



Examining the Relationship between Happiness and Aggression among Adolescents

Research Article

Suat KILICARSLAN¹, Belgin LIMAN²

¹Omer Halisdemir University, Faculty of Education, Department of Guidance and Counselin, Nigde, Turkey, ORCID: 0000-0002-2907-8480

²Omer Halisdemir University, Zübeyde Hanım School of Health, Department of Child Development Nigde, Turkey, ORCID: 0000-0003-4965-2379

To cite this article: Kilicarlan, S., & Liman, B. (2020). Examining the relationship between happiness and aggression among adolescents, *International Online Journal of Educational Sciences*, 12(5), 244-262.

ARTICLE INFO

Article History:

Received: 03.05.2020

Available online:
02.11.2020

ABSTRACT

This study explored the relationships between aggression and happiness in adolescents. The study was carried out with middle school students in a Central Anatolian city during the first semester of the 2019-2020 academic year. A total of 539 students, 281 females and 258 males, participated in the study. Pearson correlation coefficient and hierarchical regression analysis were employed in the analysis of the data obtained. According to the correlation analysis, a negative significant relationship between the four sub-dimensions of the Aggression Questionnaire (physical aggression, hostility, anger and verbal aggression) and adolescents' happiness levels was determined. According to the regression analysis results, physical aggression, hostility, anger and verbal aggression were negative predictors of happiness among adolescents. In addition, the hostility and physical aggression level among adolescents had a moderator effect in the relationship between verbal aggression and anger, and happiness among adolescents. These results indicate that taking control of aggressive thoughts, emotions and behaviors by adolescents for healthy development and increased happiness level is vital during adolescence, which is a critical period in terms of personality development. Study findings were discussed within the framework of the literature, and recommendations were offered for researchers and practitioners.

© 2020 IOJES. All rights reserved

Keywords:

Adolescence, happiness, physical aggression, hostility, anger, verbal aggression

Introduction

In the development process of the adolescent, adolescence is the process that takes place until the adolescent becomes physiologically an adult with the end of the childhood period. This period is a process in which adolescents experience positive development and stress at the same time and develop an identity (Erikson, 1968). In addition, adolescence includes rapid changes in physical, mental, psycho-motor, social and

¹ Corresponding author's address: Nigde Omer Halisdemir University, Faculty of Education, Nigde, Turkey.
Telephone: 0388 225 43 87
e-mail: suatkilicarlan@hotmail.com
DOI: <https://doi.org/10.15345/iojes.2020.05.017>

affective areas, and professional development. It also includes tasks that the individuals have to overcome in these aforementioned areas of change and development (Gander & Gardiner, 2001; Steinberg 2007). During this period, the adolescent has to make effort to adapt to the changes in his or her body while deciding on his or her future, setting goals, and making effort to reach the determined goals. For this reason, this process may involve mental distress such as anxiety, tension, stress and depression for the adolescent (Andersen & Teicher 2008; Davey, Yücel, & Allen, 2008), and the experienced physical and psychological changes may affect the adolescent's subjective well-being and happiness level.

Happiness is accepted as the basic component of a good life and includes concepts such as life satisfaction, positive emotions, satisfaction and having meaning in life. According to Seligman and Csikszentmihalyi (2000), there are many concepts that may be related to the happiness levels of individuals. Deci and Ryan (2000) also mention basic psychological needs associated with happiness such as autonomy, commitment and competence.

The concept of happiness in adolescents is also described as subjective well-being, and these two concepts can be used interchangeably (Diener, Scollon, & Lucas, 2003; Park, 2004). Individuals with high level of subjective well-being have higher life satisfaction and mostly have positive emotions such as happiness, whereas individuals with low subjective well-being are not satisfied with life and experience negative emotions such as anger, anxiety, tension, aggression and depression rather than positive emotions (Lucas, Diener, & Suh, 1996).

According to the studies conducted on happiness among adolescents, many factors have an effect on the level of happiness. For example, Garcia, Rosenberg, Erlandsson, and Siddiqui (2010) revealed that a happy adolescent gets more life satisfaction and experiences positive emotions rather than negative emotions. Toprak's (2014) study concluded that the variables of happiness and life satisfaction in adolescents significantly predict psychological need satisfaction and psychological resilience. While Çevik and Yıldız (2016) determined that the relationship between happiness and hopelessness levels of university students was mediate by self-esteem; Yalçın and Gençdoğan (2019) reported that happiness predicts aggression negatively. Similarly, Schultz, Izard, and Bear (2004) found that feelings of happiness in children negatively predicted aggression. In another study, Zhang (2005) revealed that self-esteem is associated with happiness. According to Kumpfer (1999) psychologically resilient children and adolescents are happier individuals. Furthermore, Gökler, Gürgan, and Tasdan (2015) revealed the relationship between life quality and happiness, whereas Mahon, Yarcheski and Yarcheski (2005) revealed the relationship between happiness, health and well-being. Based on the study results, it can be said that the happiness level of adolescents affects their self-esteem, life quality, and the moods like adolescent aggression arising from periodic anger, stress and tension psychological resilience during this period negatively affect their happiness levels.

Another variable that is believed to negatively affect being happy in adolescents and that is emphasized in this study is the aggressive beliefs, emotions and behaviors individuals exhibit in situations of anxiety.

Aggression is defined as any behavior or action done with the aim of hurting or harming others (Freedman, Sears, & Carlsmith, 1998). According to another definition, the concept of aggression is defined as a situation that includes the attitude and behavior of causing physical or emotional harm to another living creature (Ballard, Rattley, Fleming & Ashley, 2004). While behavioral approach defines aggression as any behavior aiming to hurt others (Kaymak Özmen, 2004), according to emotional approaches, aggression is a behavior arising from the emotion of anger. Many researchers such as Freud, McDougall and Lorenz, on the other hand, argued that there is an innate aggressive impulse and instinct in humans (Freedman, Sears, & Carlsmith, 1989). Bandura (1977) stated that children learn aggressive behavior by observing others and modeling them.

Hefferon and Boniwell (2014) emphasized that positive emotions help to reduce the atmosphere of conflict between individuals and enable stronger relationships to develop, on the contrary, it was stated that negative emotions experienced by individuals may develop feelings of anger and aggression (Berkowitz, 1990; Camadan, 2014; Hasta, 2017). In this sense, thoughts, emotions and behaviors associated with aggression may emerge as an important factor affecting the happiness of adolescents and their relationships with others. According to the literature, aggression is related to happiness. In the literature, there are study findings indicating a significant negative relationship between aggression and positive emotions (Küçükköse, 2015; Mitrofan & Ciuluvica, 2012; Robertson, Daffern, & Bucks, 2012; Schultz, Izard, & Bear, 2004). In their study conducted with adult individuals, Özdevecioğlu, Can, and Akin (2013) determined that individuals having positive emotions reduced individual aggression. In this framework, in this study, aggression among adolescents is considered as an important problem area affecting happiness. It is believed that taking control of aggressive thoughts, emotions and behaviors by adolescents for healthy development and increased happiness level is vital during adolescence, which is a critical period in terms of personality development. In fact, adolescents may show aggressive behaviors from time to time during this period due to developmental difficulties and various problem situations they experience. Accordingly, in this study, aggression was believed to be associated with happiness levels of adolescent students. Therefore, the study aimed to determine whether there is a significant relationship between happiness levels and aggression levels. The strengths and potentials of individuals have been emphasized in the context of positive psychology approach in recent years. Hence, it becomes important how individuals' happiness levels affect their thoughts, behaviors and decisions in their lives. From a theoretical point of view, it is stated that positive emotions generally help to reduce the atmosphere of conflict between people and contribute to the formation of stronger relationships (Hefferon & Boniwell, 2014). With this point of view, the effects of emotions such as love, happiness, hope, trust and forgiveness, which are called positive emotions, on the individual and the relationships of these with other variables that may affect the individuals have begun to be studied (Veenhoven, 2013).

Although there are many studies examining aggression in adolescence in the related literature (e.g. Camadan & Yazici, 2017; Çelik, 2006; Çelikkaleli & Tümtaş, 2017; Goldstein, 2011; Hasta & Güler, 2013; Kurtyılmaz, 2011; Leenaars & Rinaldi, 2010; Morsümbül, 2015; Werner & Crick, 1999; Yavuzer, & Karataş, 2013; Yavuzer, Karataş, Çivilidağ, & Gündoğdu, 2014), there is a very limited number of studies exploring the relationship between aggression and happiness at this critical period of life. One of the starting points of this study is that the extent these aggressive beliefs, feelings and behaviors can predict the happiness level in adolescents has not been discussed in detail before.

With this study carried out in this context, it is believed that the study may contribute to the mental health specialists working in the field and at schools on adolescents' happiness, and to other studies that will be conducted in the field of developmental psychology. Based on the above explanations, the hypotheses of the study are determined as follows:

1. There are significant relationships between physical aggression, hostility, anger and verbal aggression, and happiness.
2. Physical aggression, hostility, anger and verbal aggression will negatively predict the happiness levels of adolescents.

Method

Aimed to examine the relationships between physical aggression, hostility, anger and verbal aggression, the sub-dimensions of the aggression questionnaire, and happiness levels of the adolescents, this study employed the relational survey design. Relational survey design represents a research design aiming to measure the existence and degree of the relationship between variables (Creswell, 2017).

Participants

The study was carried out with 5th, 6th, 7th and 8th graders attending six different middle schools in a city in Central Anatolia during the first semester of the 2019-2020 academic year. For the selection of the school where the scales would be applied, researchers paid attention to students having different socio-economic characteristics and having different achievement levels. A total of 539 students, 281 (52.13%) females and 258 (47.86%) males, participated in the study. The socio-demographic characteristics of the participants are given below (Table 1).

Table 1. Participants' Socio-demographic Characteristics

Participant	Sibling Number				Grade Level				Economic Status		Mother Education Level				Father Education Level								
	Single child	2 siblings	3 siblings	4 and above	5 th grade	6 th grade	7 th grade	8 th grade	Low	Medium	High	Illiterate	Elementary-Middle	High school	Two-year college	University	Master's-Ph.D.	Illiterate	Elementary-Middle	High school	Two-year college	University	Master's-Ph.D.
539	37	212	219	71	24	87	239	189	28	466	45	12	243	170	12	86	16	4	183	196	12	124	20

Instruments

Personal Information Form. The personal information form developed by the researchers consists of participants' information such as sex, parental education level, income level, grade level and number of siblings.

The School Children's Happiness Inventory. Developed by Ivens (2007) to determine the factors affecting the happiness of school children, the School Children's Happiness Inventory (SCHH) is a measurement tool that can be administered to children between the ages of 8 and 15 individually or as a group. The inventory consists of 30 items, 15 positive and 15 negative. Total points are obtained by reverse scoring 15 negative items. Each item in the scale is scored between 1 and 4 points. The reliability coefficient of the inventory for the UK sample was calculated as .86 and for the Finnish sample, it was calculated as .90. Adaptation of the inventory into Turkish was done by Telef (2014) with 358 children and adolescents attending 4th through 8th grade. At the end of the exploratory factor analysis, the total explained variance was found to be 39%. The factor loads of the items in the inventory vary between .45 and .68. According to the confirmatory factor analysis, the fit indexes of the model were found as RMSEA= .06, SRMR= .05, NFI= .93, RFI= .93, CFI= .96 and IFI= .96. As a result of the criterion-related validity study of the inventory, negative significant relationships were revealed between SCHH, and depression and negative experiences, and positive significant relationships were revealed between SCHH and positive experiences. At the end of the reliability analysis, Cronbach's alpha coefficient of the SCHH was calculated as .92. According to item analysis, item total correlations were .30 and higher, and t values were significant. The high score from the inventory indicates high happiness. In the data obtained by the researchers within the scope of this study, the internal consistency coefficient of the scale was found to be .90.

Buss-Perry Aggression Questionnaire. The Buss-Perry Aggression Questionnaire (BPAQ) was developed by Buss and Perry (1992) and adapted to Turkish by Demirtaş Madran (2012). The questionnaire is a 5-point Likert scale consisting of 29 items. The questionnaire aims to measure four different dimensions of

aggression: physical aggression, verbal aggression, hostility and anger. The internal consistency of each factor was measured by the Cronbach's alpha coefficient, and the alpha values indicate that the internal consistency of all four factors was sufficient. The alpha values were as follows: Total scale, 0.85; physical aggression, 0.78; verbal aggression, 0.48; anger, 0.76; and hostility, 0.71. The internal consistency coefficient of the questionnaire was found as .87 in the data obtained within the scope of this study.

Data Collection

Necessary legal permissions were obtained from the provincial directorate for national education to collect the study data, and also official approval was obtained from the ethics committee (10/02/2020-86837521-050.99-E.8225). Within this framework, Personal Information Form, SCHI, and BPAQ were administered to students by the researcher during the first semester of the 2019-2020 academic year. During data collection, the purpose of the study was explained to the school administrators and the students, and a suitable environment was determined for students to fill out the scales and the scales were applied to the students during the school guidance period. After providing the necessary explanations about the data collection tools, the scales were filled out by the students under the supervision of the researcher. This process took an average of 30 minutes.

Data Analysis

One-way ANOVA, independent samples t-test, Pearson correlation coefficient, simple linear regression and hierarchical regression analysis were employed in data analysis. Within the scope of the research, the relationship between variables was examined, and the homogeneity of the data was tested first. According to the scale data, the sample had normal distribution. The skewness value for all variables was in the range of -.40 and .27. The kurtosis value for all variables was in the range of -.59 and .19. The fact that the skewness and kurtosis coefficients of the scores are close to the ± 1 can be interpreted as the scores not deviating excessively from normal (Büyüköztürk, Çokluk, & Köklü, 2010). Pearson correlation coefficient, simple linear regression analysis and hierarchical regression analysis were employed in data analysis. Outliers that have Mahalanobis' distance value were calculated, and 14 data with outliers were removed from the data set. It was determined that the Durbin-Watson value used to test autocorrelation is 2.15 and the Tolerance and VIF scores are within the normal value range. During data analysis, firstly, the relationship between physical aggression, hostility, anger and verbal aggression, and happiness was examined by correlation test, and then the prediction effect was examined by hierarchical regression analysis. The data were analyzed with SPSS 22 program.

Results

Preliminary Analyses

As a result of the preliminary analyses, the happiness level in adolescents did not differ according to sex ($t = -1.243$; $p > .05$), the mother education level ($F = .915$; $p > .05$), the father education level ($F = 1.167$; $p > .05$), sibling number ($F = .498$; $p > .05$) and income level ($F = .333$; $p > .05$), whereas the happiness level in adolescents significantly differ according to the grade level variable ($F = 14.433$; $p < .001$), it was found to differ significantly. According to the findings, as the grade level of adolescents increased, their happiness score decreased.

Correlations Among Variables

First, Pearson product-moment correlation analysis was used to examine the relationship between the variables addressed in the study. The relationships between the study variables, mean values, and standard deviations of the variables are shown in Table 2.

Table 2. Means, Standard Deviations, and Correlations

Variables	Mean ± SD	1	2	3	4	5
1. Happiness	91,75 ±15,53	1.00				
2. Hostility	24,81± 6,48	-.40*	1.00			
3. Physical Aggression	23,15± 7,77	-.36*	.57*	1.00		
4. Anger	19,66 ± 5,87	-.35*	.67*	.68*	1.00	
5. Verbal Aggression	14,92 ± 3,47	-.25*	.53*	.48*	.53*	1.00

* $p < .001$; $n=539$

According to Table 2, there is a negative significant relationship between the total happiness scores of adolescents, and BPAQ's hostility sub-dimension scores ($r = -.40$, $p < .001$), BPAQ's physical aggression sub-dimension scores ($r = -.36$, $p < .001$), BPAQ's anger sub-dimension scores ($r = -.35$, $p < .001$) and BPAQ's verbal aggression sub-dimension scores ($r = -.25$, $p < .001$). In other words, as the aggression level of adolescents increases, happiness scores decrease.

Regression Analysis Results

Hierarchical regression analysis was conducted to determine the extent to which the aggression scale sub-dimension (hostility, physical aggression, anger and verbal aggression) scores predicted happiness levels. The results are given in Table 3.

Table 3. Summary of the Regression Analysis

Dependent variable	Independent variable	R	R ²	R ² CH.	F	F _{CH.}	B	t
Happiness	1. Hostility	.40	.16	.16	104.24*	104.24*	-.40	-10.21*
	2. Physical Aggression	.43	.19	.03	61.92*	16.57*	-.19	-4.07*
	3. Anger	.44	.19	.00	41.57*	.88	-.06	-.94
	4. Verbal Aggression	.44	.19	.00	31.12*	.02	-.01	-.13

* $p < 0.001$

According to the regression analysis results, the scores of BPAQ hostility sub-dimension, physical aggression sub-dimension, anger sub-dimension and verbal aggression sub-dimension together negatively and significantly predicted the happiness levels in adolescents ($R = .44$, $R^2 = .19$, $F = 31.12$, $p = .000$). However, the detailed examination of the hierarchical regression analysis results revealed that the scores of BPAQ hostility sub-dimension ($B = -.40$, $p = .000$) and physical aggression sub-dimension ($B = -.19$, $p = .000$) negatively and significantly predicted the happiness levels in adolescents, whereas the scores of BPAQ anger sub-dimension ($B = -.06$, $p = .368$) and verbal aggression sub-dimension ($B = -.01$, $p = .896$) did not predict happiness levels in adolescents. This shows that BPAQ hostility and physical aggression sub-dimensions may be the mediator variable in the relationship between BPAQ anger and verbal aggression sub-dimensions, and happiness. To test for mediation, in the present study was investigated by using Pearson correlation coefficient, simple and multiple linear regression based on Baron and Kenny's (1986) proposed conditions. Conditions are as follows: (i) two variables should be significantly correlated. (ii) suggested mediating variable should be correlated with these two variables and (iii) when mediating variable had controlled the correlation between the two variables should diminish. If the relationship between the independent variable and the dependent variable is not significant when controlling the mediating variable, full mediation is present. If the relationship between the independent variable and the dependent variable lessens in the last step while remaining significant, partial

mediation is present. Within this framework, two different models were built in order to reveal the mediation effect between variables in this study, and statistical accuracy of these models was tested.

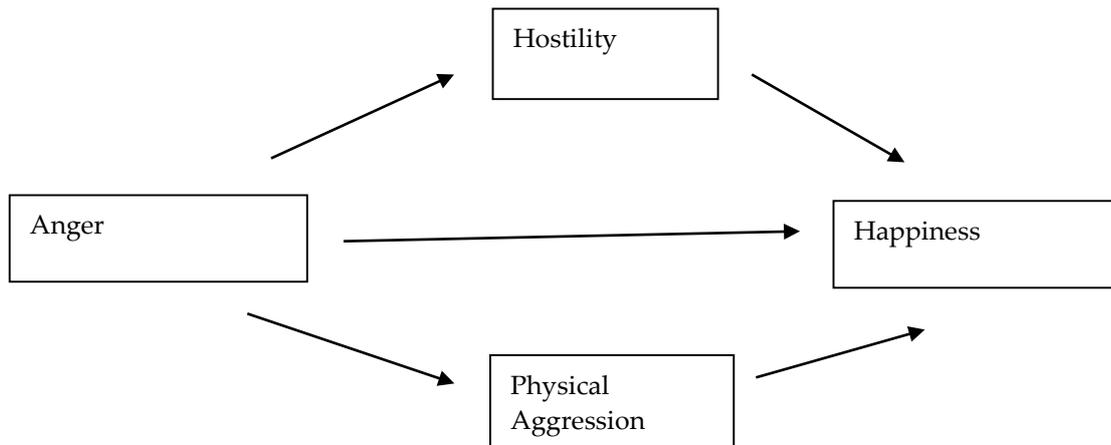


Figure 1: Hypothesized Model 1

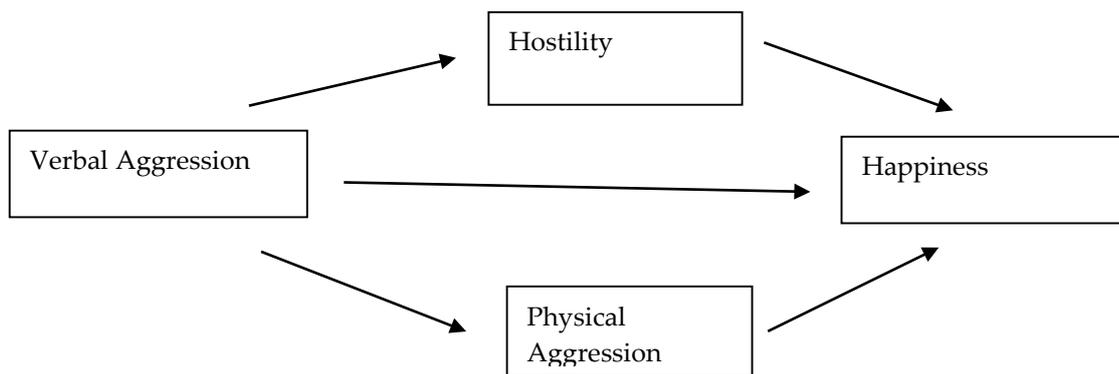


Figure 2: Hypothesized Model 2

Regression analysis results showing the relationships between the models built by the researchers within the framework of the findings are given in Table 4.

Table 4. Summary of the Regression Analysis

Step	Dependent variable	Independent variable	B	β	t	
1	Happiness	Anger	-.93	-.35	-8.76*	
	<i>Model summary: R²= 0.12, F₍₁₋₅₃₇₎= 76,76, p= .000</i>					
	Happiness	Hostility (Mediating variable)	-.72	-.30	-5,67*	
		Anger	-.39	-.14	-2,79*	
	<i>Model summary: R²= .17, F₍₁₋₅₃₇₎= 56,68, p= .005</i>					
	Hostility	Anger	.74	.67	21.32*	
	<i>Model summary: R²= .46, F₍₁₋₅₃₇₎= 454.52, p= .000</i>					
	Happiness	Physical Aggression (Mediating variable)	-.45	-.23	-4.14*	
		Anger	-.52	-.20	-3.63*	
	<i>Model summary: R²= .15, F₍₁₋₅₃₇₎=13.21, p=0.000</i>					
Physical Aggression	Anger	.90	.68	21.82*		
<i>Model summary: R²= .47, F₍₁₋₅₃₇₎= 476,31, p= .000</i>						
2	Happiness	Verbal Aggression	-1.15	-.26	-6,20*	
	<i>Model summary: R²= 0.06, F₍₁₋₅₃₇₎= 38,50, p= 0.000</i>					
	Happiness	Physical Aggression (Mediating variable)	-.61	-.31	-6.77*	
		Verbal Aggression	-.48	-.11	-2.18*	
	<i>Model summary: R²= .14, F₍₁₋₅₃₇₎=5.67, p= .018</i>					
	Physical Aggression	Verbal Aggression	1.08	.48	12.79*	
	<i>Model summary: R²= .23, F₍₁₋₅₃₇₎=163.62, p= .000</i>					
	Happiness	Hostility (Mediating variable)	-.88	.37	7.94*	
		Verbal Aggression	-.27	-.06	-1.30	
	<i>Model summary: R²= .17, F₍₁₋₅₃₇₎=1.693, p= .194</i>					
Happiness	Verbal Aggression	.99	.53	14.63*		
<i>Model summary: R²= .29, F₍₁₋₅₃₇₎= 214,02, p= .000</i>						

*p<0.05

According to the regression analysis results, anger predicted happiness negatively and significantly ($R= .12$, $p < .001$; $B= -.35$) in the first step (Model 1), and explained 12% of the variance. In the second step, when taken together with the mediating variable (hostility), there was a significant decrease in the correlation power between anger and happiness ($B= -.14$). Anger and hostility together ($R = -.17$; $p = .005$) explained 17% of the variance. In the last step of the model, anger also predicted positively and significantly the mediating variable of hostility ($R = .46$, $p = .000$; $B= .67$). These findings show that feelings of hostility partially mediate the relationship between anger and happiness for adolescents (Sobel $z = -9.90$; $p < .001$).

In the second step of the first model, when the anger level in adolescents were taken together with the mediating variable of physical aggression, there was a decrease in the correlation power between anger and happiness ($B= -.20$). Anger and physical aggression together ($R = .15$; $p = .000$) explained 15% of the variance. In the last step, anger positively and significantly predicted the mediating variable of physical aggression ($R = .47$, $p = .000$; $B= .68$). These findings show that physical aggression partially mediates the relationship between anger and happiness, for adolescents (Sobel $z = -8.37$; $p < .001$).

In the hypothesized second model, at first, verbal aggression predicted happiness in adolescents at a negative and low level ($R = .06$, $p = .001$; $B= -.26$) and explained 6% of the variance. In the second step, when

taken together with the mediating variable (physical aggression), there was a significant decrease in the correlation power between verbal aggression and happiness ($B = -.11$). Verbal aggression and physical aggression together ($R = .14$; $p = .018$) explained 14% of the variance. In the last step of the model, verbal aggression also positively and significantly predicts the mediating variable of physical aggression ($R = .23$, $p = .001$; $B = .48$). These findings show that physical aggression partially mediates the relationship between verbal aggression and happiness for adolescents (Sobel $z = -7.49$; $p < .001$).

In the second step, when the verbal aggression level in adolescents is taken together with the mediating variable of hostility, the relationship between verbal aggression and happiness disappeared completely ($B = -.06$, $p = .194$). Verbal aggression and hostility together explained 17% of the variance ($R = .17$; $p = .194$) together. In the last step of the model, verbal aggression also positively and significantly predicted the mediating variable of hostility ($R = .28$, $p = .001$; $B = .53$). These findings show that feelings of hostility in adolescents have a full mediating effect on the relationship between verbal aggression and happiness. (Sobel $z = -9.02$; $p < .001$). The regression analysis results show that the hostility and physical sub-dimensions are mediating variables in the relationship between anger and happiness, and verbal aggression and happiness among adolescents.

Discussion

In this study, it was aimed to examine the relationships between physical aggression, hostility, anger and verbal aggression, and happiness levels among adolescents. As a result of the preliminary analyzes, the happiness level in adolescents did not differ according to the parental education level, number of siblings and income level, whereas the happiness level in adolescents differed significantly according to the grade level variable. According to these findings, the happiness scores of adolescents differed only according to one socio-demographic variable, their grade level. In other words, as the grade level increases, their happiness levels decrease. In this context, when other studies in the literature focusing on socio-demographic data and the happiness level in adolescents are examined, it is seen that these studies had similar or different results. For example, in a study discussing the variables that may be associated with happiness, Gudmundsdóttir et al. (2015) revealed that adolescents' sex, age, family structure, parental education level, time spent with family and emotional support variables together explain 13% of happiness. Çirkin and Göksel (2016) determined that happiness and life satisfaction are associated with income and economic variables, whereas Vera-Villaruel et al. (2012) determined that socio-demographic characteristics such as sex, socioeconomic level, age, education level are associated with happiness. In another study, Gilman and Huebner (2006) put forth that the effect of socio-demographic variables such as age, class, sex, and parental education level in explaining the happiness of children and adolescents are low. In another study conducted by Gülcan (2014), happiness and life satisfaction of individuals are affected by the variables of age, gender, marital status and the grade in which they are in. The study conducted by Cihangir-Çankaya and Meydan (2018) revealed that the happiness levels of adolescents did not differ significantly according to gender, mother's education level and father's education level. Although the studies examining the relationship between happiness level in adolescents and socio-demographic information revealed different results, unlike the results of these studies, it is seen that socio-demographic information mostly affects the happiness level positively or negatively. No study was found in the literature examining the level of happiness in adolescents according to the variable of sibling number. Considering these results, it can be said that different studies are needed to explore the effects of sociodemographic variables on happiness.

In this study, adolescents' happiness scores differed according to the grade level variable. Based on this fact, it can be said that the transition process from childhood to adolescence and the natural identity complexity occurring during this process affect the happiness of individuals. Rapid physiological changes happening during the development process of adolescents, differentiation in emotional level, changes in the structure of friendship and social relationships, and increased academic expectations from adolescents may

cause young individuals to have difficulty in adapting from time to time, and may cause the level of happiness decrease as the grade level progresses.

According to another finding of the study, there are negative significant relationships between aggression questionnaire's physical aggression, hostility, anger and verbal aggression sub-dimensions, and happiness levels (See Table 1). The rapid increase of aggression and violence in young people in recent years in Turkey and the world (Kabasakal, 2013; Yavuz & Karatas, 2013), and children and young people naturally being affected from the negative effects of aggression and becoming unhappy has become a major problem. The studies examining the relationships between the aggression and happiness variables put forth a negative relationship between these two variables similar to the results of the present study. For example, in a meta-analysis study reviewing the studies on the effects of the "serotonin" hormone, also known as the happiness hormone, Carrillo, Ricci, Coppersmith & Melloni (2009) revealed that increase in the serotonin hormone reduces aggression. Küçükköse (2015) determined a negative and moderately significant relationship between subjective well-being, another form of happiness, in high school students, and anger control expression styles forming the affective dimension of aggression. In the literature, there are studies showing that other positive psychology concepts associated with happiness are negatively related with aggression. For example, Sun and Shek (2012) examined the relationship between life satisfaction, positive youth development and problematic behavior among adolescents. The study results revealed negative relationships between problematic behaviors, and positive youth development and life satisfaction. Other studies put forth that life satisfaction is a factor affecting the reduction of aggressive behavior (Valois, Zullig, Huebner, & Drane, 2001), and that subjective well-being is negatively associated with aggression (Kauklainen, et al., 2001; Qutaiba & Tamie, 2010). The study results show that the tensions that occur especially during adolescence and the aggression experienced as a result of these tensions negatively affect the happiness levels of individuals.

Another hypothesis of this study was that aggression levels in adolescence are negative predictors of happiness, and the findings confirmed this hypothesis (See Table 4). Considering the devastating effect of tensions and negative emotions on aggression, the effect of positive emotions such as happiness on people becomes important. Today, the effect of positive emotions that take individuals to happiness on human behavior and thoughts has started to gain importance (Seligman & Csikszentmihalyi, 2000). Based on the examination of the relevant literature, there are limited number of studies on the relationship between aggression and happiness. This makes it difficult to compare the findings of the present study with the findings of other studies. One of the limited number of studies, the study conducted by Schultz, Izard and Bear (2004) examined children's emotional processes and found that the happiness negatively predict aggression by using the structural equation model. These data are partially similar to the findings of the present study. In another study, Yalçın (2016) revealed that happiness negatively predicts aggression among university students and that happiness is an important factor in reducing aggression. According to the findings, it was stated that the aggressive behaviors of students will decrease with the increase of happiness. In another study examining the relationships between aggression and happiness, Agbaria, Hamama, Orkibi, Gabriel-Fried, and Ronen (2015) concluded that parent-child physical aggression was linked negatively with peer-directed aggression and happiness through the mediation of adolescents' increased need to belong. Based on the study findings, it can be said that adolescents' emotions, thoughts and behaviors involving violence and aggression significantly explain their happiness levels.

Another important finding obtained from the results of this study is that the hostility and physical aggression level in adolescents mediate the relationship between anger and happiness, and verbal aggression and happiness. In this context, verbal aggression and anger dimensions in adolescents may predict happiness by affecting physical aggression and hostility. In other words, verbal aggression and anger levels in

adolescents may affect happiness in adolescents both directly and through aggression, physical aggression and hostility, which are the other sub-dimensions of aggression.

Explaining the factors affecting people's behavior with emotional experiences and emotional loads, Berkowitz (1990), stated that many negative emotions such as sadness and depression may lead to anger and aggression. Accordingly, he emphasized the role of negative emotions in the emergence of aggression. Berkowitz (1990) expressed that negative evaluations or comments regarding a situation that is perceived as negative may provoke aggressive behavior. It is argued that anger, which constitutes the emotional component of aggression, is not a situation that is premeditated, but mostly occurs in situations such as frustration, injustice, criticism and disdain (Balkaya & Şahin 2003, Lohr, Olatunji, Baumeister, & Bushman, 2007). In this sense, by reflecting on the behavior in an uncontrolled and destructive manner, anger has the potential to turn into destructive physical aggression responses and thereby affecting the happiness of adolescents.

Some studies in the literature reported that anger and verbal aggression are important variables in individuals exhibiting physical aggression (e.g. Brezina, Piquero, & Mozerolle, 2001; Campano & Munakata 2004; Dwyer 1998; Furlong & Smith, 1994; Gündoğdu 2010; Karataş 2008; Kesen, Deniz, & Durmuşoğlu, 2007; Larson 2008). In line with the results of this study, Averill (1983) found that individuals reported 83% of verbal aggression and 40% of physical aggression in case of anger. Another study conducted by Yavuzer and Karataş (2013) emphasized that anger has a full mediating role in the relationship between automatic thoughts and physical aggression, and that anger predicts physical aggression as the affective dimension of aggression. Rosenbaum, Ronen, Abuelaish, Orkibi and Hamama (2018) revealed that self-control skills predict more happiness on the one hand and predict less hostility, anger and peer aggression on the other hand. The hypothesized model was confirmed: self-reported self-control skills linked with happiness through positivity ratio as a mediator; self-control skills linked with physical aggression through the association of positivity ratio with hostility, and anger; and anger mediated the link between hostility and physical aggression. Considering the relationships between anger, verbal aggression and happiness, it can be stated that these emotions and thoughts turn into hostility and physical aggression, and from there they may have an important role on one's happiness. In other words, when anger and verbal aggression level in adolescents cannot be controlled, it leads to hostility and physical aggression, which manifest itself destructively, and thus, it may negatively affect adolescents' happiness level.

Adolescence period is an important development process in which many changes are experienced in different dimensions of life such as physiological changes, differentiation in family and social relationships, and emotional and sexual development areas. During this period, adolescents have to adjust to changes, make decisions about their future, set life goals and make an effort to achieve these goals. From this point of view, while adolescence may be a period in which mental distress such as anxiety, stress, tension and depression may be experienced (Andersen & Teicher 2008; Davey, Yücel, & Allen, 2008), it can also a period in which adolescent individuals form a healthy identity and a positive mental structure (Park, 2004). In this context, it can be said that adolescence, like other developmental periods, is a period in which positive development and stress are experienced together and the young person builds an identity (Erikson, 1968).

When the definitions about happiness are examined, it is seen that happiness is mostly associated with external criteria such as virtue and holiness, what causes people to assess their lives positively, life satisfaction and finally with pleasing emotional experiences (Diener, 1984). From the perspective of children and adolescents, happiness plays an important role in protecting the individual from stress arising from developmental difficulties and in developing strategies for protecting mental health in adolescence, which is a challenging process (Mahon & Yarcheski, 2002). During a challenging life period involving multidimensional and rapid changes such as adolescence, young people have difficulties in controlling the tensions they

experience from time to time, and they may display destructive behaviors such as hostility and physical aggression. This may negatively affect their happiness levels in family, school and friend relationships. Based on these results, it can be said that adolescents who can control their thoughts, emotions and behaviors associated with aggression will exhibit less problematic behaviors and that their level of happiness may increase within this framework.

Conclusion and Recommendations

According to the findings of this study on adolescents, there is a negative significant relationship between verbal aggression, anger, hostility and physical aggression, and happiness, and aggression significantly predicts happiness in adolescents. Another result of the study is that the level of hostility and physical aggression mediates the relationship between verbal aggression, anger and happiness in adolescents. In this context, improving the adolescents' skills to prevent violence and aggression is very important for happiness. In order to gain these skills, it is believed that the individual psychological counseling and guidance services developed for adolescents especially in schools affiliated with the Ministry of National Education and the psycho-education programs that will be done with small groups focusing on the individual's own constructive power sources may contribute significantly to adolescents in terms of helping them gain awareness towards their emotions, thoughts and behaviors and helping them change these. On the other hand, the findings of this study can be a guide for other studies that will examine the relationships between positive emotions associated with happiness and aggression in adolescents because based on the characteristics of the individual, it is believed that the phenomenon of aggression can occur at any age and at any developmental stage regardless of the level of education, and that in addition to the well-being and happiness levels of the individual as a member of the family, many factors can be an important and preventive in reducing aggression. From this point of view, it can be said that developing and implementing informative and skills-oriented works with a broader and holistic perspective towards parents on coping with violence and aggression by the public health experts and family psychological counselors working in the Ministry of Family and Social Policies can make significant contributions to the prevention and elimination of problems.

The results of this study should be evaluated considering its limitations. Firstly, the study group consists of a small group of students attending schools only in Central Anatolia. For this reason, in future studies, expanding the study data to include students from different cultural and educational levels can significantly contribute to the literature in terms of evaluating the results comparatively. Another limitation of the study is that the concept of happiness in adolescents is associated with so many different variables that cannot be explained only by aggression, as can be understood from the results of researches related to happiness in the literature. From this point of view, adolescence is an important developmental period in which many changes can be experienced emotionally, socially, mentally and physically. Therefore, in future studies, different variables such as psychological resilience, self-value, family structure and its interactions and emotion regulation skills can be included in order to obtain multidimensional and more generalizable results. Finally, since the studies examining the relationships between aggression and happiness in the literature are mostly conducted using quantitative methods and are few in number, conducting qualitative studies can contribute to experts working with adolescents in terms of examining the relationship between happiness and aggression in adolescents in detail.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

REFERENCES

- Ballard, M.E., Rattley, K.T. Fleming, W.C. & Ashley, P.K. (2004). School aggression and dispositional aggression among middle school boys. *Research in Middle Level Education Online*, 27(1): 1-11. <https://doi.org/10.1080/19404476.2004.11658163>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Agbaria, Q., Hamama, L., Orkibi, H., Gabriel-Fried, B., & Ronen, T. (2016). Multiple mediators for peer-directed aggression and happiness in arab adolescents exposed to parent-child aggression. *Child Indicators Research*, 9(3), 785-803. <https://doi.org/10.1007/s12187-015-9346-y>
- Aktas, V. (2001). *Relationships between aggression and negative intentional tendencies in children*. Unpublished Master Thesis. Hacettepe University Institute of Social Sciences, Ankara.
- Allen, J. J., & Anderson, C. A. (2017). *General Aggression Model*. In P. Roessler, C. A. Hoffner, & L. van Zoonen (Eds.) *International Encyclopedia of Media Effects*. Wiley Blackwell. Doi: 10.1002/9781118783764.wbieme0078
- Ali, A., Ambler, K. G, Strydom, A., Rai, D., Cooper, C, McManus, S., Weich, S., Meltzer, H., Dein S., & Hassiotis, A. (2013). The relationship between happiness and intelligent quotient: the contribution of socio-economic and clinical factors. *Psychological Medicine*, 43(6), 303-1312.
- Alpar, R. (2012). *Applied statistics and validity-reliability with examples from sports, health and education sciences (with analysis steps in Spss)*. Ankara: Detay Publishing.
- Amsel, A. (1992). *Frustration theory: An analysis of dispositional learning and memory* (No. 11). Cambridge University Press.
- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, 53, 27– 51. Available at: <https://doi.org/10.1146/annurev.psych.53.100901.135231>
- Andersen, S. L., & Teicher, M. H. (2008). Stress, sensitive periods and maturational events in adolescent depression. *Trends in Neurosciences*, 31(4), 183–191.
- Averill, J. R. (1983), Studies on anger and aggression: implications for theories of emotion. *American Psychologist*, 38, 1145-1162.
- Balkaya, F. (2001). Anger: the main dimensions causes and consequences. *Turkish Psychological Articles*, 4 (7), 21-45.
- Balkaya, F., & Sahin, N. H. (2003) Multidimensional anger scale. *Turkish Journal of Psychiatry*, 14, 192-202.
- Ballard, M. E., Rattley, K. T., Fleming, W. C., & Ashley, P. K. (2004). School aggression and dispositional aggression among middle school boys. *Research in Middle Level Education Online*, 27(1), 1-11. <https://doi.org/10.1080/19404476.2004.11658163>
- Bandura, A. (1977). Self-efficacy. toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Baron, R. M., & Kenny, D. A. (1986). Th moderatormediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Baron, R. A., & Byrne, D. (2000). *Social Psychology*. Ninth Edition. USA: Allyn and Bacon Published.

- Berkowitz, L. (1990). On the formation and regulation of anger aggression: A cognitive-neoassociationistic analysis. *American Psychologist*, 45(4), 494-503.
- Brezina, T, Piquero, A. R., & Mozerolle, P. (2001). Student anger and aggressive behavior in school: An initial test of Agnew's macro-level strain theory. *Journal of Research in Crime and Delinquency*, 38(4), 362-86. <https://doi.org/10.1177/0022427801038004002>
- Buss, A. H., & Perry, M. P. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.
- Büyüköztürk, Ş., Çokluk, Ö., & Köklü, N. (2010). *Statistics for social sciences* (6. baskı). Ankara: Pegem Akademi Yayınevi.
- Büyüköztrrk, S. (2012). *Data analysis handbook for social sciences, statistics- Research design - SPSS applications and interpretation* (Seventeenth Edition). Ankara: Pegem Academy.
- Camadan, F (2014). *A model for explaining the aggression tendencies observed in university students*. (Unpublished Doctoral Thesis), Karadeniz Technical University, Trabzon.
- Camadan, F., & Yazıcı, H. (2017). Investigation of the aggression tendencies observed in university students in terms of various variables. *Journal of Higher Education and Science*, 7 (2), 225-234.
- Campano, J. P., & Munakata, T. (2004). Anger and aggression among filipino students. *Adolescence*, 39(156), 757-764.
- Carrillo, M., Ricci, L. A., Coppersmith, G. A., & Melloni, R. H. (2009). The effect of increased serotonergic neurotransmission on aggression: A critical meta-analytical review of preclinical studies. *Psychopharmacology*, 205(3), 349-68. <https://doi.org/10.1007/s00213-009-1543-2>
- Castillo, R., Salguero, J. M., Fernandez-Berrocal, P., & Balluerka, N. (2013). Effects of an emotional intelligence intervention on aggression and empathy among adolescents, *Journal_of_Adolescence*, 36(5), 883-92.
- Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asar- now, J. R., Markman, H. J. et al. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist*, 48, 1013-1022.
- Csikszentmihalyi, M. (2013). *Flow: The Psychology of Happiness*. London: Random House.
- Celik, H. (2006). *Investigation of aggression responses, attachment styles and interpersonal schemes of university freshman students*. Unpublished Master Thesis, Marmara University, Istanbul.
- Celikkaleli, O., & Tumas, S. (2017). The mediating role of social alienation in the relationship between social exclusion and aggression among university students. *Mehmet Aktif Ersoy University Journal of Education Faculty*, 43, 155-175.
- Cevik, G., & Yıldız, M. (2016). The mediating role of self-esteem on the relationship between hopelessness and happiness in pedagogy formation students. *Dicle Üniversitesi Ziya Gökalp Faculty of Education Journal*, 27, 96-107. Doi: 10.14582/Duzgef.704
- Chirkov, V., & Ryan R. M. (2001). Control Versus Autonomy Support in Russia and The U.S.: Effects On Well-Being and Academic Motivation. *Journal of Cross-Cultural Psychology* 32(5):618-635.
- Cihangir Cankaya, Z., & Meydan, B. (2018). Happiness and hope in adolescence, *Electronic Journal of Social Sciences*, 17(65): 207-222.
- Cresswell, J., W. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Fifth Edition. SAGE Publications.

- Çirkin, Z., & Göksel, T. (2016). Happiness and income. *Ankara University SBF Journal*, 71 (2), 375-400.
- Davey, C. G., Yücel, M., & Allen, N. B. (2008). The emergence of depression in adolescence: Development of the prefrontal cortex and the representation of reward. *Neuroscience & Biobehavioral Reviews*, 32(1), 1-19.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: human needs and the self determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Demiralp, M., & Oflaz, F. (2007). Cognitive behavioral therapy techniques and psychiatric nursing practice. *Anatolian Journal Psychiatry*, 8, 132-9.
- Demirtas Madran, A. H. (2012). Reliability and Validity of the Buss-Perry Aggression Questionnaire-Turkish Version. *Turkish Journal of Psychiatry*, 23. 1-5.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Diener, E. (2000). Subjective well-being. *American Psychologist*, 55(1), 34-39.
- Diener, E., Scollon, C. N., & Lucas, R. E. (2003). The evolving concept of subjective well-being: The multifaceted nature of happiness. *Advances in Cell Aging and Gerontology*, 15, 187-219.
- Dogan, T., & Eryilmaz, A. (2013). An Examination of the relationships between two-dimensional self-esteem and subjective well-being. *Pamukkale University Journal of Education*, 33(1), 107-117
- Dwyer, K. (1998). *Early Warnings, Timely Response: A Guide to Safe Schools*. Washington, DC: U. S. Department of Education.
- Erikson, E. H. (1968). *Identity, Youth and Crisis*. New York: W. W. Norton Company.
- Eroglu, S. E. (2009). *Dimensions of aggression behavior and related factors: a comparative study on high school and university students*. (Unpublished Doctoral Dissertation). Selcuk University, Konya.
- Frazier, A P., Tix, P A., & Barron, E. K. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51(1), 115-34. doi:10.1037/0022-0167.51.1.115
- Freedman, J. L., Sears, D. O., & Carlsmith, J. M. (1998). *Sosyal Psikoloji*. (Çeviren: Ali Dönmez). Ankara: İmge Yayınları
- Furlong, J. M, & Smith, C. D. (1994). *Anger, Hostility and Aggression*. U.S.A: CPPC.
- Gander, M. J., & Gardiner, H. W. (2001). *Çocuk ve Ergen Gelişimi* (Çev. Bekir Onur). 4.Baskı, Ankara: İmge Kitabevi.
- Garcia, D., Rosenberg, P., Erlandsson, A., & Siddiqui, A. (2010). On Lions and adolescents: Affective temperaments and the influence of negative stimuli on memory. *Journal of Happiness Studies*, 11(4), 477-495. <https://doi.org/10.1007/s10902-009-9153-6>.
- García-Sancho, E., Salguero, J. M., & Fernández-Berrocal, P. (2014). Relationship between emotional intelligence and aggression: A systematic review. *Aggression and Violent Behavior*, 19(5), 584-591. Available at: <https://doi.org/10.1016/j.avb>.
- Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*, 35, 311-319.
- Goldstein, S. E. (2011). Relational aggression in young adults' friendships and romantic relationships. *Personal Relationships*, 18, 645-656. Available at: <https://doi.org/10.1111/j.1475-6811.2010.01329.x>
- Gokler, R., Gurgan, U., & Tastan, N. (2015). The effect of quality of school life on sense of happiness: A study on University students. *Educational Research and Reviews*, 10(7), 967-974

- Gudmundsdóttir, D. G., Ásgeirsdóttir, B. B., Huppert, F. A., Sigfúsdóttir, I. D., Valdimarsdóttir, U. A., & Hauksdóttir, A. (2016). How does the economic crisis influence adolescents' happiness? Population-based surveys in Iceland in 2000–2010. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 17(3), 1219–1234.
- Gundogdu, R. (2010). Examination of 9th grade students' conflict resolution, anger and aggression levels in terms of some variables. *CU Journal of Social Sciences Institute*, 19(3), 257-76.
- Gulcan, A. (2014). *Genç yetişkinlerde iyimserliğin mutluluk ve yaşam doyumu üzerindeki etkisinin incelenmesi*. Yayınlanmamış Yüksek Lisans Tezi, Fatih Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.
- Hasta, D. (2017). Aggression: an investigation in terms of interpersonal relationship styles and empathy. *Ankara University Journal of Social Sciences*, 4(1).
- Hasta, D., & Guler, M. E. (2013). Aggression: an investigation in terms of interpersonal relationship styles and empathy. *Ankara University Journal of Social Sciences Institute*, 4 (1), 64-104.
- Hefferon, K., & Boniwell, I. (2011). *Positive psychology theory, research, and applications*. New York, NY: McGraw-Hill.
- Holder, M. D., & Coleman, B. (2009). The contribution of social relationships to children's happiness. *Journal of Happiness Studies*, 10, 329-349.
- Kabasakal, H. (2013). Bluntnose sixgill shark, *Hexanchus griseus* (Chondrichthyes: Hexanchidae), caught by commercial fish- ing vessels in the seas of Turkey between 1967 and 2013. *Annales, Series Historia Naturalis*, 23(1), 33-48.
- Karatas, Z. (2008) Anger and aggression in high school students. *CU Journal of Social Sciences Institute*, 17, 277-94.
- Karatas, Z. (2012). Investigation of empathic skills and self-esteem levels of education faculty students. *Mehmet Akif Ersoy Journal of Education Faculty*, 12 (23), 97-114.
- Kauklainen, A., Salmivalli, C., Bjorkqvist, K., Osterman, K., Lahtinen, A., Kostamo, A., & Lagerspetz, K. (2001). Overt and covert aggression in work settings in relation to the subjective well-being of employees. *Aggressive Behavior*, 27(5), 360-371. Available at: <https://doi.org/10.1002/ab.1021.abs>
- Kaymak Ozmen, S. (2004). Reflections of anger and aggression in the family. *Ankara University Faculty of Educational Sciences Journal*, 37(2), 27-39.
- Kesen, N. F., Deniz, M. E., & Durmuşoğlu, N. (2007). Relationship between aggression and anger levels in adolescents: A study on orphanages. *Journal of SU Social Sciences Institute*, 17, 353-64.
- Kulaksızoglu, A. (2000). *Adolescent Psychology*. Istanbul: Remzi Bookstore.
- Kumpfer, K. L. (1999). Outcome measures of interventions in the study of children of substance-abusing parents. *Pediatrics*, 103, 1128–1144.
- Kurtyılmaz, Y. (2011). *Üniversite öğrencilerinin ilişkisel saldırganlık ile benlik saygısı, sosyal bağlılık ve sosyal kaygı düzeyleri arasındaki ilişkiler*, Yayınlanmamış Doktora Tezi, Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir.
- Kurtyılmaz, Y., Can, G., & Ceyhan, A. A. (2017). Relationships between relational aggression and self-esteem, social commitment and social anxiety levels of university students. *Turkish Journal of Psychological Counseling and Guidance*, 7 (47).

- Küçüköke, I. (2015). *Investigation of the relationship between high school students' subjective well-being levels and constant anger, anger expression styles and stress levels*. (Unpublished Master Thesis). Mevlana University, Konya.
- Larson, J. (2008). Angry and aggressive students. *Education Digest: Essential Readings. Condensed for Quick Review*, 73(7), 48-52.
- Leenaars, L., & Rinaldi, C. M. (2010). Male and female university students' experiences of indirect aggression. *Canadian Journal of School Psychology*, 25, 131–148, doi:10.1177/0829573509350062.
- Lohr, J. M., Olatunji, B. O., Baumeister, R. F. & Bushman, B. J. (2007). The psychology of anger venting and empirically supported alternatives that do no harm. *The Scientific Review of Mental Health Practice: Objective Investigations of Controversial and Unorthodox Claims in Clinical Psychology, Psychiatry, and Social Work* 5(1) 53-64.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71(3), 616-628.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological Bulletin*, 131(6), 803-855.
- Mahon, N. E. & Yarcheski, A. (2002). Alternative theories of happiness in early adolescents. *Clinical Nursing Research*, 11 (3), 306–323.
- Mahon, N. E., Yarcheski, A., & Yarcheski, T. J. (2005). Happiness as Related to Gender and Health in Early Adolescents. *Clinical Nursing Research*, 14(2), 175–190. <https://doi.org/10.1177/1054773804271936>
- Marques, I, Lagos, A., & Costa-Neves, B. (2013). Gastric plasmablastic lymphoma in HIV-negative patient. *Rev Esp Enferm Dig*. 105(3), 166–167.
- Mitrofan, N., & Ciuluvica, C. (2012). Anger and hostility as indicators of emotion regulation and of the life satisfaction at the beginning and the ending period of the adolescence. *Procedia-Social and Behavioral Sciences*, 33: 65-69.
- Morsumbul, U. (2015). The effect of identity development, self-esteem, low self-control and gender on aggression in adolescence and emerging adulthood. *Eurasian Journal of Educational Research*, 15(61), 99-116. Available at: <https://doi.org/10.14689/ejer.2015.61.6>
- Namdar, A. (2018). *The relationship between hope, anxiety and happiness in a group of students* (Unpublished Master Thesis). Üsküdar University, Institute of Social Sciences, İstanbul.
- Ozdevecioglu, M., Can, Y., & Akin, M. (2013). Relationships between positive and negative emotionality and individual and organizational aggression in organizations: The role of participation in physical activities. *Journal of Business Studies*, 5 (2), 159-172.
- Qutaiba, A., & Tamie, R. (2010). Self control and a sense of social belonging as moderators of the link between poor subjective wellbeing and aggression among arab palestinian adolescents. *Procedia-Social and Behavioral Sciences*, 5: 1334-1345. <https://doi.org/10.1016/j.sbspro.2010.07.284>.
- Robertson T., Daffern M., & Bucks R., S. (2012) Emotion regulation and aggression, *Aggression and Violent Behavior*, 17: 45-54. <https://doi.org/10.1016/j.avb.2011.09.006>.
- Rosenbaum, M., Ronen, T., Abuelaish, I., Orkibi, H., & Hamama, L. (2018). Positivity Ratio Links Self-control Skills to Physical Aggression and Happiness in Young Palestinians Living in Gaza. *YOUNG*, 26(4),78-95. <https://doi.org/10.1177/1103308817743371>

- Park, N. (2004). The role of subjective well-being in positive youth development. *The Annals of the American Academy of Political and Social Science*, 59(1), 25-39.
- Schultz, D., Izard, C. E., & Bear, G. (2004). Children's emotion processing: Relations to emotionality and aggression. *Development and Psychopathology*, 16(2), 371-387. <https://doi.org/10.1017/S0954579404044566>
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology –an introduction. *American Psychologist*, 55(1), 5-14. <https://doi.org/10.1037/0003-066X.55.1.5>
- Shek, D. T. L. (1999). Parenting characteristics and adolescent psychological well-being: A longitudinal study in a Chinese context. *Genetic, Social, and General Psychology Monographs*, 125(1), 27–44.
- Steinberg, L. (2007). *Identity (Trans. R. Fingerless). Ed., F. Cok, Puberty. (pp. 293-330)*. Ankara: Imge Bookstore.
- Sun, R. C., & Shek, D. T. (2010). Life satisfaction, positive youth development, and problem behavior among Chinese adolescents in Hong Kong. *Social Indicator Research*, 95(3): 455-474.
- Telef, B. B. (2014). School children's happiness inventory: The validity and reliability study. *International Online Journal of Educational Sciences*, 6(1), 130-143.
- Toprak, H. (2014). *Psychological resilience and psychological need satisfaction as the predictor of happiness life satisfaction in adolescents* (Unpublished master's thesis). Sakarya University. Sakarya.
- Ugur, E. (2013). *Investigation of the relationship between high school students' cognitive distortions and aggression responses related to interpersonal relations*. Unpublished Master Thesis. Gaziantep University, Gaziantep.
- Valois, R. F., Zullig, K. J., Huebner, E. S., & Drane, J. W. (2001). Relationship between life satisfaction and violent behaviors among adolescents. *American Journal of Health Behavior*, 25(4), 353-366. <https://doi.org/10.5993/AJHB.25.4.1>
- Veenhoven, R. (2013). *Data- book of happiness: A complementary reference work to conditions of happiness' by the same author*. Springer Science and Business Media Dordrecht, Netherlands
- Vera-Villaruel, P., Celis-Atenas, K., Pavez, P., Lillo, S., Bello, F., Díaz, N., & López, W. (2012). Money, Age and Happiness: Association of Subjective Well-being with Socio-demographic Variables. *Revista Latinoamericana de Psicología*, 44, en prensa.
- Werner, N. E., & Crick, N. R. (1999). Relational aggression and social–psychological adjustment in a college sample. *Journal of Abnormal Psychology*, 108: 615–623.
- Yalcın, R. U. (2016). *Investigation of the relationship between university students' aggression and happiness levels*. Master Thesis. Atatürk University Institute of Educational Sciences, Erzurum.
- Yalçın, R., Gençdoğan, B. (2019). Is happiness predictive of aggression? A structural equation model study with university students. *Cumhuriyet Uluslararası Eğitim Dergisi*, 8 (3) , 593-608.
- Yavuzer, Y., & Karatas, Z. (2013). The mediating role of anger in the relationship between automatic thoughts and physical aggression in adolescents. *Turkish Journal of Psychiatry*, 24(2), 117–123. doi:10.5080/u6958
- Yavuzer, Y., Karatas, Z., Civilidag, A., & Gundogdu, R. (2014). The role of peer pressure, automatic thoughts and self-esteem on adolescents' aggression. *Eurasian Journal of Educational Research*, 14(54), 61-78.
- Zhang, L. (2005). The value premium. *Journal of Finance*, 60(1), 67–103.