



Adolescents' Self-Esteem, School Anger and Life Satisfaction as Predictors of Their School Attachment *

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Abstract

The aim of this study is to examine whether adolescents' self-esteem, school anger and life satisfaction predict school attachment significantly. Study group of the research consists of 369 high school students. As the data collection tool in the research, School Attachment Scale Among Children and Adolescents (High School Form), Life Satisfaction Inventory, Coopersmith Self-Esteem Inventory and Multidimensional Anger Scale were employed. Data analysis was conducted using the Pearson Product-Moment Correlation Coefficient and the Hierarchical Regression Analysis. As a result of analyses carried out, a significant relationship was found between life satisfaction and sub-dimensions of school attachments (attachment to school, attachment to friend and attachment to teacher) and school anger sub-dimensions. In regression models constructed in the study, on the other hand, it was found out that anger experience and hostility sub-dimensions and life satisfaction significantly predict the school attachment sub-dimension. Besides, it was observed that anger experience, hostility and positive coping sub-dimensions predict friend attachment sub-dimension of life satisfaction; destructive expression, hostility and life satisfaction sub-dimensions predict teacher attachment, and they contributed to the model significantly. However, it was determined that self-esteem did not predict school attachment sub-dimensions significantly. It is considered that these obtained results can be used in studies to be conducted with a view to increase adolescents' school attachment and they may establish basis for new studies.

Keywords

Adolescence
School Attachment
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Introduction

When the school's role in the development of adolescents is examined, a different theory emerges. According to the attachment theory among these theories, attachment starts during infancy and effect of these established attachment models continues for as long as individual lives and they can be generalized with relationships established with others (Ainsworth, 1989; Bowlby, 1988). In another

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view, the social learning theory, participating in social groups such as school and so forth, attachment and belonging to these groups contribute to formation of positive values and standards (Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999). School life as a part of socialization functions significantly in obtaining necessary skills and equipment among adolescents (Chapman, Buckley, Sheehan, & Shochet, 2013). While living different attachment and obtaining a sense of belonging are considered as quite powerful psychological need during the development process (Osterman, 2000); schools are considered as the most important socializing factor contributing to experience of such attachment relationships (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004). On the other hand, social control theory defines parents, peers and school as three most important sources of attachment from the point of attachment relationships (Hirschi, 1969). Attachment to teachers and other adults, from this perspective, is considered as a crucial developmental process that maintains its effect on life as the continuation of initial attachment relationships (Bergin & Bergin, 2009). In this respect, the concept of school attachment as a form of attachment is associated with functions such as providing sense of belonging, emotional attachment and satisfaction from school life (Ueno, 2009).

School attachment is a quite functional concept relating to believing in being valuable as a member of school (Roeser, Midgley, & Urdan, 1996); and relating to the sense of belonging to school, feeling proud of school and feeling safe at school (Maddox & Prinz, 2003). Blum (2005) lists factors among the main characteristics of school attendance such as loving school, perceived teacher support and interest, having good relations with friends at school, having expectations and ideas about present and future academic process, belief in fair and effective discipline and participation in extracurricular activities. Appropriate and sufficient satisfaction for students' need for belonging to school is considered as crucial in terms of physical, emotional, behavioral and mental well-being (Osterman, 2000). While school attachment expresses attitude towards school and perceptions, interest and emotions (Bouffard & Couture, 2003), feeling of success and psychosocial harmony (Debacker & Nelson, 2000); school attachment is also evaluated in conjunction with participation to academic activities (Resnick, Bearman, & Blum, 1997).

While self-acceptance, identity creation and the need to be accepted by others increase in adolescence, in this period, relationships at school (relationships established with friends, teachers and other adults) become much more important. Deci and Ryan (2000) indicate that, while school provides opportunity for adolescents to meet their attachment needs by means of rebuilding their attachment relationships and in this regard an opportunity for students to establish close relationships; at the same time, school is among the most social environments in the development of adolescents since adolescents spend a significant portion of their time in school (Baker, Dilly, Auperle, & Patil, 2003). Adolescents must establish new ways to attach in this period; actually, these new ways of attachment also form the basis of their future attachment relationships. Adolescents tend towards peers and other adults to explore the independence by means of feeling that their families are still there and support them with a newly emerging sense of autonomy. This orientation is a very important effort in terms of adolescent's identity towards gaining extremely important live experiences and establishing new attachment relationships especially with his/her peers (Weiss, 1982). According to attachment theory, the formation of self system is the process of children's attachment types and organizing attachment relationships obtained as a result of these relationships. These relationships are transferred to schools that are highly effective from the point of social behaviors and being open to learning among students (Howes & Hamilton, 1992). Peers as the attachment figure in adolescent's search for independence from the family are the way to trust others in attempt to move away from the family and it is the transfer of trust from family to peers (Weiss, 1982). In this direction, friend attachments are important in terms of being a source of trust and support in adolescent's life and forming a prototype in the development of social adaptation and future relations (Seiffge-Krenka, 1993).

Teacher as the basic interaction source in schools are also important as an attachment figure in lives of students (Sierra, 2012). It is indicated that relationships established with individuals who provide primary care during early periods are decisive in children's relationships outside the family; quality of teacher-child relationship is dependent on the quality of parent-child relationship (Pianta & Steinberg, 1992). Schools and teachers are very important in the process of socialization for child and

adolescents (Pianta, 1992); teachers have an indispensable role not only in the students' academic development but also in their psychosocial development (Myrick, 2003). At the same time, these are an effective factor in preventing both students' academic failures and their problematic behaviors. Besides, children living positive and supportive relationships with their teachers show greater social adaptation to both their peers and adults in school, and they tend to establish supportive social relationships and experience less behavioral problems (Howes & Hamilton, 1992), interest in learning increases and these children show greater success orientation and academic performance (Howes & Hamilton, 1992; Pattie, 2000).

Resnick et al. (1997) collect factors strengthening school attachment under 4 groups. These include: Adult support: It refers to conditions such as school personnel's emotional support to students, their interest and care, spending time with students. Belonging to a positive peer group: Attachment felt towards peers may improve students' perception towards the school. Attachment to education: These are beliefs towards school among students who believe in the importance of school for their future and who participate in school activities. School environment, on the other hand, is student's perception of the physical environment and psychosocial structure of school. As highlighted here, school attachment is considered as a multidimensional concept based on relationships with teachers, other adults and peers, their educational lives and experiences, their relationships and experiences at school.

In studies conducted, among prominent variables effecting school attachment, there are variables such as positive teacher-family relationships, academic success, self-concept (Greenberg et al., 2003), life satisfaction (Gilman & Huebner, 2006; Suldo & Shaffer, 2008). In addition, students with low self-esteem can be considered as an important risk factor in terms of living positive experiences regarding school and school attachment because of these students' outcomes such as distrust in themselves and their abilities and setting goals at lower levels and mostly hesitating to participate in activities (Yavuzer, 2006).

Self-esteem defines a positive mood that allows some to find oneself as value, positive, worth to be liked and appreciated and to trust oneself (Yörükoğlu, 2000). According to Cast and Burke (2002), self-esteem is a structure that is sometimes a result and sometimes serves as an incentive. Low level of self-esteem was found to be associated with negative emotions such as anxiety, anger, depression, alienation and unhappiness (Morganett, 2005). Having high level of self-esteem will also contribute to the development of positive experiences by decreasing concerns about expectations of individuals around adolescents (Aydın, 2005) with regard to being more undertaker and safer in social relationships and behaving more confident (Kuzgun, 2002). As adolescents' positive perceptions about their identity improve, it is indicated that adolescents can be more successful in using social processes and in social relations, show independent and autonomous behaviors, effectively communicate with others and behave in sincere and control-oriented way (Tutar, 2013). In this respect, self-esteem can be considered to provide considerable potential to adolescents. In this case, it can be considered that students with low self-esteem may face risks such as participating in activities less, establishing more negative relationships; experiencing less positive emotions relating to school life.

Another concept affecting school attachment is the school anger that is the state of anger developed by students based on experiences in school environment (Smith, Furlong, Bates, & Laughlin, 1998). Especially activities and relationships related to school where they spend most of their time naturally reveal school anger. According to Fryxell (2000), there are students' several experiences in the school; also these experiences can consisted of intense anger and negative emotions among students. Among fundamental problems from the point of in-school relations together with preventing adolescents' participation in academic activities, there are especially problems such as aggressiveness, depression, suicide, substance abuse (Daniel, Goldston, Erkanli, Franklin, & Mayfield, 2009) widely experienced by adolescents with regard to anger at schools. Peer relations, as another dimension from the point of anger, are also among major determinants of anger and hostility in students in the school environment, it has been determined that students with high level of school anger tend to have less number of friends and these students are more prone to aggressive behavior (Fryxell, 2000). It has been determined that school anger is associated with adverse events among students such as low academic achievement (Fryxell, 2000), aggression tendency (Campano & Munakata, 2004), suicide (Ghanizadeh,

2008), pessimism (Boman & Yates, 2001), negative behavior and low motivation (Heavy, Adelman, Nelson, & Smith, 1989). In this respect, adolescents' school anger can be said to pose a risk for adverse events reflected in their attachment to school and friendly relations.

Life satisfaction is an important issue among adolescents in terms of feeling happy at school, having positive thoughts and feelings regarding school, getting satisfaction from school activities and school life. In relation to school attachment, life satisfaction is particularly important in terms of evaluation of subjective well-being especially in adolescence. In studies, high level of life satisfaction is found to facilitate coping with stress and it is negatively associated with problems such as aggression, anxiety, substance and alcohol abuse among young people (Gilman & Huebner, 2006). It has been revealed that students with high level of life satisfaction achieve high scores in tests, have better school attendance and have more positive attitudes toward school (Suldo & Shaffer, 2008). It is indicated that children reporting high levels of life satisfaction tend to have higher level of academic performances, interpersonal relationships and personal functions compared to their peers reporting low level of life satisfaction (Gilman & Huebner, 2006).

It is also indicated that school attachment provides adolescents with very important acquisition even in terms of the sense of belonging and forming social connection (Carvalho, Bastos, Rabinovich, & Sampaio, 2006), and adolescents' risks of school absenteeism decreases as their school attachment levels increase (Freitas, 2007). On the other hand, it is indicated that school attachment is related to adaptation issues experienced at school and weak school attachment increases problems such as destructive behaviors, substance abuse, violence and school dropout (Estevam, Coutinho, & Araújo, 2009). Weak school attachment was found associated with behavioral problems, weak academic performance and discipline problems at school (Feijó & Assis, 2004). In addition, it is indicated that adolescents having problems with laws tend to have large number of school problems, and these problems are associated with weak school attachment. These adolescents are indicated to have lower levels of attachment towards their teachers and school staff, and have lower learning objectives and participation to academic activities (Oliveira, 2002), and criminal adolescents tend to have higher levels of school dropout and lower academic performances (Toledo & Bazon, 2005).

Considering all the results, it is apparent that adolescents' levels of school attachment are associated with their development and adaptation processes. Low level of school attachment results in various psychosocial difficulties among adolescents while hampering their benefiting effectively from the training process and forming an efficient career plan. Therefore, adolescents' satisfaction from their lives and their happiness at school, ability to establish healthy friend and teacher relationships, developing a positive sense of self, having possessive emotions and attitudes towards school may be important from the point of increasing school attachment.

Although school attachment is concept that has been studied for a long while at an international level (Hirschi, 1969; Pianta, 1992; Pianta & Steinberg, 1992; Resnick et al., 1997; Osterman, 2000; Blum, 2005; Hill, 2005; Gilman & Huebner, 2006; Hill & Werner, 2006; Suldo & Shaffer, 2008), it can be seen that there are a few studies available on school attachment in Turkey more recently. Among these studies; it was observed that such studies include a scale adaptation study (Savi, 2011), the relationship between levels of school attachment and quality of life among children and adolescents in primary education (Savi Çakar, 2011), attachment to parents at early adolescence, examination of school attachment and life satisfaction (Özdemir & Koruklu, 2013); analysis of school attachment and metaphorical school perception (Özdemir & Kalaycı, 2013), school attachment and loneliness among adolescents at different levels of bullying (Duy & Yıldız, 2014). Therefore, there is a need for more studies on the topic of adolescents in the academic field in Turkey. This research is considered important in terms of supporting limited number of studies in this field, contributing to the knowledge and creating resources to new studies.

Based on the above-mentioned literature, it is clear that there is a need for analysis of adolescents' level of school attachment and determination of variables affecting school attachment. With reference to this fact, the aim of this research is to examine whether self-esteem, school anger and life satisfaction predict adolescents' school attachment significantly.

Method

This study is a study in the relational scan model; in the study, it is analysed whether school attachment as the dependent variable is predicted by independent variables such as self-esteem, school anger and life satisfaction.

Study Group

While building this study, the objective was to collect data from students in one Science High School, three Anatolian High Schools and two Vocational High Schools, but data from Science High School was excluded from data observation set since they were insufficient for comparison. Thus, study group of this research was constituted of low socio-economic level students who attended the 9th, 10th and 11th grades as selected from three Anatolian High Schools and two Vocational High Schools in Manisa city center as of 2013-2014 academic year. The working group included 369 high-schoolers selected with the random sampling method including 182 girls (49.3%) and 187 boys (50.7%). Of these students, 168 of them attend Anatolian High Schools and 201 of them attend Vocational High Schools. 105 of them (28.45%) attend the 9th grade, 122 (33.06%) attend the 10th grade, and 142 (38.42%) attend the 11th grade. Since 12th grade students' motivation for participating in the study was found low, they were excluded from the sample. The age range of students is 15-19, and the average age is 16.2.

Data Collection Tools

Adolescents' School Attachment Scale (High School Form): Developed by Hill (2005) to assess children and adolescents' level of school attachment, "The School Attachment Scale" consists of 15 items and three factors (teachers, friends and school attachment). High score obtained from this 5-point Likert-type scale shows high level of school attachment (Hill & Werner, 2006). The scale was adapted into Turkish culture for elementary school students (3rd and 8th grades) by Savi (2011). It was revealed that the scale is in a three-factor structure (teacher attachment, friend attachment and school attachment dimensions) and all sub-factors together have a 58.69% of variance explanation rate, and the Cronbach alpha reliability coefficient is .84, for two halves test reliability, for the first half it is .78 and for the second half it is .67, while test-retest reliability is .85.

Within the scope of this study, adaptation study was conducted to determine whether the School Attachment Scale Among Children and Adolescents Scale developed for the 3rd and 8th graders was suitable for high-schooler adolescents, and its psychometric properties were examined; confirmatory factor analysis was carried out for its structure validity. DFA studies were carried out on 270 students. In studies conducted towards analysis availability of data set, 10 data demonstrating extreme values and one third of which left blank were not included in analyses. Fit indices of the model obtained from DFA applied on 15 items were analyzed, and Chi-square value ($\chi^2=281.65$, $sd=87$, $\chi^2/sd=3.23$, $p=0.00$) was found to be significant. Fit index values were found to be RMSEA=.09, NFI=.90, CFI=.93, IFI=.93, RFI=.90, GFI=.90, AGFI=.83, NNFI=.91 and SRMR=.07. By considering RMSEA value was greater than .08 and the model did not provide good fit, t values of items and suggestions in DFA result were analyzed and the 6th item was removed from the analysis and DFA was re-applied over 14 items. Fit indices of the model obtained from the second DFA were analyzed, Chi-square value ($\chi^2=220.87$, $sd=74$, $\chi^2/sd=2.98$, $p=0.00$) was found to be significant. Fit index values were found to be RMSEA=.08, NFI=.92, CFI=.94, IFI=.94, RFI=.90, GFI=.90, AGFI=.85, NNFI=.93 and SRMR=.06. GFI, NFI, RFI, CFI, NNF and IFI goodness of fit having a value greater than .90 (Hu and Bentler, 1999) and RMSEA receiving a value of .08 and below shows that the model gives good fit (MacCallum et al., 1996; as cited in Hooper, Coughlan, & Mullen, 2008). Accordingly, it can be said that the model with three dimensions and 14 items is sufficient in terms of obtained fit index values. In the reliability analysis applied, Cronbach Alpha internal consistency coefficient of the scale was found to be .91 and the second half test reliability was found as .80 for the first half and .74 for the other part.

Multidimensional School Anger Scale: Developed by Furlong et al. (2002), Multidimensional School Anger Scale (MDSAS) measures affective, cognitive and behavioral dimensions of students' angers based on their school lives among the 9th and 12th grades. The original form of the scale consists of a total of 37 items and four subscales (anger experience, hostility, destructive and positive coping).

By collecting scores of responses given to options, a total point was obtained for each subscale. The more scores are taken from subscales, the higher the level of anger experience, hostility, destructive expression and positive coping becomes. In the reliability analysis study, Cronbach's alpha internal consistency coefficient is .86 for Anger Experience subscale, .80 for Hostility subscale, .82 for Destructive Expression subscale, .68 for Positive Coping subscale and test-retest reliability coefficients vary between .56 and .62 (as cited in Çivitçi, 2007). The Turkish adaptation of the scale was conducted by Çivitçi (2007), Cronbach's alpha coefficient was determined as .64, Spearman Brown coefficient as .59 and Guttman formula coefficient as .57. Within the scope of this study, Cronbach's alpha values were calculated as .76 for Anger Experience subscale, .81 for Hostility subscale, .82 for Destructive Expression subscale and .77 for Positive Coping subscale.

Coopersmith Self-Esteem Inventory (CBSI): On the scale developed by Coopersmith (1967) (as cited in Pişkin, 1997) reliability study was carried out on long and short form of the inventory using both Kuder-Richardson-20 formula and test halving technique. Reliability coefficient acquired as a result of short form KR-20 of the inventory was determined as .76 and internal consistency coefficient as .81. In the 25-item short form, participants giving the answer "Yes" for particular items and "No" for other items receive a point, after collecting all received points, obtained score is multiplied by 4 to make an assessment over 100 points. Thus, the obtained result give the self-esteem level of that person. The Inventory can also be used without multiplying obtained scores by 4. Within the scope of this study, KR-20 reliability coefficient was found as .83.

Life Satisfaction Scale: The scale was developed by Diener, Emmons, Laresen, and Griffin (1985) (as cited in Köker, 1991). It's adaptation into Turkish was carried out by Köker (1991). Aiming at measuring general life satisfaction, the scale consists of five items related to life satisfaction suitable for all ages ranging from adolescents to adults. As a result of item analysis applied, correlation between total scores and scores obtained from each item was found sufficient. Test-retest reliability coefficient of the test was found to be .85. In the study conducted by Yetim (1993), Cronbach's alpha internal consistency coefficient of scale was found to be .86 and reliability coefficient determined by test and test-retest method as .73. Within the scope of this research, the Cronbach's Alpha internal consistency coefficient of the scale was calculated as .76.

Collection of data

During the data collection stage of the research, primarily necessary permissions were taken from Manisa Provincial Directorate of National Education and planning was made for implementation. In this process, it was determined by school administrations that it would be appropriate to carry out application during Guidance Course; the application was carried out by researchers and school psychological counselors during guidance hours. Before starting the application stage, the students was first informed about purpose of the research, privacy and volunteering policy was reminded, it was specified that no credentials would be written on survey forms, and obtained results would not be used beyond the scope of the research. After this stage, unwilling students were not given forms, and application was completed about 25-30 minutes.

Analysis of data

In the research, Pearson Product-Moment Correlation Coefficient was used to determine the relationships between school attachment among adolescents and variables of self-esteem, school anger and life satisfaction, and Hierarchical Regression Analysis was used to determine the predictive power of predictive variables for school attachment. In analyses, extreme values were taken into consideration to provide data fitness, and 40 extreme values were removed from data set. Later on, normal distribution of data was provided in the normality analysis carried out. To acquire multiple regression assumption, it was examined with scatter diagram whether the relationship between variables is linear or not, and it was seen that the relationship is linear and there were no values deviating from the set. Besides, considering Durbin Watson value used in testing autocorrelations in the model to provide regression assumption, in this study, it was found that for each model this value is 1.73, 1.79 and 1.78 respectively, there was not any autocorrelations, standard errors of b coefficients are very small and regression assumption is provided.

Results

Research findings were obtained by applying regression analysis and Pearson Product-Moment Correlation Coefficient. The results are presented in tables respectively.

Table 1. Descriptive Statistics

Variables	\bar{X}	S	Skewness Coefficient	Kurtosis Coefficient
Sub-Dimensions of School Attachment				
School Attachment	16.94	4.43	-.34	-.09
Friend Attachment	16.05	3.36	-.79	.32
Teacher Attachment	17.30	4.42	-.17	-.29
Self Esteem	38.53	3.13	.23	.76
Sub-Dimensions of School Anger				
Anger Experience	39.74	7.27	-.23	-.33
Destructive Expressions	9.56	2.79	1.11	1.46
Hostility	13.08	3.63	.57	.31
Positive Coping	14.11	4.36	1.05	.96
Life Satisfaction	19.99	6.53	-.09	-.66

In Table 1, descriptive statistics for the variables can be seen.

Table 2. Pearson Product-Moment Correlation Coefficients

Variables	Self-Respect	Anger Experience	Destructive Expression	Hostility	Positive Coping	Life Satisfaction
School Attachment	.07	-.13**	-.03	-.56**	.13**	.17**
Friend Attachment	.05	-.14**	-.04	-.22**	.14**	.22**
Teacher Attachment	.09	-.17**	-.19**	-.45**	.17**	.23**

**p<0.01 n=369

As can be in Table 2, there is a negative significant relationship between adolescents' school attachment sub-dimension and their anger experience ($r=-.13$) and hostility ($r=-.56$); and a positive relationship between their school attachment and positive coping ($r=.13$) and life satisfaction ($r=.17$). No significant relationships were found between destructive expressions and self-esteem and the sub-dimension of school attachment. There is a negative significant relationship between adolescents' friend attachment sub-dimension scores and their anger experience ($r=-.14$) and hostility ($r=-.22$); and a positive relationship between their friend attachment and positive coping ($r=.14$) and life satisfaction ($r=.22$). No significant relationships were found between destructive expressions and self-esteem and the sub-dimension of friend attachment. There is a negative significant relationship between adolescents' teacher attachment sub-dimension and their anger experience ($r=-.17$) and destructive expression ($r=-.19$); and a positive relationship between their friend attachment and positive coping ($r=.17$) and life satisfaction ($r=.23$). There are no significant relationships found between self-esteem and teacher attachment.

Table 3. Regression Analysis Results

Model	R	R ²	Adjusted R ²	R ² Change	F	F Change	β	t
1. Self Esteem	.07	.005	.003	.005	2.15	2.15	.07	1.46
2. School Anger Sub-Dimensions:								
Anger Experience							-.13	2.95**
Destructive Expressions	.58	.34	.33	.33	42.13**	51.86	-.07	1.66
Hostility							-.62	-14.08**
Positive Coping							.03	.65
3. Life Satisfaction	.59	.35	.34	.008	36.35**	5.21	.09	2.28*

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

Analyzing results of regression analysis observed in Table 3, it can be seen that I. Model fictionalized in the study is not significant ($F=2.15$), other models are significant ($F=42.13$; $F=36.35$). All variables explain school attachment with an explanation average of 35.2%. In the first step, it is observed that self-esteem variable does not provide significant contribution to the model with an explanation average of .005 ($\beta=.07$, $t=1.46$). In the second step, it is observed that the model established with sub-dimensions of anger experience, hostility, destructive expression and positive coping is significant with a variance explanation rate of 33.9%. Examining variables contributing significantly to the model, it is observed that only anger experience ($\beta=-.13$, $t=-2.95$) and hostility sub-dimension ($\beta=-.62$, $t=-14.08$) contribute significantly. The model formed with life satisfaction variable entered in the third step, on the other hand, is determined to be significant with a variance explanation rate of 0.8% and this variable contributes to the model significantly ($\beta=.09$, $t=2.28$).

Table 4. Regression Analysis Results

Model	R	R ²	Adjusted R ²	R ² Change	F	F Change	β	t
1. Self Esteem	.05	.003	.000	.003	1.15	1.15	.05	1.07
2. School Anger Sub-Dimensions:								
Anger Experience							-.23	4.59**
Destructive Expressions	.32	.10	.09	.10	9.38**	11.40	-.03	.66
Hostility							-.25	-4.93**
Positive Coping							.13	-2.38*
3. Life Satisfaction	.38	.14	.13	.04	11.30**	18.83	.21	4.34**

* $p<0.05$, ** $p<0.01$

Analyzing results of regression analysis observed in Table 4, it can be seen that I. Model fictionalized in the study is not significant ($F=1.15$), other models are significant ($F=9.38$; $F=11.30$). It can be seen that all variables predict friend attachment with a 14.5% variance explanation percentage. In the first step, it is observed that self-esteem variable does not provide significant contribution to the model with an explanation average of .003 ($\beta=.05$, $t=1.074$). In the second step, it is observed that the model established with anger experience, hostility, destructive expression and positive coping is significant with a variance explanation rate of 10.2%. Examining variables contributing to the model significantly, it is observed that anger experience ($\beta=-.23$, $t=4.59$), hostility ($\beta=-.25$, $t=-4.93$) and positive coping ($\beta=.13$, $t=-2.38$) contribute significantly and other variables do not contribute significantly. The model formed with life satisfaction variable entered in the third step, on the other hand, is observed to be significant with a variance explanation rate of 4% and this variable contributes to the model significantly ($\beta=.21$, $t=4.34$).

Table 5. Regression Analysis Results

Model	R	R ²	Adjusted R ²	R ² Change	F	F Change	β	t
1. Self Esteem	.09	.009	.00	.009	3.81	3.81	.09	1.95
2. School Anger Sub-Dimensions:								
Anger Experience							.08	1.82
Destructive Expressions	.47	.22	.21	.21	23.54**	28.22	-.10	-2.23*
Hostility							-.45	-9.43**
Positive Coping							.01	-.20
3. Life Satisfaction	.50	.25	.24	.02	22.60**	14.06	.17	3.75**

* $p<0.05$, ** $p<0.01$

Analyzing results of regression analysis observed in Table 5, it can be seen that I. Model fictionalized in the study is not significant ($F=3.81$), other models are significant ($F=23.54$; $F=22.60$). It can be seen that all variables predict teacher attachment with a 25.3% variance explanation percentage. In the first step, it is observed that self-esteem variable does not provide significant contribution to the model with an explanation average of .009 ($\beta=.09$, $t=1.95$). In the second step, it is observed that the

model established with anger experience, hostility, destructive expression and positive coping is significant with a variance explanation rate of 21.7%. Examining variables contributing to the model significantly, it is seen that destructive expression ($\beta=-.10$, $t=-2.23$) and hostility variable ($\beta=.45$, $t=-9.43$) contribute significantly and other variables do not contribute significantly. The model formed with life satisfaction variable entered in the third step, on the other hand, is observed to be significant with a variance explanation rate of 2.6% and this variable contributes to the model significantly ($\beta=.17$, $t=3.75$).

Conclusion and Discussion

In this study, it is analyzed whether adolescents' levels of school attachment (school, friend and teacher attachment) are predicted significantly by their self-esteem, school anger and life satisfaction. Preliminary finding of the study shows that self-esteem, school anger and life satisfaction all together explain the school attachment sub-dimension with a variance explanation rate of 35.2%. Analyzing significant contribution of variables to the model, it is seen that self-esteem does not contribute significantly, and anger experience and hostility among sub-dimensions of school anger and hostility contributed significantly. According to this result, students' anger experience and hostility, and their life satisfaction are associated with adolescents' school attachment; self-esteem was not found associated with school attachment. Analyzing findings obtained in this regard, initially, the result regarding the fact that anger experience and hostility among adolescents predict school attachment significantly is compatible with the related literature and supported by studies revealing the relationship between the level of school attachment and school anger (Erwin, 2002; Resnick et al., 1997; Rice, Kang, Weaver, & Howell, 2008; Thomas & Smith, 2004). Since students have physical, behavioral, social and academic anxiety in the school (Fryxell, 2000). Blum (2005) stated that students with high school attachment are less likely to show behaviors of violence and vandalism. Accordingly, it is said that anger experiences can be risky in view of adolescents' school attachment

On the other hand, it has been determined that students showing bully behaviors have lower levels of school attachment (Duy & Yıldız, 2014); problematic behaviors (Simons-Morton, Crump, Haynie, & Saylor, 1999), behaviors towards violence and crime (Griffin, Gilbert, Lawrence, Doyle, & Williams, 2003) are associated with the feeling of belonging to the school and school attachment. It has been determined that students with low level of school attachment have lower interest in school and school activities, and these students' emotional and social adaptation decrease (Vanderbilt & Augustyn, 2010). Hill and Werner (2006) indicate that an intrinsic value towards learning processes is one of the elements of school attachment, and orientation towards negative behaviors in the classroom has a preventive role in school attachment. As noted in all these studies, adolescents' anger and other negative school experiences will create problems in school attachment by affecting their satisfaction for school (Duy & Yıldız, 2014). In this regard, in preventive studies related to reducing anger in adolescents and healthy expression of anger, it is necessary to give weight to studies towards increasing attachment relationships, especially sense of school attachment.

Another variable relating to school attachment is life satisfaction, and it has been revealed in the field literature that students with high level of life satisfaction achieve high scores from tests in school and have more positive attitudes toward school (Suldo & Shaffer, 2008). It is indicated that children reporting high levels of life satisfaction tend to have higher level of academic performances, interpersonal relationships and personal functions (Gilman & Huebner, 2006). From this perspective, life satisfaction may contribute to adolescents in terms of feeling happy at school, having positive thoughts regarding school, getting satisfaction from school activities and school life. Accordingly, while it is a positive situation for adolescents in their school lives to have a high level of life satisfaction, school anger can be considered as a risk in terms of living negative situations at school. Therefore, it may be necessary to reduce adolescents' school anger and increase their life satisfaction to increase their levels of school attachment.

The second finding of the study is that self-esteem, school anger and life satisfaction all together explain friend attachment sub-dimension with a variance explanation rate of 14.5%. Analyzing significant contribution of variables to the model, it is seen that anger experience, hostility and positive coping and life satisfaction contribute to the model significantly; however, self-esteem does not contribute significantly. According to this conclusion, adolescents' anger experiences, hostility and positive coping, and their life satisfaction are associated with their friend attachment sub-dimension; this finding can be interpreted as it become difficult for adolescents to attach to their friends as their school anger increases. Accordingly, anger experiences and hostility that adolescents live at school may prevent students from establishing positive relationships with their friends. It has been discussed that anger is one of the emotions that students have the biggest difficulties in controlling (Philips-Hershey & Kanagy, 1996); in this direction, school anger is considered as a powerful risk factor in the emergence of school violence in adolescents' lives (Warner, Weist, & Krulak, 1999). At the same time, it is emphasized that intense anger and hostility observed in students are one of the most important determinants of potential violence at school (Smith, Furlong, & Boman, 2006). These results led to the conclusion that school anger can be considered as a negative factor from the point of adolescents' school life and their teacher and peer relationships. On the other hand, it is indicated that adolescents' feeling themselves belonging to a peer group and their attachment to their peers improve their perceptions towards school positively, and this is among factors that strengthen school attachment (Resnick et al., 1997). Besides, peers relationships are among major determinants of anger and hostility in students in the school environment, it has been determined that students with high level of school anger tend to have less number of friends and these students are more prone to aggressive behaviors (Fryxell, 2000). All these negative situation may mean that adolescents are at risk in terms of school attachment by contributing to the development of negative emotions and thoughts related to school and school life and to the failure in meeting certain important needs from the point of attachment to friends.

The third of finding of the study has determined that self-esteem, school anger and life satisfaction explain the teacher attachment sub-dimension with a variance explanation rate of 25.3%. Analyzing significant contribution of variables to the model, it is seen that self-esteem does not contribute significantly, and destructive expressions and hostility and life satisfaction significantly contribute to the model. Based on this result, students' destructive statements and hostility sub-dimensions and their life satisfaction affect their teacher attachment. In this context, reduction of students' school anger levels and increase in their life satisfactions will make significant contributions to teacher attachment. In the research, life satisfaction predicts teacher attachments significantly in a positive way. According to these results, it is clear that, as students' life satisfaction increases, their participation to school and school activities will also increase and this will contribute to establishment of more harmonious relations. Life satisfaction may facilitate the establishment of attachment relationships by increasing students' positive emotions regarding school in conjunction with achieving satisfaction from school life and school activities and being happy at school.

In fact, in some studies conducted, students' sense of belonging to school and attachment problems were found to be associated with their behavioral problems (Simons-Morton et al., 1999) and their behaviors of violence and crime (Griffin et al., 2003) It has been determined that, among these students, they tend to have lower interest in school and school activities, and have low level of emotional and social adaptation (Vanderbilt & Augustyn, 2010). In addition, anger experience and school anger can be considered as a risk in terms of adolescents' school life and they may contribute to the emergence of various negative behaviors at school. For example; it is indicated that adolescents' destructive and hostility-related behaviors (Thomas & Smith, 2004), substance abuse and resorting to violence (Bonny, Britto, Klostermann, Hornung, & Slap, 2000), and their aggressive behaviors (Hill & Werner, 2006) are associated with their level of school attachment; students showing disruptive behaviors and school truancy experience failure in school attachment or low level of school attachment (Bonny et al., 2000). Thus, the contribution of adolescents' school anger and life satisfaction to their teacher attachment and their overall school attachment may be taken into account. In respect of these results, students with high level of life satisfaction can be expected to have high level of school and teacher attachment. In this

regard, it will be used to focus on increasing students' life satisfaction and their thoughts and feelings about schools and teachers positively. Considering this situation from the point of adolescents' positive coping strategies against problems in school and achieving satisfaction from school life and developing positive feelings towards school, high level of life satisfaction in students can bring along happiness felt in school life as a whole and this situation may contribute to school attachment.

Another striking result of the study is that all sub-dimensions of school attachment; in the relationship between school attachment, friend and teacher attachment and self-esteem, self-esteem is not a significant predictor. This finding show parallelism with research findings emphasizing that high level of self-esteem will be reflected on students' experiences towards school and learning and their relationships positively (Nixon, 1995; Kuzgun, 2002; Aydın, 2005; Yörükoğlu, 2000; Tutar, 2013). Together with research findings emphasizing that self-esteem can establish an important base for adolescents' life experiences such as the development of positive interpersonal relationships such as establishing healthy relationships with peers and teachers and establishing new attachment relationships (Nixon, 1995), there are also studies emphasizing that adolescents with high level of self-esteem are successful in school life and social processes related to school (Tutar, 2013). Nevertheless, in this research, it was not possible to compare the result about the fact that self-esteem had not an effect on school attachment since there were not enough studies in the field literature. However, this finding is considered to be a highly descriptive finding in terms of adolescents. In some studies from the literature, it has been emphasized that self-esteem is a multidimensional concept, and it will be a more appropriate approach in future studies to address this multidimensionality (Harter, 1993; Kawabata, Cross, Nishioka, & Shimayu, 1999).

As a result, in this study, the objective was to determine how much self-esteem, school anger and life satisfaction variables contributed to the prediction of adolescents' school attachment. Among school anger sub-dimensions, anger experience and hostility predicted school attachment sub-dimension negatively; life satisfaction predicted school attachment sub-dimension positively. On the other hand, while anger experience and hostility negatively predicted friend attachment; positive coping and life satisfaction positively predicted friend attachment. Teacher attachment sub-dimension was predicted by destructive expression and hostility significantly in a negative direction. Life satisfaction predicted teacher attachment significantly in a positive way. Besides, it was concluded that self-esteem did not predict school attachment, friend attachment and teacher attachment significantly.

According to the results of this study, the following recommendations can be listed: School appears as an important social structure in which adolescents can realize a number of critical developmental tasks in their lives such as regulating attachment relationships and belonging to the group, creating identity and developing academic skills. At the same time, school has an important function for adolescents in terms of assessing their well-being, social and emotional adaptation. That is why adolescents' school attachment should be supported and developed. In this regard, since it was identified in this study that school anger and life satisfaction were among important predictors of school attachment, decrease of the anger among adolescents and increasing life satisfaction may significantly contribute to school attachment process.

While analyzing adolescents' school attachment, understanding the factors contributing to school anger, assisting adolescents in coping with problems they face at school and increasing peer and teacher support in school may contribute positively to adolescents' school attachment with regard to their life satisfaction.

Findings obtained from this study may also be used as resource especially for preventive counseling and guidance programs. School psychological counselors may develop activities and programs that can be applied in schools to strengthen adolescents' school attachment and that will allow adolescents to develop more positive feelings and thoughts towards school. To this end, group activities can be applied towards effective coping with factors that prevent school attachment. Studies towards increasing life satisfaction can be prepared with the help of development programs towards coping with anger. School counselors and school board may implement studies that support positive teacher attitudes and behaviors in terms of school attachment.

In this study, it has been found that self-esteem predicts school attachment significantly. This condition could be caused by limitation of the scale used. Although self-esteem is not a predictive variable in school attachment, in various studies, it has been determined that self-esteem is important in adolescent' development and adaptation (family, school, peer relationships, etc.). That's why; teachers and parents may be provided with attitudes and behaviors towards increasing adolescents' self-esteem.

The current study has a number of limitations. The scope of the study originally intended to include Science High School students, but the majority of students did not volunteer in participating in the study and data obtained from these students were insufficient, so students of this group were excluded from the research group. The study was carried out with Anatolian High School and Vocational High School students. This situation is considered to create a limitation in generalization of results. Due to one-dimensionality of self-esteem scale used in this study, self-esteem was evaluated in one-dimension; it is considered that multidimensional evaluation of self-esteem will reduce this limitation in understanding the relationship between self-esteem and school attachment.

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