

### RESEARCH ARTICLE / ARAŞTIRMA MAKALESİ

## RESILIENCE AS A MEDIATOR BETWEEN AFFECT, COPING STYLES, SUPPORT AND LIFE SATISFACTION(\*)

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### ABSTRACT

As humans, we are always targets of many positive and negative life events in which we would show differences in dealing with those events. In this study, the aim was to investigate how individuals react to stressful situations through the concept of resilience. Therefore, it was aimed to test the role of individual characteristics of affect and coping styles in addition to receiving support from family and social environment on resilience. The role of resilience in life satisfaction was also investigated. A survey was used including demographic questions, ego resilience scale, positive and negative affect scale, stress coping styles inventory, and satisfaction with life scale. Target of the study was individuals who were over 18 years of age and 403 participants were reached through snowball sampling. Seventy-six percent of the participants were female ( $n=310$ ) and 24% of them were male ( $n=93$ ). Hypothesized model was tested by using path analysis. Study results showed that positive affect, optimistic coping style and confident coping style were significant predictors of resilience as individual characteristics in addition to receiving social support. Resilience was found as a significant predictor of life satisfaction. Moreover, resilience was also found as a significant mediator of the relationships between positive affect, optimistic coping, confident coping styles, receiving social support and life satisfaction. Importance of the study in the field of psychology and suggestions for future research were also discussed with relevant literature.

### Key Words

*Resilience, Affect, Coping, Support, Life Satisfaction*

## DUYGULANIM, BAŞAÇIKMA STİLLERİ, DESTEK VE YAŞAM DOYUMU İLİŞKİSİNDE PSİKOLOJİK SAĞLAMLIĞIN ARACI ROLÜ

### ÖZ

İnsanlar çeşitli şekillerde tepki verdikleri olumlu ya da olumsuz pek çok yaşam durumunun hedefi olurlar. Bu araştırmada amaç bireylerin stres yaratan durumlara psikolojik sağlamlık çerçevesinde nasıl tepki verdiklerini araştırmaktır. Bu bağlamda bireysel özelliklerden duygulanım ve başaçıkma stratejilerine ek olarak aileden ve sosyal çevreden alınan desteğin psikolojik sağlamlık üzerindeki rolü incelenmiştir, yaşam doyumuyla tüm değişkenlerin ilişkisi araştırılmıştır. Araştırmada 18 yaş üstü, 403 bireyden kartopu örneklem yöntemiyle veri toplanmıştır. Katılımcıların %76'sı kadın ( $n=310$ ) ve %24'ü erkektir ( $n=93$ ). Önerilen model, yol analizi kullanılarak test edilmiştir. Araştırma sonuçlarına göre çevreden alınan sosyal desteğe ek olarak bireysel özelliklerden pozitif duygulanım, iyimser ve güvenli başaçıkma stilleri psikolojik sağlamlığı anlamlı olarak yordamaktadır. Psikolojik sağlamlık da yaşam doyumunu anlamlı olarak yordar. Ayrıca araştırmada psikolojik sağlamlığın pozitif duygulanım, iyimser başaçıkma, güvenli başaçıkma, sosyal destek ve yaşam doyumunu arasındaki ilişkide anlamlı aracı değişken olduğu bulunmuştur. Araştırma sonuçlarının psikoloji alanındaki önemi ve gelecek çalışmalar için öneriler ilgili alan yazını çerçevesinde tartışılmıştır.

### Anahtar Kelimeler

*Psikolojik Sağlamlık, Duygulanım, Başaçıkma, Destek, Yaşam Doyumu*

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## Introduction

From birth to death, people are very familiar with the concept of stress because of their main existential assumption, by its nature, life is stressful (Maddi, 2011). From tragic traumas to everyday occasions such as getting fired or getting promotion, giving birth or losing a loved one, getting married or getting divorced, people are the targets of many kinds of life challenges. While experiencing these events, people have a response that might be adaptive or maladaptive. Especially negative life events that create increased stress might lead to pathological pathways because one might show failure in dealing with these stressors. However, sometimes people can deal with highly devastating situations and somehow they can live the rest of their lives without showing any symptomatology or psychopathology by using their internal or external resources which we called resilience.

Resilience is the concept that has been studied in trauma and stress research and various researchers described resilience differently. Responses people give to certain types of stressors might vary in accordance to individual's level of vulnerability or resistance to the stressors. From early studies to recent ones, researchers indicated three factors related to one's level of resilience as individual characteristics, family support and external support that was called *Three Protective Factors Model of Resilience* (Garmezy, 1993). Literature indicates resilience pathway would be different for each individual. For instance, some people may use their individual characteristics to handle the stressors, for others receiving support from family or friends may be helpful for being resilient. Early resilience studies were conducted with children and most of the studies were related to family and community ties of children. Later studies targeted adult population and tried to understand the individual characteristics which make people more resilient (Ryff & Singer, 2015). Although studies investigated various predictors of resilience, including affect and coping styles, there is a lack of research about the combined effects of various predictors of resilience such as affect, coping styles and support. As Mancini and Bonanno (2006) indicated more studies with adults are needed in order to clarify individual characteristics related to being resilient. Thus in this current study, predictors of resilience were examined through individual characteristics and receiving support which aimed to test Garmezy's (1993) model of Three Protective Factors of Resilience. Current study might be evaluated as a comprehensive work on resilience including the role of family and social support to explain resilience and also mediation effect of resilience on life satisfaction.

## Theoretical Frame and Literature Review

In earlier studies, vulnerability was defined as heightened probability for maldevelopment because of the presence of single or multiple risk factors (Garmezy, 1993). Resilience was defined as a protective factor towards the presence of any or many risk factors with the accompanying adaptive outcomes within the individual or external environments (Garmezy, 1993). In other definitions resilience is the maintenance, recovery, or improvement in mental or physical health following challenge (Ryff & Singer, 2015); successful engagement with difficult events and experiences (Ryff & Singer, 2015); and the ability to bounce back from adversities (Southwick & Watson, 2015). As a new concept in the dictionary of American Psychological Association (2010) it was defined as the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of threat. As all the definitions implied, people who are high on resilience tend to use their ability to show positive adaptation in the context of significant threats to functioning or development (Masten, Obradovic & Burt, 1990).

Although majority of the studies about resilience were done with children, there are few studies about supporting resilience pathway among adults. In most of the studies with adults, challenges of aging and trauma experiences constituted main themes in the resilience pathways (Ryff & Singer, 2015). Resilience studies that were done with adults suggested that maintenance of positive self-regard, quality relations with others, sense of purpose and meaning in life, continued growth and development, managing environment and positive physical health might be seen as indicators of

resilient outcomes (Ryff & Singer, 2015). Rather than focusing on contextual factors, individual characteristics were widely investigated with adults and these characteristics were defined in different studies. Ryff and Singer (2015) concluded that effective coping strategies, personality traits, flexible self-concept, social comparison, optimism and hope, spirituality and religiousness might be significant resilience predictors among adult individuals. As Bonanno, Westphal, and Mancini (2011) and Hobfoll (2001) concluded in their studies, positive emotions and realistic optimism, ability to regulate emotions, and active coping styles were some of the variables which are significant individual characteristic pathways to resilience among adults. However, studies investigated the relationship between resilience and these factors separately and there is not much research that combined the effects of different factors in explaining resilience. In this research main aim was to investigate the role of affect, coping styles and support together as antecedents of resilience.

### **Affect as a Predictor of Resilience**

In emotion and affect literature, experience of positive emotions was evaluated as protectors from negative emotions. In many studies, positive emotions enhance successful adaptation to stressful situations through promoting flexibility in problem solving and thinking, building social resources (Fredrickson & Branigan, 2005; Isen, Daubman & Nowicki, 1987), counteracting effects of negative emotions (Fredrickson, 2001), and enhancing well-being (Fredrickson & Joiner, 2002). They were also evaluated as important contributors to personal resilience and effective coping when faced with stressful situations (Ong et al., 2006).

Fredrickson (2001) defined the benefits of negative and positive emotions in individual functioning. According to her positive psychology based *Broaden and Build Theory*, positive emotions of joy, interest, contentment, pride and love broaden an individual's thought and action repertoire and build some resources for better life (Fredrickson, 2001). She suggested that individuals who frequently experience these feelings tend to have more cognitive, intellectual, social and psychological resources compared to individuals who generally experience more negative emotions. Broaden and Build Theory was evaluated as being related with psychological resilience. As Fredrickson et al. (2003) found in their study, individuals who scored higher on resilience tended to show more positive emotions. It was suggested that highly resilient individuals who experience more positive emotions tended to find more positive meaning when they faced with adversity. However, the authors also interpreted that there might be a reverse relationship between resilience and positive emotions. In addition to the findings, highly resilient individuals have more emotional well-being. It can be concluded that positive emotions build and broaden resources of individuals, protect them from lingering effects of negative emotions, increase their psychological resilience and emotional well-being. It could be interpreted that individuals who are high in positive emotions might be physically healthy, knowledgeable, creative, friendly and resilient. Few studies were also mentioned the relationship between negative affect and resilience (e.g., Montpetit et. al, 2010) but in fact positive affect is relatively much more important as a predictor of resilience. Therefore, in this research first aim was to investigate the relationship between resilience and affect by using the perspective of Broaden and Build Theory.

Hypothesis 1: Positive and negative affect would be significant predictors of resilience.

### **Coping Style as a Predictor of Resilience**

Resilience and coping were evaluated as related constructs in which coping refers to individual's cognitive and behavioral attempts to manage the demands of stressful situations (Martin & Brantley, 2004) whereas resilience refers to adaptive outcomes after facing adversity and coping was described as an important contributor to resilient outcomes (Sills, Cohan, & Stein, 2006). However, it was also suggested by some researchers (Beasley, Thompson, & Davidson, 2003; Campbell-Sills, Cohan & Stein, 2006; Glennei, 2010; Stratta et.al., 2015) that not all individuals using coping strategies can be described as resilient unless their coping mechanisms were not lead to positive outcomes after stressful situations. In their study, Campbell-Sills, Cohan and Stein (2006) hypothesized task oriented coping was related to higher resilience

and emotion oriented coping was associated with lower resilience. They found both emotion and task oriented coping styles were significant contributors of resilience and task oriented coping was a significant predictor of resilient outcomes for conscientious individuals. It could be concluded that rather than taking only the perspective of active/problem focused coping, effective use of task oriented and emotion oriented coping styles relevant to demands of a situation might lead to resilient outcomes.

In their study Hooberman et al. (2010) investigated PTSD symptoms of trauma refugees by analyzing the moderating effect of coping on resilience including social support, social comparison and cognitive appraisal. The study found emotion focused disengagement style such as social withdrawal and self-criticism was associated with increased PTSD symptoms and lower scores on resilience variables. Unexpectedly problem focused coping style was not related to PTSD symptoms or resilience scores. Also Major et al. (1998) found that higher resilience was associated with successful coping with demanding life events. The study was done with women having abortion experiences and found higher personal resilience scores were associated with more positive cognitive appraisals, problem focused coping strategies and better adjustment after abortion. Those women who reported better post abortion adjustment reported less negative appraisals and less emotion focused coping. Researchers of the study concluded that there was a significant relationship between personal resilience and coping. In conclusion our second aim was to examine the association between coping styles people prefer to use and resilience.

Hypothesis 2: Coping styles would be significant predictors of resilience.

### **Support as a Predictor of Resilience**

As social beings, people were influenced by the relationships with others (Arewasikporn, Davis & Zautra, 2013). The connection with other people may have especially significant role on overcoming difficult times. In the literature, it is suggested that pathways which lead to resilience might differ for everyone. As Garmezy (1993) suggested three protective factors of resilience, receiving support from family and social environment were also found as significant contributors of resilience. Especially for some people support would be necessary (Werner & Smith, 1992). According to Wright, Masten and Narayan (2013) supportive family environment is one of the protective factors which lead to resilience. Moreover, social support was also included as an ingredient for being resilient (see in Bonanno, Westphal & Mancini, 2011; Hobfoll, 2001). Therefore, the concept of resilience should also be investigated through social relationships in addition to individual characteristics. In this current study, receiving support from family and social environment in stressful situations was also included in the model to investigate its impact as antecedents of resilience.

Hypothesis 3: Family support and social support would be significant predictors of resilience.

### **Resilience as a Mediator between Affect, Coping Styles, Support and Life Satisfaction**

Life satisfaction has been evaluated as a measure of well-being through mood, relation with others, achieved goals, self-concept, and perceived ability to cope with stress. Resilience was also seen as the ability to overcome stressful situations (Rani & Midha, 2014). The concept of life satisfaction has been studied in stress field including family, work and education settings. In many studies it was suggested that satisfaction with life can be enhanced through experience of stress, coping with stress, level of positive and negative emotions during situation. It was concluded that especially experience of positive affect and eliminating negative effects of negative emotion during stressful times might be associated with increased life satisfaction (Montes-Berges, & Augusto-Landa, 2014). In many studies, this relationship was examined and found a relationship between life satisfaction and resilience. However, the strength of the relationship between them was not consistent among different studies.

Life satisfaction can be an outcome of positive emotions (Cohn et al., 2009), stress and anxiety (Temitope, 2015) and personality (DeNeve & Cooper, 1998) however few studies had investigated the role of resilience as a mediator between those predictor variables such as affect, coping styles, or support and as an outcome variable life satisfaction. In some studies, resilience was found as a mediator between perception of a stressor and life satisfaction (Flinchbaugh, Luth & Li, 2015), and between mindfulness and life satisfaction (Bajaj & Pande, 2016). In one study with earthquake survivors Stratta et al. (2015) found emotion focused coping styles were associated with clinical and subclinical stress spectrum symptoms among adolescents. Higher resilience scores mediated the relationship between coping and stress symptoms in which individuals who showed higher resilience after trauma showed problem focused coping strategies and therefore their level of stress symptoms were found lower. It was interpreted that although two coping strategies were complementing each other in theory, emotion focused coping was related to psychological problems whereas problem focused coping was associated with self-efficacy and well-being. In this research another aim was to investigate the role of resilience as a mediator between variables suggested by Garmezy (1993) in Three Protective Factors Model of Resilience (affect, coping styles, support) and life satisfaction.

Hypothesis 4: Resilience would be a mediator between affect, coping styles, support and life satisfaction

In this current study, it was aimed to fill the gap in the resilience research by collecting data from adults and combining different individual characteristics to explain resilience mechanism. Individual characteristics were selected as affect and coping styles. In addition to individual characteristics, receiving external support was considered as an important pathway of resilience. Therefore, participants of the study were also asked their perceptions about support they receive from their family, and from their social environment when they were under stress. In the study a model was hypothesized which was presented in Figure 1.

**Figure 1**

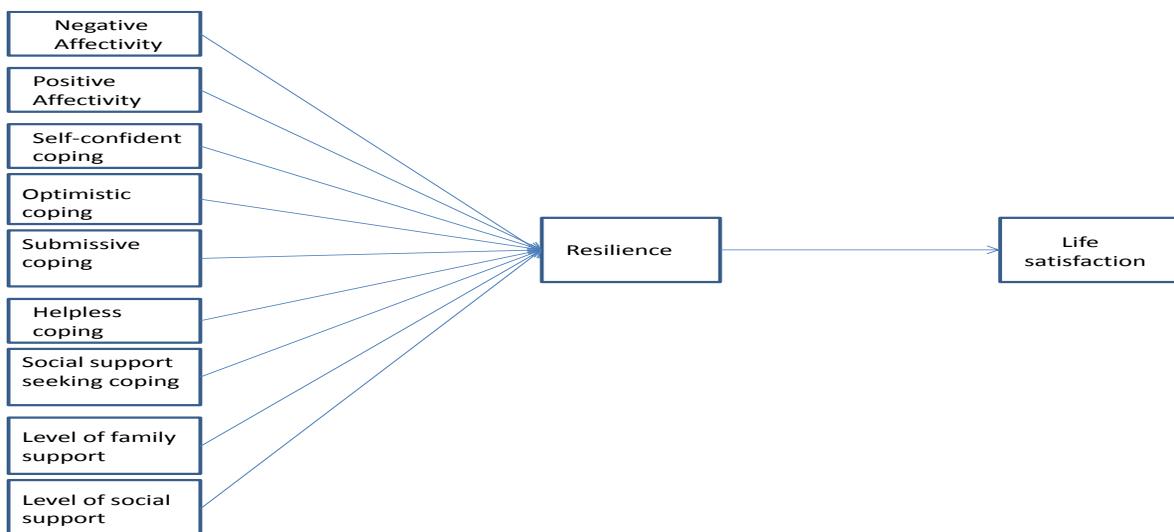


Fig. 1 Hypothesized Model

## Method

### Participants and Procedure

A total of 403 Turkish participants ( $N=403$ ) were reached through snowball sampling. Survey Monkey link form of questionnaires was sent to participants who were over 18 years of age by using e-mail groups and Facebook groups of university students. Mean age of the participants was 28.2 ( $SD=7.8$ ) with the range of 18 to 55. Seventy-six percent of the participants were female ( $n=310$ ) and 24% of them were male ( $n=93$ ). Seventy percent of them were single, 26.6 % of them were married. Sixty-five percent of them were living with nuclear family and 15.6% of them were living alone. In terms of level of education, 53.8% of the participants had undergraduate degree, 25.1% had post graduate degree. Forty-eight percent of the participants were working in different occupations and 35.2% were students. Seventy-nine percent of the

participants were having middle income and 10.7% of them were having low income. Demographic characteristics of the participants were presented in Table 1.

**Table 1. Demographic characteristics of the participants**

	N	%
Age		
18-24	161	40
25-55	242	60
Gender		
Female	310	76.9
Male	93	23.1
Marital Status		
Single	283	70.2
Married	107	26.6
Divorced	9	2.2
Other	4	1
Live with		
Alone	63	15.6
Nuclear Family	265	65.8
Expanded Family	20	5
Friends	35	8.7
Other	20	5
Employment		
Student	142	35.2
Not Working	56	13.9
Working	197	48.9
Retired	8	2
Income		
Low	43	10.7
Middle	320	79.4
High	40	9.9

In terms of negative life event experiences, 66.7% of the participants were experienced at least one negative life event in their lives whereas 33.3% have not experienced any type of negative life event. Family conflict was frequently experienced negative life event that 43.7% of the participants reported. Thirty-three percent of the participants reported work related problems, 34.7% of them reported problems with friends, 33.3% of the participants reported financial problems, 33.3 % of them reported health problems, 39% of the reported death of a loved one, 22.3 % of them reported violence exposure, and 22.8 % of them reported violence witness. The least reported negative life event was abuse with the percentage of 20.6.

Duration of negative life events were varied among participants. In last 6 months, 9.4% of the participants reported family conflict, 10.7% of them reported work related problems, 10.7% of them reported problems with friends, 7.7% of them reported financial problems, 10.2% of them reported health problems. In last 5 years, 12.4% of participants reported death of a loved one, 3.7% of them reported violence exposure, 3% of them reported violence witness. In last 10 years, 2.7% of the participants reported abuse.

In order to overcome the effects of negative life event experiences, 66% of the participants would prefer to receive support from their family, 78.4% of them would prefer to receive social support. Sixty-three percent of the participants reported they have received psychological support, 40.2% of them have reported they have received psychological support and 8.7% of them reported they were still receiving psychological support to deal with the effects of negative life events they experienced.

## Measures

*Demographic Questions:* In the demographics form, participants were asked about their age, gender, work status, marital status, education level, income level, negative

life experiences (participants were asked to select from ten choices which were family conflict, work related problems, problems with friends, financial problems, health problems, death of a loved one, being exposed to violence, witnessing violence, abuse and others), time of the negative life experience (with the choices of, in last 6 months, last 1 year, last 5 years, last 10 years, more than 10 years and other), get any social support and the level of social support (from 1 to 3); get any family support and the level of family support (1 to 3).

*Ego Resilience Scale:* The original form of the scale was developed by Block and Kremen (1996) and the Turkish adaptation of the scale was done by Karairmak (2007). It consisted of 14 items with 4 point Likert type scale in which the participants were asked whether the statements in each item were suitable for themselves or not (1=not suitable in anytime, 4=always suitable). Cronbach's Alpha reliability was found as 0.80 and test re-test reliability was found as 0.76 by Karairmak (2007). Higher score on the scale is interpreted as being highly resilient. In this current study, it was used to measure resilience levels of the participants and the Cronbach's Alpha found as 0.73.

*Positive and Negative Affect Schedule (PANAS):* The scale was developed by Watson, Clark and Tellegen (1988) and the Turkish adaptation study of the scale was done by Gencoz (2000). The scale consisted of 2 factors, positive affect and negative affect each with 10 items. The scale is 5 point Likert type from 1 (very slightly) to 5 (extremely). Cronbach's Alpha reliability of positive affect scale was found as 0.86 and Cronbach's Alpha reliability of negative affect scale was found as 0.83. In this current study, PANAS was used to see the role of affect on people's level of resilience. In this study Cronbach alpha reliability for Positive Affect Scale was found as 0.80 and 0.79 for Negative Affect Scale.

*Stress Coping Styles Inventory:* The scale first developed by Folkman and Lazarus (1980) with the name of 'Ways of Coping Inventory' and its adaptation to Turkish culture was completed as Siva 88 with total of 74 items. In another study the scale was shortened and reliability and validity studies were done by Sahin and Durak (1994). Shortened scale was labelled as 'Stress Coping Styles Inventory' with 30 items by using 4 point Likert scale. Five factors of the scale were self-confident, optimistic, submissive, helpless and social support seeking (Sahin & Durak, 1994). It was interpreted that self-confident, optimistic and social support seeking factors were related to problem focused/active coping approaches whereas submissive and helpless factors were associated with emotion focused/passive approaches. The scale scored from 0 to 3, (0= not suitable at all, 3= totally suitable) and each factor scored independently rather than having a total score from the whole scale. Cronbach's Alpha coefficients were found as 0.62 to 0.80 for self-confident factor; .49 to .68 for optimistic approach; 0.64 to 0.73 for helpless approach; 0.47 to 0.72 for submissive approach and 0.45 to 0.47 for social support seeking approach. Higher scores on self-confident and optimistic approaches were interpreted as decrease in psychological distress symptoms whereas higher scores on helpless and submissive approaches were interpreted as increase in psychological distress symptoms. Therefore, it was suggested that effective coping styles might be a sign of higher resilience level. In this study Cronbach's Alpha reliabilities were found as 0.82 for confident coping approach, 0.73 for optimistic approach, 0.70 for helpless approach, 0.62 for submissive approach and 0.73 for social support seeking approach.

*The Satisfaction with Life Scale:* The scale developed by Diener, Emmons, Laresen and Griffin (1985). Turkish adaptation of the scale was done by Koker (1991). The scale consisted of 5 questions and 5 point Likert type (1= strongly disagree, 5= strongly agree) that was used to measure how people evaluate their level of satisfaction with their lives. The face validity study of the scale was done by Koker and item analysis showed that each item score was correlated with the total score from the scale and test retest reliability coefficient was found as .85. Higher score on the scale was interpreted as having higher satisfaction from the life. In this study reliability of the scale was 0.84.

## Results

Prior to analyses, data was screened for the assumptions of normality, linearity and homoscedasticity. There was no missing and univariate outliers in the data. However, there were 9 multivariate outliers with the cutoff point of 27.68 ( $df=13$ ,  $\alpha=0.01$ ). After deleting the multivariate outliers, analyses were conducted by using 394 participants ( $N=394$ ). In the first step of the analysis scores were compared between groups according to the demographic characteristics of the participants. Independent sample t-test was conducted to see differences between resilience scores of female and male participants. According to the results, there was no significant differences ( $p>0.05$ ) between resilience scores of women ( $M=38.4$ ,  $SD=5.2$ ) and men ( $M=40.3$ ,  $SD=5.1$ ). In order to test the differences of resilience scores among different age groups, independent sample t test was conducted. Another independent sample t-test was conducted to examine the differences in resilience scores of the participants who have had at least one negative life event and who have not had any. According to the results, no significant difference was found ( $p>0.05$ ) between those who have experienced a negative life event ( $M=38.5$ ,  $SD=5.1$ ), and those who have not experienced any negative life event ( $M=39.5$ ,  $SD=5.4$ ).

Means, standard deviations, reliabilities and zero-order correlations for the measured variables are shown in Table 2. Most of the variables were significantly correlated. Highest correlations were between positive affect and resilience ( $r=0.56$ ,  $p<0.001$ ), self-confident coping and resilience ( $r=0.51$ ,  $p<0.001$ ), positive affect and self-confident coping ( $r=0.54$ ,  $p<0.001$ ) and optimistic coping and self-confident coping ( $r=0.61$ ,  $p<0.001$ ).

**Table 2. Means, standard deviations, minimum-maximum scores, reliabilities, and inter-scale correlations for measured research variables**

	M	Sd	Min	Max	1	2	3	4	5	6	7	8	9	10	11
1. Resilience	38.8	5.3	26	53	0.73										
2. Positive Affect	35.5	5.7	20	50	0.56***	0.80									
3. Negative Affect	24.1	5.5	10	46	-0.23***	-0.11*	0.79								
4. Self-confident coping	21.2	3.5	10	28	0.51***	0.54***	0.24***	0.82							
5. Optimistic coping	13.6	2.7	5	20	0.41***	0.29***	0.36***	0.61***	0.73						
6. Submissive coping	11.5	2.9	6	22	-0.08	-0.18***	0.22***	-0.24***	0.06	0.62					
7. Helpless coping	17.9	4.1	8	30	-0.22***	-0.17***	0.49***	-0.32***	-0.28***	0.48***	0.70				
8. Social support seeking coping	11.5	2.5	4	16	0.08	0.02	-0.11*	0.04	-0.06	-0.08	-0.05	0.73			
9. Family support	2.4	0.7	1	3	0.13*	0.14**	-0.11*	0.16**	0.11*	0.00	-0.07	0.16**			
10. Social support	2.3	0.7	1	3	0.24***	0.09	-0.15**	0.13*	0.06	-0.09	-0.08	0.38***	0.26***		
11. Life satisfaction	16.2	4.5	5	25	0.27***	0.26***	0.32***	0.25***	0.29***	-0.06	-0.26***	0.06	0.24***	0.18***	0.84

Note.  $N=394$

\* $p<0.05$ , \*\* $p<0.01$ , \*\*\* $p<0.001$

Path analysis using AMOS 21.0 was used to test the model included covariance among predictors presented in Figure 2. The goodness of fit indices suggested that the data fits the tested model ( $\chi^2=66.99$ ,  $\chi^2/df=7.4$ ,  $p=0.00$ ,  $GFI=0.97$ ,  $CFI=0.95$ ,  $RMSEA=0.13$ ). However, modification indices suggested to include direct paths from negative affectivity and family support to life satisfaction in order to improve the model. This revised model had a better fit to the data ( $\chi^2=21.29$ ,  $\chi^2/df=3.0$ ,  $p=0.003$ ,  $GFI=0.99$ ,  $CFI=0.99$ , and  $RMSEA=0.07$ ). The standardized path estimates are presented in Figure 2. An overview of path values indicated that the direct paths from positive affect, confident coping, optimistic coping and level of social support to resilience were all significant. Therefore, positive affect and two types of (confident and optimistic) coping styles and social support were significant predictors of resilience. However, the direct paths from negative affect, three types of coping styles (submissive,

helpless, and social support seeking) and level of family support to resilience were not significant. Therefore, Hypothesis 1, Hypothesis 2 and Hypothesis 3 were partially supported. The modified model showed that negative affect and family support were important predictors of life satisfaction. Moreover, the model supported the hypothesis as resilience was a mediator between positive affect, confident coping, optimistic coping, social support and life satisfaction. However, for submissive, helpless, social support seeking coping styles and for negative affect and family support, resilience was not a mediator. In conclusion Hypothesis 4 was partially supported in the study.

**Figure 2**

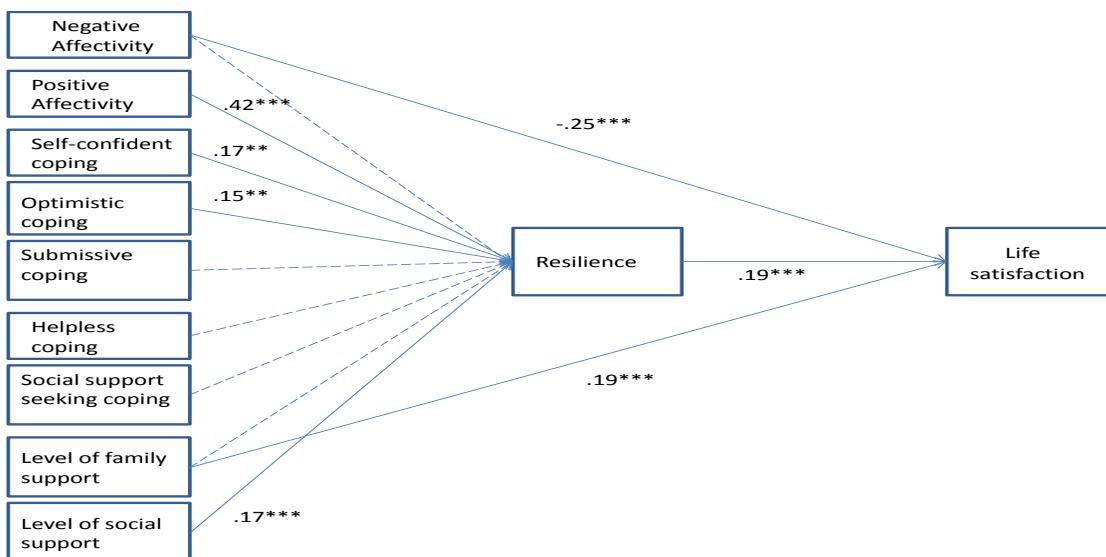


Fig. 2 Modified Model. Standardized regression weights are given. Dashed paths are not significant. \*\*  $p < .01$ , \*\*\*  $p < .001$ .

## Discussion

The aim of the study was to investigate the predictors of resilience through individual characteristics, family and social support among adults. In addition, investigating resilience as a mediator between predictors and life satisfaction was the second important aim of the research. In the study, participants were asked about their experience of positive and negative affect, and coping styles as individual characteristics of resilience pathway in addition to their level of family and social support that they received when faced with adversity.

The results of the study showed that positive affect, optimistic coping style and confident coping style were significant predictors of resilience. Social support was also found as significant contributor. Garmezy (1993) proposed 3 protective factors as individual characteristics, and social support that lead resilience pathway which was supported in this research. Although family support was not direct predictor of resilience in the model, still it was a significant predictor of life satisfaction. In some studies, higher resilience scores were associated with experiencing more positive affect (Fredrickson et al., 2003; Montpetit et al., 2010; Ong, Bergeman, Biscanti & Wallace, 2006; Ong, Zautra & Reid, 2010; Waugh, Thompson & Gotlib, 2011) other studies concluded that experience of more positive emotion and affect was indicator of higher resilience (Fredrickson, et al., 2003; Liu, Wang & Lü, 2013; Zautra, Johnson & Davis, 2005). In this current study, since the predictors of resilience were investigated, positive affect was seen as the antecedent of high resilience. This outcome of the current study could be explained through Fredrickson's (2001) Broaden and Build Theory. As she stated, positive emotion and affect broaden an individual's thought and action repertoire and build some individual resources. It was interpreted that individuals who are high on positive emotions might be physically healthy, knowledgeable, creative, friendly and resilient. Therefore, individual resilience was seen as a psychological resource that could be obtained through experiencing more positive emotions and affect. In this current study, positive affect was found as the most significant predictor of resilience. Those participants who scored higher on positive affect also scored higher on resilience which was parallel to

suggestions of Broaden and Build Theory. It was interpreted that experience of positive affect build the psychological resource of resilience among participants. On the other hand, negative affect was not significant predictor of resilience in the model which can be related to its impact on life satisfaction. Although the correlation between negative affect and life satisfaction was significant, in the path analysis negative affect was significant predictor only for life satisfaction but not resilience.

The studies showed that resilience and coping style were related concepts but the relationship between two variables were found as bidirectional. In some studies, higher resilience was seen as the antecedent to successful coping (Major et. al., 1998; Stratta et.al., 2015) and in other studies successful coping was associated with high resilience (Hooberman et al. 2010; Sills, Cohan & Stein, 2006).

In this current study, coping style was seen as the predictor of resilience and therefore it was seen as the antecedent of resilience. In most of the studies Lazarus and Folkman's (1984) theory of problem focused and emotion focused coping was referred. Problem focused coping defined as acting on the stressful situation in which planned problem solving and confrontations are done to change harmful environmental conditions (Stratta et. al., 2015). Emotion focused coping was associated with regulating emotional states and denial, avoidance, distraction, minimization, meaning finding, blaming oneself, expressing feelings are the main strategies (Stratta et. al., 2015). Whereas problem focused coping was seen as the indicators of positive outcomes and associated with optimism and higher self-esteem, emotion focused coping was found as related with negative outcomes such as depression, anxiety, post traumatic symptoms and alcohol abuse (Wingo, Baldessarini & Windle, 2014). Therefore, in most of the studies about resilience and coping styles, problem focused coping was associated with high resilience and emotion focused coping was associated with low resilience. However, studies showed some inconsistent results. Although Major et.al. (1998) and Stratta et.al. (2015) found the relationship between high resilience scores and problem focused coping style, Sills, Cohan and Stein (2006) found that both emotion and problem focused coping styles were found as related with resilience. In a study by Hooberman, et al. (2010) emotion focused coping was related with low resilience whereas problem focused coping was not related with resilience.

In this current study, five coping styles were investigated including confident, optimistic, social support seeking, helpless and submissive. First three coping styles were categorized as problem focused whereas helpless and submissive were categorized as emotion focused coping styles (Şahin & Durak, 1994). The results of our study partially confirmed the literature as two of the problem focused coping styles-optimistic and confident -were significant predictors of resilience. Participants who scored higher on these coping styles showed higher resilience scores. Moreover, parallel with the study of Major et al (1998) and Stratta et al. (2015) emotion focused coping styles were not significant predictors of resilience. Therefore, this study contributed to literature with the conclusion of problem focused coping might be more important predictor of higher resilience compared to emotion focused coping.

Resilience was also found as a significant predictor of satisfaction with one's life as it was suggested in the previous research (e.g., Montes-Berges & Augusto-Landa, 2014). Our modified model showed that resilience was a predictor of life satisfaction. Moreover, negative affect and family support were important indicators of life satisfaction. In addition, being parallel to Garmezy's (1993) 3 factor model, the participants of the current study were asked about receiving support from their family and social environment. The results showed that receiving social support was a significant predictor of resilience whereas family support was directly related to life satisfaction. Those participants who reported high level of social support scored higher on resilience. As Arewasikporn, Davis and Zautra (2013) indicated the role of social relationship on resilience, social connections of people strengthen the resistance to overcome adversities. In addition, as they suggested, the term resilience should also be conceptualized through social relationships in addition to individual characteristics which was confirmed in this research.

Another implication of this study was to show the role of resilience as a mediator between affect, coping styles, support and life satisfaction altogether. Results confirmed that resilience is a full mediator between positive affect, self-confident coping, optimistic coping, level of social support and life satisfaction which has not been investigated before in one model. Moreover, with this research importance of positive affect on resilience has been confirmed once again.

The current study has also some limitations. First, as stated in majority of studies higher sample sizes lead more reliable and valid results. Although in this current study, sample size was relatively enough for analyses, answers from more participants might have concluded more generalizable results. Second, demographic characteristics of the participants added another limitation to the study. Sample sizes were not equal among different age, gender, marital status, education level, living condition and employment. Especially in those analyses about gender and age differences current limitation was emphasized. Lastly family support and social support were measured by using a single item and they are self-report measures. In future studies other methods for measuring support should be considered in order to confirm the study results.

For future research above limitations might be considered when planning a replication of the study. Additionally, similar study might be done with participants who experienced more traumatic events to see the role of resilience in overcoming traumas. New intervention programs would be developed to teach individuals healthy coping styles which might increase their resilience in the long term. Also the importance of social support and family support would be use as a protective factor of individuals' health.

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