# Anger, Anger Expression Style and Related Factors in a Group of Associate Degree Students

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**Abstract:** Students encounter several sources of stress in university. The abundance of stress sources experienced and low stress tolerance lead to high levels of anger and difficulty in anger management. In this study, it was aimed to determine the levels of anger, anger expression styles and some factors related to anger in associate degree students. The descriptive study was carried out with 604 students. Personal information form, Trait Anger and Anger Expression Scale, and Multidimensional Scale of Perceived Social Support were used during the collection of data. Mean scores of the students'  $23.61 \pm 6.38$ ,  $16.75 \pm 4.33$ ,  $16.68 \pm 4.73$  and  $21.74 \pm 4.97$  for trait anger, anger-in, angerout, and anger control, respectively. Time spent on computer and cellphone were found to be predictive in all anger expression styles; gender, smoking and alcohol use, family attitude, participation in sports/arts/cultural events, violence and social support were found to be predictive of different anger expression styles.

Trait anger level of students was not very high and the students try to reflect their anger positively and control. It is important to direct students to sports and social activities that will minimize the time they spend on their cellphones and computers and keep them away from addictive factors. Medicosocial centers of universities should increase awareness of the students about this issue and, provide counseling on students' emotional, academic, social problems.

Key words: Anger, anger expression, youth, university students.

JEL code:I12

# Bir Grup Önlisans Öğrencisinde Öfke, Öfke İfade Tarzı ve İlişkili Etmenler

**Özet:** Öğrenciler üniversite yaşamında çeşitli stres kaynaklarıyla karşılaşırlar. Yaşanılan stresörlerin fazlalığı ve stres toleransının düşüklüğü öfke düzeyinin yüksek olmasına ve öfke kontrolünde zorlanmaya yol açmaktadır. Bu çalışmada önlisans eğitimi alan bir grup üniversite öğrencisinde öfke düzeyleri, öfke ifade biçimleri ve öfkeyle ilişkili bazı etmenleri belirlemek amaçlanmıştır. Çalışma önlisans eğitimi alan 604 öğrenci ile yürütüldü. Veriler, araştırmacılar tarafından hazırlanan Kişisel Bilgi Formu ile Sürekli Öfke-Öfke Tarz Ölçeği, Çok Boyutlu Algılanan Sosyal Destek Ölçeği ile toplandı. Öğrencilerin, sürekli öfke, içe öfke, dışa öfke ve öfke kontrol ortalama puanları sırasıyla 23.61 ± 6.38, 16.75 ± 4.33, 16.68 ± 4.73 ve 21.74 ± 4.97'dir. Bilgisayar ve cep telefonunda harcanan zamanın tüm öfke ifade stillerinde belirleyici olduğu; aile tutumu, sportif / sanatsal / kültürel etkinliklere katılım, şiddet ve sosyal desteğin farklı öfke ifade stilleri için belirleyici olduğu bulunmuştur. Çalışma sonuçları öğrencilerin sürekli öfke düzeylerinin çok yüksek olmadığını, öfkelerini olumlu şekilde yansıtmaya ve kontrol etmeye çalıştıklarını göstermektedir. Öğrencileri cep telefonu ve bilgisayarlarına harcadıkları zamanı en aza indirecek ve bağımlılık faktörlerinden uzak tutacak sportif ve sosyal etkinliklere yönlendirmek önemlidir. Üniversitelerin medikososyal merkezleri, öğrencilerin bu konudaki farkındalıklarını artırarak duygusal, akademik ve sosyal sorunlarıyla ilgili danışmanlık yapmalıdır.

Anahtar kelimeler : Öfke, öfke ifadesi, gençlik, üniversite öğrencileri

# 1. Introduction

Anger is one of the most basic emotions individuals encounter frequently through their lives. (Spielberger & Reheiser 2009). Every individual has a coping mechanism against and way of showing anger, and anger sometimes appears openly, while it is indirect in some cases (Sahin, Durak & Koc 2011). The frequency, severity and duration of the experienced anger has great importance on a person's mental and physical health, as well as their relationships with the people around them (Kaya et al. 2012). When anger is not expressed in a suitable way, negative physical, psychological or legal situations may arise for the individuals themselves and others they project their anger onto (Feindler & Engel 2011). Anger is influential of the occurrence and continuation of physical health problems, and later, formation of psychological symptoms such as depression, anxiety, somatization (Spielberger & Reheiser 2009), as well as transformation of depressive symptoms into clinical depression (Sahin et al. 2011). Intense and uncontrollable anger lead to impulsive and aggressive behaviors against perceive threats by causing cognitive distortions (Feindler & Engel 2011).

University years are the latest stages of adolescence considered to be a turbulent period of social and biological transition (Ozkan & Yılmaz 2010; Sevinc & Gizir 2014). Additionally, adaptation to university life is also a complicated process in many ways. In addition to the general complexity of adolescence, young people also encounter several sources of stress such as leaving home and family, friend and group selection, being a candidate for profession, uncertainties about employment after graduation, as well as academic overloading, pressure for success, competition with other students, and lack of spare time (Ozkan & Yılmaz 2010; Tosevski, Milovancevic & Gajic 2010). These problems may leave students in different emotional experiences, and bring about academic and medical problems frequently (Delara & Woodgate 2015). It has been reported that psychological issues are frequent in university students (Delara & Woodgate 2015) and this increases the risk of psychopathology development (Stallman 2010; Tavolacci et al. 2013;Tosevski et al. 2010). The abundance of stress sources experienced and low stress tolerance lead to high levels of anger and difficulty in anger management (Delara & Woodgate 2015). It was

reported that students with high tendency for anger have worse mental health and failure in suppressing anger and expressing it in a suitable way is a factor influential on development of anxiety and depressive disorders (Prabhu, Yen, Amalaraj, Jone & Kumar 2016). It was shown that disposition for anger makes it easier for occurrence of aggressive behaviors in students (Nederlof, Muris & Hovens 2014), and anger excessively oriented inward or outward and low levels of anger management are determinants of some physical or verbal violent behavior in young people (Wongtongkam, Ward, Day & Winefield 2016). The World Health Organisation (2014) emphasizes violent behaviors that have increased recently among young people and lead to a serious amount of deaths and injuries, and focuses on anger management.

Determining students' experiences of anger is important in terms of revealing its negative effects that may occur on their individual, academic and social adaptations. In this study, it was aimed to determine the levels of anger, anger expression styles and some factors related to anger in university students.

# 2. Method

# 2.1.Participants and setting

This study was conducted between February and May 2016 with students of Tekirdag Namık Kemal University, Vocational School of Higher Education for Technical Sciences. Before starting the study, written permission was taken from the institution and approval was received from the Noninvasive Clinical Research Ethics Board of the School of Medicine at Namik Kemal University (2016/32/02/13). 1736 students were in the Vocational School within the day-time education program in academic year of 2015-2016. 604 students attending classes in the period the study was conducted who agreed to participate in the study and completed the participation form were included. The students were informed about the study by the researchers, their verbal consent was received, and the question forms were filled out by the students.

## 2.2.Data collection tools

### 2.2.1.Personal information form

This form prepared by the researchers consists of 20 questions regarding information on age, cigarette and alcohol usage, anger experience, pastime activities.

## 2.2.2.Trait Anger-Anger Expression Scale

This is a 34-item scale that contains individuals' states of anger and attitudes in times of anger. The first 10 items of the scale measure trait anger, while the last 24 measure anger expresssion. The scale is a 4-point Likert-type one, and the questions provide choices as "none, some, very, entirely". While the minimum score to be received from the Trait Anger scale is 10, the maximum is 40 and increased scores mean increased trait anger. Anger Expression Scale contains three sub-scales for anger-in, anger-out and anger control. The minimum score to be received from each sub-scale is 8, while the maximum is 32. Anger expression is analyzed to be positive when the scores of angerin and out are low, and the score of anger control is high. The scale developed by Spielberger et al. (1985) was adapted into Turkish by Ozer (1994), and the Cronbach's alpha coefficients are 0.79 for the 'trait anger' dimension, 0.78 for 'anger-out', 0.62 for 'anger in' and 0.84 for 'anger control'. The Cronbach's alpha coefficients of the scale for this study were found as 0.83, 0.79, 0.65, and 0.81 respectively.

# **2.2.3.** Multidimensional Scale of Perceived Social Support

The scale consists of a total of 12 items and three sub-scales (family support, friend support and special person support). Each sub-scale has 4 items and is scored separately. The responses to all items provide the total score. The items are responded to in the form of a 7-point Likert-type scale that ranges between "absolutely disagree" and "absolutely agree". High scores obtain in the scale indicate high perceived social support. The scale developed by Zimet, Dahlem, Zimet & Farley (1988) was adapted into Turkish by Eker, Arkar & Yaldız (2001). The Cronbach's alpha coefficients are 0.85 for the 'family' dimension, 0.88 for the 'friend' dimension, 0.92 for the 'special person' dimension, and 0.89 for the general total. The Cronbach's alpha coefficients of the scale for this study were found as 0.82, 0.78, 0.90 and 0.88 respectively.

# 2.3.Data analysis

The statistical analyses were performed with the SPSS 22.0 software. In the analysis of the data, descriptive statistics (number, mean, median, standard deviation) were used. Independent t-test and one-way ANOVA were used to compare numerical variables among the groups, and Pearson correlation analysis was used to determine the relationship between variables. Multiple regression analysis was used to determine the variables that predict anger.

# 3. Results

The mean scores for the students were 23.61±6.38 in trait anger, 16.75±4.33 in anger-in, 16.68±4.73 anger-out, and 21.74±4.97 anger control (Table 1).

Significant differences were found among the students in scores of trait anger and all anger expression dimensions based on their family attitude, alcohol consumption frequency, times they spent on computers and cellphones, and state of being violent towards each other. Additionally, there were significant differences in: anger-in levels based on sex; trait anger and anger-out levels based on employment; trait anger, angerout and anger conrol levels based on smoking; trait anger, anger-out and anger control levels based on extracurricular sports/arts/culture activity participation; trait anger, anger-in and anger-out levels based on presence of domestic violence; trait anger, anger-in and anger-out levels based on being exposed to violence (Table 2).

Table 1. Trait Anger-Anger Expression Scores of The Students

0_0_1	mean ±sd*	median	min-max
Trait anger	23.61±6.38	23	10-40
Anger-in	16.75±4.33	16	8-31

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Anger-out	16.68±4.73	16	8-32
Anger control	21.74±4.97	21	8-32

#### \* sd: standard deviation

#### Table 2. Trait Anger-Anger Expression Styles Scores of Students Acording to Variables

Variables (n)		Trait anger	Anger-in	Anger-out mean±sd	Anger control
		mean±sd	mean±sd		mean±sd
Age					
18-21 (522)		23.51±6.43	16.67±4.28	16.65±4.70	21.70±4.93
22-25 (82)		24.25±6.00	17.25±4.62	16.90±4.92	22.02±5.30
		p=0.326	p=0.255*	p=0.655*	p=0.587*
Gender					
Male (457)		23.55±6.30	16.41±4.17	16.52±4.41	21.96±4.88
Female (147)		23.80±6.61	17.79±4.63	17.17±5.52	21.07±5.22
		p=0.678*	p=0.001*	p=0.148*	p=0.060*
Income level					
High (97)		23.24±6.23	16.31±4.14	16.50±5.02	21.95±4.79
Middle (448)		23.56±6.24	16.69±4.29	16.62±4.50	21.88±4.93
Low (59)		24.55±7.57	17.88±4.81	17.40±5.79	20.37±5.45
		p=0.441**	p=0.080**	p=0.456**	p=0.082**
Working status					
No (529)		23.31±6.32	16.65±4.33	16.51±4.55	21.68± 4.99
Yes (75)		25.74±6.63	17.41±4.29	17.92±5.69	22.16± 4.87
		p=0.002*	p=0.157*	p=0.016*	p=0.443*
Smoking					
(a) Not using (351)		22.28±5.68	16.46±4.22	15.80±4.21	22.11±4.82
(b) Less than one package	а	24.47±6.75	17.00±4.63	17.28±4.88	21.63±5.11
day (171)		27.50±6.55	17.43±4.06	19.19±5.41	20.41±5.16
(c) One package and more	а	p<0.001**	p=0.126**	p<0.001**	p=0.019**
day (82)		a <b,c;b<c***< td=""><td></td><td>a<b,c;b<c***< td=""><td>a&gt;c***</td></b,c;b<c***<></td></b,c;b<c***<>		a <b,c;b<c***< td=""><td>a&gt;c***</td></b,c;b<c***<>	a>c***
Alcohol use					
(a) Not using (412)		22.77±6.20	16.45±4.26	15.97± 4.53	21.81± 4.70
(b) one or two times a month (1	.07)	24.83±5.64	17.09±4.29	17.65±4.20	22.47±5.18
(c) once a week (48)	,	25.52±8.03	17.22±3.93	17.91±5.29	21.14±6.35
(d) more than once a week (37)		26.89±5.98	18.37±5.31	20.21±5.29	19.62±4.89
		p<0.001**	p=0.039**	p<0.001**	p=0.020**
		' a <b,c,d***< td=""><td>' a<d***< td=""><td>' a<b,c,d;b<d***< td=""><td>b&gt;d***</td></b,c,d;b<d***<></td></d***<></td></b,c,d***<>	' a <d***< td=""><td>' a<b,c,d;b<d***< td=""><td>b&gt;d***</td></b,c,d;b<d***<></td></d***<>	' a <b,c,d;b<d***< td=""><td>b&gt;d***</td></b,c,d;b<d***<>	b>d***

events	
No (102) 24.89±6.65 16.56±4.21 17.64±4.69 20.20±4.31	
Yes (502) 23.35±6.29 16.78±4.35 16.49±4.71 22.05±5.05	
p=0.026* p=0.643* p=0.024* p=0.001*	
Time spent on computer/ cellphone	
(a)1-3 hours (184)	
(b) 4-6 hours (200) 21.95±6.66 16.05±4.21 16.14±5.12 22.38±5.07	
(c) 7 hours and over (220) 23.23±5.92 16.57±4.23 16.09±4.22 22.00±4.99	
25.34 ± 6.18 17.48±4.24 17.67±4.67 20.98±4.80	
p<0.001** p=0.003** p<0.001** p=0.013**	
a <c;b<c*** a<c***="" a<c;b<c***="" a<c;b<c***<="" td=""><td></td></c;b<c***>	
Family attitude	
(a) Democratic (321) 22.61±5.78 15.91± 3.95 16.32± 4.53 21.87±4.91	
(b) Repressive (72) 26.38±6.69 17.79±4.69 18.05±4.89 20.00±4.89	
(c) Over protective (166)23.81±6.1317.21±4.1416.56±4.6922.36±4.74	
(d)Unrelated/inconsistent(45) 25.57±8.76 19.28±5.40 17.53±5.53 21.33±5.87	
p<0.001** p<0.001** p=0.023** p=0.007**	
a <b,d;c<b*** a="" a<b***="" a<b,c,d;c<d***="">b;b<c***< td=""><td></td></c***<></b,d;c<b***>	
Domestic violence	
No (549) 23.25±6.19 16.44±4.19 16.48±4.61 21.84±4.87	
Yes (55)27.16±7.1419.78±4.5218.69±5.4520.72±5.90	
p<0.001* p<0.001* p=0.001* p=0.111*	
Being exposed to violence	
No (394) 22.66±6.26 15.94± 4.17 15.84±4.55 21.81± 4.70	
Yes (210)25.38±6.2218.26±4.5018.25±4.6721.62±5.46	
p<0.001* p<0.001* p<0.001* p=0.671*	
Violence to someone	
No (330)         21.55± 5.48         15.87± 4.06         15.00± 3.99         22.33±4.78	
Yes (274)         26.09± 6.50         17.80± 4.42         18.71± 4.76         21.03±5.12	
p<0.001* p<0.001* p<0.001* p=0.001*	

\*t test, \*\* anova test, \*\*\* bonferroni test

Considering the relationship between the levels of anger and social support perceptions of the students, significant relationships were found between: dimensions of trait anger and anger-out, and total social support and family support, as weak and in the negative direction; anger-in and all dimensions of social support, as weak and in the negative direction; anger control, and dimensions of family support and friend support, as weak and in the positive direction (Table 3).

According to the results of the regression analysis, the variables collectively explained 22% of the variance in the trait anger scores significantly, and the most powerful variable was being violent to each other. Participation in sports/arts/culture activities affected trait anger negatively, while others affected it positively. The variables collectively explained 14% of the

variance in anger-in scores significantly, and the most powerful predictor was perceived social support in the negative direction. The predictors of the anger-in scores explained 22% of the variance significantly and the most powerful predictor was being violent to each other. All variables except perceived social support predicted anger-in negatively. The variables explained 7% of the variance in anger control scores significantly. The most effective variable on anger control was participation in sports/arts/culture activities. The time spent on the computer and cellphone, and being violent to each other predicted anger control negatively, while other variables predicted it positively (Table 4).

Table 3. Correlation Between Trait Anger-Anger Expression Styles Scores and Perceived Social Support Scores of Students

	Multidimensional Scale of Perceived Social Support			
Trait Anger-Anger Expression	Family	Friend	Special person	Total
Styles Scale	support	support	support	support
Trait anger				
	r=-0.152	r=-0.048	r=-0.36	r=-0.095
	p<0.001	p=0.234	p=0.372	p=0.019
Anger-in	r=-0.231	r=-0.162	r=-0.126	r=-0.216
	p<0.001	p<0.001	p=0.002	p<0.001
Anger-out	r=-0.204	r=-0.014	r=-0.054	r=-0.110
	p<0.001	p=0.734	p=0.186	p=0.007
Anger control	r=0.134	r=0.045	r=0.069	r=0.103
	p=0.001	p=0.273	p=0.089	p=0.011
pearson correlation test				
Table 4. Predictors of Trait Anger-Anger I	Expression Styles			
	Trait anger	Anger-in	Anger-out	Anger-control
	( <i>R</i> <sup>2</sup> =0.219)	(R <sup>2</sup> =0.148)	(R <sup>2</sup> =0.212)	(R <sup>2</sup> =0.067)
Durbin-Watson (p)	1.821 (0.039)	1.913 (0.001)	1.753 (0.005)	1.806 (0.019)
Variables	β (p)	β (p)	β (p)	β(p)
Gender				
(1. female, 0. male)	-	0.191 (<0.001)	-	-
Family attitude				
(1.repressive/overprotective/unrelated/	-	0.171 (<0.001)	-	0.094 (0.019)
inconsistent, 0. democratic)				
Smoking				
(2. one package and more a day, 1. les	ss 0.174 (<0.001)	-	0.112 (0.005)	-
than one package a day, 0. not using,	)			
Alcohol use				
(3. more than once a week, 2. once a week, 2.	4	0.170 ( <0.001)	0.116 (0.004)	-
	1	0.170 (<0.001)	0.110 (0.00+)	
one or two times a month,	1	0.170 (<0.001)	0.110 (0.004)	

Time spent on computer/ cellphone (di	gital			
data)	0.196 (<0.001)	0.124 (0.001)	0.111 (0.003 <b>)</b>	-0.116 (0.004)
Participation in sports/arts/ cultural eve	ents			
(1. yes, 0. no)	-0.075 (0.039)	-	-	0.128 (0.001)
Domestic violence (1. yes, 0. no)	0.091 (0.014)	-	-	-
Violence to someone	0.278 (0.000)	-	0.322 (0.000)	-0.120 (0.003 <b>)</b>
(1. yes, 0. no)				
Total perceived social support scores (di	gital			
data)	-	-0.228 (0.000)	-0.105 (0.004)	0.106 (0.009)
*				

\* The multivariable models that explain the anger levels and anger expression styles of the students included all dependent variables and the independent variables found to be significant in the single-variable analyses. The independent variables that provided significant results in the model are shown in the table.

#### 4. Discussion

In this study, the trait anger levels of the students were found medium, their anger-in and anger-out levels were found a little under medium, and their anger control levels are found a little over medium. The observation that other studies conducted with university students in Turkey provided similar results, shows that anger experience is not very widespread and anger management is resorted to in students that just left adolescence in Turkey (Aslan & Arkar 2016; Buyukbayraktar & Ure 2014; Elkin & Karadagli 2016; Soysal, Can & Kılıc 2009; Ozyesil 2012). The culture individuals live in creates a difference in experiencing and expressing anger. In a study where anger levels and ways of expressing anger were compared between Turkish high school students who were born and grew up in Turkey and Germany, it was found that anger symptoms were more frequently seen in students living in Turkey, and these students showed higher tendencies to show their anger in the form of aggression or anxiety (Bayram, Dogan, Aydogan & Bilgel 2014).

In this study, it was found that the levels of anger of the students did not change based on age. This may be explained by the fact that their ages were very close to each other. While there are studies that reported similar results (Elkin & Karadagli 2016; Hamdan-Mansour, Dardas, Nawafleh & Abu-Asba 2012), some other reported that anger levels increased or decreased with age (Buyukbayraktar & Ure 2014; Kaya et al. 2012, McKinnie-Burney 2006). This calls for analyses on the relationship between anger and age with inclusion of wider age intervals. Female and male students did not differ in terms of trait anger levels. Some studies supported this finding (Hamdan-Mansour et al. 2012), while some others found anger levels higher in female students (Batıgun & Utku 2006; Buyukbayraktar & Ure 2014) and some found higher levels in male students (Yondem & Bicak 2008). This study found that female students had higher tendencies of introverting their anger, and sex was a predictor of introverted anger. The literature contains studies that report anger reactions differ based on sex (Ozen, Bez, Arı & Ozkan 2010), in addition to some that report they do not (Bostancı, Coban, Tekin & Ozen 2006). While some studies, in agreement with this study, reported that female student had higher tendencies to suppress anger (Batigun & Utku 2006), some others reported no differences (Elkin & Karadagli 2016; Yondem & Bicak 2008). There are also findings suggesting that male student reflect their anger more (Kaya et al. 2012; McKinnie-Burney 2006). In this study, no significant differences were found between male and female students in terms of anger-out and anger control. Some studies stated that anger control did not change based on sex (Yondem & Bicak 2008), while some other stated that female students had better anger control results (McKinnie-Burney 2006). Individuals who reflect their anger towards outside are perceived as more masculine, confident individuals, while those who do not are perceived as politer (Hareli & Hess 2010). More passive-aggressive reactions by women and more violent behavior by men due to anger, is a case that is more frequently seen in traditional cultures (Batigun & Utku 2006). While it is more acceptable in Turkish culture that girls/women are meeker and boys/men are stronger, the differences between female and male students in terms of ways of expressing their anger show that the traditional gender roles are accepted by the students. Nevertheless, Bayram et al. (2014) reported that female students in Turkey had higher tendencies for anger introversion, passive-aggressive and anxiety-based reactions, but this was not the case for Turkish female students who were born and grew up in Germany. The result in the same study that male students in both countries showed more aggressive and hateful behaviors than female students when they got angry, shows that biological factors are more predictive for males in terms of anger experiences.

The finding in this study that the income levels of the students were not effective on anger scores agrees with those in some other studies (Buyukbayraktar & Ure 2014; Elkin & Karadagli 2016). On the other hand, it is also known that students with lower income levels reflect their anger less (Kaya et al. 2012).

In this study, it was found that the students who worked at a job had higher anger levels and angerout. Mounsey, Vandehey & Diekhoff (2013) stated that the anxiety and stress levels of students who have to work while attending school are higher. Bozkurt and Cam (2010) reported that anger levels are increased in working adolescents due to inability to spend time for entertainment and leisure, as well as dissatisfaction with jobs, and this is significant in determining anger reactions. As having to attend school and work simultaneously leads to exposure to occupational stress sources, students' anger levels may increase.

One of the reasons that lead students to start and continue smoking is to cope with anger and stress (Durmus & Pirincci 2009). A study found a positive relationship between the number of cigarettes smoked by students daily, and their trait anger and anger-out levels (Hamdan-Mansour et al. 2012). In this study, it was found that the trait anger and anger-out levels of the students who smoked more were higher, their anger control levels were lower, and smoking was a predictor of trait anger and anger-in. This suggests that students resort to smoking as a way of coping with anger, but this is not an effective method.

In this study, it was found that the anger levels and anger-in/out levels of the students who had higher frequency of alcohol consumption were higher, and alcohol consumption was a predictor of angerin and anger-out scores. Other studies also found that students who drink had higher levels of trait anger and anger-out (Elkin & Karadagli 2016). It was also interesting that this study found lower levels of anger control in students who consume alcohol more than once a week.

This study found that participation in sports/arts/culture activities by students in their spare time caused differences in anger scores, and predicted trait anger and anger control. It is reported that sports activities reduce perceived stress levels, increased self-efficacy levels and skills of coping with stress (Décamps, Boujut & Brisset 2012), and conversion of anger into aggression may be prevented by increasing anger management (Bayansalduz 2014). The results show that directing students to sports and creative activities in their spare time is important for coping with anger.

In this study, it was found that the students who spent more time with computers and cellphones were angrier, they reflected their anger more negatively, and they had weaker skills of anger control, while the time spent with these technologies was a predictor of trait anger and all dimensions of anger expression. Similarly, in the literature, it was reported that the trait anger and anger expression results were more negative in students who had problematic usage of the internet (Ata, Akpınar & Kelleci 2011; Soysal et al. 2009).

In this study, it was seen that there was a difference in trait anger and all dimensions of anger expression based on the family attitude of the students, and the family attitude of the students had an effect on anger-in and anger control. It was reported that students who are not given a right to speak in family matters and who define their families as oppressive had higher levels of anger-in (Elkin & Karadagli 2016). Presence of a democratic attitude in the family and being grown up in a compassionate/attentive family provide positive effects on students' anger experiences. The finding that anger levels are higher in students with perfectionist parents (Buyukbayraktar & Ure 2014) may mean that young people's anger is increased by thinking they are not able to sufficiently meet the expectations of their parents. On the other hand, it is expected that students with undisciplined and excessively free families find it easier to reflect their anger towards outside (Elkin & Karadagli 2016).

Therefore, it is recommended that family dynamics are targeted in counseling sessions towards improving the wellness of young people (HamdanBalkan and Near Eastern Journal of Social Sciences Balkan ve Yakın Doğu Sosyal Bilimler Dergisi

Mansour et al. 2012). There is a positive relationship between exposure to societal or domestic violence and aggressive behavior (Feroz, Jami & Masood 2015). It was reported that anger symptoms are more widespread among male university students with higher levels of childhood trauma (Ozen et al. 2010), and adolescents who were subjected to violence by their parents have higher tendencies towards violence (Gencoglu, Kumcagız & Ersanlı 2014). Other studies reported that violent behavior is related to anger-out positively (Gelaye et al. 2008), and it is related to anger control negatively (Lundeberg, Stith, Penn & Ward 2004). The trait anger, anger-in and angerout scores were found higher in this study among the students who had experiences of domestic violence, were subjected to violence and stated that they were violent towards someone. Additionally, it was found that the students who stated that they inflicted violence upon someone had lower levels of anger control. This study, which showed that violent behavior had predictive effects on anger, is in agreement with the literature in terms of attracting attention towards the connection between anger and violence.

In this study, significant relationships were found, though not strong, between the perceived social support levels of the students and trait anger, anger-in and anger-out levels in the negative direction, and between perceived social support and anger control in the positive direction. Arslan (2009) point to family support in the relationship between anger and social support. The finding in this study that family support was related to trait anger and all dimensions of anger expression, shows that relationships in the family are important for experiences of anger by young people. Friend and special person support were found to be related to anger-in only. It was seen that students with worse friendship relationships expressed their anger more negatively (Elkin & Karadaglı 2016). This situation may be explained by the finding that students who frequently experience the emotion of anger and find it difficult to control their anger feel lonelier (Kaya et al. 2012). Only the total social support was analyzed in the regression analysis in this study, and it was found to have a low-level effect on anger. Studies indicate that social support has a limited effect on the psychological adaption of the individual (Civitci 2015) and it is not a strong predictor for anger (Hamdan-Mansour 2012; Mahon, Yarcheski, Yarcheski & Hanks 2010). After interpreting the findings in the literature and those in this study together, it was concluded that, while social support has a role on anger experiences, this role is not very strong.

#### **4.1.Limitations**

The results may not be generalized as this study was conducted only in the vocational school environment, the number of male students was higher, the data obtained with the personal information form were based on the questions prepared by the researchers, and the responses were based on the self-reporting of the participants. The results suggest that variables that were not included in this study may be effective on anger experiences. Therefore, there is a need for studies with larger samples that investigate the effects of different variables.

#### 5. Conclusion

The students' trait anger levels were not very high and they tried to positively reflect and control their anger. The cases of anger, its control and its reflection in young people are important as they may lead to / trigger events that may affect their entire lives (disciplinary issues, leaving school, accident, violence, etc.). In prevention of violent behavior by young people, the World Health Organisation (2014) recommends improving especially skills of anger management, conflict and problem-solving, and establishing programs towards this. Thus, providing in-service training for educators that may reach the young population and healthcare providers (school healthcare services, medico-social, workplace practice, family practice, etc.) regarding the issue may significantly contribute to the anger management processes of young people. It is important to direct young people to sports and social activities that will minimize the time they spend on their cellphones and keep them away from addictive factors such as cigarettes and alcohol, in which they can let off their energy and stress physically and express themselves positively. Medicosocial centers of universities should increase awareness of the students about counseling center and its services and, provide counseling on students' emotional, academic, social problems.

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#### **Compliance with Ethical Standards**

#### **Conflict of Interest**

The authors declare that they have no conflict of interest.

#### **Ethical approval**

All procedures performed in studies involving human participants were in accordance with the ethical standards of the Namik Kemal University School of Medicine Noninvasive Clinical Research Ethics Board, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

#### Informed consent

Informed consent was obtained from all individual participants included in the study.

#### References

- Arslan, C. (2009). Anger, self-esteem, and perceived social support in adolescence. Social Behavior and Personality, 37(4),555-564.
- Aslan, N., & Arkar, H. (2016). The relationship between temperament and character traits and anger response styles in university students. Dusunen Adam The Journal of Psychiatry and Neurological Sciences, 29,120-128.
- Ata, E.E., Akpinar, S., & Kelleci, M. (2011). The relationship between students problematic internet usage and their anger expression manner. Preventive Medicine Bulletin, 10(4),473-480.
- Bayram, N., Dogan, A., Aydogan, I., Bilgel, N. (2014). Anger expression, depression, anxiety and stress among Turkish Students living in Turkey and Germany. International Journal of Academic Research in Business and Social Sciences, 4(3),1-18. http://doi: 10.6007/IJARBSS/v4-i3/669
- Batigun, A.D., & Utku, C. (2006). A study on the relationship between eating attitudes and anger. Turkish Journal of Psychology, 2(57),65-78.
- Bayansalduz, M. (2014). An Investigation into the statetrait anger expression level of taekwondo students attending high school. Anthropologist, 18(3),921-926.
- Bostancı, N., Coban, S., Tekin, Z., & Ozen, A. (2006). Anger expression according to sexuality of university students. The Journal of Crisis, 14(3),9-18.
- Bozkurt, S., & Cam, O. (2010). Investigation of the relationship between anger components and mental

symptoms in working adolescents. Archives of Neuropsychiatry, 47(2),105-110.

- Buyukbayraktar, G.Ç., & Üre, Ö. (2014). The relationship between perfectionism and anger. Anthropologist, 18(3),835-846.
- Civitci, A. (2015). Self-esteem and social supportas predictors of trait anger: Mediating and moderating roles of social support. Abant Izzet Baysal University Journal of Faculty of Education, 15(1),66-81.
- Décamps, G., Boujut, E., & Brisset, C. (2012). French college students' sports practice and its relations with stress, coping strategies and academic success. Front Psychol, 3,1-6. https://dx.doi.org/10.3389%2Ffpsyg.2012.00104.
- Delara, M., & Woodgate, R.L. (2015). Psychological distress and its correlates among university students: A cross-sectional study. J Pediatr Adolesc Gynecol, 28(4),240-244. http://doi: 10.1016/j.jpag.2014.08.012.
- Durmus, B.A., & Pirincci, E. (2009). Relationship between smoking status and anger the university of students. J Turgut Ozal Med Cent, 16(2), 83-88.
- Eker, D., Arkar, H., & Yaldız, H. (2001). Factorial structure, validity, and reliability of revised form of the multidimensional scale of perceived social support. Turk Psikiyatri Derg, 12(1),17-25.
- Elkin, N., & Karadaglı, F. (2016). Anger expression and related factors in university students. Anatol Clin, 21(1),64-71.
- Feindler, E.L, & Engel, E.C. (2011). Assessment and intervention for adolescents with anger and aggression difficulties in school settings. Psychol Sch, 48,243-253. http://doi: 10.1002/pits.20550.
- Feroz, U., Jami, H., & Masood, S. (2015). Role of early exposure to domestic violence in display of aggression among university students. Pakistan Journal of Psychological Research, 30(2),323-342.
- Gelaye, B., Philpart, M., Goshu, M., Berhane, Y., Fitzpatric, A.L., & Williams, M.A. (2008). Anger expression, negative life events and violent behaviour among male college students in Ethiopia. Scandinavian Journal of Public Health, 36(5),538–545. http://doi: 10.1177/1403494807086916.
- Gencoglu, C., Kumcagiz, H., & Ersanli, K. (2014). Family factors affecting violent tendency in adolescents. International Periodical for the Languages, Literature and History of Turkish or Turkic, 9(2),639-652.
- Hamdan-Mansour, A.M., Dardas, L.A., Nawafleh, H., & Abu-Asba, M.H. (2012). Psychosocial predictors of anger among university students. Children and Youth Services Review, 34,474-479. https://doi.org/10.1016/j.childyouth.2011.12.004
- Hareli, S., & Hess, U. (2010). What emotional reactions can tell us about the nature of others: An appraisal perspective on person perception. Cognition and Emotion, 24(1),128-140. http://dx.doi.org/10.1080/02699930802613828.
- Kaya, N., Kaya, H., Yalcın Atar, N., Turan, N., Eskimez, Z., Palloş, A., et al. (2012). Characteristics of anger and loneliness in nursing and midwifery students. Journal of Education and Research in Nursing, 9(2),18-26.

Balkan and Near Eastern Journal of Social Sciences Balkan ve Yakın Doğu Sosyal Bilimler Dergisi

- Lundeberg, K., Stith, S.M., Penn, C.E., & Ward, D.B. (2004). A comparison of nonviolent, psychologically violent, and physically violent male college daters. J Interpers Violence, 19(10),1191–200. http://doi: 10.1177/0886260504269096.
- Mahon, N.E., Yarcheski, A., Yarcheski, T.J., & Hanks, N.M. (2010). A Meta-analytic study of predictors of anger in adolescents. Nurs Res, 59(3),178-184. http://doi: 10.1097/NNR.0b013e3181dbba04.
- McKinnie-Burney, D. (2006). An investigation of anger styles in adolescent students. Negro Educ Rev, 57(1/2),35-43.
- Mounsey, R., Vandehey, M.A., & Diekhoff, G.M. (2013). Working and non-working university students: Anxiety, depression, and grade point average. College Student Journal, 47(2),379-389.
- Nederlof, A.F., Muris, P., & Hovens, J.E. (2014). Anger, anxiety, and feelings of delusional threat as predictors of aggressive attitudes: An experimental mood induction study in a non-clinical sample. Personality and Individual Differences, 57,25-30. https://doi.org/10.1016/j.paid.2013.09.006.
- Ozen, S., Bez, Y., Arı, M., & Ozkan, M. (2010). Examination of anger reactions and psychiatric diagnoses in terms of gender in a group of university students having difficulty with anger control. Turk Psikiyatri Derg, 21(4),319-30.
- Ozer, A.K. (1994). Surekli ofke (SL-OFKE) ve ofke ifade tarzı (OFKE-TARZ) olcekleri on calısması. Turkish Journal of Psychology, 9(31),26–35.
- Ozkan, S., & Yılmaz, E. (2010). Adaptation status of university students to university life (Bandırma Example). Fırat Health Services Journal, 5(13),153-171.
- Ozyesil, Z. (2012). Five factor personality traits as predictor of trait anger and anger expression. Education and Science, 37(163),322-332.
- Prabhu, G.S., Yen, J.T.M., Amalaraj, J.J.P., Jone, E.T.Y., & Kumar, N. (2016). Anger management among medical undergraduate students and its impact on their mental health and curricular activities. Education Research International, Article ID 7461570 http://dx.doi.org/10.1155/2016/7461570
- Sahin, N,H,, Durak Batıgun, A., & Koc, V. (2011). The relationship between depression, and interpersonal style, self-perception, and anger. Turk Psikiyatri Derg, 22(1),17-25.

- Sevinc, S., & Gizir, C.A. (2014). Factors negatively affecting university adjustment from the views of firstyear university students: The case of Mersin University. Educational Sciences: Theory & Practice, 14(4),1285-1308.
- Spielberger, C.D., Johnson, E.H., Russell, S.F., Crane, R.J., Jacobs, G.A., & Worden, T.J. (1985). The experience and expression of anger: Construction and validation of an anger expression scale. In M. A. Chesney & R. H. Rosenman (Eds.), Anger and hostility in cardiovascular and behavioral disorders (pp. 5-30). Hemisphere/McGraw-Hill. New York
- Soysal, A.S., Can, H., & Kılıç, K.M. (2009). The analysis of the relationship between type–a behavior pattern and expression of anger among university students and its comparison in terms of sex. Turkish Journal of Clinical Psychiatry, 12(2),61-67.
- Stallman, H.M. (2010). Psychological distress in university students: A comparison with general population data. Australian Psychologist, 45(4),249-257. http://doi: 10.1080/00050067.2010.482109.
- Tavolacci, M.P., Ladner, J., Grigioni S., Richard, L., Villet, H., & Dechelotte, P. (2013). Prevalence and association of perceived stress, substance use and behavioral addictions: A cross-sectional study among university students in France, 2009–2011. BMC Public Health, 13(724),1-8. http://doi: 10.1186/1471-2458-13-724.
- Tosevski, D.L., Milovancevic, M.P., & Gajic, S.D. (2010). Personality and psychopathology of university students. Curr Opin Psychiatry, 23(1),48-52. http://doi: 10.1097/YCO.0b013e328333d625.
- Wongtongkam, N., Ward, P.R., Day, A., & Winefield, A.H. (2016). The relationship between exposure to violence and anger in Thai Adolescents. J Interpers Violence, 31(13), 2291–2301. http://doi: 10.1177/0886260515575610.
- World Health Organisation. (2014). Global status report on violence prevention. Retrieved from http://www.who.int/violence\_injury\_prevention/viol ence/status\_report/2014/en/
- Yondem, Z.D., & Bıçak, B. (2008). Anger and anger styles of the teacher candidates. Journal of Human Sciences, 5(2),1-15.
- Zimet, G.D., Dahlem, N.W., Zimet, S.G., & Farley, G.K. (1988). The multidimensional scale of perceived social support. J Pers Assess, 52(1),30-41. http://dx.doi.org/10.1207/s15327752jpa5201\_2.