HIGH SCHOOL STUDENTS’ PSYCHOLOGICAL RESILIENCE LEVELS AND COPING STRATEGIES

Sıla Şahin1, Zerrin Benal Hepsöğütü2
1İzmir Atatürk High School student, Turkey
2İzmir Atatürk High School teacher, Turkey

Abstract:
Psychological resilience is defined as having adaptation skills to negative situations, ability to using coping strategies and recovery skills. Risk and protective factors are related to environmental relations, personality and families. Coping with stress is a strategy and way which is used when a person encounters with difficulties or negativeness. Three strategies of overcoming the stress can be mentioned as: active coping skills, avoidance coping skill, and negative coping skills. The purpose of this study is to analyses the relationship between coping strategies and psychological resilience among students-at-risk. Quantitative methods were used for this research and the study group contains 229 Anatolian High School students. The data of the research is collected with Psychological Resilience Scale for Child and Teenager and Coping Scale for Teenager. The data have been analyzed by using MANOVA. According to results; active coping strategies are used in problem solving by the students who have higher psychological resilience levels whereas avoidance and negative strategies were used by the ones who have lower. Psychological resilience has explained 20% of active coping skills, 7% of avoidance coping skills and 17% of negative coping skills. In this present case, parents and schools should try to improve psychological resilience and active coping skills of students-at-risk by the help of school counselor. Also, developing studies should be made for providing active coping skills and psychological resilience of students-at-risk and their families.

Keywords: resilience, psychological resilience, coping, risk factors

1 This manuscript has prepared the Competition of 2018 High School Students Research Projects which it was awarded the prize in Aegean Provence organized by TÜBİTAK/Turkey. Also, it was exhibited at the MILSET, Expo-Sciences Europe (ESE) -International Movement for Leisure Activities in Science and Technology- in Poland (16-22 July 2018).
2 Correspondence: email sila2101@gmail.com
1. Introduction

When negativeness cannot be prevented, it results in stress and developing coping skills and overcoming skills gains importance. Overcoming the negativeness can be defined the concept "psychological resilience" (Oktan, 2012: 168; Terzi, 2008: 297). Psychological resilience is one of the crucial concepts regarding positive psychology. Terms like rally power (Terzi, 2006: 77, 2008: 297), indomitableness, psychological resilience and psychological endurance are used to define the concept in literature (Basım and Çetin, 2011: 4).

Psychological resilience is defined as having adaptation skills to negative situations, ability to using coping strategies and recovery skills (Basım and Çetin, 2011: 4; Oktan, 2012: 1692; Terzi, 2008: 297). In other words, psychological resilience is a person’s ability to stay strong against negative experience. Ability of a person to adapt to changing conditions among the effect of risk factors and protective factors (Karaimak, 2006: 130).

1.1 Psychological resilience and Adolescence

Psychological resilience is an adaptation skill that is demonstrated in situations as cancer, mentally ill parents, violence, war, terror, trauma, divorce, natural disasters, poverty, dysfunctional family, immigration or moving (Karaimak, 2006: 131). Children and teenagers that have experienced mentioned negative situations are at the risk group regarding adaptation. They can show recovery skills against negativeness and stress with such environmental factors as characteristic features, family, school and socialness. Some may have experienced more than one risk factor like poverty, fatal parental illness, natural disaster at the same time. In this sense, multi risk factors should be taken into account when explaining the psychological resilience (Karaimak, 2006: 131-32).

In addition to general risk factors, there are some special factors for children and teenagers: premature birth, chronical illnesses and staying at hospitals, parents' physical and psychological illnesses, separated parents, early childbearing, unsuccess in school, school abandonment, drug addiction, peccadillo or felony, unemployment, illnesses, parents being passed away, poverty, being neglected, social and parental violence, exposure to abuse, war and natural disasters, insensitive parents, bad child raising, being homeless (Gürgan, 2006a: 51; Yılmaz and Sipahioğlu, 2012: 629).

In the case of these risk factors, adaptation becomes easier with protective factors. Protective factors reduce negative impacts and accelerate adaptation process (Karaimak, 2006: 133). According to Rutter, Garmezy and Cowen, protective factors increase the resistance to risk factors of the individual. Healthy physical development, a good family, having and being interested in such abilities as music and art, developing good relationships with one’s surroundings, having positive expectations, joining in activities, close family ties, having friends are some of the protective factors. Those are some features and situations which initiates when there is a problem or a need for prevention (Terzi, 2006: 78-79). Such situations as personal decision making, agility,
self-control, problem solving, flexibility, independence may also be added to these features (Gizir and Aydın, 2006: 87; Oktan, 2012: 1693).

In relevant researches, “individuals who have high psychological resilience, have found to be more successful in struggling with poverty, violence, illnesses and such stressful life experiences” (Öz, İnci, and Bahadır-Yılmaz, 2012: 85). According to Topçu (2017), when emotional balance, extroversion and responsibility levels are increased, the psychological resilience is positively affected. In some researches regarding teenagers, parents’ emotional abuse and problematic behaviours effect psychological resilience negatively (Arslan and Balkış, 2016: 8).

According to Brooks; one’s characteristic features and the environment provides them resilience. Especially the support of schools to improve self-esteem, hope and psychological resilience is increasing (Oktan, 2012: 1692). Steinberg has defined adolescence as a "transition from childhood to adulthood". In this period, changes that children and teenagers are experiencing may have result in some adaptation problems. Santrock states that they face with some problematic situations as "abuse and negligence, divorce". Masten says “If a person can stay healthy despite all, that is psychological resilience”. Despite all those negative situations, some positive consequences may rise (Arslan, 2015b: 3).

1.2 Adolescence and Coping Skills

According to Erickson; “adolescence is an identity configuration period in adolescent’s bio-psycho-social development” (Eryılmaz, 2009: 21). According to Cüceloğlu, stress is a physically and psychologically exceeding effort that a person exert against negativeness (Hamarta, Arslan, Saygın and Özyeşil, 2009: 26; Terzi, 2008: 387). In reference to Compas, stress and coping in adolescence are based on adult coping models. According to Skinner, people progress by struggling against difficulties (Eryılmaz, 2009: 21). Coping is trying to get rid of the negativeness that is caused by stress. To sum up, coping is trying to overcome stress and "reducing negative effects of stress". Freud has explained three levels of stress depending on their formation: first is natural disaster stress that occurs in case of earthquake, flood, fire (it affects communities and extensive areas). Second level is intense stress which occurs after crisis or immediate situations. Third level is stress which threatens people continuously in daily life. In literature, reaction to stress are grouped as "alarm, resistance and exhaustion" (Eryılmaz, 2009: 22).

Those who are insufficient for coping in difficulties may experience problems because of "mental and physical exhaustion" (Hamarta and et al., 2009: 26). It is known that the notion of coping skills in adolescence is crucial because “failure in adaptation, especially in childhood and teenagers, effects social, mental and psychological development negatively”. Lack of coping skills result in "psycho-social problems". Low academic success, adaptation problems, anxiety, depression, eating disorders and violence are among those problems. In contrary, prohibitors of stress may reveal the existing capacity. In researches, stress sources are categorized in two groups as school-based such as academic success expectancy and social-based such as relationships with peer and teachers (Eryılmaz, 2009: 23, 27).
In researches, Personal differences, social skills, social support and personal skills play a key role in coping with stress (Hamarta and et al., 2009: 34). Negative coping result in psychological and behavioural problems (Erözkan, 2004: 15). When researches in coping in adolescence are analyzed, when positive sense of self, accepting oneself, shyness, happiness, positive emotions and controlling oneself in adolescence gets higher; problem-focused coping and social support level increases (Epli-Koç, 2006; Gücüyeter, 2003; Hamarta and et al., 2009: 34; Kaya and Demir, 2017: 18; Öğul and Gençöz, 2003; Terzi, 2008: 303). When individuals use less of the features that are mentioned above, they will use avoidance and negative coping strategies more (Alkan, 2004: 84; Gücüyeter, 2003). Basut and Erden (2005: 48), stated that teenagers who don’t attempt crime, are positive in coping with stress. In researches, it is found that women are more stressful than men and there is a sexual difference in coping with stress (Avşaroğlu and Üre, 2007: 91).

When subject of coping in adolescence is analyzed, most of the researches done in Turkey regard undergraduate students. In researches concerning the relationship between sense of self and psychological resilience, positive sense of self is found to be affecting psychological resilience (Arslan, 2015a: 77; Erarslan, 2014: 54-56; Gündas and Koçak, 2015: 800; Kararımak and Siviş-Çetinkaya, 2011; Koç-Yıldırım, Yıldırım, Otrar and Şirin, 2015: 292; Önder and Gülay, 2008: 195).

2. Psychological Resilience and Coping Strategies

It has been stated in researches that those who have high psychological resilience tend to front less problematic behaviours (Arslan and Balkış, 2015). Effective coping strategies affect person’s adaptation positively and reduce risk factors that stress creates (Aysan, 2003: 128).


No research could be found concerning the relationship between psychological resilience and coping strategies done with high school students-at-risk. As known, students’ coping capacities against their negative experiences is defined as psychological resilience and strategies that students prefer using in order to get over and reduce stress is called coping strategies. Teenagers encounter intense pressure in personal, social, academic and vocational development (Çapulcuoğlu and Gündüz, 2013: 204). In this research, students-at-risk who encounter stress other than those normal stress sources are regarded. Students’ psychological resilience levels are categorized as high, medium and low and thus which levels use which kind of (active, avoidance, negative) coping strategy was determined. Therefore, the effects of
increasing psychological resilience in coping strategies have been revealed. In this sense, this research is unique; conclusion and suggesting of this research is expected to have contributions to literature, educators, schools and families.

The purpose of research is to analyse students’ coping strategies according to their psychological resilience levels. Students who use negative coping strategies to have low psychological resilience level and students who use positive or active coping strategies have high psychological resilience is expected. The problem sentences of this research are “What are psychological resilience and coping strategies levels of high school students-at-risk?” and “Do coping strategies (active, avoidance and negative coping) have significant alteration from psychological resilience levels (high, medium and low)?”

3. Material and Methods

In this research, descriptive survey model have been used. In this model; events, objects, all livings, institutions, groups and some areas are tried to be explain and described (Kaptan, 1998). In reference to Karasar (2005), “survey model aims to describe once occurred or existing situations as they are”. Quantitative research method have been used in data collection: Likert's 12 item "Child and Teenager Psychological Resilience Scale" and 11 item "Effective Coping Skills Scale".

3.1 Study Group

Students-at-risk and who experienced severe problems from a high school are included in this researches study group. Risk analysis results have examined to determine which students will be in study group with the permission of principal. Risk analysis have implemented by three school counsellors a while after the start of school term. With the analysis 229 students from grade 9, 10, 11 and 12 have been determined to be at risk group. In research, complete inventory sample method has been used.

3.2 Data Collection Tools

Child and Teenager Psychological Resilience Scale (CTPRS): the exploratory and confirmatory factor analysis results of the scale which had developed by Arslan (2015b: 7-10) are found to be as: Scale is the only formation to explain total variance of 51.28%. Criteria validity has been done; relationship between negative-positive feelings and self-efficiency has been observed. Via CTPRS, significant level of positive relationship between self-efficiency and positive feelings, and negative relationship between self-efficiency and negative feelings have found. Scale’s internal consistency level for reliability - Cronbach alpha value had found as 0.91. These results have shown that this scale could be used for assessing children and teenagers' psychological resilience in Turkey.

Teenagers’ Coping Skills Scale (TCSS): Teenagers’ Coping Skills Scale, which had developed by Spirito, Stark and Williams in 1988, has adapted to Turkish by Bedel et al. (2014). Scale’s construct validity had controlled with confirmatory factor analysis. 15-items Turkish form has adjusted to three-factor-structure. TCSS’s internal consistency
Alpha reliability coefficient is .72 in active coping skills, .70 in avoidance coping skills and .65 in negative coping skills. Test-retest reliability coefficient, which had assessed in three-week gap, r 0.66 for active coping skills, r 0.61 for avoidance coping skills and r = .76. These results have shown that TCSS's Turkish form is reliable and valid for assessing high school students' coping strategies.

3.3 Data Collection
In order to implement scales for collecting data, permission has taken from school administration. The decision of which scales are to be used has been made with the advice of academicians. Scales have been implemented to students with the help of school administration and school counsellors. Each student’s willingness had taken into account and the scales have been implemented to willing students only. Students were informed that the scales are nameless, research data is only in use for research purposes and data will be kept hidden. There is no missing data in turn or because deficient filling.

3.4 Data Analysis
In analysis, arithmetic means and standard deviations were checked by using SPSS 21.0 statistics analysis program. Frequency, arithmetic mean (\(\bar{X}\)) and standard deviation were calculated; then data was examined by using MANOVA (Multi Variance Analysis). MANOVA Analysis determines effects of independent variables on dependent variables. The aim is to analyze differences among multi dependent-independent variables. While calculating psychological resilience levels, total mean has been transformed into z values. In this circumstances, those whose standard deviation is below -1 are accepted as low; between -1 and +1 are accepted as medium and above +1 are accepted as high. Significance level in statistical analysis is accepted as 0.05. The lowest and the highest scores that could be given is given in Table 1.

| Table 1: Score Interval of Likert Scale Questionnaire in Research |
|-----------------------------|-----------------------------|-----------------------------|
| **Teenagers' Coping Skills Scale (TCSS):** | **Teenagers' Coping Skills Scale (TCSS):** |
| Given Weight | Option | Limit | Given Weight | Option | Limit |
| 1 | I never believe | 1.00 - 1.79 | 1 | Never- | 1.00 - 1.74 |
| 2 | I completely believe | 1.80 - 2.59 | 2 | Always | 1.75 - 2.49 |
| 3 | 2.60 - 3.39 | 3 | 2.50 - 3.24 |
| 4 | 3.40 - 4.19 | 4 | 3.25 - 4.00 |
| 5 | 4.20 - 5.00 | |

The lowest and the highest scores that could be given are given in accordance to 4 point and 5 point Likert Scales.

4. Results and Discussion

a) High School Students' Psychological Resilience and Coping Strategies Levels
Findings about students' psychological resilience and coping levels are given in Table 1.

**Table 2: Range of Students' Psychological Resilience and Coping Levels**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>N</th>
<th>Mini</th>
<th>Max.</th>
<th>x</th>
<th>ss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Resilience</td>
<td>229</td>
<td>1.50</td>
<td>1.50</td>
<td>3.89</td>
<td>.63</td>
</tr>
<tr>
<td>Active coping Skills</td>
<td>229</td>
<td>1.00</td>
<td>4.00</td>
<td>2.68</td>
<td>.59</td>
</tr>
<tr>
<td>Avoidance Coping Skills</td>
<td>229</td>
<td>1.00</td>
<td>4.00</td>
<td>2.45</td>
<td>.52</td>
</tr>
<tr>
<td>Negative coping Skills</td>
<td>229</td>
<td>1.00</td>
<td>4.00</td>
<td>1.98</td>
<td>.58</td>
</tr>
</tbody>
</table>

As seen in Table 1; students' psychological resilience is at “it expresses me well” level. When analyzed in sub dimensions of coping skills; active coping skills are in usually, avoidance coping skills are in sometimes and negative coping skills are in never time periods. According to this, students perceive their psychological resilience positively but they are not as positive in using coping skills.

**b) Students’ Psychological Resilience Levels (High, Medium, Low) and Coping Strategies (Active, Avoidance, Negative)**

Before the two-way MANOVA test, Box’s M statistics have implemented to check whether covariance matrix are equal through basic assumption groups of MANOVA test or not and the covariance equality which was the basic assumption has resulted in significance ($F_{(12,3557.96)}= 3.09, p= 0.00$). There are 36 participants in low psychological resilience, 160 participants in medium psychological resilience and 33 participants in high psychological resilience. In every dimension, participant numbers are above 20; however, medium level is as four times of others. Levene test result is below .05. Since the variances aren’t equal, Pillai’ Trace values in multivariate tests are considered (Akbulut, 2010: 161). The alteration is significant as Pillai’s trace is $\lambda = .292$, $F= 12.82$, $P= .00$ and $\eta^2=.14$. This result has shown that the points coming from linear combinations of coping strategies' points differ as students' psychological resilience change (Büyüköztürk, 2009: 142). In order to determine difference among groups, results of multivariate MANOVA are given in Table 9.

**Table 3: Results of multivariate MANOVA, in order to determine difference among groups**

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Sum of Squares</th>
<th>Sd</th>
<th>Mean of Squares</th>
<th>F</th>
<th>P</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Resilience</td>
<td>Active CS</td>
<td>16.24</td>
<td>2</td>
<td>8.12</td>
<td>28.70</td>
<td>.00</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Avoidance CS</td>
<td>3.99</td>
<td>2</td>
<td>1.99</td>
<td>7.83</td>
<td>.00</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>Negative CS</td>
<td>13.09</td>
<td>2</td>
<td>6.54</td>
<td>22.61</td>
<td>.00</td>
<td>.16</td>
</tr>
<tr>
<td>Error</td>
<td>Active CS</td>
<td>63.95</td>
<td>226</td>
<td>.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avoidance CS</td>
<td>57.68</td>
<td>226</td>
<td>.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative CS</td>
<td>65.42</td>
<td>226</td>
<td>.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Active CS</td>
<td>1727.81</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avoidance CS</td>
<td>1439.68</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative CS</td>
<td>982.55</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) $R^2 = .20$ (Adj. $R^2 = .19$) b) $R^2 = .07$ Adj. $R^2 = .05$ c) $R^2=.16$ (Adj. $R^2 = .15$) $P < .05$
When Table 9 is analyzed, a significant alteration of scores in "active coping skills" \(F=28.70, p<0.05, \eta^2=.20\), "avoidance coping skills" \(F=7.83, p<0.05, \eta^2=.06\) ve "negative coping skills" \(F=22.61, p<0.05, \eta^2=.16\) levels are seen. Bonferroni test was made in order to determine the groups of significant alteration. Accordingly, active coping skills increases as students' psychological resilience levels decrease. As students' psychological resilience levels increase, avoidance and negative coping strategy using levels increase.

**Graphic 1:** Predicting level coping of psychological resilience

According to Graphic 1, it has been found psychological resilience explains active coping by 20%, avoidance coping by 7% and negative coping by %17.

5. Results and Discussion

In this research, students' perceived their psychological resilience levels positively. In other words, students feel themselves well in "opening themselves to their families and friends, their families' to lay the groundwork for it, trying to finish their works, getting over negative situations without using violence and saying bad words, getting families' supports when being ill or being stuck, getting friends' supports in hard times, positive justice values, loving families' traditions and culture, giving importance to their education, belonging to their schools". This result is pleasant but more pleasant one is expected. According to Diker-Coşkun et al. (2014: 673), undergraduate students' psychological resilience levels are higher.

Students are well at active coping, in other words; they can find suitable ways to solve their problems. In these situations, "focusing on the good sides of events, getting opinions for problems, finding suitable solution to problems, trying to keep themselves calm and getting help in negative situations from the environment" abilities are well adopted. Students use avoidance coping strategies at medium-level. In these situations, students sometimes "try to forget the problems by getting interested in other things, try to solve problems alone, remonstrance with -wish- clauses or try to accept by saying there is nothing to do". On the other hand, high school students use negative coping strategies less. In this situation, students "think they caused the problem, the blame themselves or others, express their anger to others or shout to others, damage the surrounding objects".

As an important result of the research, it can be said that increase in students' psychological resilience results in the usage active problem solving strategies. In other
words, students should feel themselves better in such situations as "opening themselves to their families and friends, their families’ to lay the groundwork for it, trying to finish their works or getting over negative situations with a positive communication" in order to use their coping strategies better. Students using active coping skills, are better in "seeing situations positively, focusing on problems and getting help, being calm and having a target”. Researches that supports this research have been done with undergraduate students (Kaya and Demir, 2017: 18-19; Malkoç and Yalçın, 2015). Terzi (2008), on the other hand, have found a positive relation between psychological resilience and active coping and negative relation between passive coping.

Another result of research is, when psychological resilience level increases avoidance behavior decreases. In other words, if the students’ psychological resilience level decreases more, students choose to avoid problems more. In short, these students usually tend to "show interest other things when facing problems, trying to forget about the problem, solve problems alone, complain in every mean, accept the result without doing anything”. As expected, teenagers have indicated that when their psychological resilience levels reduce, they tend to use negative coping strategies more. Such behaviours as "seeing themselves as responsible for problems or blaming others, showing anger, clamouring, damaging objects" define negative coping strategies. In Çiftçi’s (2002) research, a relationship between psychological resilience and blaming oneself had found. According to another positive result, psychological resilience has explains 20% of active coping skills, 7% of avoidance coping skills and 17% of negative coping skills. Even though effects in this level may seem low, it is rather significant. However, its effect on psychological resilience is slight.

6. Conclusion and Recommendations

Finally, as expected, when students' psychological resilience levels increase it results in using active coping strategies, when it decrease it results in avoidance and negative strategies. Parents and schools should make studies to improve psychological resilience and active coping skills of students-at-risk with the help of school counselors. This research was conducted with teenagers in a high school. Conducting similar researches in middle school and undergraduate students and with adults is suggested. This research was conducted in a school which has a high socioeconomic level, high educational leveled parents and high academic success. Similar researches can be conducted in schools with lower socioeconomic levels and lower educational leveled parents. In this research, psychological resilience explains 20% of active coping skills, 7% of avoidance coping skills and 17% of negative coping skills. Other factor affecting coping skills may be searched.

Reference


