

# The predictive role of autonomous-related self of adolescent and the critical thinking disposition of parents on adolescent psychological resilience

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Abstract The aim of this study is to determine the predictive role of autonomous-related self of adolescent and the critical thinking disposition of parents on adolescent psychological resilience. The study was carried out on 339 participants who were selected randomly including 113 adolescents (in the range of 14-18 ages; female 57, male 56) and 113 mother – 113 father of these adolescents. Adolescent Psychological Resilience Scale, Autonomous-Related Self Scale, Critical Thinking Disposition Scale and Demographical information form were used for data collection. Pearson Correlation, Independent Samples t-Test and Hierarchical Regression were used in analysis of data. The findings reveal that there was a statistically significant positive correlation between adolescent psychological resilience and critical thinking disposition of parents. Also there was a statistically significant positive correlation between adolescent psychological resilience and relatedness of adolescent. Furthermore there was a statistically significant positive correlation between family, peer and school support subdimensions of adolescent psychological resilience and relatedness. The results showed that there was no significant difference regarding to adolescent psychological resilience level according to gender. According to hierarchical regression analysis' results there was a predictive role of relatedness subdimension of self-construal of adolescent and critical thinking disposition of parents on adolescent psychological resilience.

Keywords: Resilience, autonomous-related self, critical thinking

## 1. Introduction

Resilience has been conceptualized as a dynamic process involving an interaction between both risk and protective factors, internal and external to the individual, that act to modify the effects of an adverse life event (Garmezy, 1985; Rutter, 1999). Protective factors are defined as fundamental points of resilience that reduce the negative effect of risk factors. Most of the researches on protective factors has generally focused on the parental systems. For many adolescents the family composes the primary social support by their parenting strategies, communication styles, parental acceptance, critical thinking disposition and cognitive flexibility that will strengthen the resilience of adolescents.

Critical thinking disposition has been defined as a constellation of attitudes, intellectual virtues or habits of mind, thus describing the way an individual reasons, argues and make decisions (Facione et al., 1995; Perkins et al., 1993). Critical thinking is also effective on the quality and closeness of the parentchild relationship relates to child outcomes across risk status. And by the way theoretically, having a good relationship with a parent prepares the child to engage in healthy productive relationships with other people in the social environment. Having a good relationship with a tleast one parent was associated with less conflictual relationships with siblings, and peers

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(Ingoldsby, Shaw & Garcia, 2001). Parenting practices have been shown to be associated with adolescents positive social adjustment, including warmth, consistent discipline, responsiveness, structure, and monitoring (Masten & Reed, 2002).

Resilience and adolescence are distinct psychological concepts and there are several researches on them independently. In conclusion, although several theorists have emphasised the importance of adolescence in developmental period there has not been enough work carried out indicating the relationship between parenting attitudes and self construction. In terms of self construction there are two basic psychological needs; autonomy and relatedness. But within the model of family change, reflecting the global pattern of urbanization and socioeconomic development in the majority world with collectivistic cultures of relatedness there is an autonomousrelated self construct emerged by the needs of modern humanbeing (Kagitcibasi, 1990; 2005).

This review highlights the importance of parents on self development of adolescents. Comparing with the other studies the importance of this study is that, it is including both adolescents and their parents.

Based on previous but limited research on the relationship between self construal of adolescents, the critical thinking disposition of parents and the psychological resilience of adolescents this study poses the following hypotheses:

H1: There is a relationship between adolescent psychological resilience and autonomous-related self of adolescent.

H2: There is a relationship between adolescent psychological resilience and critical thinking disposition of parents.

H3: There is a difference between male and female adolescents according to their psychological resilience levels.

H4: There is a predictive role of relatedness of adolescent and critical thinking disposition of parents on adolescent psychological resilience.

## 2. Methodology

## 2.1. Sample

The research group consists of 339 participants who were selected randomly including 113 adolescents (in the range of 14-18 ages; female 57, male 56) (see Table 1) and 113 mother -113 father of these adolescents.

Groups	f	%
14	19	16,8
15	16	14,2
16	28	24,8
17	24	21,2
18	26	23,0
Total	113	100,0

Table 1. Descriptive statistics of adolescents according to age

## 2.2. Data collection tools

Adolescent Psychological Resilience Scale was used for assessing resilience level of adolescents. Also Autonomous-Related Self Scale was used for assessing self-construal of adolescents. In addition to this Critical Thinking Disposition Scale was used for assessing critical thinking ability of parents. And finally Demographical Information Form was used for both adolescents and parents.

Adolescent Psychological Resilience Scale (APRS)

Adolescent Psychological Resilience Scale is a testing tool that was developed by Bulut, Dogan and Altundag (2013) in order to determine the adolescents' psychological resilience levels. The scale has 29 items and six subscales consisting family support, peer support, school support, determination of struggle, adaptation and empathy dimensions. The total variance of the scale is 56,99 % as a result of exploratory factor analysis. The Cronbach's Alpha internal consistency coefficient of the whole scale is .87.

# Autonomous-Related Self Scale (ARSS)

Autonomous-Related Self Scale is a testing instrument which has 20 items and 3 subdimensions that was developed by Kagitcibasi (2007) in order to gain information on the self construals of individuals. The three subdimensions of the scale are autonomy, relatedness and autonomyrelatedness. The scale has 5-point Likert within a range of 1 to 5. According to the results obtained the Cronbach's Alpha internal consistency scores for the subscales relatedness, autonomy and autonomy-relatedness are .69, .77 and .73 respectively. The reliability and validity study of the scale for adolescents has been carried out by Ozdemir and Cok (2011).

Critical Thinking Disposition Scale (CTDS)

Critical Thinking Disposition Scale consists of 11 items and 2 subscales (critical openness and reflective scepticism), in which self-evaluation of participants is intended, is a sample of 5-point Likert scale. The scale was adapted to Turkish by Akin, Hamedoglu, Saricam et al. (2015). The scale was evaluated by overall score. The Cronbach's Alpha internal consistency coefficient of the whole scale is .78.

## 2.3. Data collection operation

It was asked for the adolescents to first complete the Adolescent Psychological Resilience Scale and Autonomous-Related Self Scale. Moreover Critical Thinking Disposition Scale was applied to parents for evaluating their critical thinking abilities. And finally Demographical Information Form was given to all participants.

# 3. Analysis and findings

The analysis of data was performed on SPSS version 23.0 packaged software. Pearson Correlation, Independent Samples t-Test and Hierarchical Regression were used in analysis of data. For all these analyses, the results for p<.05 were deemed as statistically significant.

Of the entire sample of parents, the range of education level is between primary school and university. 36,2 % of parents were graduated from primary school, 39,8 % of parents were

graduated from secondary school, 76,1 % of parents were graduated from high school, 47,7 % of parents were graduated from university (see Table 2).

One way ANOVA analysis was performed in order to consider the variance analysis in between sub-group points for parents' educational levels and points for adolescents' psychological resilience, but statistically significant difference couldn't be found.

	Mother		Fath	er	Total		
Groups	f	%	f	%	f	%	
Primary School	24	21,2	17	15	41	36,2	
Secondary School	25	22,1	20	17,7	45	39,8	
High School	40	35,4	46	40,7	86	76,1	
University	24	21,2	30	26,5	54	47,7	
Total	113	100,0	113	100,0	226	100,0	

Table 2. Descriptive statistics of parents' education levels

The correlations between subdimensions and total level of adolescent psychological resilience and subdimensions of self construal were analyzed with Pearson correlation. Correlations were found between family support subdimension of psychological resilience and autonomy (r=-.23, p<.05) and relatedness (r=.43, p<.001). Correlations were found between friend (r=.19, p<.05) and school (r=.19, p<.05) support subdimensions of psychological resilience and relatedness. And also there was a significant correlations between psychological resilience and relatedness (r=.36, p<.001) and autonomy-relatedness (r=.18, p<.05) (see Table 3).

Table 3. Pearson correlation analysis between adolescent psychological resilience and self construal of adolescents

Psychological Resilience	Autonomy			R	Relatedness			Autonomy- Relatedness			
	N	r	р	N	r	р	N	r	р		
Family support	113	23	.01*	113	.43	.00*	113	13	.15		
Friend support	113	07	.44	113	.19	.04*	113	03	.68		
School support	113	17	.07	113	.19	.04*	113	11	.21		
Adjustment	113	.01	.88	113	.12	.20	113	14	.11		
Sense of struggle	113	05	.60	113	.16	.07	113	16	.08		
Empathy	113	.05	.60	113	.16	.08	113	01	.88		
Total Level of	113	.13	.16	113	.36	.00*	113	17	.06		
Psyc. Resilience											
* p < .05											

The correlations between adolescent psychological resilience and critical thinking disposition of mother, father and total level of parents were analyzed with Pearson Correlation. Correlation was found between critical thinking disposition of father and adolescent psychological resilience (r=.27, p<.001). In addition to this there was a significant correlation between total level of critical thinking disposition of parents and adolescent psychological resilience (r=.26, p<.001) (Table 4).

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Table 4. Pearson correlation analysis between adolescent psychological resilience and critical thinking disposition of mother, father and total level of parents

Critical Thinking	Adolescent Psychological Resilience						
Disposition	Ν	r	р				
Critical Thinking	113	.15	.12				
Disposition of Mother							
Critical Thinking	113	.27	.00*				
Disposition of Father							
Total Level of Critical	226	.26	.00*				
Thinking Disposition of Parents							

\* p < .001

There was no significant difference between male and female adolescents according to their psychological resilience level (r=.47, p>.05) (see Table 5).

Table 5. Independent sample t test analysis of psychological resilience according to gender of adolescents

	Gender of Ad-	<b>N</b> 7	$\overline{\mathbf{v}}$	6.6	<b>C1</b>		t Test		
	olescent	IN	Х	SS	$\operatorname{Sn}_{\overline{x}}$	t	Sd	р	
Psychological	Male	56	91,27	10,31	1,37	.47	111	.63	
Resilience	Female	57	90,30	11,60	1,53				

\* p < .05

The results of the hierarchical regression analysis demonstrated that adolescent psychological resilience was positively related with relatedness subdimension of self construal of adolescents ( $\beta$ = .368, t= 4.16, p< .001). Besides, when relatedness and critical thinking disposition of parents were taken together in the regression analysis, the significance of the relationship between relatedness and adolescent psychological resilience ( $\beta$ = .351, t= 4.09, p< .001) decreased, yet the relationship between relatedness and adolescent psychological resilience was still significant. These results are presented in Table 6.

Table 6. Hierarchical multiple regression analysis of predictive role of relatedness of adolescents and critical thinking disposition of parents on adolescent psychological resilience

Variables	В	Standart Error of B	β	t	р
Step 1 Relatedness	.798*	.192	.368	4,16	.000
Step 2 Relatedness	.763*	.187	.351	4,09	.000
Critical Thinking Disposition of Parents	.242*	.087	.238	2,77	.007

Dependent variable: Adolescent Psychological Resilience.  $R^2=.135$ , adjusted  $R^2=.127$  (p<.001) for Step 1;  $R^2=.191$ ,  $\Delta R^2=.56$ , adjusted  $R^2=.177$  (p<.05) for Step 2.

## 4. Result and discussion

The term resilience has gained great popularity in current studies, different research groups have studied resilience with various sample groups regarding to several variables. This review has emphasized in adolescents how resilience has been investigated as an outcome of self construal and critical disposition of parents. A number of studies have demonstrated that reciprocal

relationship exists between parenting quality and the adolescents' personality and behavior which has a critical importance on healthy self development (Crockenberg, 1981; Grolnick& Ryan, 1989; Steinberg, Elmen & Mounts, 1989; Crowley & Kazdin, 1998; Armstrong, Birnie-Lefcovitch & Ungar, 2005). The aim of this study was to investigate the relationship between adolescent psychological resilience, self construal of adolescents and critical thinking disposition of adolescents' parents.

First, as hypothesized, there was a relation between adolescent psychological resilience and autonomous-related self of adolescent. According to the findings of the research, promoting the first hypothesis, family support, friend support and school support subdimensions of psychological resilience have been positively related to relatedness. But in addition to this findings family support was also significantly related with autonomy. When psychological resilience level was evaluated totally beyond its subdimensions, it was significantly related with relatedness. Despite of these relations between subdimensions of psychological resilience and self construals there was no significant relationship between adjustment and sense of struggle subdimensions of psychological resilience and self construals. This finding is in line with other research by Yildirim et al. (2015) indicating psychological resilience to be negatively correlated with autonomy, however relatedness and autonomy-relatedness were positively correlated with psychological resilience. Also it's in accordance with the literature about resilience that a supportive family environment is one of the most crucial protective mechanisms for supporting resilience in children and throughout life (Graber, Pichon & Carabine, 2015: 9). In other study of Ozdemir (2012) it was determined that adolescents who define themselves as relational and autonomous-relational have higher life satisfaction and positive affect scores, which also increases the functionality of protective factors of psychological resilience, than adolescents' who define themselves as autonomous.

Alongside personality attributes, protective factors, defined as characteristics of the child, family, and wider environment that reduce the negative effect of adversity on child outcome, are rooted in culture, community and social relationships (Masten, Reed, 2002; Masten and Wright, 2010). Adolescent resilience expanded to a composite of attributes incorporating individual characteristics, social support and available resources (Ahern, 2006). As seen in the literature several studies point to relations between relatedness and well-being in adolescents, the current study also showed the importance of relatedness for psychological resilience. Adolescents, growed up in families which have closed and supportive communication styles, have been supported to be autonomous (Allen et al., 1994). But especially in Turkish culture parental warmth refers mainly to the emotional aspect of relatedness subdimension of self construal (Kagitcibasi, 2005). Based on growing research evidences, it can be said that neither the interdependent family model, which does not grant autonomy adequately, nor the independent family model, which does not provide close relationships to adolescents adequately, are optimal for healthy self development (Kagitcibasi, 2013: 232).

Previous studies about families showed the effective role of quality parenting on adolescent development. One of the subdimension of quality parenting can be considered as critical thinking, that can be defined as an active, organized, and functional cognitive process that is actualized in order to understand the thoughts of ourselves clearly and to expand our abilities of explaining thoughts (Chaffee, 1994). In addition to this critical thinking is an intellectual ability which plays a crucial role on interaction of family members regarding to their communication styles.

Second in this study, as anticipated, adolescent psychological resilience was positively related to critical thinking disposition of parents. On the other hand when the relation between psychological resilience and critical thinking disposition of parents was investigated profoundly there was a significant relation when critical thinking disposition was evaluated totally both for mother and father. By the way when the critical thinking disposition of father was investigated single-handedly it was related with psychological resilience by contrast with this finding there was no relation with critical thinking disposition of mother. This finding is in coherent with the study of Sagone (2013) stating that there is a positive relationship between psychological resilience and different thinking styles. And also the effect of "father" on adolescents can be explained with the patriarchal family structure in Turkey and the "strong, protective, supportive" role models of fathers on adolescents.

Third, when the psychological resilience of adolescents was investigated according to gender variable, there was no difference observed between male and female adolescents. In addition to this the adolescent group cannot be analysed according to their ages because of the closed age range of the sample group. It can be considered as the limitations of the study, one being that since the sample presented here is limited, it restricts the ability to generalize the findings.

Fourth and finally when the basic hypothesis of the study was examined it was found that relatedness, subdimension of self construal of adolescent, had statistically significant predicting role on adolescent psychological resilience. But when the critical thinking disposition of father and mother was taken together as the parents of an adolescent in the multiregression analysis the significance of the relationship between relatedness and psychological resilience decreased but it was still significant. The reason of this decline can be considered with the different directions of critical thinking disposition of family such as positive or negative perspectives of mothers and fathers.

Resilience is inherently developmental in the sense that it is a process that unfolds over a lifetime. And when "psychological resilience" was worked through lifespan development theory, the importance of environmental factors on human being such as family, school, friends, communication and other supportive factors compose the main aspects of the development. Therefore, the current findings of the research provide contributions to the literature by studying adolescents paired with their parents. The findings of this study also have been supported by the results of other studies but there are limited researches about critical thinking disposition of parents, so that it is a preliminary study that may contribute to deepening and development of further studies regarding the subject.

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