

Secure attachment style, coping with stress and resilience among university students

Üniversite öğrencilerinde güvenli bağlanma stili, stresle başa çıkma ve kendini toplama gücü

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Abstract

The purpose of this study was to examine the role of a secure attachment style and coping strategies and their interactions on the resilience of a sample group of Turkish college students. The sample consisted of 225 students from a state university in Ankara. The List of Determining Risk Factors Resilience Scale, Relationship Scale Questionnaire and Coping Questionnaire Inventory have been used in the research. Data have been analyzed by hierarchical regression analyses were conducted to predict resilience. The results indicated that secure attachment style, and coping styles of active planning, avoidance/biochemical, and acceptance/cognitive restructuring were significant predictors of resilience. It was found that when secure attachment style scores were low, the presence of acceptance/cognitive restructuring orientation increased the resilience scores; while when the secure attachment style scores were high, acceptance/cognitive restructuring did not influence the resilience scores.

Keywords: Resilience, secure attachment style, coping.

Özet

Bu çalışmanın amacı güvenli bağlanma stili ve stresle başa çıkma stratejilerinin üniversite öğrencilerinin kendini toplama gücü üzerindeki rolünü incelemektir. Araştırmaya 225 üniversite öğrencisi katılmıştır. Çalışmada veri toplama araçları olarak Risk Faktörleri Belirleme Listesi, Kendini Toparlama Gücü Ölçeği, Başa Çıkma Tutumları Envanteri ve İlişki Ölçekleri Anketi kullanılmıştır. Araştırmada güvenli bağlanma stili ve başa çıkma stratejilerinin kendini toplama gücü üzerindeki yordayıcı rollerini test edebilmek amacıyla hiyerarşik regresyon analizi yapılmıştır. Sonuçlar güvenli bağlanma stili ile başa çıkma stratejilerinden aktif planlama, kaçma/biyokimyasal ve kabul/bilişsel yeniden yapılandırmanın kendini toplama gücü puanlarını anlamlı biçimde yordadığını göstermiştir. Güvenli bağlanma stili puanları düştüğünde kabul/bilişsel yeniden yapılandırma başa çıkma stratejisi kendini toplama gücü puanlarını artırırken; güvenli bağlanma stili puanları yüksek olduğunda kabul/bilişsel yeniden yapılandırma başa çıkma stratejisi kendini toplama gücü puanlarını etkilememektedir.

Anahtar Kelimeler: Kendini toplama gücü, güvenli bağlanma stili, başa çıkma

Introduction

In recent years, studies about people who are able to adjust successfully in spite of difficult life conditions have drawn much attention in the mental health field. Certain studies (Campbell-Sills, Cohan & Stein, 2006; Charney, 2004; Fraser, Richman & Galinsky, 1999; Luthar & Cicchetti,

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2000; Mangham, McGrath, Reid & Steward, 1998; Masten, 2001) in which the focus has been on the ability of individuals to cope with stress, trauma and difficult life conditions, and their potential to grow stronger after managing to overcome such difficulties, have centered around the concept of “resilience”. Rutter (1990, p.181) defines resilience “as a positive pole of the ubiquitous phenomenon of individual differences in people’s response to stress and adversity, as well as hope and optimism in the face of severe risk or adversity”; while Garmezy (1993) considers resilience to be the power of recovery and the ability to return once again to those patterns of adaptation and competence that characterized the individual before undergoing extreme stress. Fraser, Richman and Galinsky (1999, p.136), on the other hand, describe resilience “as the ability of individuals who adapt well to the extraordinary, achieving positive and unexpected outcomes in the face of adversity”. In this study is defined as the “personality characteristic that moderates the negative effects of stress and promotes adaptation” as suggested by Wagnild and Young (1993, p.165). In almost all the above definitions a central notion exists that resilience, as a dynamic process, involves successful coping and positive adaptation in the face of significant risk, adversity or trauma.

Sometimes resilience is used to refer to the general coping skills and mechanisms that help overcome the common challenges of everyday life (Mandleco & Peery, 2000; Masten & Coatsworth, 1998; Masten & Powell, 2003). Resilience is a superordinate construct subsuming two distinct dimensions (Luthar, Cicchetti, & Becker, 2000): (1) Stressful life events, such as living on a low income or in a disadvantaged neighborhood, abuse, bereavement, trauma, separation, migration, disability, physical or mental health problems in self or key others, peer rejection, and perinatal problems; and (2) positive outcomes, which is used to refer to competence in both the academic and social domains. Positive behavior, such as the presence of social and academic achievements, the presence of culturally desired behaviors (developmental tasks), happiness and life satisfaction; or the absence of maladjustments such as mental illness, emotional stress, criminal behavior or risk-taking behavior are a few examples of competence or good adaptation (Masten & Coatsworth, 1995).

Resilience is also explained through risk and protective factors (Baldwin, Baldwin, Kasser, Zax, Sameroff & Seifer, 1993; Garmezy, 1993; Hawkins, 1992; Rutter, 1987; Werner, 1994). Risk factors refer to the presence of one or more factors that increase the probability of a negative outcome for an individual. Risk factors can be placed under one of three headings: Individual risk factors (premature birth, negative life events and chronic illness/hospitalization), familial risk factors (parental illness/psychopathology, parental divorce, separation or single-parent home, teenage motherhood) and environmental risk factors (Low SES and poverty, abuse, war and natural disasters, family adversity, community violence, homelessness). Protective factors are defined as the “quality of a person or context or their interaction that predicts better outcomes, particularly in situations of risk or adversity” (Wright & Masten, 2005, p.19). Resiliency theory is based on defining the protective factors within the individual, family, school and community; and university life requires examination taking into account all the related problems and complexities. Nowadays, the responsibilities faced by university students and their developmental tasks are more complicated and broader than ever before. In this sense, university life brings with it many different sources of stress, meaning that developing resilience is essential in the stress management process of the individual. In addition, the concept of resiliency has an important place in attachment theories. It has been shown previously that a strong attachment pattern is a factor of adequate functionality, and that it affects all types of relations in the life-cycle of the individual (Greene, 2002). In this study, secure attachment and coping with stress are discussed as individual protective factors.

Attachment is a strong emotional bond with others that individuals see as important and highly valuable (Bowlby, 1982). Theoretically, it is expected that styles of attachment develop out

of the earliest relationships with the primary care giver, and are carried over into adult life (Scharf, Mayseles & Kivenson-Baron, 2004; Schmidt, Nachtigall, Wuethrich Martone & Strauss, 2002; Waller, Scheidt & Hartmann, 2004). Early attachment theories identified three basic attachment styles: Secure, anxious/ambivalence and avoidance (Ainsworth, 1989). Ainsworth, Bartholomew and Horowitz (1991) proposed four adult attachment styles using dichotomous combinations of the individual's image of self and image of other: security, preoccupation, fearful and dismissing. In this classification, secure attachment is defined as a positive self-image and a sense of being worthy of love, and with a positive expectation that others will be responsive and accepting in times of need. Preoccupation is defined as a negative self image and a sense of unloveability, combined with a positive evaluation of others. Fearful individuals have negative working models of both the self and others, believing that they are unlovable and that significant others are rejecting them. Dismissing individuals have a negative working model of others, but a positive model of self (Bartholomew & Horowitz, 1991). A secure attachment influences the individuals' perception of social interactions, and thus lays a social foundation on which other traits such as resilience can be developed (Kumpfer, 1999; Masten, 2001). Secure attachment has been postulated as being a protective factor for resilience (Axford, 2007; Friedman, 2007), and is seen as a possible 'resilience factor' that emerges early in life (Luthar, Cicchetti & Becker, 2000; Masten & Coatsworth, 1995; O'Dougherty-Wright & Masten, 2006). This may protect individual well-being in the face of risk and adversity because it is regarded as reflecting the ability to effectively regulate and mitigate the strength of emotional responses to adverse personal or health events (Bartley, Head, & Stanfeld, 2007).

Another protective factor for resilience is coping. Lazarus and Folkman (1984) define stress as a transaction between the person and the environment, in which the individual considers that the environmental demands outweigh their ability to meet those demands. Coping is defined as "constantly changing cognitive and behavioral effort to manage specific external and internal demands that are appraised as taxing or exceeding the resources of the person" (p.141). Folkman and Lazarus (1980) suggested two types of coping that they labeled emotion-focused and problem-focused. Problem-focused coping is defined as changing the components of the situation causing stress, and also increasing the amount of stress-causing situations in cognitive/behavioral attempts. Emotion-focused coping, on the other hand, involves a denial of the reality of the stress-causing situation, and a retreating from the problem and sharing of the negative emotions (Lazarus, 1993; Matud, 2004). Resilience is considered as the ability to recover quickly from disruptions in functioning that result from stress appraisals, and to the ability to return to the previous level of functioning (Carver, 1998). Resilient individuals tend to show high motivation in coping with negative life events and use problem-focused coping (Dumont & Provost, 1999; Lynch, Keasler, Reaves, Channer & Bukowski, 2007; Steinhardt & Dolbier, 2008; Terzi, 2008).

Being at a transition stage between puberty and young adulthood; college students have to cope with certain problems brought by college life as well as trying to accomplish their developmental tasks (Akaydin, 2002; Erdoğan, Şanlı & Bekir, 2005; Erkan, Ozbay, Cihangir-Çankaya & Terzi, 2012; Heppner, Kivlighan, Good, Roehlke, Hills & Ashby, 1994; Soliman, 1993). In this sense, there are many different sources of stress. therefore development of resilience is essential in the stress management process.. Resilience is also related to attachment. It is known that a strong attachment pattern is a factor for adequate functionality, and that this may affect all types of relations the individual enters into through life (Greene, 2002). Lazarus (1999) indicated that individuals' beliefs about self and the world may influence coping strategies. Although the effect of secure attachment and coping strategies on resilience seems to be clear, the extent to which it influences resilience has not been well explored. This study addressed how attachment and coping relates to resilience . The purpose of this study is to examine the effects of

a secure attachment style and coping strategies and their interactions on the resilience of Turkish college students.

Method

Participants

For resilience to occur, the individual should have been exposed to risk or difficulty, and at the end of this process should have succeeded in various aspects of life in spite of the negative conditions (Luthar and Cicchetti, 2000). In order to analyze resilience, relevant literature has been analyzed to determine individuals with risk factors, for which a List of Determining Risk Factors has been developed by the author. The list contains 30 risk factors in three areas; individual risk factors (low self-confidence, chronic sickness etc.), family risk factors (mother/father using alcohol or drugs, violence in the family), and social risk factors (low socio-economic status, immigration, unemployment etc.). The respondents were requested to answer “yes” or “no” to the risk factors they faced in their developmental years. This list was applied to 732 students. The students who have chosen at least one of the risk factors of the list have been included in the study group. Accordingly, the sample consisted of 225 students from a public university in Ankara, Turkey; 70% of the participants were female ($n = 158$) and 30% were male ($n = 67$). The respondents were aged between 18–26, with a mean age of 21.63 ($SD = 1.65$). The risk factors of the students in their childhood and adolescence are presented in Table 1.

Table 1. Prevalence of risk factors

Risk Factors	%	N
Low family income	75.11	169
Having to work while in college	36.44	82
Experience of natural disasters	19.11	43
Single parent household	17.33	39
Divorced parents	9.33	21
Victim of physical violence	7.55	17
Alcohol/drug abuse	6.66	15
Victim of sexual abuse	4.0	9

Among the participant students, 75% reported that they had a low income, 36% reported that they had to work during the school term to earn money, 19% reported that they had been exposed to a natural disaster (earthquake), 17% reported that they had lived with only one parent since childhood, 9% reported that their parents were divorced, 7% reported that they had been exposed to violence, 6% reported that their parents had used alcohol or drugs, and finally, 4% reported that they had been exposed to sexual abuse.

Instruments

Resilience Scale (RS): The RS was developed by Wagnild and Young (1993) and adapted into Turkish by Terzi (2006) to measure the degree of resilience of an individual. Resilience is considered as a positive personality characteristic that enhances the ability of an individual to adapt. The RS is a self report questionnaire consisting of 24 items and rated on a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). The factor structure of the Turkish version RS is examined in the factor analysis study. Shared variance of factors on each variable ranged from .47 to .74. A factor analysis of the RS in initial studies confirmed the multi-dimensional nature of resilience. To test the criterion-related validity, correlations between the scores from the RS and the Generalized Self-Efficacy Scale were calculated, and it was found that there was a

significant relationship between the scores of the two scales ($r = .83$). The alpha coefficient for the scale was found to be .82. Test-retest correlation coefficient was .84. In the present study, the alpha reliability coefficient for the total RS was found to be .89 for the respondent Turkish college students.

Relationship Scale Questionnaire (RSQ): The RSQ was developed by Griffin and Bartholomew (1994), and was adapted into Turkish by Sumer and Gungor (1999). The scale has 17 items and uses a 4-point Likert-type scale, where 1 stands for “not at all like me,” and 4 stands for “very much like me”. In the adaptation study of RSQ four factors were identified; secure attachment style, fearful attachment style, preoccupied attachment style and dismissing attachment style. In the first factor, the secure attachment style was loaded with a factor loading of -.84, and the fearful attachment style with .80. In the second factor, the preoccupied attachment style was loaded with a factor loading of -.84 and the dismissing attachment style with a factor loading of .76. The alpha coefficient was found to be between .27 and .61. Test-retest correlation coefficients ranged between .54 and .78. For the present study, the alpha reliability coefficient of a secure attachment style was found to be .58.

Coping Questionnaire Inventory (CQI): The CQI was developed by Ozbay (1993), and was adapted into Turkish by Ozbay and Sahin (1997). The scale has 43 items and uses a 5-point Likert-type scale, where 0 stands for “never” and 4 stands for “usually”. There are six subscales of the scales; turning to religion, seeking external help, active planning, avoidance/behavioral, mental, avoidance/biochemical, acceptance/cognitive restructuring. The internal consistency of the scale is .81. To test criterion-related validity, correlations between the CQI scores and Ways of Coping with Stress were calculated, from which a significant relationship was found between the scores of the two scales ($r = .54$). The internal consistency Cronbach's Alpha reliability was .83 for the present study.

Procedure

The research instruments were administrated to college students during regular class hours. Verbal instructions on the purpose of the study and how to fill out the questionnaire were given by the researcher. Participation was voluntary, and the administration of the questionnaire took approximately 30 minutes.

Statistical Analysis

Data analyses were conducted using a Statistics Package or a Social Sciences (SPSS) Program, and hierarchical multiple regression analyses were conducted to answer the research question. The method recommended by Aiken and West (1991) was used to test the possible interaction between secure attachment style and coping. The evaluation of the results were based on the 0.05 and 0.01 relevance level.

Results

Table 2 shows the means, standard deviations, and Pearson correlations of the variables considered in the study.

Table 2. *Inter-correlations, mean scores, standard deviations for the variables*

		1	2	3	4	5	6	7	8	Mean (SD)
1.Resilience	Total	-	.37*	.0	.12*	.53*	-.08	-	.29*	126.78(21.73
Scores			*	9		*		.21*	*)
								*		
2.Secure	Attachment		-	.0	.19*	.23*	-.14*	-.01	.13	13.36(2.44)

Style	3	*	*				
3.Turning to Religion	-	.30*	.13*	.13*	-	.29*	2.55(.98)
		*			.24*	*	
4.Seeking External Help	-	.26*	.30*	-.03		.28*	2.55(.70)
		*	*			*	
5.Active Planning			-	-.09	-.09	.35*	2.68(.52)
						*	
6.Avoidance/Behavioral , Mental				-	.25*	.37*	1.72(.63)
					*	*	
7.Avoidance/Biochemical					-	.21*	.48(.73)
al						*	
8.Acceptance/Cognitive Restructuring						-	2.15(.59)

Note: For the correlations n=225

**Correlation is significant at the .01 level.

*Correlation is significant at the .05 level.

Correlations of resilience total score with active planning, secure attachment style, acceptance/cognitive restructuring, avoidance/biochemical and seeking external help were .53, .37, .29, -.21 and .12 respectively. These correlations indicate that resilience demonstrates a strong positive relationship with active planning and secure attachment style ($p < .01$). Resilience also demonstrated a small but statistically significant positive relationship with acceptance/cognitive restructuring ($p < .01$), seeking external help ($p < .05$) and small but statistically significant negative relationship with avoidance/biochemical ($p < .01$). Resilience demonstrated a non-significant relationships with turning to religion and avoidance/behavioral, mental.

Hierarchical multiple regression analyses were performed in order to examine the impact of a secure attachment style, coping strategies (turning to religion, seeking external help, active planning, avoidance/behavioral, mental, avoidance/biochemical and acceptance/cognitive restructuring) and their interaction on the total Resilience Scale scores. Table 3 presents the summary statistics for the hierarchical multiple regression analysis, with the total RS scores used as the dependent variable.

Table 3. The results of hierarchical multiple regression analyses

Variable	β	T	Pr	R^2 adj.	R^2 change	(df) F
Model 1				.13	.14	(1,223) 35.62**
SAS	.37	5.97**	.37			
Model 2				.39	.27	(7,217) 21.40**
CQI-Tr	-.06	.99	-.07			
CQI-Seh	-.09	1.45	-.09			
CQI-Ap	.41	6.86**	.42			
CQI-Abm	.01	.31	.02			
CQI-Ab	-.24	4.06**	-.27			
CQI-Acr	.20	3.01*	.20			
Model 3				.44	.07	(13,211) 14.61**
SAS x CQI-Tr	-.12	.32	-.02			
SAS x CQI-	-.24	.60	-.04			
Seh						

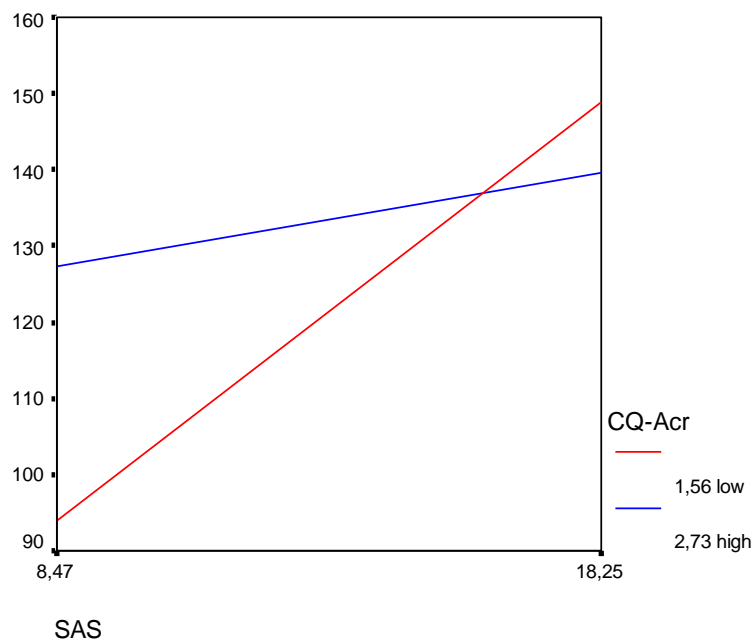
SAS x CQI-	.61	1.34	.09
Ap			
SAS x CQI-	.53	1.62	.11
Abm			
SAS x CQI-	.65	1.83	.13
Ab			
SAS x CQI-	2.03	4.44**	.29
Acr			

Note: SAS, Secure Attachment Style; CQ-Tr, Coping Questionnaire Inventory Turning to Religion subscale score; CQ-Seh, Coping Questionnaire Inventory Seeking External Help subscale score; CQ-Ap, Coping Questionnaire Inventory Active Planning subscale score; CQ-Abm, Coping Questionnaire Inventory Avoidance/Behavioral, Mental subscale score; CQ-Ab, Coping Questionnaire Inventory Avoidance/Biochemical subscale score; CQ-Acr, Coping Questionnaire Inventory Acceptance/Cognitive Restructuring subscale score.

** $p < .001$, * $p < .05$

To test the research hypotheses specifically, all the variables were entered as blocks in three separate steps in all the regression analyses. A secure attachment style was the first variable entered into the equation, and accounted for 14% of the variance ($F [1,223] = 35.62, R^2 = 13, p < .001$), and SAS ($pr = .37, \beta = .37, t [223] = 5.97, p < .001$) had a significant relationship with the total RS scores. After excluding this variance, in the second step CQI scores were entered into the equation, and accounted for 27% of the total variance ($F [7,217] = 21.40, R^2 = 39, p < .001$), and the CQI-Ap ($pr = .42, \beta = .41, t [217] = 6.86, p < .001$), CQI-Ab ($pr = -.27, \beta = -.24, t [217] = -4.06, p < .001$), CQI-Acr ($pr = .20, \beta = .20, t [217] = 3.01, p < .05$) scores significantly predicted the total RS scores. Finally, the interaction term for the SAS and CQI scores weakly, but significantly, improved the explained variance ($F [13,211] = 14.61, R^2 = 44, p < .001$), and the interaction term had a significant association with the total RS scores ($pr = .29, \beta = 2.02, t [211] = 4.44, p < .001$).

The procedure outlined by Aiken and West (1991) was followed to allow a better understanding of the nature of this significant interaction between a secure attachment style and an acceptance/cognitive restructuring strategy. Following this procedure, simple regression lines for moderated variables are plotted for significant interaction effects by using centered data. Figure 1 suggests that an acceptance/cognitive restructuring strategy orientation affected individuals differently, depending on their level of secure attachment, in determining a resilience score. To better understand the pattern of this interaction, whether the gradient of these two regression lines significantly differed from zero was tested (Aiken & West, 1991). These probes revealed that for subjects with low acceptance/cognitive restructuring, the resilience level was lower among those with low acceptance/cognitive restructuring when compared to those with high acceptance/cognitive restructuring (simple slope $\beta = .63, t [221] = 7.28, p < .001$). However, for participants with a high secure attachment, the simple gradient was not significant, indicating that their levels of resilience were low regardless of their coping strategies. In other words, when SAS scores were low, the presence of acceptance/cognitive restructuring orientation increased the RS scores; and when the SAS scores were high, acceptance/cognitive restructuring did not influence the RS scores.



Note: RS, Resilience Scale; CQ-Acr, Coping Questionnaire Inventory acceptance/cognitive restructuring subscale; SAS, Secure Attachment Style.

Figure 1. Interaction between acceptance/cognitive restructuring strategy and secure attachment in the prediction of resilience.

Discussion

This study aimed to evaluate the impact of secure attachment and coping strategies, and their interactions on the resilience of college students. As predicted, a secure attachment style was a predictor of resilience, which is consistent with the findings of the effects of stress in handling negative situations (Hawkins, Howard & Oyeboode, 2007; Wei, Heppner & Mallinckrodt, 2003). As a result, if a secure attachment figure is obtained, then a secure attachment style is functional in reducing the negative effects of stress. Individuals with a secure attachment style have more self-confidence in controlling negative emotional states caused by stress (Mikulincer & Florian, 1995), and in accommodating negative emotional states (McCarthy, Moller & Fouladi, 2001). It is also stated that these individuals use problem-focused coping strategies such as positive reinterpretation and active planning (Howard & Medway, 2004; Jackson, 2005; Kaya & Kaya, 2009; Lopez & Gormley, 2002; Ming-Hui, 2008; Vocatuno, 1999). When the secure attachment level is lower, higher levels of acceptance/cognitive restructuring strategies act as a protective factor, and therefore resilience increases. Other studies have shown that an insecure attachment style results in ineffective coping styles such as denial when faced with stress, reactivity and being stuck in a problem (Janssen, Schuengel & Stolk, 2002; Lopez, Mauricio, Gormley, Simko & Berger, 2001; Ognibene & Collins, 1998). Additional results of an insecure attachment style can be stated as high levels of negative avoidance behaviors (Howard & Medway, 2004; Lussier, Sabourin & Turgeon, 1997), and usage of alcohol and drugs (Caltabiano & Grosset, 2009). In some other studies, it is found that insecurely attached individuals experience more negative emotions, anxiety and depression, and that their level of well-being is low (Scott & Cordova, 2002; Simonelli, Ray & Pincus, 2004). From this point of view, an improvement in coping styles is a necessity for successful adjustment when faced with compelling and threatening

circumstances. In addition, it is important when individuals that have grown up with risk and traumatic living conditions are able to succeed, in spite of all the negative circumstances that have threatened their development. This understanding can play an important role in future preventive studies conducted with individuals under similar conditions of risk. Findings from this study support the notion that individuals with insecure attachment style may benefit from psycho-education and interventions focused on developing their coping skills. It can be suggested that college counselors may be able to design interventions to improve attachment and coping skills, which would, in turn, lead to increased resilience. In this study an attachment measure that has assessed attachments in adult relationships was used. The outcomes from adult attachment measures are predicted by childhood attachment, however this could not be controlled for in the current study. As such, a longitudinal study could shed additional light on the influence of childhood attachment on coping and resilience. On the other hand, emphasizing the stronger sides of the individual has an important role in the therapeutic process. The individual will have a greater self-value if they realize that most individuals who are faced with a major loss can deal with it, and also that strength mostly shows itself when times are hard and when suffering significant loss. In this sense, it is important that counselors make sure their clients develop secure attachments and strong coping strategies. This is the first study carried out in Turkey related to resilience and protective factors in young adults. Keogh and Weisner (1993) stressed that the ecological and cultural contexts should be taken into account if risk factors and protective factors are to be understood. The ecological and cultural perspective sees behavior as a result of the interaction of multiple and complicated individual and environmental interactions. In this context the results of this study can support other possible studies carried out into resilience in Turkish culture.

Many individuals in Turkey are faced with risk factors from such issues as poverty (Aksan, 2012; Arun & Diker, 2009; TÜİK, 2012), unemployment (TÜİK, 2012), family breakdowns (Başbakanlık Aile ve Sosyal Araştırmalar Genel Müdürlüğü, 2006; Battal, 2008) and exposure to natural disasters (Munich Re Group, 2012). When this is evaluated considering the mental health service system, in Turkey psychological counseling services are provided mostly after the problem has become evident. There is less emphasis on preventive counseling services. Additionally, it is seen that the effectiveness, attainability and content of protective services are insufficient; and for this reason it is very important to conduct studies on protective/intervention strategies that include internal/external protective factors, which provide resiliency. In conclusion, resilience is an essential element of adaptation. It is important for researchers to examine resilience deeply both from public health and mental health perspectives. The findings of the present study contribute to the understanding of psychological resources leading to positive outcomes of Turkish college students.

This study has several limitations. The first is related to the generalization of research results. The sample only included college students. These findings may not be generalized to clinical settings and the general public; instead it can only provide an empirical base. Secondly, the instruments were all self-report scales. Since the participants' responses to the scales were guided by their subjective perceptions, the accuracy of the data may have been subjectively influenced. The third limitation is related to the sample of this study, in which resilience and its relationship with protective factors is evaluated within a heterogeneous group. In relevant literature, studies of high risk groups such as individuals lacking resilience, sexually abused individuals, individuals living in war environments, and individuals exposed to natural disasters can be found. As a result, in subsequent studies, resilience-related variables may be assessed better in studies with homogenous groups. Another recommendation might be related to data collection and statistical methods. The results gathered from the present research are based on

quantitative methods. It would be inspiring to replicate the study with qualitative methods in order to explore the core elements in resilience.

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