Investigation of High School Students' Resiliency Perception in terms of Some Variables[*]

Gokhan ARASTAMAN[a]
Aksaray University

Ali BALCI[b]
Ankara University

Abstract

The purpose of this study is to examine the resilience of high school students in Turkey, and to determine the relationships between the student resiliency and some protective factors such as school climate, teacher attitudes and behaviors, family and peer support according to the student opinions. By using 509 students randomly selected from 24 general and Anatolian high schools from central districts of Ankara, it was found that students' perception of sociability and communication skill and determination were higher than the self-efficacy, hope and problem solving skills which were important components of resiliency. There were significant correlations between students' resiliency perceptions and gender, grade level, fathers' educational level, family income, grade point avarege and absenteeism of those students. Grade point avarege and absenteeism were found to be the most important demographic variables that predict student resiliency. Additionally results indicated that there were significant correlations between student resiliency and perceived support from family and peers and these variables were important predictors of student resiliency.

Key Words

Resiliency, Risk Factors, Protective Factors, School Level Factors.

The question of "whether the kids can be grown up with the least damage and injury in this changing world where violence permeates every part of it", is one of the most important problems of parents and educators in these turbulent times. Today many schools face a rising tide of problems that include bullying violance, gang related activities, substance abuse, absenteeism, high dropout rates, suicides, low levels of parental support and involvement, and changing family structures. Some children and youth can survive and continue successful interaction with the environment despite the odds mentioned above which become widespread in the structure of todays' society. It is pointed out that such people do not usually drop out in the face of stressful events, but rather quickly bounce back and even get stronger from dif-

ficulties and adverse environmental conditions each time (Henderson & Milstein, 1996). For these people, in the literature, resilient (capable of overcoming the difficulties) and as a personality trait, resilience (the power of overcoming the challenges) terms are used (Westfall & Pisapia, 1994).

Resilience is generally understood as a set of personal characteristics or factors that assist the individual in overcoming hardship. The resiliency paradigm assumes that resilience basically exists in every individual and it is the result of healty human development (Benard, 1995; Masten, 2001; Thomsen, 2002). Hence, it is understood that resiliency does not just happen rather it is a result based on the adults' care, support and love. Literature regarding resiliency

have been posited that along with gaining resiliency of students, some positive results such as increase in academic success, school attendance, graduation rates and positive behavioral patterns (behavior according to rules), acceptance in social environments and ability of building close friendship relations have been observed (Wahome, 2003). To this respect, it can be inferred that developing strategies and appropriate methods in enhancing resiliency of children and adolescents who have academic failure can increase the effectiveness of school services and can serve as a cure for some problems like school dropout and school disengagement.

A review of research has identified certain factors of student attitude that foster resiliency. Some of those studies have found that resilient children possess high level of autonomy, emphaty, task orientation, curiosity, better peer relationships and problem solving skills (Werner & Smith, 1992). Despite all the negative social problems in their life some students can overcome odds and achive higher level of academic success. To find out what makes those students different from others, researchers studied individual characteristics, family structures and external environment and classified these factors, contributing to the personality, as "internal" and "external" protective factors (Borman & Rachuba, 2001; Milstein & Henry, 2008). Internal protective factors are the individual's own unique characteristics (internal locus of control, self-respect, self-efficacy, autonomy and problem-solving skills); whereas external factors are classified as school, community and family (Green, Oswald & Spears, 2007).

Along with this, evidence demonstrated that a nurturing school climate has the power to overcome risk factors in the lives of children (Benard, 1995). Schools, specifically teachers, can create an environment and conditions that foster resilience in todays's youth and tomarrow's adult (Henderson & Milstein, 1996). Teachers are in a position to establish environments that foster resilience in students. Teachers can foster educational resilience by helping them believe in themselves, giving them couarage and teaching them to take responsibility for their own educational success. Building resiliency also involves motivating the attainment of realistic and aspiring goals in students. Students' abilities and potentials must be recognized, valued, and nurtured by educators (Henderson & Milstein, 2003). In this regard Krovetz (1999), pointed out that teachers should make students feel that they are important, be hopeful about the future and believe that every student can be successful. Therefore, it can be argued that, beyond providing academic information, utilizing methods to meet the affective needs of students, building close relationships with parents to gain problem solving skills of students are essential for teachers.

In reviewing the findings of the literature regarding the resiliency of students in Turkey, it was seen that little previous research has examined the personal resiliency. For example Gizir (2004) has examined the factors that predict resiliency of low socio-economic status of students from inner-city public elementary schools in Ankara. Özcan (2005) has compared the resiliency traits of high school students according to their families' being divorced or non-divorced and their gender. In another study Gürgan (2006) has tested whether resiliency training group counselling programme is effective in increasing university students' level of resiliency or not. Karaırmak (2007) has investigated the relationships among affective and cognitive personal qualities leading to psychological resilience among natural disaster survivors. As can be seen from the literature, there are no any study regarding external protective factors (school climate, teacher, family and peers) contributing to the high school students' resiliency in particular and in Turkish Educational system in general. This research is worthwhile in terms of both for resolving this lack of basic research as well as to contribute the subject area. To this end, it is anticipated that results from this study would help determine the factors enhancing student resiliency and gaining insight into some issues such as drop out, abseenteism, disengagement to school and disruptiveness that take place in Turkish educational system.

The aim of this study is to examine the resilience of high school students in Turkey, and to determine the relationships between the student resiliency and some protective factors such as school climate, teacher attitudes and behaviors, family and peer support according to the student viewpoints. For this reason, the research questions guiding this study were as follows:

1. What is the resiliency perception of high school students?

2. To what extend do student demographics predict the resilience of the high school students?

3. To what extend do school climate, teacher attitudes and behaviors, family and friends support predict the resilience of high school students.

Method

Model

This study was investigated the possible relationships between student resiliency and some demographic information of the students and external protective factors such as school climate, teacher support and family-peer support. The design for this study was classified as correlational survey research. The dependent variable of this study was resiliency of students. The independent variables were some information on demographic factors of the students, and their perception of teacher support, family- peer support and school climate in relation to student resiliency. In addition to this, the relationships between the variables and predictive levels of independent variables were analyzed.

Participants

The target population of the present study consisted of 122247 students attending 131 public and Anatolian high schools in the central districts of Ankara Province, Turkey, in 2009-2010 academic year both fall and spring terms (Millî Eğitim Bakanlığı Ankara İl Millî Eğitim Müdürlüğü, 2012). It was assumed that 509 high schol students could represent the population of 122247 students on the basis of 95% precision (Anderson, 1990 cited in Balcı, 2005). To this end, sampling was performed in two stages by using stratified sampling method. First of all, the population divided into nine central districts (sub-layers) on the basis of district population. In the second stage, 509 high school students were selected from these distrcts randomly according to their ratio in total. By this way, proportional representation of each district according to their ratios was ensured. In this method, representative statistics are reached since every district is divided into sublayers and thus gives homogenous subgroups (Balcı, 2005). The subject group was made up of 217 male students (42.6%), 292 female students (57.4%). Out of the 509 students, 174 subjects were freshmen (34.1 %), 121 of them were sophomores (23.7%), 112 of them were juniors (22%), 88 were seniors (17.2%) and 14 of them (2.7%) were unknown because of providing no response.

Instruments

The data for this investigation were collected using four different scales developed by the researcher. These are; *Student Resiliency Scale (SRS),* to determine the resiliency level of high school students; *School Climate Scale (SCS), Teacher Attitude and Behavior Scale (TABS)* and *Family and Peer Support Scale (FPSC)* to determine the relationship between these external factors and student resiliency. The first part of the scales obtained demographic information about students such as gender, grade level, educational level of father and mother, family income, abseenteism and grade point avarege of the students. In the second part there were items regarding student resiliency and factors affecting student resiliency. The response choices for the items were based on a five-point Likert Scale ranging from strongly agree to strongly disagree and coded to SPSS 15 for windows.

Validity and Reliability of the Instruments

The researcher conducted a preliminary analysis using the data from the main study to test the instrument construct validity. The instrument construct validity was assessed using a factor analysis to investigate the interrelationships among the variables and internal consistency for reliability was calculated by Cronbach's Alpha coefficient. A Scree test was used to identify the number of factors that should be extracted and a principal component analysis was used as the extraction method. In order to determine the independent sub-factors, due to the easy interpretability, varimax rotation method was preferred (Büyüköztürk, 2011). In applying this method, initial solution extracted four factors accounting for 51% of the total variance for the *Student Resiliency Scale (SRS)*. These factors were named as 1- Determination, 2- Sociability and communication skills, 3- Self-efficacy and hope, and finally 4- Problem solving skill. Cronbach's alpha coefficients for these subscales were calculated as .68, .65, .69 and .59 respectively. *Teacher Attitude and Behavior Scale (TABS)* consisted of 24 questions in the following three subscales: 1-Prosocial bondings/teaching life skills (α=0.59), 2-Modelling (α=0.85) and 3-Expectation/participation (α=0.75). These factors explained 53.93 % of the qualities that the scale attempts to measure. The third Scale, *School Climate Scale (SCS),* consisted of 15 questions after eliminating five items which has lower factor loadings. Two factors were extracted which accounted for 43.9% of total variance and named as 1-Negoitating the rules and participation (α=0.82) and 2-Caring and support/teaching life skills (α=0.83). Finally, *Family and Peer Support Scale (FPSC)* consisted of 10 questions in the following two subscales:

1-Family support, 2- peer support. Cronbach alpha for each of the two subscales is reported to be .89, .77. These factors explained 40.10 % of the qualities that the scale attempts to measure.

Data Analysis

A series of statistical tests were completed to analyze the data in relation to the research questions. For the first research question, descriptive statistics such as means and standart deviation were calculated. Then regression analysis was performed to test the relationship between student resiliency and demographic information of the students. Additionally, the relationship between student resiliency and external protective factors were predicted by utilizing multiple linear regression analysis.

Results

Research findings were presented under the titles of; "findings related to the student resiliency levels, findings related to the demographic variables predicting student resiliency, and external protective factors predicting student resiliency."

The Findings related to the Resiliency Level of High School Students

Taking a glance at the scale of the Resiliency factors, (see table 1), sociability and communication skill factor scores of students were the the highest points ($\bar{x}$ =20.01); it was followed by determination ($\bar{x}$ =14.59), problem solving skill ($\bar{x}$ =14.50), self efficacy and hope ($\bar{x}$ =12.44) respectively. It might be concluded that this finding indicates that when students face with problems, the initiativeness of the students to solve the problem are relatively high; however, the perception of self efficacy and hope are relatively low.

Table 1.
Means and Standart Deviations for High School Students' Resiliency Perception

Factors	$\bar{x}$	SD
factor 1 Determination	2.86	3.31
factor 2 Sociability and communication	3.66	3.14
factor 3 self-efficacy and hope	2.52	2.33
factor 4 problem solving skill	2.80	3.06

The Findings related to Demographic Variables Predicting Student Resiliency

Multiple Regression (See table 3) was conducted to determine the relationship between the demographic variable and resiliency level of students. The results yielded a multiple correlation coefficient of .271 between the predictors and the criterion variable (resiliency) with a R square value of .073. The predictors together accounted for 7% of the variable in resiliency of students (R =0.27, R^2 =.073, p<.01) at the .01 level. The researcher accepts that there is a linear relationship between the demographic variables (gender, grade level, GPA, and absenteeism) and resiliency. According to the standardized regression coefficient (β), relative order of importance of the predictor variables on student resiliency were grade point average, absenteeism, gender and grade level. In examining the t-test results regarding the significance of regression coefficients, GPA and absenteeism were found as the most significant predictors on student resiliency. Gender and grade level variables did not have a significant impact on resiliency.

Table 3.
Multiple Regression Results Regarding the Relationship between Demographic Characteristics and Resiliency Level of Students

Variables	B	Std. Error	β	t	p
Constant	58.55	2.161		27.101	.000
Gender	1.48	.757	.085	1.961	.050
Grade level	-.521	.369	-.066	-1.414	.158
GPA	1.430	.431	.146	3.322	.001
Absenteeism	-1.310	.450	-.137	-2.914	.004

R= .271 R^2 = .073 $F_{(4, 505)}$ = 9.98, p< .01

The Findings related to External Protective Factors Predicting Student Resiliency

The multiple Regression results regarding the relationship between external protective factors (teachers' attitudes and behaviors, family and peer support and school climate) and resiliency are presented in table 4. A multiple correlation coefficient of .420 was found between the four predictors and the dependent variable (resiliency) with a R square value of .176. The independent variable combined, accounted for 18% of the variance in resiliency. A linear relationship was found to exist between external protective factors (teachers' attitudes and behaviors, family and peer support and school climate) and student resiliency (R= .420 R^2 = .178) at the .01 level.

According to the standardized regression coefficient (β), relative order of predictive variables were family, peer, teacher and school climate support respectively. In examining significance of the t-test results of the regression coefficient, family and peer support were found the most significant variables predicting student resiliency.

Table 4.
Multiple Regression Results in relation to the Prediction of Student Resiliency by External Protective Variables

Variables	B	Std. Error	β	t	P
Constant	33.48	3.40	--	9.85	.000
Teachers' attitudes and behaviors	.039	.034	.077	1.15	.250
Family support	.418	.064	.321	6.49	.000
Peer support	.378	.107	.175	3.51	.000
School climate	.036	.055	.043	.65	.515

R= .420 R^2 = .178 $F_{(4, 505)}$ = 20.75, $p < .01$

Discussion

Determination, sociability, communication skill, self efficacy and problem solving skill are significant components of personal resiliency. The first finding of present study reveled that the high school students' perception of resiliency level in the dimension of determination and sociability /communication skill are higher than the self efficacy and problem solving dimension.

A second prominent finding of the present study pointed out that there were significant relationships between student resiliency and some demographic variables such as gender, grade level, academic achievement GPA and absenteeism. Of those variables, academic achievement and absenteesim were found as important predictors of student resiliency. Apparently, it is understood that some demographic factors are important indicators in determining resilience characteristic. Specifically, literature indicates that academic achievement and resiliency are interrelated. For example according to the Johns' (2005) study, there were significant relationship between GPA and resiliency. In this study, a significant correlation was found between academic achievement and communiacation skill which is an important component of resiliency. On the other hand it was seen that there were negative but significant relationship between the absenteeism and student resiliency. This finding is consistent with the current literature. For example, Lehr, Sinclair ve Christiensen (2004) examined the relationship between resilience and school absenteeism. They concluded that the most absent students were the least resilient students. In this respect, it can be suggested that principals might cooperate with families, teachers and society by putting the internal end external protective factors into effect to foster resiliency for at-risk students.

The third prominent finding of the present study indicates that family and peer support were the most important predictor variables of the student resiliency. There are some studies supporting this finding in current literature (Rosenfeld & Richman, 1991). For example, the initial researches on effective schools changed the belief that the effect of school on student development was as much as those of the family or community. The first effective school research, especially in the U.S, (Balcı, 2001) has indicated that schools have insignificant effects on students. As cited in Balcı (2001, p.13) Reynolds and Packer asserted that school effectiveness literature consistently points to schools having an independent effect of only 8-15 percent on student outcomes, with family background having much more powerful influence. These authors reported that non-school factors, such as family and environment, needed to be examined on student development on this subject. Similarly Wang, Haertel, and Walberg (1997) asserted that resilience in childhood first acquired in the family, then acquired at school and in society. In a study supporting this finding Beck (1997), stated that factors affecting student resiliency were very diverse and complex, and even if school has an effect on students' affective and behavioral development, it was not an only factor predicting school resiliency. According to the author, family support was an important factor in the development of student resiliency. This finding of the present study is also consistent with the result of another research study which suggested that the family is the primary factor on student resiliency, so teachers need to work together with families (Catterall, 1998; Miller, 2008). According to the author, to be successful in this regard, an effective communication between parents and teachers in school management should be established. There are also some studies supporting present research in the same line conducted in Turkey. In the study by Gizir (2004), at the six primary schools with a survey of 872 eighth grade students in Ankara, it was found that family support, caring relationships at school and among peers were the the most fundamental factors that predict students' resilience respectively.

By contrast, this finding contradicts some studies which indicate that school is the foremost factor affecting student resiliency (Brooks & Goldstein, 2008; Richardson, Neiger, Jensen, & Kumpfer, 1990; Wolin & Wolin, 1993). According to Grothberg (2003), in becoming resilient students, other factors have important influence, but school is the prominent one. On the other hand, according to some studies, student-teacher relationships have also crucial effect on student resiliency (Buttill, 2009). Additionally another conflicting finding (Erikson, 2006) indicate that family and peer support is not

as effective as school and teacher effect in the development od resiliency.

That the students' perception on family and peer support is higher than the perception of teacher attitude and school climate in terms of the resilience building can be explained by the fact that, in the Turkish society family and peer, as external protective factors, have an important and ongoing influence on adolescents. The fact that the perception of family and peer support as the most powerful predictor of building resilience might be interpreted as the culture and knowledge students gained from family and peer is different from those of that gained at school. Actually this finding is parallel with the *cultural difference theory* that addresses the differences between the family and school life which are the important systems in child's lifetime (Villegas & Lucas, 2000, as cited in Gizir, 2004).

Conclusion and Recommendations

This study makes a significant contribution by examining some factors influencing student resiliency. The overall results indicate that building resiliency of students is important. Because it is known that the students having this feature are the ones who is socially competent, autonomous, having sense of purpose and future. In this respect, it is estimated that knowing the factors enhancing student resilience would provide many benefits for both principals, teachers, parents and community. In this study external protective factors affecting student resiliency are grouped under the main headings as perceived school climate, perceived teacher attitudes and behaviors and perceived family and peer support. In all the studies, it has been emphasized that external factors' effective functioning is important for resiliency development. Beside internal factors, when external protective factors provided at schools, it is expected that a suitable ground for the development of resilience will be provided.

To sum up, since family and peer support, school climate and teachers' attitudes and behaviors affect the student resiliency, building of resiliency can not only be seen as the responsibility of the schools and teachers. Furthermore, dynamics affecting the resilience should be appraised by the school administration together with the families, and active participation of families in the planning of extracurricular activities at school should be provided.

This study is cross-sectional and can not measure how other protective factors over time contributed to student resiliency. For the purpose of presenting factors affecting resilience and their results over time in a broader perspective, longitudional studies should be performed. Secondly, in this study, degree of effectiveness of the factors predicting student resiliency is limited to the selectivity and sensitivity of the survey questions. Accordingly, due to the complex nature of the concept of resilience, to reveal what other factors influence the student resiliency, qualitative studies should be included.

References/Kaynakça

Balcı, A. (2001). *Etkili okul ve okul geliştirme: Kuram, uygulama ve araştırma* (2. bs). Ankara: Pegem Akademi Yayıncılık.

Balcı, A. (2005). *Sosyal bilimlerde araştırma*. Ankara: Pegem A Press.

Beck, M. K. (1997). *Persistence in high school: Graduating seniors from high risk urban environments*. Unpublished doctoral dissertation, Harvard University.

Benard, B. (1995). *Fostering resilience in children* (ERIC Document Reproduction Service No. ED386327).

Borman, G. D., & Rachuba, L. T. (2001)**.** *Academic success among poor and minority students (Report No. 52)*. Washington, DC: Center for Research on the Education of Students Placed At Risk.

Brooks, R., & Goldstein, S. (2008). The mindset of teachers capable of fostering resilience in students. *Canadian Journal of School Psychology*, *23* (1), 114-126.

Buttill, S. L. (2009). *School structures and instructıonal practices related to academic and social-emotional resiliency in at-risk students*. Unpublished doctoral dissertation, Immaculata University.

Büyüköztürk, Ş. (2011). *Sosyal bilimler için veri analizi el kitabı*. Ankara: PegemA Yayıncılık.

Catterall, J. S. (1998). Risk and resilience in student transitions to high school. *American Journal of Education, 106* (2), 302-332.

Erickson, M. L. (2006). *Supporting student resiliency: A comparison of virtual and traditional school teachers*. Unpublished doctoral dissertation, University of Wisconsin- Madison.

Gizir, C. A. (2004). *Academic resilience: An investigation of protective factors contributing to the academic achievement of eight grade students in poverty*. Unpublished doctoral dissertation, METU, Ankara.

Green, D., Oswald, M., & Spears, B. (2007). Teachers' (mis) understandings of resilience**.** *International Education Journal, 8* (2), 133-144.

Grotberg, E. (2003). *Resilience today: Gaining strength from adversity*. Wesport, CT: Praeger.

Gürgan, U. (2006). *Grupla psikolojik danışmanın üniversite öğrencilerinin yılmazlık düzeylerine etkisi.* Yayımlanmamış doktora tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Henderson, N., & Milstein, M. (2003). *Resiliency in schools.* Thousand Oaks, CA: Corwin Press.

Henderson, N., & Milstein, M. M. (1996). *Resiliency in schools: Making it happen for students and educators.* Thousand Oaks, C A: Corwin Press, Inc.

Johns, E. S. (2005). *Student achievement, risk and resiliency in elementary schools.* Unpublished doctoral dissertation, Wayne State University, Detroit.

Karaırmak, Ö. (2007). *Investigation of personal qualities contributing to psyhological resilience among earthquake survivors: A model testing study.* Unpublished doctoral dissertation, METU, Ankara.

Krovetz, M. (1999). Fostering resiliency. *Thrust for Educational Leadership, 28,* 28-31.

Lehr, C. A., Sinclair, M. F., & Christensen, S. L (2004). Addressing student engagementand truancy prevention during the elementary school years: A replication study of the check and connect model. *Journal of Education for Students Placed At-Risk*, *9* (3), 279-301.

Masten, A. S. (2001). Ordinary Magic: Resilience processes in development. *American Psychologist, 56* (3), 227-238.

Miller, F. S. (2008). *Teachers' perspectives on resilience; Theory and practice in secondary schools.* Unpublished doctoral dissertation, Capella University.

Millî Eğitim Bakanlığı Ankara İl Millî Eğitim Müdürlüğü. (2012). *2007-2012 yılları arası eğitim istatistikleri.* http://ankara.meb.gov.tr/www/egitim-istatistikleri/icerik/24 adresinden 18 Ağustos 2012 tarihinde edinilmiştir.

Milstein, M. M., & Henry, A. D. (2008). *Leadership for resilient schools and communities*, Corwin Pres, CA.

Özcan, B. (2005). *Anne-babaları boşanmış ve anne-babaları birlikte olan lise öğrencilerinin yılmazlık özellikleri ve koruyucu faktörler açısından karşılaştırılması.* Yayımlanmamış yüksek lisans tezi, Ankara Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara.

Richardson, G. E., Neiger, B. L., Jensen, S., & Kumpfer, K. L. (1990). The resiliency model. *Health Education 21,* 33-39.

Rosenfeld, N. S., & Richman, B. (1991). The career connection. *American Educator*, *15* (2), 24-29.

Thomsen, K. (2002). *Building resilient students: integrating resiliency into what you already know and do.* California: Corwin Pres, Inc

Wahome, T. J. (2003). *Student perceptions of factors that promote resiliency in high schools.* Unpublished doctoral dissertation, University of California.

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). *Fostering educational resilience in inner-city schools.* Publication Series No. 4. Philadelphia, PA: National Research Center on Education in the Inner Cities.

Werner, E., & Smith, R. (1992). *Overcoming the odds: High-risk children from birth to adulthood.* New York: Cornell University Press.

Westfall, A., & Pisapia, J. (1994). *At-risk students: Who are they and what helps them succeed?* Research Brief #17. ED411341.

Wolin, S. J., & Wolin, S. (1993). *The resilient self: How survivors of troubled families rise above adversity.* New York: Villard.