School attachment and peer bullying as the predictors of early adolescents' resilience

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Abstract

The purpose of this study is to determine whether there is a relationship among resilience, school attachment, peer-bullying levels and the extent to which the variables of school attachment and peer bullying levels contribute to the prediction of resilience. The study was carried out with 355 secondary school students in Ankara, 195 (55%) of which were girls, 160 (45%) of which were boys. Resilience Scale for Early Adolescents, School Attachment Scale for Children and Adolescents, The Peer Bully-Victim Questionnaire- Adolescent Form were used in the study. Correlation Coefficient of Pearson Moments and Hierarchical Regression Analysis were used in the analysis of the data. As a consequence, it was determined that there is a positive relationship between resilience and school attachment but a negative relationship between resilience and peer bullying. Also, it was observed that the variables of school attachment, peer bullying significantly predict the resilience.

Keywords: Resilience, school attachment, peer bullying, early adolescent.

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1. Introduction

Resilience concept is derived from Latin word 'resiliens' and refers to elasticity of a substance or its ability to transform easily (Greene, 2002). Resilience is a general concept that deals with how a child copes with stress and gets rid of trauma. Besides, resilience is related to positive developments, such as compliance and efficacy, orientation towards future and hope (Murphy, 1987). In the literature, resilience is generally described as an ability to adapt or overcome extreme adversity or stress (Garmezy, 1991; Masten, 2001; Masten, Best & Garmezy, 1990; in cited Hand, 2008). Resilience refers to the process of overcoming the negative effects of risk exposure, successfully coping with traumatic experiences, and avoiding the negative trajectories associated with risks (Fergus & Zimmerman, 2005). Considering the theoretical structure on resilience concept, it is possible to see models suggesting that internal and external protective factors are effective in development of resilience. Benard (1991) has emphasised the need to ensure appropriate environmental conditions for growing resilient individuals, and has stated that resilient children tend to have problem solving ability and sense of autonomy, purpose and future. Besides, among protective factors in the family, the school and community, importance of care and support, high expectations and supporting child's attendance were demonstrated. Krovetz (1999) has indicated the importance of protective factors found in family, school and society in resilience theory. These basic protective factors allow the occurrence of resilient individuals.

As can be understood from definitions and theories of resilience, resilience of individuals is affected from their environment. This environment can be either their close or distant environment. Attachment of individuals is a condition that affects resilience of individuals. According to attachment theory, emotional ties between the child and person or people growing him/her affect his/her social, emotional and cognitive development all through lifetime (Bowlby, 1973). According to Bowlby, this strong emotional bond develops models operating internally that contain child's emotion, perception and expectations regarding himself/herself and others. These models will guide the child's relationship with people all through his/her life. Attachment not only widely defines loving relationships but also can affect individual's close relationships with friends and other important people. Hirschi (1969) explains school attachment that the individuals may tend towards behaving unusually to achieve their claims, however, the thing that prevent them from behaving in this way is the protective social tie. Three most important attachment sources among children and adolescents are the three attachments they spend time, namely, their attachment to adolescents, peers and schools. With regard to school attachment, another important factor is motivation. In the motivation literature, human behaviour is evaluated in accordance with the need of feeling relaxed, autonomous and effective (Anderman, 2002; Deci & Ryan, 2002;). In this context, beyond the family relationships of children and adolescents, establishing bonds with peers and adults has inherent orientation. When the environment is sensitive to children and adolescents' changing needs, adaptation can be realised healthily. Schools in this sense are one of the social networks that can provide opportunities for students to form close relationships.

Although school is a social network for children and adolescents, children may show bullying or be exposed to various bullying types from time to time in this social network. Children in their primary school period tend to exhibit various negative behaviours, such as aggression and bullying that land them and their environment with difficulties. Mischief, disobedience known as childish foolery, rebellion and actions against social values can be seen among children from time to time (Nelson, 1996). However, these actions may pose problems when they become continuous and repetitive. Many researchers define bullying as a form of aggression. According to this approach, bullying is a different form of outpouring the aggression (Espelage & Swearer, 2003). Children, when got angry, do not know how to keep this under control with proper ways. Children may response to conflicts

aggressively and they may express their anger in harmful and destructive ways. When such negative behaviours are approved by explaining the situation irritating the child, violent behaviour may also become a socially acceptable response into a manifestation of anger. Children are able to adjust their responses within their emotional lives towards culture in which they live, experiences and behaviours (Falcon, 2004). Violence concept began to be used in school in 1992 and a series of research studies began on this issue. One of the reasons for this is the increase of aggression and violence in educational settings (Myles & Simpson, 1998; cited in Korkut, 2004). According to many researchers, bullying is a serious problem, common in schools (Kapci, 2004; Karen & Karen, 2004; Nelson, 1996). In the literature, there are many definitions made on school bullying. However, it is difficult to define the concept of bullying, such as abuse and violence. Peer bullying includes words and actions made consciously and deliberately, and which are intended to pose physical, mental, social and psychological harm. The person who usually bullying is called bully, and person exposed to bullying is called victim. Another group of children sometimes exhibit bullying behaviours and sometimes are exposed to the bullying (Seals & Young, 2003).

Analysing the literature, studies related to resilience (Arastaman & Balci, 2013; Gurgan, 2006; Hanewald, 2011; Henley, 2010; Ogulmus, 2001; Onder & Gulay, 2008; Ozcan, 2005; Karatas & Savi Cakar, 2011; Sahin-Baltaci & Karatas, 2014; Salami, 2010; Savi Cakar & Karatas, 2011; Smith, 2009; Wilks & Spivey, 2010), attachment to school (Hill & Werner, 2006; McNeely, Nonnemaker & Blum, 2002; Somers & Gizzi, 2001) and peer bullying (Ayas & Piskin, 2007; Kapci, 2004; Kim, Koh and Leventhal, 2005; Smith, Cowie, Olafsson & Liefoogh, 2002; Piskin, 2002; Piskin & Ayas, 2008; Yildirim, 2001) are in majority. However, within the scope of this literature, we have not found any research studies in which school attachment and peer bullying are discussed and about how much school attachment and peer bullying affect resilience. With this study, it will be possible to reveal the impact of students' school attachment and peer bullying on their resilience and research results may serve a source for various experimental and descriptive studies as a support for existing knowledge. In this context, objective of this study is to analyse relationship between adolescents' resilience and school attachment and peer bullying, and to determine whether school attachment and peer bullying variables predict resilience or not.

2. Method

2.1. Research pattern

This research is a study of relationality model towards predicting secondary school students' resilience from the point of peer bullying and school attachment.

2.2. Study group

Study group of the research consists of a total of 355 students attending secondary school in Ankara including 195 girls (55%) and 160 boys (45%).

2.3. Data collection tools

2.3.1. Resilience scale for early adolescents

To determine resilience levels of students, four factor 'Resilience Scale for Second School Students' consisting of 23 items and developed by Karatas and Sahin Baltaci (2013) was used. As a result of the exploratory factor analysis conducted for structure validity of the scale, the first factor of the scale explained 14% of the total variance; the second factor explained 14% of the total variance; the third factor explained 11% of the total variance; the fourth factor explained 9% of the total variance and all

the four factors explained 48% of the total variance. Cronbach alpha coefficients for the reliability of the scale are as follows: 0.85 for the whole scale, 0.75 for self-resilience sub-dimension, 0.78 for resilience sub-dimension arising from family, 0.72 for resilience sub-dimension from stemming from friends and 0.73 for resilience sub-dimension arising from school-teachers. Test–retest reliability coefficient of the scale is 0.85 for the total scale score. As a result of the confirmatory factor analysis applied, it is observed that the scale gave good fit as per fit index values (RMSEA = 0.054, NFI = 0.89, CFI = 0.95, IFI = 0.95, RFI = 0.88, GFI = 0.87 and RMR = 0.03). Furthermore, applied similar scale validity and reliability studies have also supported that the scale is valid and reliable.

2.3.2. Peer bullying scale

In the research, 'Peer Bullying Reporting Scale-Adolescent Form' developed by Ayas and Piskin (2007) was used with a view to determine sixth, seventh and eighth grade students' level of bullying and exposure to bullying. This scale consists of a total of 53 items and six factors. The lowest score that can be achieved from bully and victim sub-dimensions is 53 and the highest score is 265. As scores increase, state of being bullying and victim increase. Cronbach Alpha internal consistency reliability coefficient of the victim scale is calculated as 0.93 for the whole scale; for the 'physical bullying' sub-scale, it is calculated as 0.82; for 'verbal bullying' sub-scale, it is calculated as 0.75; for 'isolation' sub-scale, it is calculated as 0.77; for 'spreading rumours' sub-scale, it is calculated as 0.75; for 'damaging things' sub-scale, it is calculated as 0.80 and for the subscale 'sexual bullying', it is calculated as 0.88. Cronbach Alpha internal consistency reliability coefficient of the bullying scale is calculated as 0.92 for the whole scale; for the 'physical bullying' sub-scale, it is calculated as 0.83; for 'verbal bullying' sub-scale it is calculated as 0.74; for 'isolation' sub-scale, it is calculated as 0.75; for 'spreading rumours' sub-scale, it is calculated as 0.66; for 'damaging things' sub-scale, it is calculated as 0.79; and for the subscale 'sexual bullying', it is calculated as 0.88. As a result of confirmatory factor analysis, it has shown that structures of both sub-scales are verified and they give good fit.

2.3.3. School attachment scale

School Attachment Scale for Children and Adolescents was developed by Hill and Werner (2006) and adapted into Turkish by Savi Cakar (2011). The scale consists of items related to teacher, friend and school attachment. The scale in its original state is a five-point Likert-type scale with a total of 15 items, and higher scores obtained from the scale show presence of high level of school attachment. In Turkish adaptation of the scale, items are also divided into three factors, such as 'school attachment', 'attachment to teacher' and 'attachment to friends' as their source of measurement. In the 13-item form, it is found that the first factor consisting of four items explains 21.940% of the variance; the second factor consisting of four items explains 18.471% of the variance; and the third factor consisting of five items explains 18.279% of the variance. Three sub-scales' explanation percentage for the total variance is 58.69%. Cronbach's alpha internal consistency coefficient of the scale was found to be 0.84, and test–retest reliability coefficient was found to be 0.85 for the whole scale.

2.4. Collection and analysis of the data

Applications are conducted in secondary schools in Ankara for the fall semester of 2014–2015. Researchers have applied scales by entering classes. Application lasted about 15 minutes. In the analysis of data obtained in this study, Pearson Product-Moment Correlation Coefficient was used to determine whether there is a relationship between students' resilience, peer bullying and school attachment; Hierarchical Regression Analysis was used to determine whether resilience scores predict significantly the variables of peer bullying and school attachment; and groups *t*-test was used to examine whether resiliences differ as per gender. Before analyses, extreme values were taken into consideration and 21 extreme values were removed from observation set. Then, it was determined

that data are distributed normally. 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. In addition, in the model, there should not be any correlations between error terms. Accordingly, considering Durban Watson value used in testing autocorrelation in the model, it was seen that the value desired to be between 1.5 and 2.5 (Kalayci, 2006) was found as 1.951, and in the model, there were no autocorrelations and standard errors were very small and regression assumption is provided.

Data were analysed using SPSS 15.0 package program. The significance level of 0.05 was taken into account in the interpretation of statistical results.

3. Findings

3.1. Findings related to correlation of resilience, peer bullying and school attachment variables with each other

In the research, descriptive statistics and correlation coefficients belonging to resilience, peer bullying and school attachment scores are provided in Table 1.

Table 1. Descriptive statistics and correlation of students' scores obtained from scales with each other

Variables	n	Mean	S	1	2	3	4
1-Resilience	355	73.36	9.94	-	−0.168**	−0.360**	0.315**
2-Peer bullying victim subscale	355	80.18	30.70	−0.168**	-	0.501**	−0.285**
3-Peer bullying bullies subscale	355	57.95	21.26	−0.360**	0.501**	-	−0.178**
4-School attachment	355	50.61	9.04	0.315**	−0.285**	−0.178**	-

**$p < 0.01$.

Analysing the Table 1, it is apparent that students have 73.36 score average for Resilience Scale, 80.18 score average for Peer Bullying Scale Victim Subscale, 57.95 score average for Peer Bullying Scale Bully subscale and 50.61 score average for School Attachment Scale. In addition, while a significant positive correlation between resilience and school attachment was found, it was found that there was negative oriented significant relationship with victim and bully sub-dimensions.

3.2. Findings regarding prediction of resilience

In the research, to determine whether peer bullying and school attachment variables predict resilience or not, regression analysis was conducted and findings are provided in Table 2.

Table 2. Results of hierarchical regression analysis related to variables predicting resilience (n = 355)

Model	R	R^2	R^2 change	F	F change
1-Peer bllying (Sub Dimensions: bully and victim)	0.361	0.130	0.130	26.320**	26.320
2-School attachment	0.448	0.201	0.070	29.342**	30.914

**$p < 0.01$.

Analysing Table 2, two models fictionalised in the study are both significant (F = 26.320, $p < 0.01$; F = 29.342, $p < 0.01$), and the explanation average for total variance is 20.1%. It has been revealed that group variables predicting the resilience mostly are those consisting of peer bullying sub-dimensions with 13% variance explanation percentage and consisting of bully and victim variables which are

entered in the first model, and then school attachment with a percentage of 7% entered in the second model. Analysing the significance provided by each variable to the model in both models, it is seen that, in the first model, bully variable provides significant contribution to the model (t = −6.416, p < 0.01, $β$: −0.369), in the second model, school attachment variable has significant contribution to the model (t = 5.560, p < 0.01, $β$: 0.277).

3.3. Findings related to the analysis of resilience as per gender

In the research, independent group *t*-test was conducted with a view to determine whether resilience scores of pre adolescents in terms of gender, and findings are provided in Table 3.

Table 3. Results of t test conducted regarding whether resilience scores differ as per gender

Resilience	Gender	n	Mean	S	df	t	p
	Girl	195	74.99	8.91	353	3.463*	0.001
	Boy	160	71.38	10.76			

*p < 0.01.

Analysing Table 3, female students' resilience score averages were found to be significantly higher than those of boys ($t_{(353)}$ = 3.463, p < 0.01). This situation shows that pre-adolescent girls' resilience is higher than that of boys.

4. Discussion

In the research, it was determined that resilience, peer bullying and attachment to school variables showed significant relationships; peer bullying and school attachment variables predicted resilience significantly and girls' resilience scores were significantly higher than those of boys.

First finding of the study is that the resilience shows positive relationship with school attachment, and negative significant relationship with peer bullying. This finding can be interpreted in a way that peer bullying and school attachment have influence on students' resilience, and these variables are associated with each other; the more resilient the students become, the higher their school attachment will become and the less their exposure to peer bullying will be. Analysing the literature, there are findings available showing that there is a relationship between attachment to parents and friends and social emotional skills in adolescent groups. Analysing this relation, it is observed that there is a higher relationship between secure attachment to friends and social emotional skills (Laible, 2007). This situation reveals that the presence of positive school environment for adolescents and attachment to friends is a supportive element. Besides, there are also findings available regarding the fact that non-resilient individuals are exposed to physical abuse more (Yilmaz Irmak, 2011).

Other findings of the study is that peer bullying (victim and bully) and school attachment predict students' resilience significantly. This finding may mean that people's resilience is affected from bullying and school attachment. Analysing the literature, there are also studies available indicating that positive peer relationships contribute to resilience, and among maltreated children, resilience has positively critical importance (Kim & Cicchetti, 2004); and there are also studies showing that school is effective in students' resilience (Grotberg, 2003; Henderson & Milstein, 1996; Wolin & Wolin, 1993) and friend support in school has significant contribution to resilience (Arastaman & Balci, 2013), besides, it is apparent that peer support, positive teacher attitude and success are effective on adolescent resilience (Olsson, Bond & Burns, 2003).

This last finding of the research is that female students' resilience scores are significantly higher than those of male students. This finding may be due to the fact that girls tend to share their problems by

expressing them and that they may receive social support. Analysing the field literature, while studies are found that are conducted in pre-adolescent and adolescent groups and that support this result (Savi Cakar & Karatas, 2011), there are also studies available which reveal that there are not any significant differences between female and male students' resilience scores (Karatas & Sahin Baltaci, 2013).

According to the research results, some relevant suggestions can be summarised as follows: since resilience, peer bullying and school attachment are interrelated variables in pre-adolescent groups, it may be useful to carry out experimental studies with victim and bully students by examining peer bullying, to arrange social activities increasing students' school attachment. Besides, it is possible to study distinct variables that contribute to pre-adolescents' resilience and group studies may be planned towards enhancing students' resilience. Since male students' resilience scores are lower, it may be useful to conduct preventive and protective guidance studies.

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