | -.110/-.793 | | | | | 1 |

GA: Gaming addiction, SA: Secure attachment, AA: Avoidant attachment, AAA: anxious-ambivalent attachment, ET: Empathetic tendency, Mean: Mean, Sd: Standard deviation, S: Skewness, K: Kurtosis

When Table 1 is reviewed, gaming addiction had a medium negative relationship with secure attachment and empathetic tendency, and a positive relationship with avoidant attachment and anxious-ambivalent attachment. The skewness and kurtosis values were between +1 and -1, and the data had a normal distribution (Buyukozturk, 2014).

*Findings on the Recommended Model*

Figure 2 presents the correlation (double-headed arrows) and the regression values (single-headed arrows) for the recommended model.



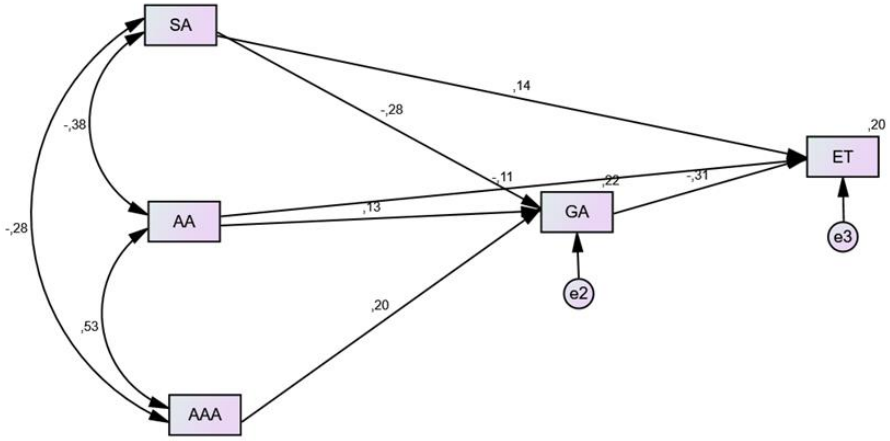

SA: Secure attachment, AA: Avoidant attachment, AAA: anxious-ambivalent attachment, GA: Gaming addiction, ET: Empathetic tendency

Figure 2. *Recommended Model Path Analysis Diagram.*

For the recommended model to be considered valid, the chi-square value, fit indices, regression coefficients, correlation coefficients and variance values must be

significant, and the insignificant parameters must be excluded from the model (Simsek, 2007). When the values of the recommended model were examined, all of the drawn paths of the regression coefficients were seen to be significant; however, the path between the anxious-ambivalent attachment and empathetic tendency was seen to be insignificant ($R^2$= .074, p>.05). This value was considered to indicate that the model was not valid. In light of the literature, this parameter was excluded from the model and the model was re-tested. The model analyzed this way was found to be a valid model. The values for the valid model are provided below.

*Findings on the Valid Model*




SA: Secure attachment, AA: Avoidant attachment, AAA: anxious-ambivalent attachment, GA: Gaming addiction, ET: Empathetic tendency

Figure 3. *Valid Model Path Analysis Diagram*

Figure 3 presents the correlation (double-headed arrows) and the regression values (single-headed arrows) for the valid model. When the fit indices were analyzed for the valid model, the data obtained appeared to confirm the model and the model was seen to the best fit. The chi-square value of the valid model was calculated to be $\chi^2$=1.589; *df=1, p=.207, χ²/sd*=1.589. When the fit indices were analyzed (RMSEA=.042; GFI=.998; AGFI=.972; CFI=.998; NFI: .995; RFI: .951; IFI:998; TLI:981; SRMR=.0132), the model appeared to be valid (Cokluk et al., 2012).

When the path analysis diagram was examined, there was a medium negative relationship between secure attachment and avoidant attachment (r=-.38, p<.05), a low negative relationship between secure attachment and anxious-ambivalent attachment (r=-.28, p<.05), and a medium positive relationship between avoidant attachment and anxious-ambivalent attachment (r=.58, p<.05).

When the model's regression coefficients were examined, secure attachment predicted gaming addiction ($R^2$= -.28; p<.000) and empathetic tendency ($R^2$= .14; p<.05) significantly. Avoidant attachment predicted gaming addiction ($R^2$= -.13; p<.05) and empathetic tendency ($R^2$= .11; p<.05) significantly. Anxious-ambivalent attachment

predicted gaming addiction ($R^2$= .20; p<.000) significantly. In other words, each of the three attachment styles predicted gaming addiction significantly, however, only secure attachment and avoidant attachment predicted empathetic tendency. Also, gaming addiction ($R^2$= -.13; p<.05) predicted empathetic tendency ($R^2$= .31; p<.000) significantly.

Lastly, the variance values for the model were examined. Secure attachment, avoidant attachment and anxious-ambivalent attachment explained 22% of the change in gaming addiction significantly, and secure attachment, avoidant attachment and gaming addiction explained 20% of the change in empathetic tendency.

## Discussion, Conclusion, and Recommendations

Considering game addiction as a mental health problem, interest in game addiction and related concepts have increased. The purpose of this research was to investigate the pattern of relationships between attachment styles, and gaming addiction and empathy among adolescents. For this purpose, a model was proposed based on theoretical structure, and the proposed model was tested with Structural Equation Modeling. The path analysis proved the existence of the explanatory relationships between the variables. According to the model, secure attachment and avoidant attachment and anxious-ambivalent attachment directly impacted the gaming addiction. Secure attachment and avoidant attachment directly impacted the empathetic tendency. Also, gaming addiction appeared to impact the empathetic tendency directly.

The research showed that secure attachment predicted gaming addiction negatively and significantly. The studies in the literature investigating the relationship between secure attachment and Internet addiction (Savci & Aysan, 2016), Facebook addiction (Eroglu, 2015) and social media addiction (Monacis et al., 2017) have also obtained similar results. The fact that gaming addiction is defined as a mental health problem (WHO, 2018) and that secure attachment has a negative relationship with psycho-social problems such as anxiety/depression, social ideational and attention-related problems and aggression (Nakash-Eisikovits, Dutra & Westen, 2002) support the result. According to cognitive therapy, maladaptive cognitions also impact the development of pathological Internet addiction (Davis, 2001). Individuals who are attached securely, on the other hand, are those who have a positive cognition about both themselves and others (Bartholomew & Horowitz, 1991). The findings including the present study and the other studies in the literature, when taken as a whole, suggest that people who are attached securely are psychologically healthier, have a more adaptive and positive cognition, and therefore, are less likely to be addicted to gaming compared to the other attachment styles.

The research showed that avoidant attachment predicted gaming addiction significantly in a positive way. There are studies in the literature with similar results. Blackwell et al. (2017), in their study, showed that there was a positive relationship between social media addiction and avoidant attachment style. Ghasempour and Mahmoodi-Aghdam (2015) identified that there was a positive relationship between cell phone addiction and avoidant attachment. Avoidant attachment is among the

insecure attachment styles. Individuals who have an insecure attachment style tend to develop emotional, behavioral problems and have substance abuse (Caspers, Cadoret, Langbehn, Yucuis & Troutman, 2005). This tendency may also impact digital gaming addiction, which is another behavioral addiction. According to the results of the present research as well as the studies in the literature, individuals who have an avoidant attachment style can be suggested to be more addicted to digital gaming.

The research showed that anxious-ambivalent attachment predicted gaming addiction significantly in a positive way. No study has been found in the literature that investigated the relationship between anxious-ambivalent attachment and gaming addiction. However, this result appears to be congruent with the studies investigating the relationship between anxious-ambivalent attachment and social media addiction (Blackwell et al., 2017), cell phone addiction (Ghasempour & Mahmoodi-Aghdam, 2015) and Internet addiction (Senormanci, 2013). Anxious addiction appears to have a positive relationship with depressed mood (Nakash-Eisikovits et al., 2002). A review of the studies in the literature shows that anxious addiction style is linked with behavioral and emotional problems. When the result of the present research and findings in the literature are examined together, individuals who are attached anxiously and indecisively are highly likely to be addicted to digital gaming.

The research showed that secure attachment predicted empathetic tendency significantly in a positive way, while avoidant attachment predicted it significantly in a negative way. No study has been found in the literature investigating the relationship between secure attachment and empathetic tendency. An individual whose care, nutritional and emotional needs are met and is attached to their parent or first caretaker securely in their infancy appears to be sensitive to the needs of others and able to focus on their emotions (Sali, 2013). However, individuals who are not attached securely appear to be more inclined to experience emotional and behavioral problems (Caspers et al., 2005). Based on the foregoing, it can be suggested that individuals who are attached securely will be more sensitive in their relationships with others, and therefore experience fewer interpersonal problems. However, emotional and behavioral problems experienced by individuals who are attached insecurely can be suggested to reflect to their interpersonal relationships, which will impact their empathetic tendency negatively.

Another result of the research was that gaming addiction predicted empathetic tendencies negatively. The research finding is consistent with the studies in the literature suggesting that playing violent games is linked with low empathetic tendency (Bartholow et al., 2005; Funk et al., 2003). Although it is assumed that babies are born with empathetic tendencies (Ersoy & Kosger, 2016), children are known to have a self-centered way of thinking during the preschool period. The empathy that begins to develop during the school period is believed to mature fully during late adolescence (Stuss et al., 2001 as cited by Ersoy & Kosger, 2016). When the gaming addiction variable is examined, the concept is seen to be linked with many psycho-social problems (Ayas, 2012; Andreassen et al., 2016; Mehroof & Griffiths, 2010; Yildiz et al., 2016). Considering the development course of empathy, any social, emotional and behavioral problem experienced during that period can be suggested to impact

empathy negatively. The research finding can be interpreted as that gaming addiction in adolescents will impact empathetic tendencies negatively since its developmental period.

In conclusion, the model recommended for the relationship between attachment styles, gaming addiction, and empathetic tendencies appear to be confirmed. Gaming addiction, particularly, poses as a serious risk for children and adolescents and therefore psycho-programs for coping with gaming addiction and individual studies conducted with gaming addicts can be planned in view of the impact of the attachment styles. Healthy relationships adolescents establish with their peers are important for their emotional and social development. The empathetic tendency has a key role in maintaining interpersonal relationships in a healthy way. Therefore, elements that impact empathetic tendency negatively must first be identified to protect or develop this characteristic. In this respect, studies focusing on gaming addiction as a risk factor can increase the chances of success. Relevant politicians (Ministry of National Education) can inform families about attachment styles and the effects of secure and insecure attachment on the individual. Psycho-education programs for families can be made on this subject. Similarly, awareness studies can be conducted in schools and families about game addiction, which is considered a serious risk factor in children and adolescents. Training can be organized for both students and families about the healthy use of technology. In addition, developing the empathetic tendency in children and adolescents could be effective in reducing the peer victimization encountered as a serious risk factor in schools.

Findings obtained from this study were limited to the sample subject of the study. The concepts can be tested by different researchers and the results of the study can be tested. The relationship between the variables can be tested on different samples (young adults, adults).

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## Ergenlerde Bağlanma Stilleri, Oyun Bağımlılığı ve Empatik Eğilim Arasındaki İlişkiler Örüntüsü

### Atıf:

Tas, I. (22019). The pattern of relationship between attachment styles, gaming addiction and empathetic tendency among adolescents. *Eurasian Journal of Educational Research, 83, 125-*, DOI: 10.14689/ejer.2019.83.6

## Özet

***Problem Durumu*:** Bebeğin annesi ile kurduğu bağın niteliği onun gelecekteki yaşantısını etkilemektedir. Bebek ile anne veya bebek ile ilk bakıcısı arasında kurulan bağın niteliği aile fertleri dışındaki kişilerle kurulan ilişkiler için bir prototip oluşturacaktır (Bartholomew & Horowitz, 1991). Bu bağ kişinin yaşayacağı psikolojik sorunlardan kuracağı sosyal ilişkilere kadar, evlilik yaşantısından kendi çocuğu ile kuracağı ilişkiye kadar birçok alanda etkili olabilmektedir. Anne veya ilk bakıcı ile bebek arasında güvenli bir bağ geliştirilmezse yaşamın sonraki evrelerinde duygusal, sosyal ve davranışsal sorunlar meydana gelebilir (Deniz, Hamarta & Ari, 2005; Oshri, Sutton, Clay-Warner & Miller, 2015). Güvensiz bağlanmanın yol açacağı sorunlardan biri de davranışsal bağımlılıklar çerçevesinde değerlendirilen oyun bağımlılığıdır. Oyun bağımlılığı yeni yeni ortaya çıkan ve özellikle çocuk ve ergenleri etkileyen güncel bir sorun olarak karşımıza çıkmaktadır (Demirtas Madran & Ferligül Cakilci, 2014). Bu sorun aile ilişkileri, akran ilişkileri, akademik durum (Erboy & Vural, 2010; Yildiz, Tufekci & Aksu, 2016, 2016) gibi alanlarda çocuk ve ergenin ciddi problemler yaşamasına neden olabilmektedir. Hem bağlanma stillerinin hem de oyun bağımlılığının ilişkili olduğu kavramlardan biri de empatik eğilimdir. Empatik eğilim sağlıklı sosyal ilişkilerin temelini oluşturmaktadır (Kaya & Siyez, 2010). Diğerlerinin duygu düşünce ve ihtiyaçlarına duyarlı olmak, onların ne hissettiklerini anlayıp ona göre tepkide bulunmak anlamına empati (Basch, 1983) sağlıklı sosyal ilişkilerin kurulmasında ve sürdürülmesinde önemlidir. Güvenli bağlanan bireyler diğerleri ile daha sağlıklı ilişkiler kurarken, güvensiz bağlanan bireylerin kişilerarası ilişkileri daha sağlıksız olabilmektedir. Oyun bağımlılığı gibi davranışsal bağımlılık geliştiren bireylerin empatik eğilimlerinin düşük olacağı düşünülmektedir. Çünkü bu bireyler, bağımlılık davranışı ortaya çıktıktan sonra, oyunu kazanmak, oyunda varlığını devam ettirmek için her şeyi yapmaktadırlar. Bu doğrultuda gerek sanal dünyada gerekse gerçek dünyada diğerlerinin ihtiyaçlarına duyarsız olmakta, sadece kendi odaklı olabilmektedirler. Kavramların birbirleri ile olan ilişkisi ve özellikle oyun bağımlılığının giderek artan bir sorun olması araştırmayı önemli kılmaktadır.

***Araştırmanın Amacı*:** Bu araştırmanın amacı ergenlerde bağlanma stilleri ile oyun bağımlılığı ve empatik eğilim arasındaki ilişkiler örüntüsünü Yapısal Eşitlik Modellemesi (YEM) ile ortaya koymaktır.

***Araştırmanın Yöntemi*:** Bağlanma stilleri ile oyun bağımlılığı ve empatik eğilim arasındaki ilişkiler örüntüsünün incelendiği bu araştırmada ilişkisel tarama modeli kullanılmıştır. Araştırılan değişkenler arasındaki ilişki örüntüsünü açıklamak amacıyla alan yazına dayalı olarak kuramsal bir model önerilmiş ve önerilen model Yapısal Eşitlik Modellemesi ile test edilmiştir. Araştırma grubunu, 2018-2019 eğitim-öğretim yılında İstanbul Ümraniye de bir ortaokul ve bir lisede öğrenim gören 338 ergen oluşturmaktadır. Öğrencilerin 177'si (%52.5) kadın, 160'ı (%47.5) erkektir. Öğrencilerin yaşları 10 ile 17 arasında değişmekte olup yaş ortalamaları 13'tür.

***Araştırmanın Bulguları*:** Yapılan analize göre bağlanma stilleri ile oyun bağımlılığı ve empati arasında ilişki tespit edilmiştir. Güvenli bağlanmanın negatif, kaçınan ve kaygılı-kararsız bağlanma stillerinin ise pozitif yönde anlamlı şekilde oyun

bağımlılığını yordadığı görülmektedir. Empatik eğilimi güvenli bağlanmanın pozitif kaçınan bağlanmanın ise negatif yönde anlamlı şekilde yordadığı tespit edilmiştir. Ayrıca oyun bağımlılığının empatik eğilimi negatif yönde anlamlı şekilde yordadığı görülmektedir.

***Araştırmanın Sonuç ve Önerileri*:** Yapılan yapısal eşitlik modellemesinde değişkenler arasındaki açıklayıcı ilişkilerin varlığı kanıtlanmıştır. Modele göre güvenli bağlanma ile kaçınan bağlanma ve kaygılı kararsız bağlanma oyun bağımlılığını doğrudan etkilemektedir. Güvenli bağlanma ile kaçınan bağlanma empatik eğilimi doğrudan etkilemektedir. Ayrıca oyun bağımlılığının empatik eğilimi doğrudan etkilediği görülmektedir.

Oyun bağımlılığı özellikle çocuk ve ergenler için ciddi bir risk oluşturduğundan oyun bağımlılığıyla baş etme psiko-programları ve oyun bağımlılarıyla yapılan bireysel çalışmalar bağlanma stillerinin etkisi göz önüne alınarak planlanabilir. İlgili politikacılar tarafından aileler bağlanma stilleri, güvenli ve güvensiz bağlanmanın birey üzerindeki etkileri hakkında bilgilendirilebilir. Bu konuda ailelere yönelik psiko-eğitim programları yapılabilir. Benzer şekilde çocuk ve ergenlerde ciddi bir risk faktörü olarak değerlendirilen oyun bağımlılığı hakkında okullarda ve ailelere yönelik farkındalık çalışmaları yapılabilir. Teknolojinin sağlıklı kullanımı hakkında hem öğrencilere hem de ailelere yönelik eğitimler düzenlenebilir. Ayrıca çocuk ve ergenlerde empatik eğilimin geliştirilmesi okullarda ciddi bir risk faktörü olarak öne çıkan akran zorbalığının azaltılmasında da etkili olabilir.

**Anahtar Sözcükler:** Bağlanma stilleri, Oyun bağımlılığı, Empati, Ergenlik