



THE RELATIONSHIP BETWEEN ADOLESCENTS' PARENTAL ACCEPTANCE-REJECTION PERCEPTIONS AND INTERNET ADDICTIONⁱ

Esra Tilkiⁱⁱⁱ,

Hatice Epli²

¹Teacher,

Turkish Ministry of National Education,

Samsun, Turkey

orcid.org/0000-0002-0156-3847

²PhD, Ondokuz Mayıs University,

Faculty of Education,

Department of Educational Science,

Samsun, Turkey,

orcid.org/0000-0001-9122-1922

Abstract:

This study was conducted to investigate the relationship between adolescents' parental acceptance-rejection perceptions and internet addiction. For this purpose, the relationship between adolescents' parental acceptance-rejection perceptions and internet addiction and whether this relationship changed in terms of gender was examined. A total of 500 students, 243 females, 257 males, who studied in different school types located in Atakum district of Samsun province for the 2018-2019 academic year in Samsun province participated in the study. In the study, Parental Acceptance-Rejection Scale Short Form (PARQ), "Internet Addiction Scale" and Personal Information Form were used. The data obtained from the research were analyzed using the SPSS 22 statistical package program. Firstly, Pearson Correlation Analysis was used to examine whether there was a significant relationship between individuals' perceptions of mother and father acceptance-rejection and their Internet addiction levels. According to the analysis results, a moderate negative correlation between "warmth/affection", which is one of the subdimensions of the mother acceptance-rejection scale, and Internet addiction; a positive and low level of significant correlation between "hostility/aggression" and "indifference/neglect" and Internet addiction was found. No significant correlation was found between "undifferentiated rejection", one of the subdimensions of the mother acceptance-rejection scale, and internet addiction. Of the father acceptance-rejection scale sub-dimensions, a negative low significant correlation was found between

ⁱ This study is the summary of the master's thesis of the first author at Ondokuz Mayıs University, Graduate Education Institute, Turkey.

ⁱⁱ Correspondence: email tasciesra05@gmail.com, hatice.epli@omu.edu.tr

"warmth/affection" and Internet addiction; a positive low significant correlation was found between "hostility/aggression" and "indifference/neglect" and Internet addiction. Finally, a moderately significant positive correlation was found between "undifferentiated rejection" and internet addiction. In the study, in order to find out whether adolescents' perceptions of maternal and paternal acceptance-rejection are a significant predictor of their Internet addiction levels, Multiple Linear Regression analysis was used. According to the analysis results, it can be seen that undifferentiated rejection, one of the maternal acceptance-rejection variables, was not a significant predictor of Internet addiction level; while the variables of warmth/affection, hostility/aggression and indifference neglect are significant predictors of Internet addiction level. It can be seen that all of the paternal acceptance-rejection variables, namely warmth/affection, hostility/aggression, indifference/neglect and undifferentiated rejection, are significant predictors of adolescents' Internet addiction level. According to the findings of the study, maternal warmth/affection, maternal hostility/aggression, maternal undifferentiated rejection, paternal hostility/aggression, paternal indifference/neglect, paternal undifferentiated rejection and Internet addiction scores do not differ significantly according to gender. On the other hand, maternal indifference/neglect scores and father warmth/affection scores differ significantly according to gender. The findings obtained were discussed in the context of the literature; suggestions were made to guide the researchers in the field and future researchers.

Keywords: parental acceptance, rejection perception, internet addictions, adolescences

1. Introduction

It is undeniable that the use of the internet, which is an international information-sharing network, is becoming more and more widespread every day and is an indispensable part of life. The internet, which has begun to be seen as an element that facilitates and enriches individuals' lives in every field, has begun to have a much broader meaning than a short-term pursuit in human life. It can be said that in addition to the positive contributions of the internet to life, it also brings along risks that can threaten security and mental health. Internet is "*the international information communication network that emerges as a result of the interconnection of computer networks without any limitations*" (TDK, 2006). Following its first use in the defense industry in the United States of America in the 1960s (Bölükbaşı, 2003), it began to spread with a great speed. Studies on internet use show that the duration of internet use has increased gradually in the last ten years and the negative effects of the internet have emerged with this increase (Christakis, 2010). Adolescents who use the internet to satisfy the need for communication can advance their relationships more quickly over the internet. This makes the internet more attractive and increases the level of addiction (Cansever, 2013).

When the literature is reviewed, it can be seen that the first study on internet addiction was conducted by considering the diagnostic criteria of mental diseases (Young

and Abreu, 2010). In a study conducted on 600 participants by considering the diagnostic criteria of pathological gambling addiction in DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, Young (1996) tried to show the diagnostic criteria of internet addiction. In order to define internet addiction, first of all, the concept of addiction should be discussed. Three criteria were emphasized in general to define addiction. These criteria are feeling an irresistible desire for the situation that the individual is addicted to, the time spent with that object and lastly the feeling of deprivation that occurs when the situation the individual is addicted to does not occur (Shaffer, Hall, and Bilt, 2000). In its pathological definition, addiction is grouped in two. The first is the addiction to a substance and the other is behavioral addiction. Addiction to a substance includes drugs, alcohol use, while behavioral addictions include pathological situations such as gambling and internet addiction (Sonkur, 2014). Internet addiction is defined in different ways in the literature. According to Young (2009) who first introduced the definition of addiction, it is a problem accompanied with impulsive control disorder which presents an addiction picture such as gambling addiction. According to Davis (2001), internet addiction is explained as a behavioral pathology that results from the individual's faulty cognitions about the internet.

A pastime that increased with the internet has led to research about the time spent with the internet (Batigün and Hasta, 2010; Chou and Hasio, 2000, Morahan- Martin and Schumacher, 2000 and Young, 2009). In addition to duration, another point that attracts attention in studies conducted on internet addiction is the fact that the sample group consists of individuals in adolescence.

A few reasons that may cause individuals to be addicted to internet users in adolescence can be listed as the problems experienced in adolescence, parental attitudes, feeling of loneliness and isolating the self from life. For this reason, it is possible for internet addiction to be more common in adolescence (Bayhan, 2011). Even though adolescence is the age of individualization, the effects of parents on adolescents still continue significantly and the effect of the acceptance or rejection of adolescents remains important on their development. Parental acceptance-rejection theory (PARTheory) developed by Rohner is defined as a socialization theory that examines the effects of perceived acceptance and rejection in the relationship with parents in childhood on individuals' lives in adulthood and childhood. The main aim of this theory is to predict and explain causes, consequences, and other variables correlated with parents' accepting or rejecting their children (Khaleque and Rohner, 2004). Parental acceptance-rejection theory, which states that parental rejection has negative effects on not only children's but also adults' behaviors and psychological adjustment, tries to establish this acceptance-rejection field on a continuous line. In other words, the theory assumes that parental rejection is on the negative end of the continuum, while parental acceptance is on the positive end of the continuum. The love, affection and comfort parents feel and show to their children indicates parental acceptance, while the lack of withdrawal of acceptance, love and affection indicates parental rejection. The theory claims that parents' love or lack of love is indicated in three basic ways. Parents can be cold and uncaring, aggressive or

indifferent and negligent (Rohner and Khaleque, 2002). The care, affection, support or simply positive messages of love that parents show to their children are called the warmth dimension. This warmth may be expressed verbally or physically. With acts such as looks, love, kissing, approval, smile, hugging and caressing, physical warmth expressions that parents accept their children can be shown, while behaviors such as saying nice things about the child or praising good things, singing to the child or telling stories are considered as acceptance expressions of verbal warmth (Rohner, Khaleque and Cournoyer, 2005). In cases when acceptance needs are not met, regardless of factors such as culture, age and gender, rejected children express themselves as aggressive, dependent, insecure and inadequate, and they have a negative world view that other people are unreliable and dangerous (Kanyas, 2008). Rejected individuals see themselves as their parents see them, in other words, as unworthy of love (Rohner, Khalequea and Cournoyer, 2003). In adolescence, they may develop more depressive tendencies and may become more prone to many behavioral problems such as substance addiction (Rohner and Khaleque, 2005). Perceived parental rejection, which causes adolescents to become open to behavioral problems, may lead to adolescents' evaluating themselves and their future negatively, to depression and substance use and may prepare a basis for children to learn socially unacceptable behaviors such as externalization problems (Akse et al, 2004; Direktör and Çakıcı, 2012; Salahur, 2010).

These rejection experiences which may trigger many problems in adolescence strain the love relationships of adolescents. Adolescents often experience problems in wanting to be loved, showing love, knowing the ways to show love and returning the love shown by others. While listing the main effects of problematic internet use, the internet can function as a source of social support that can be established by adolescents "whenever needed" as a result of the deterioration of relationships with individuals in the family. In their study conducted on adolescents, Özçevik and Çelikkaleli (2010) found that adolescents who defined their parents as "indifferent" got higher scores in internet addiction tests when compared with children who defined their parents as "protective", "authoritarian" and "democratic". Factors such as the indifferent attitudes of parents to their children, not following the relationship of the child with the internet, weak communication between mother-child and father may cause children to use the internet in an uncontrolled way (Huang, et al., 2009).

As a result, with the decreased family effect, adolescents become open to being affected by other factors. In the light of this information, one of the harms that may occur with the increase in internet use within the context of rejection by parents is adolescents' being drawn to the internet more and therefore the phenomenon of internet addiction. This phenomenon started to attract the attention of researchers in the fields of psychology and sociology recently. However, there are few studies that consider the role of parental behaviors in internet addiction Fard, Mousavi and Pooravari, 2015; Sultana, 2019). It is thought that parental acceptance and rejection may have a role in predicting the internet addiction of adolescents. Although adolescence is described as a stressful time, the quality of the relationship adolescents build with their parents in this period is one of the

main determinants of how this period is spent (Laible, Carlo and Raffaelli, 2000). In this respect, it is thought that the quality of the relationship of adolescents with their parents may be effective on internet addiction, which is one of their behaviors we may describe as a problem. When the characteristics of adolescence are considered, it can be said that the internet is very attractive in terms of providing an effortless socialization environment, being considered as the most accessible way to have fun and providing many efforts to try different identities. However, an out-of-control use brings along many risks. With this aspect, it is thought that whether the quality of the relationship with parents has an effect on out-of-control use should be researched. It is believed that the study results will be a guide for psychological counselors in developing intervention strategies for this addiction that is specific for adolescence.

2. Purpose of the Study

The present study seeks answers to the question “Is there a significant correlation between parental acceptance-rejection perceptions of: individuals and their internet addiction? Two sub-problems created in this context are shown below:

- a) Are adolescents' perceptions of parental acceptance/rejection a significant predictor of internet addiction?
- b) Does the correlation between adolescents' parental acceptance-rejection perceptions and their internet addiction differ significantly in terms of gender?

3. Material and Methods

3.1 Model of the Study

This study was carried out according to the correlational survey model. The research approach aims to describe a past or present situation as the way it is called the survey model. In the general survey model, it is important to specify the research topic as it is and within its own conditions (Karasar, 2000). The correlational survey was conducted with the dependent and independent variables of the study.

3.2 Study Group

The study group consists of 500 high school students reached through a simple random sampling method and who continued their education in Samsun during the 2018-2019 academic year. Simple random sampling is one of the most popular sampling methods. The aim of simple random sampling is to select the sample to represent the population (Creswell, 2012). In this respect, a total of 100 students, 243 (48.6%) female and 257 (51.5%) male, were included in the study. The mean age of the participants whose ages varied between 15 and 18 was 16. Table 1 shows the characteristics of the study group.

Table 1: Characteristics of the study group

Gender	N	%
Female	243	48.6
Male	257	51.4

3.3 Data Collection Tools

The data required for the study were obtained with “Personal Information Form”, “Parental Acceptance-Rejection Questionnaire (short form)” and “Internet Addiction Scale”. Below, there is more detailed information about the data collection tools used in the study.

3.3.1. Personal Information Form

The aim of the Personal Information Form was to collect information about the variables of the study and to find out the characteristics of the study group. The prepared form includes questions prepared to get information about the gender and grade of the participants.

3.3.2. Parental Acceptance-Rejection Questionnaire (short form)

Parental Acceptance-Rejection Questionnaire- PARQ was developed by Rohner et al. in 1971 to evaluate perceived parental acceptance-rejection. PARQ has been translated into many languages and it has been tested for validity and reliability in many countries. In this study, the short form was used to measure the parental acceptance and rejection perceived by adolescents. Parental Acceptance-Rejection Questionnaire short form was tested for reliability by Yılmaz (2007). The short form consisting of 24 items has four factors warmth/affection (8 items), hostility/aggression (6 items), neglect and indifference (6 items) and undifferentiated rejection (4 items). The items in PARQ are evaluated as 4-Likert type and the responses are in the form of “almost always true”, “sometimes true”, “rarely true” and “never true”. The evaluation is made by giving 4, 3, 2 and 1 points, respectively to these responses. The total score is obtained by adding up the scores of factors. One item is reversely scored. The study for the short form was conducted with 8th, 9th, 10th and 11th graders between the ages of 13 and 18 in İstanbul. According to analysis results, Cronbach Alpha values of the mother version warmth/affection, hostility/aggression, indifference/neglect and undifferentiated rejection factors were found as .88, .69, .66 and .53, respectively. Item total score correlation of the mother version was between .20 (item 11) and .72 (item 22). The mean value was found as .57 and the Cronbach alpha coefficient was found as .89. Cronbach Alpha values of the father version warmth/affection, hostility/aggression, indifference/neglect and undifferentiated rejection factors were found as .88, .66, .70 and .65, respectively. Item total score correlation of the father version was between .24 (item 4) and .71 (item 24). The mean value was found as .59 and the Cronbach alpha coefficient was found as .90. A significant correlation was found between the mother and father versions ($r=.53$, $p<.01$). In this study, the total reliability of the scale was found as .67. Cronbach alpha coefficients of the

factors were found as .65, .62, .63 and .64, respectively for the mother version, while they were found as .72, .64, .63 and .64, respectively for the father version.

3.3.3 Internet Addiction Scale

The "Diagnostic Survey" which was formed by Kimberley Young (1998) through adaptation from "Psychoactive Substance Addiction" of DSM IV was later developed and a 20-item Internet Addiction Scale was formed. The scale was adapted to Turkish by Bayraktar (2001). The items in the scale are 6-Likert type and the responses are in the form of "Never", "Rarely", "Sometimes", "Mostly" and "Always". These responses are scored as 0, 1, 2, 3, 4 and 5, respectively. The respondents who get a score of 80 and higher are defined as "Pathological Internet User", while those who get a score between 50 and 79 are defined as "Limited Symptoms" and those who get a score of 50 and lower are defined as "No symptom". The scale which was translated into Turkish from English was examined by five academics in Ege University Psychology department of the faculty of Science and Letters and the items were adapted in a way that could be understood by adolescents aged 12 and 17. The reliability of the translated scale is .91 in terms of standardized Alpha value and .87 in terms of Spearman-Brown value (Bayraktar, 2001). In the present study, the total reliability of the Internet Addiction Scale was found as .97.

3.4. Data Collection

In the study, Personal Information Form prepared by the researcher, PARQ and Internet Addiction Scale was used to collect data. Required permissions were taken from the Ministry of Education and school directorates, the surveys were filled in based on voluntariness and it took about 20 minutes to fill in the forms. Before starting the survey, the participants were informed about the study, they were asked not to leave unanswered items and they were informed that they did not need to write down their names to make sure that they responded sincerely.

3.5 Data Analysis

The data obtained in the study were analyzed by using SPSS 21 statistical package program. It was analyzed whether the data set was normally distributed to meet the assumptions of the statistical analyses to be used in the study. As a result of the analyses conducted, it was found that Skewness and Kurtosis values were within values considered normal (George and Mallery, 2010). As a result of normality analyses, the data were found to be normally distributed and parametric tests were used. Table 2 shows Skewness and Kurtosis values.

Table 2: Skewness and Kurtosis coefficients of the variables

Variables	Mean	Standard Deviation	Skewness	Kurtosis
Maternal Warmth / Affection	27.188	5.083	-1.281	1.216
Maternal Hostility / Aggression	20.580	4.024	-1.104	.038
Maternal Indifference / Neglect	20.672	3.735	-1.289	1.297
Maternal Undifferentiated Rejection	14.632	2.160	-2.216	5.677
Paternal Warmth / Affection	22.197	7.560	-.111	-1.488
Paternal Hostility / Aggression	20.400	4.419	-1.160	.128
Paternal Indifference / Neglect	19.306	4.215	-.815	-.314
Paternal Undifferentiated Rejection	13.903	2.812	-1.319	.948
Internet Addiction	36.908	20.220	.750	.480

In the study, as a result of the Kolmogorov-Smirnov test, which was conducted to find out whether the scores obtained from the scales were normally distributed, the difference of distribution from normal distribution was not found to be significant. In addition, since Levene's test results were conducted as a result of the analysis of whether the variances were distributed homogeneously were found to be $p > .05$, parametric tests were included in the study.

4. Results and Discussion

First of all, Pearson Correlation analysis was performed on the scores participants got from Maternal Parental Acceptance-Rejection Scale (Short Form), Paternal Parental Acceptance-Rejection Scale (Short Form) and Internet Addiction Scale. Pearson Correlation analysis results are shown in Table 3.

Table 3: Pearson correlation coefficients between maternal acceptance-rejection perception, paternal acceptance rejection perception and internet addiction

	1	2	3	4	5	6	7	8	9
1. Maternal Warmth / Affection	1								
2. Maternal Hostility / Aggression	.23**	1							
3. Maternal Indifference / Neglect	.39**	.46**	1						
4. Maternal Undifferentiated Rejection	.34**	.41**	.52**	1					
5. Paternal Warmth / Affection	.25**	.24**	.12**	.15**	1				
6. Paternal Hostility / Aggression	.09*	.26**	.24**	.27**	.05	1			
7. Paternal Indifference / Neglect	.14**	.22**	.17**	.29**	.15	.57**	1		
8. Paternal Undifferentiated Rejection	.090	.29**	.26**	.42**	.10*	.43**	.41**	1	
9. Internet Addiction	-.29**	.13**	.10*	.06	-.22**	.26**	.25**	.29**	1

* $p < .05$, ** $p < .01$

When Table 3 is examined, a negative moderate correlation can be seen between “warmth/affection” factor of the maternal acceptance-rejection scale and internet addiction ($r=.29$, $p<.01$), positive low correlation can be seen between “hostility/aggression” factor and internet addiction ($r=-.13$, $p<.01$) and also positive low correlation can be seen between “indifference/neglect” factor and internet addiction ($r=.10$, $p<.05$). A negative low correlation can be seen between “warmth/affection” factor of the paternal acceptance-rejection scale and internet addiction ($r=.22$, $p<.01$), positive low correlation can be seen between “hostility/aggression” factor and internet addiction ($r=.26$, $p<.05$), positive low correlation can be seen between “indifference/neglect” factor and internet addiction ($r=.25$, $p<.01$) and finally positive moderate significant correlation can be seen between “undifferentiated rejection” and internet addiction ($r=.29$, $p<.01$). On the other hand, no significant correlation can be seen between “undifferentiated rejection” factor of the maternal acceptance-rejection scale and internet addiction ($r=.06$, $p>.05$).

a. Are adolescents’ perceptions of parental acceptance/rejection a significant predictor of internet addiction?

Multiple linear regression analysis was performed on the scores participants got from Maternal Parental Acceptance-Rejection Scale (Short Form), Paternal Parental Acceptance-Rejection Scale (Short Form) and Internet Addiction Scale. Analysis results are shown in Table 4.

Table 4: Multiple linear regression analysis results on the prediction of parental acceptance-rejection perceptions on internet addiction

	Variables	B	Standard Error	Beta	T	P	R	R ²
Internet Addiction	Fixed	40.822	6.630		6.157	.000*	.396	.150
	Maternal Warmth / Affection	-1.627	.181	-.409	-8.990	.000*		
	Maternal Hostility / Aggression	.598	.240	.119	2.491	.013***		
	Maternal Indifference / Neglect	.970	.284	.168	3.192	.002**		
	Maternal Undifferentiated Rejection	.626	.471	.067	1.330	.184		
Internet Addiction	Fixed	8.328	5.250		1.586	.113	.431	.180
	Paternal Warmth / Affection	-.722	.110	-.270	-6.569	.000*		
	Paternal Hostility / Aggression	.483	.244	.149	2.068	.039**		
	Paternal Indifference / Neglect	.747	.245	.156	2.922	.004**		
	Paternal Undifferentiated Rejection	1.502	.331	.209	4.538	.000*		

* $P<.001$, ** $P<.01$, * $P<.05$

As can be seen in Table 4, as a result of the Multiple linear regression analysis, which was conducted to find out to what extent and in which direction adolescents’ paternal acceptance-rejection perceptions explained their internet addiction levels, maternal warmth/affection, maternal hostility/aggression, maternal indifference/neglect factors are moderately correlated with internet addiction ($R=.396$, $R^2=.150$, $p<.01$). Maternal acceptance / rejection factors explain approximately 36% of the total variance explained for internet addiction scores [$F_{(4,495)} = 22.97$, $p<.000$]. When the analysis results regarding the significance of regression coefficients are examined, it can be seen that maternal

warmth/affection ($t=-8.890$, $p<.000$), maternal hostility/aggression ($t=2.491$, $p<.011$), maternal indifference/neglect ($t=3.192$, $p<.002$) factors are significant predictors of internet addiction, while maternal undifferentiated rejection factor is not a significant predictor of internet addiction ($t=-1,330$, $p>.184$).

Similarly, paternal warmth/affection, paternal hostility aggression, paternal indifference/neglect factors are moderately correlated with internet addiction ($R=.431$, $R^2=.180$, $p<.01$). Paternal acceptance / rejection factors explain approximately 18% of the total variance explained for internet addiction scores [$F_{(4,495)} =28.293$, $p<.000$]. When the analysis results regarding the significance of regression coefficients are examined, it can be seen that paternal warmth/affection ($t=-6.569$, $p<.000$), paternal hostility aggression ($t=2.068$, $p<.039$), paternal indifference/neglect ($t=2.922$, $p<.004$) and paternal undifferentiated rejection ($t=4.538$, $p<.000$) factors are significant predictors of internet addiction.

b. Does the correlation between adolescents' parental acceptance-rejection perceptions and their internet addiction differ significantly in terms of gender?

MANOVA test was used to find out whether the scores of adolescents from the Maternal Acceptance-rejection Scale, Paternal Acceptance-rejection Scale and Internet Addiction Scale differ in terms of gender and the results are shown in Table 5.

Table 5: MANOVA results of adolescents' Maternal Acceptance-rejection, Paternal Acceptance-rejection and Internet Addiction Scores

Effect	Wilk's Lambda	F	Degree of freedom (Hypothesis)	Degree of freedom (Error)	P
Gender	.928	4.785	8.00	491.00	.000*

* $P<.001$

When Table 5 is examined, it can be seen that the main effect of gender on the relationship between parental acceptance-rejection and internet addiction is significant ($\Lambda=.072$ $F_{(8,491)} =4.785$ $p<.001$). This result shows that parental acceptance-rejection and internet addiction differ significantly in terms of gender. MANOVA test results conducted to find out this significant difference in terms of gender is shown in Table 6.

Table 6: Mean standard deviation values and MANOVA results of adolescents' Maternal Acceptance-rejection, Paternal Acceptance-rejection and Internet Addiction Scores in terms of gender

Variable	Gender	N	Mean	Ss	Sd	F	P
Maternal Warmth / Affection	Female	243	27.617	4.508	1-499	3.388	0.66
	Male	257	26.786	5.50			
Maternal Hostility / Aggression	Female	243	20.605	4.173	1-499	.021	.884
	Male	257	20.553	3.886			
Maternal Indifference / Neglect	Female	243	20.189	4.145	1-499	8.140	.005*
	Male	257	21.136	3.242			
Maternal Undifferentiated / Rejection	Female	243	14.712	2.213	1-499	.647	.422

Esra Tilki, Hatice Epli
 THE RELATIONSHIP BETWEEN ADOLESCENTS' PARENTAL
 ACCEPTANCE-REJECTION PERCEPTIONS AND INTERNET ADDICTION

	Male	257	14.556	2.109			
Paternal Warmth / Affection	Female	243	23.374	7.685	1-499	11.685	.001*
	Male	257	21.086	7.281			
Paternal Hostility / Aggression	Female	243	20.742	4.457	1-499	2.894	.090
	Male	257	20.070	4.378			
Paternal Indifference / Neglect	Female	243	19.647	4.167	1-499	3.093	.079
	Male	257	18.985	4.242			
Paternal Undifferentiated / Rejection	Female	243	14.027	2.791	1-499	.915	.339
	Male	257	13.786	2.832			
Internet Addiction	Female	243	35.335	19.265	1-499	2.522	.113
	Male	257	38.204	21.026			

*P<.01

When Table 6 is examined, it can be seen that maternal warmth / affection [F (1,491) =.066, p>.05], maternal hostility / aggression [F (1,499) =.884, p>.05], maternal undifferentiated rejection [F (1,499) =.422, p>.05], paternal hostility / aggression [F (1,499) =.090, p>.05], paternal indifference / neglect [F (1,499) =.79, p>.05], paternal undifferentiated rejection [F (1,499) =.339, p>.05] and internet addiction scores [F (1,499) =.113, p>.05] do not show significant differences in terms of gender. On the other hand, maternal indifference/neglect scores [F (1,491) =.05, p<.01] and paternal warmth/affection [F (1,491) =.001, p<.01] differ significantly in terms of gender. According to these results, male students have significantly higher levels of perceiving maternal neglect when compared with female students. On the other hand, female students have significantly higher levels of perceiving paternal warmth/affection when compared with male students.

5. Discussion, Conclusion and Recommendations

The present study examined whether adolescents' parental acceptance-rejection perceptions were significant predictors of their internet addiction levels. According to analysis results, it can be seen that maternal undifferentiated rejection variable is not a significant predictor of internet addiction level, while maternal warmth/affection, hostility/aggression and indifference/neglect variables are significant predictors of internet addiction levels. When the effect sizes of regression analysis results are considered, it is clear that maternal acceptance-rejection factors have different prediction powers on internet addiction. In terms of effect sizes, while maternal warmth/affection has the highest effect, it is followed by maternal indifference/neglect and maternal hostility/aggression. The fact that the variable of maternal warmth/affection has a negative Beta value shows that the correlation between these is reverse. In other words, as the maternal warmth/affection of adolescents increases, their internet addiction levels decrease.

On the other hand, it can be seen that all paternal acceptance-rejection variables, in other words, warmth/affection, hostility/aggression, indifference/neglect and undifferentiated rejection, are significant predictors of internet addiction levels. When the effect sizes of regression analysis results are considered, it is clear that paternal

acceptance-rejection factors have different prediction powers on internet addiction. In terms of effect sizes, while the paternal undifferentiated rejection variable has the highest effect, it is followed by paternal warmth/affection, paternal indifference/neglect and finally paternal hostility/aggression variables. The fact that the variable of paternal warmth/affection has a negative Beta value shows that the correlation between these is reverse. In other words, as paternal warmth/affection of adolescents increases, their internet addiction levels decrease. These results are in parallel with the results in the literature. Studies have shown that high level of parental rejection and overprotection increases the risk of internet addiction (Altıntaş, 2016; Büyükşahin and Çelikkaleli, 2010; Çevik and Çelikkaleli, 2010; Yao, He Ko and Pang, 2014). It has also been shown that internet addiction levels of adolescents who stated that their parents show an authoritarian attitude are higher than those of adolescents who stated that their parents show a democratic attitude (Bilge, 2019; Moazedian et al., 2014; Xiuqin et al., 2010) and in addition to this relationship pattern with family members, weak interaction with classmates and teachers are also predictors of problematic internet use (Wang et al., 2011). In their study, Fard, Mousavi and Pooravari (2015) showed that internet addiction decreased with the increase in parents' acceptance and closeness. In their study, Tur and Porcar (2017) reported that for males, addictive internet use is associated with a combination of different parenting styles resulting from inconsistencies and conflicts between parents. Zhu, Zhang, Yu, and Bao (2015) showed that low-quality adolescent-parent relationships predicted internet gaming addiction. According to a study by Wu et al. (2018), it can be seen that internet addiction decreases as perceived family support increases. Lee and Ogbolu (2018) showed that perceived parental control had an effect on smartphone addiction and smartphone addiction decreased as control increased.

In their study, Li, Garland, and Howard (2014) found that adolescents with internet addiction/pathological internet use reported more dissatisfaction with their families, they experienced more conflicts between parents and between parents and children and they thought their families were more punitive and less supportive, warm and interested than adolescents who were not addicted to the internet. In a study conducted by Wu et al. (2016), it was reported that a few causes of internet addiction were bad family environment and lack of love from parents. Results of Sultana and Uddin (2019) showed that in parallel with previous studies, parental rejection was a significant predictor of internet addiction in young adults (Ahmadi, Abdolmaleki, Afsardir and Esmaili, 2010; Shayesteh, 2014). All these results may help researchers in the field in understanding the factors that may cause parents to develop inappropriate upbringing styles. It is thought that adolescents who are criticized and not supported in the family fill in this gap by spending more time on the internet. Adolescents who are continually criticized in the family environment may want to be in an environment they will feel accepted. In case of parents having limited time to establish a relationship with their children and having psychological insecurities in the family environment may cause children to turn to the internet more because the internet can provide them with the support and emotional satisfaction, they cannot have from their parents, even if it is

virtual. It can be thought that this result is associated with the general characteristics of adolescence. It can be said that adolescents who are criticized for internet use in their families react to this and use more internet.

According to the second sub-problem of the study, the relationship between parental acceptance-rejection and internet addiction was examined in terms of gender. According to the results of the study, maternal warmth/affection, maternal hostility/aggression, maternal undifferentiated rejection, paternal hostility/aggression, paternal indifference/neglect, paternal undifferentiated rejection and internet addiction scores did not differ in terms of gender. On the other hand, maternal indifference/neglect scores and paternal warmth/affection scores differ significantly in terms of gender. According to these results, male students' levels of perceiving neglect from their mothers are significantly higher than those of female students. On the other hand, female students' levels of perceiving warmth/affection from their fathers are significantly higher than those of male students. There are studies in the literature that are not consistent with these results. According to Yao et al. (2014), paternal rejection has a stronger effect on girls than boys, while maternal rejection is more effective on boys. Rohner (1986) emphasized that parental acceptance and rejection had more effect on individuals' mental health, especially among girls. These results are similar to results in literature. On the other hand, unlike this result in the present study, Kabaoğlu and Kaya- Balkan (2015) found that parental acceptance-rejection levels did not differ significantly in terms of gender. It is also consistent with the information that in parental acceptance-rejection theory, parental behaviors can differ culturally (Rohner 1986; Rohner et al., 2005). In traditional societies, expectations from male and female children may cause their attitudes to differ. Especially in male-dominated societies like our country, considering the extent of expectations from boys, this may have caused male adolescents to perceive more warmth in their relationship with the parent of the opposite sex when compared with female adolescents. In addition, the fact that girls' demands for autonomy are perceived negatively in traditional societies and they are confronted with their mothers rather than their fathers about these demands may have caused female adolescents to have more conflict with their mothers during this period and as a result of this to perceive less warmth.

Finally, internet addiction scores do not differ in terms of gender. The results found in the literature are not consistent. While Cao, Sun, Wan, Hao and Barrows (2011) reported that males had a much greater risk in terms of internet addiction, Leung (2004) reported that internet addiction was more common among female students. On the other hand, similar to the results of the present study, Wang et al. (2011) reported that internet addiction did not show a significant difference in terms of gender. The results of the present study can be explained by the increase in the prevalence of internet use in recent years.

6. Suggestions

The present study discussed the relationship between high school students' parental acceptance-rejection perceptions and internet addiction. The study can be repeated with individuals in different age groups and education levels so that the relationship between parental acceptance-rejection perceptions and internet addiction levels of individuals in different age groups and education levels and the study results can be generalized. In addition, the mediating role of variables such as self-confidence and social competence in the relationship between parental acceptance-rejection perceptions and internet addiction can be examined. Psychological counselors in schools can organize seminars for parents on the importance of the effects of the quality of their relationship with children. The characteristics of accepting parental attitude can be specified and the preventive role of loving and caring attitude to their children towards internet addiction can be emphasized. Psychological counselors in schools can organize educational training related to safe internet use.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Esra Tilki works as a specialist teacher at the school affiliated with the Ministry of National Education, which conducts research on educational problems.

Hatice Epli is an assistant professor working at Ondokuz Mayıs University, who conducts research on adolescence and adolescent-parent relations.

References

- Akse, J., Hale, W. W., Engels, R. C., Raaijmakers, Q. A., ve Meeus, W. H. (2004). Personality, perceived parental rejection and problem behavior in adolescence. *Social Psychiatry and Psychiatric Epidemiology*, 39(12), 980-988. doi.org/10.1007/s00127-004-0834-5
- Altıntaş, A. (2016). *Ortaokul öğrencilerindeki problemlerle internet kullanımı ile algılanan anne baba tutumları arasındaki ilişkinin incelenmesi* (Yayımlanmamış yüksek lisans tezi). Nişantaşı Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Batıgün, A. D. ve Hasta, D. (2010). İnternet bağımlılığı: Yalnızlık ve kişilerarası ilişki tarzları açısından bir değerlendirme. *Anadolu Psikiyatri Dergisi*, 11 (3), 213-219. Erişim adresi: https://www.researchgate.net/publication/233764646_internet_bagimliliğiYalnızlık_ve_kisilerarası_iliski_tarzları_acısından_bir_değerlendirme

- Bayhan, V. (1998). Lise öğrencilerinde internet kullanma alışkanlığı ve internet bağımlılığı (Malatya uygulaması). *XIII. Akademik bilişim konferansı bildirimleri*, 917-924. Erişim adresi: https://ab.org.tr/ab11/kitap/bayhan_AB11.pdf
- Bayraktar, S. (2001). A meta-analysis of the effectiveness of computer-assisted instruction in science education. *Journal of research on technology in education*, 34(2), 173-188.
- Bölükbaşı, K. (2003). *İnternet kafeler ve internet bağımlılığı üzerine sosyolojik bir araştırma* (Yayımlanmamış yüksek lisans tezi). Dicle Üniversitesi Sosyal Bilimler Enstitüsü, Diyarbakır.
- Büyükşahin Çevik, G. ve Çelikkaleli, Ö. (2010). Ergenlerin arkadaş bağlılığı ve internet bağımlılığının cinsiyet ebeveyn tutumu ve anne baba eğitim düzeylerine göre incelenmesi. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 19(3), 225-240. Erişim adresi: <https://app.trdizin.gov.tr/publication/paper/detail/TVRFNU5ESTJOZz09>
- Cansever, A. (2013). Ergenlerin internet kullanımının toplumsal ilişkilerinde yarattığı sorunlar. M. Kalkan ve C. Kaygusuz. *İnternet bağımlılığı sorunlar ve çözümler*, 193-210.
- Chou, C. ve Hsiao, M. C. (2000). Internet addiction, usage, gratification, and pleasure experience: The Taiwan college students' case. *Computers & Education*, 35(1), 65-80. [http://doi.org/10.1016/S0360-1315\(00\)00019-1](http://doi.org/10.1016/S0360-1315(00)00019-1)
- Christakis, D. A. (2010). Internet addiction: A 21 st century epidemic? *BMC medicine*, 8(1), 1- 3.
- Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in Human Behavior*, 17(2), 187-195. [http://doi.org/10.1016/S0747-5632\(00\)00041-8](http://doi.org/10.1016/S0747-5632(00)00041-8)
- Fard, Z. S., Mousavi, P. S., ve Pooravari, M. (2015). Predictive role of parental acceptance, rejection and control in the internet addiction of the female students. *International Journal of Applied Behavioral Sciences*, 2(3), 42-51. <http://doi.org/10.22037/ijabs.v2i3.8873>
- Huang, R. L., Lu, Z., Liu, J. J., You, Y. M., Pan, Z. Q., Wei, Z. ve Wang, Z. Z. (2009). Features and predictors of problematic Internet use in Chinese college students. *Behaviour & Information Technology*, 28(5), 485-490. <http://doi.org/10.1080/01449290701485801>
- Kanyas, Reyan (2008). *The Influence of Sibling Configuration and Parental Acceptance-Rejection on the Quality of Sibling Relationship* (Yayımlanmamış yüksek lisans tezi). İstanbul Bilgi Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Karasar, N. (2016). *Bilimsel araştırma yöntemi* (31. Basım). Ankara: Nobel Akademik Yayıncılık.
- Lee, E. J. ve Ogbolu, Y. (2018). Does parental control work with smartphone addiction?: A cross-sectional study of children in South Korea. *Journal of addictions nursing*, 29(2), 128-138. <http://doi.org/10.1097/JAN.0000000000000222>
- Leung, L. (2004). Net-generation attributes and seductive properties of the Internet as predictors of online activities and internet addiction. *CyberPsychology & Behavior*, 7(3), 333-348. <http://doi.org/10.1089/1094931041291303>

- Li, W., Garland, E. L. ve Howard, M. O. (2014). Family factors in Internet addiction among Chinese youth: A review of English and Chinese language studies. *Computers in Human Behavior*, 31, 393-411. <http://doi.org/10.1016/j.chb.2013.11.004>
- Moazedian, A., Taqavi, S. A., Hosseini Almadani, S. A., Mohammadyfar, M. A., ve Sabetimani, M. (2014). Parenting style and Internet addiction. *Journal of Life Science and Biomedicine*, 4(1), 9-14.
- Akt. Dogan, H., Bozgeyikli, H. & Bozdas, C. (2015). Perceived parenting styles as predictor of Internet addiction in adolescence. *International Journal of Research in Education and Science (IJRES)*, 1(2), 167-174. Eriřim adresi: <https://files.eric.ed.gov/fulltext/EJ1105098.pdf>
- Morahan-Martin, J., ve Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in human behavior*, 16(1), 13-29. [http://doi.org/10.1016/S0747-5632\(99\)00049-7](http://doi.org/10.1016/S0747-5632(99)00049-7)
- Rohner, R. P. ve Khaleque, A. (2002). Parental acceptance-rejection and life-span development: A universal perspective. *Online Readings in Psychology and Culture*, 6(1), 1-10. <http://doi.org/10.9707/2307-0919.1055>
- Rohner, R. P. ve Khaleque, A. (2003). Reliability and validity of the parental control scale: A meta-analysis of cross-cultural and intracultural studies. *Journal of Cross-Cultural Psychology*, 34(6), 643-649. <http://doi.org/10.1177/0022022103255650>
- Rohner, R. P., Khaleque, A. ve Cournoyer, D. E. (2005). Parental acceptance-rejection: Theory, methods, cross-cultural evidence, and implications. *Ethos*, 33(3), 299-334. <http://doi.org/10.1525/eth.2005.33.3.299>
- Shaffer, H. J., Hall, M. N., ve Bilt, J. V. (2000). "Computer addiction": a critical consideration. *American journal of Orthopsychiatry*, 70(2), 162-168. <http://doi.org/10.1037/h0087741>
- Sonkur, A. (2014). *İnternet bağımlılığının depresyon, tepki biçimleri, düşünce baskılama, endişe ve üst bilişle ilişkisi* (Yayımlanmamış yüksek lisans tezi). Yüzüncü Yıl Üniversitesi Eğitim Bilimleri Enstitüsü, Van.
- Sultana, M. ve Uddin, M. K. (2019). Parental rejection, depression, and Internet addiction among young adults. *Pakistan Journal of Psychological Research*, 34(2), 419-432. <http://doi.org/10.33824/PJPR.2019.34.2.23>
- Wang, H., Zhou, X., Lu, C., Wu, J., Deng, X., ve Hong, L. (2011). Problematic Internet use in high school students in Guangdong province, China. *PLoS one*, 6(5), 1-8. <http://doi.org/10.1371/journal.pone.0019660>
- Wu, A. M., Lau, J. T., Cheng, K. M., Law, R. W., Tse, V. W ve Lau, M. M. (2018). Direct and interaction effects of co-existing familial risk factors and protective factors associated with Internet addiction among Chinese students in Hong Kong. *The Journal of Early Adolescence*, 38(4), 429-450. <http://doi.org/10.1177/0272431616671826>
- Yao, M. Z., He, J., Ko, D. M., ve Pang, K. (2014). The influence of personality, parental behaviors, and self-esteem on Internet addiction: a study of Chinese college students. *Cyberpsychology, Behavior, and Social Networking*, 17(2), 104-110. <http://doi.org/10.1089/cyber.2012.0710>

- Yılmaz, B. (2007). *Understanding social anxiety through adolescents' perceptions of interparental conflict and parental rejection* (Unpublished master's thesis). Boğaziçi University, İstanbul.
- Young, K. S. (1996). Internet addiction: The emergence of a new clinical disorder. *Cyberpsychol Behavior*, 3, 237-244.
- Akt. Soydan, Z. M. (2015). *Üniversite öğrencilerinin internet bağımlılığı ile depresyon ve yaşam doyumu arasındaki ilişki* (Yayımlanmamış yüksek lisans tezi). Haliç Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Young, K. S. ve Abreu, C. N. (2010). *Internet Addiction: A Handbook and Guide to Evaluation and Treatment*. New York: Hamilton, Castleton.
- Zhu, J., Zhang, W., Yu, C., ve Bao, Z. (2015). Early adolescent Internet game addiction in context: How parents, school, and peers impact youth. *Computers in Human Behavior*, 50, 159-168. <http://doi.org/10.1016/j.chb.2015.03.079>.

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).