



A Model to Explain the Observed Tendency to Aggression in University Students*

Üniversite Öğrencilerinde Gözlenen Saldırganlık Eğilimlerinin Açıklanmasına Dönük Bir Model

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ABSTRACT: Some approaches in psychology (e.g. Psychoanalysis) define aggression as an inborn behavior while some others (e.g. Behaviorism) define it as an acquired behavior. However, today it is a more widely admitted idea that aggression is a product of heredity-environment interactions and it has a relation with different psycho-social variables. It is observed that aggression was tried to be explained by more basic research models in previous studies. In this study; however, it was preferred to form a complex model to explain aggression selected as a dependent variable. The main objective of the study in this context is to examine the relation between aggression and the variables of perfectionism, forgiveness and coping with stress. The study group consists of 2744 university students studying in seven different cities. The data of the study was analyzed with the Structural Equation Modeling (SEM). The results obtained from the study show that aggression is explained significantly by the variables of perfectionism ($\beta=.13$; $p<.001$), forgiveness ($\beta=-.40$; $p<.001$) and negative and passive coping ($\beta=.17$; $p<.001$). Some of the results show similarities with the previous findings while the others have some differences. In consideration of the results, some suggestions were made for the implementation process and for further researches.

Keywords: Aggression, perfectionism, forgiveness, coping

ÖZ: Psikoloji alanındaki bazı yaklaşımlar (ör. Psikanaliz) saldırganlığı doğuştan getirilen, bazıları ise (ör. Davranışçılık) sonradan kazanılan bir davranış olarak tanımlar. Bununla birlikte bu davranışın kalıtım-çevre etkileşiminin bir ürünü olduğu ve farklı psiko-sosyal değişkenlerle ilişki sergilediği, günümüzde daha yaygın kabul edilen bir görüştür. Önceki çalışmalarda, saldırganlık eğilimlerinin daha basit araştırma modelleriyle açıklanmaya çalışıldığı gözlenmiştir. Bu çalışmada bağımlı değişken olarak seçilen saldırganlığı daha iyi açıklamak için karmaşık bir modelin oluşturulması tercih edilmiştir. Bu kapsamda çalışmanın temel amacı; saldırganlık eğilimlerinin, mükemmeliyetçilik, affetme ve stresle başa çıkma değişkenleriyle ilişkilerini incelemektir. Araştırma grubu, Türkiye'nin farklı şehirlerinde bulunan yedi üniversitede öğrenim gören, 2744 öğrenciden (Kız= 1493, Erkek=1251) oluşmaktadır. Çalışmanın verileri Yapısal Eşitlik Modeli (YEM) ve bazı çıkarımlı istatistik teknikleriyle analiz edilmiştir. Araştırmadan elde edilen sonuçlar, saldırganlık eğilimlerinin mükemmeliyetçilik ($\beta=.13$; $p<.001$), affetme ($\beta=-.40$; $p<.001$) ve olumsuz ve edilgen başa çıkma ($\beta=.17$; $p<.001$) değişkenleri tarafından anlamlı düzeyde açıklandığını göstermiştir. Sonuçların bir kısmı önceki araştırma bulgularıyla benzerlik gösterirken, bazılarında farklılıklara rastlanmıştır. Sonuçlar ışığında uygulama sürecine ve ileride yapılacak araştırmalara ilişkin öneriler getirilmiştir.

Anahtar Sözcükler: Saldırganlık, mükemmeliyetçilik, affetme, başa çıkma

1. INTRODUCTION

Interpersonal relations have always been a contemporary area of psychology and studied by many researchers in relation to different variables. Considering the results obtained in relation to interpersonal relations; positive or negative comments can be made. Having the appropriate communication skills and constructive conflict solution contribute to the development of positive relationships. In contrast, the conflicts in communications and the

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destructive ways used to solve the conflicts can lead to serious relationship problems. One of the destructive ways preferred in problem solving is aggression behavior.

The behaviors occurring due to the impulse of fighting against the prohibiting or threatening situations and causing an individual to harm himself or anyone else intentionally or unintentionally are called as aggression (Ayan, 2007; Lorenz, 2008; Mustonen and Pulkinen, 1993). These behaviors are observed among students in all grades from preschool to university (Başaran, 2008; Bolat Karataş, 2002; Evcin, 2010; Filiz, 2009; Gültekin, 2011; Güney, 2008; Kadan, 2010; Kaplan, 2012; Kılıçarslan, 2009; Öz, 2007; Yavuz, 2007; Yavuzer, 2013). The findings from the researchers conducted by Turkish Ministry of National Education in the scope of “The Strategy and Action Plan for Reducing and Preventing the Violence in the Schools (2006-2012+)” support the idea that violence is common in schools.

The frequency and level of aggression and the related variables might change according to the age and education level. The researches carried out on university students show us these behaviors are related to some psychological variables (Çelik, 2006; Erden, 2007; Hasta and Güler, 2013; Ko, Yen, Chen, Yeh and Yen, 2009; Kurtyılmaz, 2011; Soysal, Can and Kılıç, 2009). In these studies, aggression as the dependent variable is explained with the related independent variables. It is mostly emphasized on how two variables show differences together or how the independent variable explains the dependent variable rather than their mutual relation. However, the fact that the mixed-model design is getting more common in behavior analysis and different analysis techniques are preferred for the obtained data requires testing of new models for the examination of the relations among the variables. With these models, the mutual relations of the variables are tried to be explained. Such a method was also practiced in this study.

Researchers have tried to explain the relations of the psychological variables with aggression through the corporate and practical studies. While the psychoanalysis describes aggression as a congenital tendency, it is defined as a nonfunctional behavior developed in the process of social and cognitive learning by cognitive and behaviorist approaches. Cognitive behaviorist perspective claims that unguided cognitive structures and wrong assumptions have an effect on the appearance of aggressive behaviors and the related psychological variables.

The findings of the researches show that perfectionism is one of the psychological variables related to aggression (Büyükbayraktar, 2011; Dunkley, Zuroff and Blankstein, 2003; Erol Ünge, 2009; Hewitt et al. 2002; Pulat, 2011; Wiebe and McCabe, 2002). Perfectionism is a personality trait characterized by a person's setting hard goals for himself and the others, and it causes various problems if these goals cannot be achieved (Burns, 1980; Hollander, 1965; Patch, 1984).

Forgiveness is another variable related to aggression (Eaton and Struthers, 2006; Fincham and Beach, 2002; Soylu, 2010). Forgiveness is the act of giving up the negative reactions and the feeling of revenge against anybody who has harmed you and developing positive feelings such as confidence, love, and mercy toward that person (Enright and Coyle, 1997; Hargrave and Sells, 1997; McCullough, 2001; Worthington, 1998).

Researches show that there is also a meaningful relation between aggression and coping with stress (Mestre Samper, Tur-Porcar, Minzi and Mesurado, 2011). Coping with stress is defined as a person's cognitive, affective and behaviorist efforts in order to meet his needs or overcome and manage the problems, and become compatible again (Aldwin and Revenson, 1987; Basut, 2006; Lazarus and Folkman, 1984). Pollina and Snell (1999) evaluated stressful situations in terms of the relations between the individuals and stated that 25 different strategies can be used to manage the stressful situations in relationships. Büyüksahin and Taluy Bilecen (2007) adapted these strategies to Turkish and categorized them into ten different groups.

These variables whose relations with aggression are stressed have also statistical relations among them. Researches show that there are meaningful relations between perfectionism and forgiveness (Bugay, 2010; Earl, 2012; Kim, Johnson and Ripley, 2011; Safarzadeh, Esfahaniaasl and Bayat, 2011), perfectionism and coping with stress (Park, Heppner and Lee, 2010). Similar relations are also observed between forgiveness and coping with stress (Ermumcu, 2014; Mazor, Batiste-Harel and Gampel, 2008).

As mentioned above, the research was conducted to determine the causes of aggression and associated variables, and it revealed that perfectionism, forgiveness and coping with stress are associated with this behaviour. It was found out increased tendency to perfectionism raises one's expectations of himself and others, while it reduces one's tolerance and ultimately undermines forgiveness response. As for forgiveness, it was found that lower tendency to forgiveness causes individuals to prefer negative strategies for coping with stress, rather than positive strategies. On the other hand, the use of negative coping strategies was reported to result in aggression as an undesirable behaviour. Also it was found that perfectionism contributes to aggression, whereas forgiveness decreases aggression. So the variables of perfectionism, forgiveness, and coping with stress were found to be in significant interrelation and also relation with aggression. Therefore, it was considered important to manifest how these variables explain aggression as taken all together. In the literature review, no studies were found which examine aggression with a model created in the framework of this theoretical rationale. Departing from this fact, the model was developed hoping to fill the research gap.

Research also demonstrated that aggression is observed among university students (Atay, 2015; Bauman and Baldasare, 2015; Kingree and Thompson, 2013; Morsünbül, 2015; Nyborg, 2012). Present study was implemented to shed light onto the relationships between aggression with certain variables, and it was planned to be carried out with university students. In this way, it is expected to contribute to a better knowledge of these individuals. It is anticipated that in the context of the studies on university students, the results obtained from the research could guide researchers in planning and scheduling practical studies to be carried out with those students. In addition, it is expected that this research finding could support at theoretical level the practical studies to be implemented with the students.

In recent years, many studies have been carried out in order to explain aggressive behaviors in terms of interpersonal relations. In these studies, based on particular designs, relations among the variables are tried to be explained. In this way, it is aimed to investigate the behaviors mentioned in the research in a more detailed way. The purpose of this study is to explain the mutual relations between the aggression tendencies observed in university students and the variables of perfectionism, forgiveness and coping with stress. To reach this aim, a design suitable for Structural Equation Modeling (SEM) was made.

In the context of the assessments above, the aim of the study was defined as explaining the observed tendency to aggression in university students in relation with certain variables such as perfectionism, forgiveness and coping with stress. In order to achieve this aim, two models were created in the framework of the Structural Equation Model (SEM). Model-1 contains the variables of perfectionism, forgiveness, negative and passive coping and aggression (Figure 1), whereas Model-2 contains the variables of perfectionism, forgiveness, positive and active coping and aggression (Figure 2). For the purposes of the study, various hypotheses were developed and tested with the models mentioned above. The following hypotheses were developed regarding Model-1 and Model-2:

1. Perfectionism negatively explains forgiveness.
2. Perfectionism positively explains negative and passive coping.
3. Perfectionism positively explains aggression.

4. Forgiveness negatively explains and negative and passive coping.
5. Forgiveness negatively explains aggression.
6. Negative and passive coping positively explains aggression.
7. Perfectionism negatively explains positive and active coping.
8. Forgiveness positively explains positive and active coping.
9. Positive and active coping negatively explains aggression.

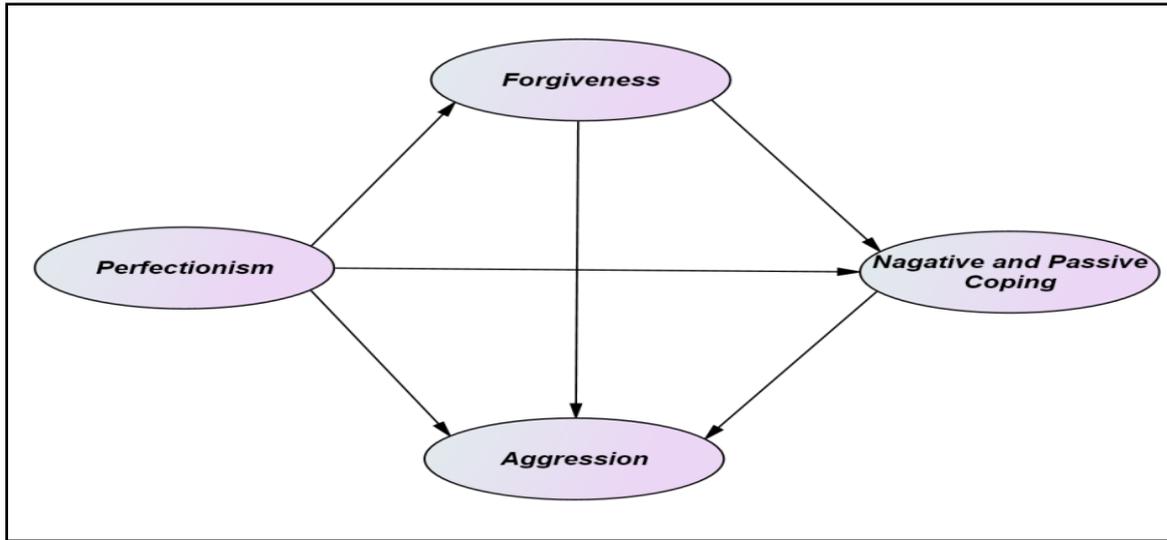


Figure 1. Model-1 (perfectionism-forgiveness-negative and passive coping-aggression)

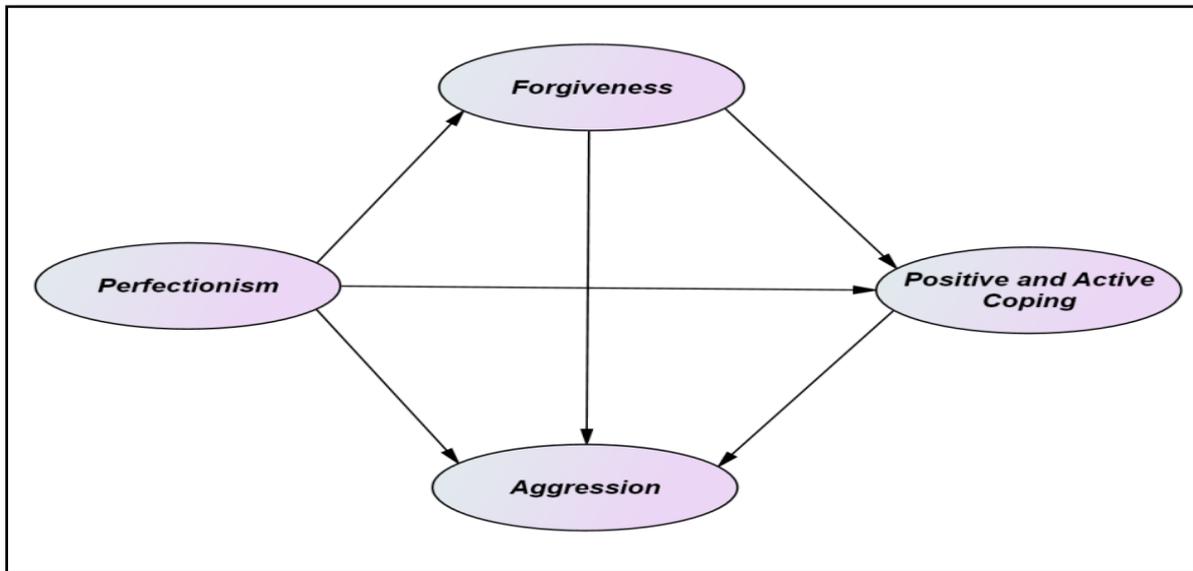


Figure 2. Model-2 (perfectionism-forgiveness-positive and active coping-aggression)

2. METHOD

2.1. Research Model

In this research, quantitative approach was used. Researches done with the quantitative approach are those in which some hypotheses are developed and tested in a measurable form (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2012; Kuş, 2009). Besides, the relational screening model was chosen in the scope of the approach of the research. Relational screening is a research model used to determine whether there is a joint variation between two or more variables and its degree if there is. In other words, the relations between two or more characteristics are examined (Can, 2013; Karasar, 2008).

2.2. Research Group

Regarding the number of participants to take part in studies testing the confirmatory factor analysis (CFA); despite diverse views on this issue, Kline (2011: 12) thinks it should not be less than 10 times the number of items in the measurement instrument. In this study, this criterion was taken into account. In this scope, four different instruments were used. There are a total of 191 items in the instruments. Based on the criterion above, the number of participants must be minimum 1910 (191x10). Therefore, the study group consisted of 2800 people, in this way the criterion of number of participants was satisfied. During the study, the scale forms were given to 2800 students; however, since 56 of them were filled incompletely, they were excluded from analysis.

The research group of the study is composed of 2744 students [Female=1493 (54%), Male=1251 (46%)] studying in seven different state universities in Turkey (Cumhuriyet University=397 (15%), Çanakkale Onsekiz Mart University=386 (13%), Çukurova University=387 (14%), Dicle University=393 (14%), Dokuz Eylül University=391 (14%), İnönü University=395 (15%) and Ondokuz Mayıs University=395 (15%)). The average age of the participants is 20.89 (Sd: 1.60).

Apart from that, the distribution of the study participants by grade was as follows; 879 students from grade 1; 896 students from grade 2; 541 students from grade 3; and 428 students from grade 4. The average score obtained by participants from the aggression scale was 2.69 (sd: .51). Since a 5-point Likert-type scale was used in this study, the average score implies that the participants have a level of aggression close to the middle level.

2.3. Instruments

2.3.1. Multidimensional perfectionism scale (mps)

This 7-point Likert type scale consisting of 45 items was originally developed by Hewitt and Flett (1991). Low scores obtained from the scale show the low perfectionism level and high scores show the high perfectionism level. The scale was initially developed for university students, but then validity and reliability studies were carried out for the clinical and normal populations. The adaptation of the scale to Turkish was made by Oral (1999). The total score of the scale is also possible to be calculated. In the psychometric processes, Cronbach's alpha internal consistency coefficient was determined as follows: total perfectionism: .91, self-oriented perfectionism: .91, other-oriented perfectionism: .73 and socially prescribed perfectionism: .80. According to the exploratory factor analysis related to the validity of the scale, it was seen that the scale consists of three factors as its original form. As a consequence of the analysis, factor loads of the items were determined to be between .29 and .81 and to constitute 37.5% of the total variance. According to the results of the analysis made for this research; Cronbach's alfa internal consistency coefficient was found as .88. Additionally, the confirmatory factor analysis made for the validity of the scale showed that the obtained values

of the goodness of fit are at a sufficient level ($\chi^2/df=9.21$, GFI=0.85, AGFI= .83, RMSEA= 0.05 and SRMR=0.06).

2.3.2. Heartland forgiveness scale (hfs)

This scale was developed by Thompson et al. (2005). The adaptation of the scale into Turkish was made by Bugay and Demir (2010). This 7-point Likert type scale consists of 18 items. The total score of the scale is also possible to be calculated. In the analysis made for the reliability of the scale, the values of Cronbach's alpha internal consistency coefficient were found as the following: total forgiveness: .81., forgiveness of self: .64, forgiveness of others: .79 and forgiveness of situation: .76. Besides, the confirmatory factor analysis made for the validity of the scale showed that the obtained values of goodness of fit are in a sufficient level ($\chi^2(124)=289.49$, $p=.00$; $\chi^2/df=2.33$; GFI= .92, CFI= .90, RMSEA= .06). According to the results of the analysis employed for this research, Cronbach's alpha internal consistency coefficient was found .81 and the confirmatory factor analysis made for the validity of the scale showed that the obtained values of the goodness of fit are at a sufficient level ($\chi^2/df=15.96$, GFI= 0.90, AGFI= .87, RMSEA= 0.07 and SRMR= 0.07).

2.3.3. Multidimensional intimate coping questionnaire (micq)

This Scale was developed by Pollina and Snell (1999). The adaptation of the scale into Turkish was made by Büyükşahin and Taluy Bilecen (2007). The scale is composed of a total of 100 items. The total score of the scale is also possible to be calculated. In the analysis made for the reliability of the scale, Cronbach's alpha internal consistency coefficient values were found as follows: focusing on the relationship: .88, negative and passive coping: .86, seeking external support: .81, positive and active coping: .81, alcohol and drug use: .94, self-bolstering: .73, withdrawal: .74, denial/delay: .57, religious coping: .87 and humor coping: .83. The exploratory factor analysis made to determine the validity of the scale showed that the items of the scale have a 10 factor structure. It was observed that factor loads of the items vary between .20 and .86 and constitute 44.65% of the total variance. In this research, only Negative and Passive Coping (16) and Positive and Active Coping (20 items) dimensions were used. According to the results of the analysis employed for this research, Cronbach's alpha internal consistency coefficient was found as follows: Negative and Passive Coping: .83 and Positive and Active Coping: .81 and the confirmatory factor analysis made for the validity of the scale showed that the obtained values of goodness of fit are at a sufficient level (Negative and Passive Coping: $\chi^2/df=17.95$, GFI= 0.91, AGFI= .88, RMSEA= 0.08 and SRMR= 0.06; Positive and Active Coping: $\chi^2/df=14.64$, GFI= 0.91, AGFI= .89, RMSEA= 0.07 and SRMR= 0.06).

2.3.4. Buss-perry aggression questionnaire (baq)

The 5-point Likert-type scale developed by Buss and Perry (1992) consists of 29 items. This scale was adapted to Turkish by Demirtaş Madran (2013). With the exploratory factor analysis made to determine the validity of the scale, it was seen that the items have a four factor structure as in the original form of the scale. The total score of the scale is also possible to be calculated. In the analysis for the reliability of the scale, internal consistency coefficient was calculated. The Cronbach's alpha values obtained are as the following: total aggression: 0.85, physical aggression: 0.78, verbal aggression: 0.48, anger: 0.76 and hostility: 0.71. With the validity analysis, it as seen that the factor loads of the items vary between .36 and .80 and constitute 41.4% of the total variance. According to the results of the analysis made for this research, Cronbach's alpha internal consistency coefficient was found .87 and the confirmatory factor analysis made for the validity of the scale showed that the obtained values of the goodness of fit are at a sufficient level ($\chi^2/df=9.93$, GFI= 0.91, AGFI= .89, RMSEA= 0.06 and SRMR= 0.05).

When all the CFA fit indices above are examined, χ^2/df is found to be higher than 5 while it is expected to be lower. It is considered to be due to the number of the participants to whom the measuring instrument was applied. In the related literature, it is expressed that χ^2/df value will rise if the number of the participants is more than 200 (Çokluk, Şekercioğlu and Büyüköztürk, 2010). It is thought that the value is more than 5 because the number of the participants in this research is 2744. In this case, it is recommended to repeat the analyses with a group consisting of fewer participants selected from the research group and examine the value again (Floyd and Widaman, 1995). Thus, it can be revealed whether the referred value's not being as expected is due to the number of the participants or not. The group in which the analyses were made again was selected randomly as Inonu University from the universities attending the research. The number of the participants from this university is 395. CFA applied for the measuring instruments was made again with the data obtained from these participants and the results for χ^2/df were found as MPS: 2.33; HFS: 3.10; NPC: 3.93; PAC: 2.76; BAQ: 2.30. It is clear that the results are less than 5 and χ^2/df is at the expected level. Therefore, it is seen that the results of CFA made for the measuring instruments are higher than 5 because of the excessive number of the participants.

2.3.5. Personal information form

This form was developed to determine the gender of the students and in which university and grade they have been studying.

2.4. Data Collection Process

Before the data collection was started, necessary measures were taken. First, permissions were obtained from researchers who had developed the measuring instruments used in this study. Then, during application of the instruments, the students in the relevant universities were visited, and each of the applications was carried out by researchers themselves. The practice was carried out in a classroom environment and in one session. In order to ensure honest and accurate filling of the instruments, the purpose of the research was explained in detail by the researcher. Fourth, the scales were designed and replicated as optical forms for easier reading and answering by participants. Fifth, permission for practice and ethics committee approval was received from the related universities.

During the study, the scale forms were given to 2800 students (female = 1519, male = 1281); however, since 56 of them were filled incompletely, they were excluded from analysis. Statistical analysis of the data obtained in this study was performed with SPSS and AMOS software packages. In analysing the data; frequency, percentage, Cronbach's alpha internal consistency coefficient, CFA and SEM were used.

2.5. Analysis of the Data

The relations among the variables were examined with Structural Equation Modelling (SEM). To practice SEM, the sample size, missing values, multicollinearity, singularity and normality parameters (Çokluk et al. 2010) were considered. As a result of the analysis, it was realized all these conditions were fulfilled. After this stage, the data was analyzed.

3. FINDINGS

In the research, the relations among the variables of perfectionism, forgiveness, coping with stress and aggression were examined with two models. The analyses related to the models are summarized below. Whether the variables in the structural model are related to each other or

not should be tested in the measuring model (Bayram, 2010; Çokluk et al. 2010). The measuring models were tested and the obtained values of goodness of fit are presented in Table 1.

Table 1: Goodness of fit values of measurement model

Model	χ^2/df	GFI	AGFI	RMSEA	SRMR
Sem-1 (perfectionism-forgiveness-negative and passive coping-aggression)	11.43	.91	.89	.06	.06
Sem-2 (perfectionism-forgiveness-positive and active coping-aggression)	9.10	.91	.90	.05	.06

When Table 1 is examined, it is seen that both of the measuring models have the acceptable goodness of fit values. Therefore, it is understood that the values in SEM have meaningful relations with each other. After this step, the testing of SEM was initiated.

3.1. Sem-1 (Perfectionism-Forgiveness-Negative and Passive Coping-Aggression)

As a result of the analyses carried out, the goodness of fit values of the SEM-1 were not found sufficient ($\chi^2/df= 12.96$, GFI= 0.89, AGFI= .86, RMSEA= 0.07 and SRMR= 0.07). In this situation, the evaluations for the improvement of the model are carried out and if possible the modification indexes suggested for the model are modified in different ways (Şimşek, 2007). When modification results suggested for SEM-1 were examined, it was found that the observed variable errors [(e11-e12), (e14-e15) and (e19-e20)] have strong relations and these errors are connected through covariance. At the end of these additions, it was predicted that the model fit would have an improvement. It was determined if the modifications have caused any meaningful changes in the model with a test of χ^2 . According to this test, the difference between χ^2 value before the test and χ^2 value after the test is expected to be higher than the χ^2 table value corresponding to the degree of freedom (Laurencelle and Dupuis, 2002). According to the calculations, $\Delta\chi^2=3795.72-3315.97=479.74$ and $\Delta df=293-290=3$ were found. When the significant level is 5% and the degree of freedom is 3, the table value of χ^2 is 7.81. This value is lower than the difference between the values before and after the modification ($479.74 > 7.81$). As a result, it is seen that modifications made by adding covariance between the errors of the variables significantly increase the goodness of fit of the model. As a consequence of these modifications, goodness of fit values ($\chi^2/df= 11.43$, GFI= 0.91, AGFI= .88, RMSEA= 0.06 and SRMR= 0.07) of this model were found sufficient (Hu and Bentler, 1995; Kline, 2011; Wang and Wang, 2012). After the modifications, the results obtained for SEM-1 are given in Table 2.

Table 2: Results of standardized coefficients regression of sem-1

Independent Variable	Way	Dependent Variable	β	B	Std. Error	Critical Rate
Perfectionism	→	Forgiveness	-.23***	-.15	.02	-8.32
Perfectionism	→	Negative and passive coping	-.05*	-.03	.01	-2.00
Perfectionism	→	Aggression	.13***	.10	.02	5.50
Forgiveness	→	Negative and passive coping	-.46***	-.38	.03	-12.47
Forgiveness	→	Aggression	-.40***	-.45	.04	-12.91
Negative and passive coping	→	Aggression	.17***	.24	.08	6.41

*** $p < .001$ ** $p < .01$ * $p < .05$

In Table 2, standardized regression coefficients among perfectionism, forgiveness, negative and passive coping and aggression are presented. The obtained values vary between -.46 and .17. Additionally, it is also seen that the relations among the variables in SEM-1 are statistically significant. According to the results obtained in accordance with the purposes of the research, perfectionism explains forgiveness ($\beta = -.23$; $p < .001$), negative and passive coping ($\beta = -.05$; $p < .05$) and aggression ($\beta = .13$; $p < .001$) significantly. Also, forgiveness explains negative and passive coping ($\beta = -.46$; $p < .001$) and aggression ($\beta = -.40$; $p < .001$) significantly. Furthermore, negative and passive coping explains aggression ($\beta = .17$; $p < .001$) significantly.

3.2. Sem-2 (Perfectionism-Forgiveness-Positive and Active Coping-Aggression)

In the research, SEM-2 composed by examining the variables of perfectionism, forgiveness, positive and active coping and aggression was also tested. According to the test results, goodness of fit values of this model ($\chi^2/df = 10.58$, GFI = 0.90, AGFI = .89, RMSEA = 0.06 and SRMR = 0.06) were found sufficient (Hu and Bentler, 1995; Kline, 2011; Wang and Wang, 2012). The results obtained for SEM-2 are given in Table 3.

Table 3: Results of standardized regression coefficients of sem-2

Independent Variable	Way	Dependent Variable	β	B	Std. Error	Critical Rate
Perfectionism	→	Forgiveness	-.21***	-.12	.02	-7.78
Perfectionism	→	Positive and active coping	.38***	.17	.01	13.02
Perfectionism	→	Aggression	.12***	.09	.02	4.51
Forgiveness	→	Positive and active coping	.34***	.25	.02	11.70
Forgiveness	→	Aggression	-.48***	-.57	.04	-15.13
Positive and active coping	→	Aggression	.02	.03	.04	.63

*** $p < .001$

In Table 3, the standardized regression coefficients among perfectionism, forgiveness, positive and active coping and aggression are given. The obtained values vary between -.48 and .38. Additionally, it is also seen that the relations among the variables in SEM-2 are statistically significant, except for positive and active coping and aggression. According to the results obtained in accordance with the purposes of the research, perfectionism explains forgiveness ($\beta = -.21$; $p < .001$), positive and active coping ($\beta = .38$; $p < .001$) and aggression ($\beta = .12$; $p < .001$) significantly. Besides, forgiveness explains positive and active coping ($\beta = .34$; $p < .001$) and aggression ($\beta = -.48$; $p < .001$) significantly. On the other hand, positive and active coping does not explain aggression ($\beta = .02$; $p > .05$) significantly.

4. DISCUSSION, CONCLUSION and RECOMMENDATIONS

In this study, the hypotheses regarding the relationships among aggression, perfectionism, forgiveness and coping with stress of students were tested within the framework of the models developed. According to the analysis results, the models have values of goodness of fit at a sufficient level. In this section, the results obtained in relation to the research hypotheses are discussed and interpreted in the framework of the research in the relevant literature. Some of the hypotheses in the study were tested with SEM-1. Consequently, it was concluded that all of the hypotheses, except for hypothesis 2, were verified within the developed model. And some of the hypotheses in the study were tested with SEM-2. Consequently, it was concluded that only hypothesis 8 was verified within the developed model.

In the research, a positive correlation between perfectionism and aggression was discovered. In the literature, it is also seen that perfectionism has a positive relationship with aggression (Şahin, 2011), hassle (Dunkley et al., 2003), anger (Büyükbayraktar, 2011; Hewitt et al., 2002; Pulat, 2011; Saboonchi and Lundh, 2003), hostility (Wiebe and McCabe, 2002) and verbal aggression (Erol Üngen, 2009). When considered from this point of view, the result of this study has a similarity with the findings of the previous researches. With Koroğlu's research

(2008), it was seen that competitive approach has a positive relation with perfectionism. As a result, with the effect of the conditions they are in, both the students and the other people tend to have more expectations. This situation supports their perfectionistic tendencies. When explanations about aggression are examined, it is found out that one of the reasons of this behavior is that people are prevented to achieve their ambition by others (Taylor, Peplau and Sears, 2007). In this context, perfectionist individuals, who set hard goals to reach for themselves, feel like they have been hindered when they don't reach these goals and this may affect their tendency to aggression. Benis (1990) supporting these explanations declared that there is a positive relationship between perfectionism and aggression and they construct a structure of personality.

In this study, a significant negative correlation between forgiveness and aggression was found out. In the previous studies in which similar relations are examined, negative correlations between these variables are observed (Eaton and Struthers, 2006; Fincham and Beach, 2002; Soyulu, 2010). Also, forgiveness shows a significant negative correlation with revenge (Ayten, 2009; Barber, Maltby and Macaskill, 2005; Brown, 2004; Rijavec, Jurčec and Mijočević, 2010), physical and psychological aggression (James and McNulty, 2011), anger (Berry, Worthington, O'Connor, Parrot and Wade, 2005; Çardak, 2012), rumination (Allemand, Steiner ve Hill, 2013; Aşçıoğlu Önal, 2012; Wu, Sun, Miao, Yu ve Wang, 2011) and hostility (Kováčsová, Rosková and Lajunen, 2014; Snyder and Heinze, 2005). Consequently, the result of this research is consistent with the findings of the researches mentioned above. Taylor et al. (2007) explain one of the reasons of aggression as the expectation of revenge. On the other hand, Rye and Pargament (2002) relate forgiveness to the situation in which the person considered as a victim gives positive reactions such as mercy, rather than revenge and aggression, to the guilty person. As a result, it is observed that it is not possible to forgive and show aggression at the same time. The obtained results from the research show that forgiveness reduces aggressive behaviors.

In this study, a positive correlation between negative and passive coping and aggression was observed. In the previous studies, aggression was interpreted to have significant positive relations with ineffective strategies such as negative coping (Mestre et al., 2011; Van Dat Run, 2016), passive coping (Remillard and Lamb, 2005), emotion-focused coping (Ben-Zur and Yagil, 2005), ineffective coping (Basut, 2004) and avoiding coping (Boxer et al. 2008). The result of this research is consistent with the findings of the researches mentioned above. In this context, it can be said that negative and passive coping strategies increase aggressive behaviors.

One of the findings in this research is that perfectionism explains forgiveness in a negative aspect. It is seen that this result is consistent with those of the previous researches on this matter (Bugay, 2010; Earl, 2012; Kaya, 2015; Kim et al., 2011; McCann, 2010; Mistler, 2010; Safarzadeh et al., 2011). Ellis (1998) expresses that individuals make negative comments about themselves, other people and the conditions when their expectations are not met. Also, these evaluations have a generic, low-tolerant and critical nature. These kinds of results are related to distorted thought structures. Some thoughts such as "it is necessary to punish the person who makes mistakes", "being successful is absolutely essential in life" and "it is a bad situation to experience something not expected" were given as examples for distorted thoughts by Patterson and Watkins (1996). These negative evaluations and unrealistic thought structures show a similarity with perfectionism and contrast with forgiveness. Perfectionism is a personality trait which causes people to have high expectations from themselves and the other people (Hollander, 1965). Perfectionists think that they should not make any mistakes to meet their expectations and in case of any mistakes, critical and punitive reactions should be given (Burns, 1980). Forgiveness is a process by which a victim changes his negative feelings and behaviors against the offender with positive reactions (Baumeister, Exline and Sommer, 1998). Perfectionists, on the other hand, are critical and they focus on mistakes, have less tolerance and support punishment. It could be said that forgiving individuals have more tolerance and they

could forgive the mistakes more easily. In this context, the result obtained at the end of the research could be interpreted as perfectionism prevents forgiveness.

According to another result obtained from the research, perfectionism explains negative and passive coping significantly. In other words, perfectionists prefer positive and active coping. When the researches trying to explain the relations among the variables are taken into consideration, perfectionism and positive and active coping are found to have a negative correlation (Park et al., 2010). In some other researches, perfectionism has been found to have a positive correlation with negative coping (Haring, Hewitt and Flett, 2003), incompatible coping (Dunkley and Blankstein, 2000; Hewitt, Flett and Ender, 1995) and avoiding coping (Dunkley et al., 2003; Flett, Druckman, Hewitt and Wekerle, 2011). The result of this research is contradictory to the findings of the researches mentioned above. The behaviors of coping with stress are exhibited through different strategies. In the scope of this research, perfectionism is examined in three different dimensions such as self-oriented perfectionism, other-oriented perfectionism and socially prescribed perfectionism. When the literature about perfectionism is examined, it is seen that it is possible to evaluate this behavior in two dimensions as positive and negative perfectionism. While the positive aspect of perfectionism has a motivating effect for the individuals to achieve their aims, the negative aspect has some negative effects on achieving the aims (Hamachek, 1978; Parker, 1997; Rice, Ashby and Slaney, 1998; Roedell, 1984; Schuler, 2000; Slade and Owens, 1998). In the frame of the evaluations made, the university students taking part in the research have been observed to have positive perfectionism and because of that, they choose positive and active coping. Burns and Fedewa's research (2005) supports this idea.

According to the other result obtained from the research, forgiveness explains negative and passive coping negatively; positive and active coping positively at a significant level. In the previous studies, forgiveness was interpreted to have a significant positive correlation with effective strategies such as active coping (Ermumcu, 2014), positive coping (Flanagan, Vanden Hoek, Ranter and Reich, 2012), problem-focused coping (Özgün, 2010) and integral coping (Mazor et al., 2008). The result of this research is consistent with the findings of the researches mentioned above. McCullough, Worthington and Rachal (1997) relate forgiveness to giving up taking revenge from the guilty person, avoiding staying away from this person and negotiating with him/her. When explanations about coping with stress are examined, Holahan and Moss (1987) express that the people who use the active behavioral strategy are calm and they try to negotiate with the other person, make a plan and try to practice it.

To summarize, in this study, the significant correlations in different levels between aggression and perfectionism, forgiveness, coping with stress were discovered. This situation reveals that tendency to aggression has a relation with psychological variables. On the other hand, this study has some certain limitations. One of these limitations is that demographic variables were not included in the SEM models. When the coefficients of the relationship between the variables are considered, it is understood that the explained variance has a certain level. This is especially realized in the relations between aggression and other variables. In this situation, it would be right to say the models based on more independent variables are needed to be formed. It is suggested that these limitations should be taken into consideration to form suitable research models in the following studies. The second suggestion is that longitudinal studies as well as cross-sectional ones should be used. It could be also suggested that the results of the researches should be considered by the policymakers and by this way, preventive, improving and problem solving applications for the related group should be initiated. The literature review provided no example which was conducted on university students in this area. This study was carried out with students attending university in various regions of Turkey. In this regard, it is recommended to develop various nation-wide projects to apply to university students in the light of the results obtained from this study. There are psychological counseling

and guidance services which offer services for students in school. However, it is seen that universities lack the unit which will carry out psychological counseling and guidance services. It is thought that dissemination of such units will contribute to improvement of university students and prevention and elimination of unwanted behaviours in students.

5. REFERENCES

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Uzun Özet

Saldırganlık, engelleyici veya tehdit edici durumlarla mücadele etme dürtüsü ile ortaya çıkan, bireyin kendisine veya başkasına bilerek veya bilmeyerek zarar vermesine yol açan davranışlar olarak tanımlanmaktadır (Ayan, 2007; Lorenz, 2008; Mustonen ve Pulkinen, 1993). Bu davranışlar okul öncesi dönemden yükseköğretime kadar her kademedeki öğrenciler arasında belli bir yaygınlıkta gözlenmektedir (Başaran, 2008; Bolat Karataş, 2002; Evcin, 2010; Filiz, 2009; Gültekin, 2011; Güney, 2008; Kadan, 2010; Kaplan, 2012; Kılıçarslan, 2009; Öz, 2007; Yavuz, 2007; Yavuzer, 2003). Araştırma bulguları saldırganlıkla ilişkili psikolojik değişkenlerden birinin mükemmeliyetçilik (Büyükbayraktar, 2011; Dunkley, Zuroff ve Blankstein, 2003; Erol Üngen, 2009; Hewitt ve diğerleri, 2002; Pulat, 2011; Wiebe ve McCabe, 2002) olduğunu göstermektedir. Mükemmeliyetçilik, kişinin kendisi ve diğer insanlar için ulaşılması güç hedefler belirlemesi ve bunlara ulaşamadığında çeşitli problemler yaşamasına neden olan bir kişilik özelliği olarak tanımlanmıştır (Burns, 1980; Hollander, 1965; Patch, 1984). Affetme yaşantıları saldırganlıkla ilişkili diğer bir psikolojik değişkendir (Eaton ve Struthers, 2006; Fincham ve Beach, 2002; Soylu, 2010). Affetme, bireyin kendisine zarar verdiğini düşündüğü kişiye karşı geliştirdiği olumsuz tepkilerinden ve ondan intikam almaktan vazgeçip o kişiye karşı güven, sevgi, merhamet gibi olumlu tepkiler geliştirmesi halidir (Enright ve Coyle, 1997; Hargrave ve Sells, 1997; McCullough, 2001; Worthington, 1998). Araştırmacılar saldırganlıkla başa çıkma arasında da anlamlı ilişkiler gözlemlendiğini ortaya koymaktadır (Mestre, Samper, Tur-Porcar, Minzi ve Mesurado, 2011). Stresle başa çıkma, kişinin ihtiyaçlarını gidermek veya sahip olduğu potansiyel ile üstesinden gelmekte zorlandığı durumları çözebilmek, yönetebilmek ve sonuçta tekrar uyumlu hale gelebilmek amacıyla sergilediği bilişsel, duyuşsal ve davranışsal çabalarıdır (Aldwin ve Revenson, 1987; Basut, 2006; Lazarus ve Folkman, 1984). Yukarıda değinilen ve saldırganlıkla ilişkileri vurgulanan değişkenler aynı zamanda kendi aralarında da istatistiksel ilişkiler sergilemektedir. Araştırmalar mükemmeliyetçilik ile affetme (Bugay, 2010; Earl, 2012; Kim, Johnson ve Ripley, 2011; Safarzadeh, Esfahaniasl ve Bayat, 2011) ve başa çıkma (Park, Heppner ve Lee, 2010) arasında anlamlı ilişkiler gözlemlendiğini ortaya koymuştur. Affetme ile stresle başa çıkma arasında da anlamlı ilişkiler tespit edilmiştir (Ermumcu, 2014; Mazor, Batiste-Harel ve Gampel, 2008). Kişilerarası ilişkiler bağlamında son yıllarda saldırganlık davranışlarını açıklamaya dönük onlarca çalışma yapılmıştır. Belli desenlere dayalı olarak düzenlenen bu çalışmalarda değişenler arasındaki ilişkiler tanımlanmaya çalışılmaktadır. Bu şekilde araştırma konusu olan davranışların daha kapsamlı incelenmesi hedeflenmektedir. Bu araştırmanın amacı üniversite öğrencilerinde gözlenen saldırganlık eğilimleri ile mükemmeliyetçilik, affetme ve stresle başa çıkma değişkenleri arasındaki karşılıklı ilişkileri açıklamaktır. Bu amaca ulaşmak için Yapısal Eşitlik Modeli (YEM)'ne uygun bir desen tasarlanmıştır.

Araştırmada nicel araştırma yaklaşımı kullanılmıştır. Araştırmanın yaklaşımı kapsamında seçilen model ise ilişkiyel tarama modelidir. Çalışmanın araştırma grubunu Türkiye'deki yedi devlet üniversitesinde (Cumhuriyet Üniversitesi, Çanakkale Onsekiz Mart Üniversitesi, Çukurova Üniversitesi, Dicle Üniversitesi, Dokuz Eylül Üniversitesi, İnönü Üniversitesi ve Ondokuz Mayıs Üniversitesi) öğrenim gören toplam 2744 öğrenci (Kız=1493, Erkek=1251) oluşturmaktadır. Araştırmanın verilerinin toplanmasında Çok Boyutlu Mükemmeliyetçilik Ölçeği (ÇBMÖ), Heartland Affetme Ölçeği (HAÖ), Yakın İlişkilerde Çok Boyutlu Başa Çıkma Ölçeği (YİÇBBÖ), Buss-Perry Saldırganlık Ölçeği (BPSÖ) ve Kişisel Bilgi Formu kullanılmıştır. Araştırmada kullanılan ölçme araçlarının geçerlik ve güvenilirlikleri bu araştırma kapsamında tekrar incelenmiş, yapılan DFA'lar sonucunda ölçme araçlarının geçerliğe;

hesaplanan Cronbach Alpha iç tutarlılık katsayıları incelendiğinde de ölçeklerin güvenilirliğe sahip oldukları görülmüştür. Verilen toplanabilmesi için etik kurul onay belgesi ve ilgili üniversitelerden uygulama izni alınmıştır. Uygulama sınıf ortamında, tek oturumda ve topluca yapılmıştır. Çalışmanın verileri Yapısal Eşitlik Modeli (YEM) ve bazı çıkarımlı istatistik teknikleriyle analiz edilmiştir. YEM'in uygulanması için örneklem büyüklüğü, kayıp değerler, çoklu doğrusallık ve teklik ile normallik parametreleri (Çokluk, Şekercioğlu ve Büyüköztürk (2010) dikkate alınmıştır. Yapılan analizler sonucunda bu koşulların tamamının sağlandığı anlaşılmıştır. Bu aşamadan sonra veriler analiz edilmiştir.

Yapısal modeldeki değişkenlerin birbiriyle ilişkili olup olmadığının önce ölçüm modelinde test edilmesi gerekmektedir (Bayram, 2010; Çokluk ve diğerleri, 2010). Araştırmada ölçüm modelleri test edilmiş ve elde edilen uyum iyiliği değerlerinin kabul edilebilir olduğu görülmüştür. Bu aşamadan sonra YEM'lerin test edilmesine geçilmiştir. Araştırmanın amaçları doğrultusunda yapılan işlemlerden elde edilen sonuçlara göre; mükemmeliyetçilik affetmeyi ($\beta=-.23$; $p<.001$), olumsuz ve edilgen başa çıkmayı ($\beta=-.05$; $p<.05$) ve saldırganlığı ($\beta=.13$; $p<.001$) anlamlı düzeyde açıklamaktadır. Bunun yanında affetme olumsuz ve edilgen başa çıkmayı ($\beta=-.46$; $p<.001$) ve saldırganlığı ($\beta=-.40$; $p<.001$), olumsuz ve edilgen başa çıkma da saldırganlığı ($\beta=.17$; $p<.001$) anlamlı düzeyde açıklamaktadır. Ayrıca olumlu ve etkin başa çıkma, mükemmeliyetçilik ($\beta=.38$; $p<.001$) ve affetme ($\beta=.34$; $p<.001$) tarafından anlamlı düzeyde açıklanmakta olup saldırganlığı ise anlamlı düzeyde açıklamamaktadır ($\beta=.02$; $p>.05$).

Araştırmada mükemmeliyetçilik ile saldırganlık arasında olumlu yönde anlamlı bir ilişki saptanmıştır. Saldırganlık ile ilgili yapılan açıklamalar incelendiğinde bu davranışın nedenlerinden birinin kişinin elde etmek istediği şeylere ulaşmasının engellenmesi olduğu ifade edilmiştir (Taylor, Peplau ve Sears, 2007). Bu bağlamda kendilerine ulaşılması güç hedefler belirleyen mükemmeliyetçi bireyler, bunlara ulaşamadıklarında kendilerini engellenmiş hissederek ve bu durum da saldırganlık eğilimleri üzerinde etkili olabilir. Araştırmada elde edilen diğer bir sonuç, affetme ile saldırganlık arasında negatif yönde anlamlı bir ilişki olduğudur. Rye ve Pargament (2002) affetmeyi mağdur olduğunu düşünen kişinin, suçu işleyen kişiye karşı intikam alma ve saldırganlık tepkileri yerine, merhamet etme gibi olumlu tepkiler vermesi ile ilişkilendirmişlerdir. Dolayısıyla bir kişinin aynı anda affetme ve saldırganlık tepkisi gösteremeyeceği anlaşılmaktadır. Bu çalışmada olumsuz ve edilgen başa çıkma ile saldırganlık arasında pozitif bir ilişki saptanmıştır. Önceki araştırmalarda saldırganlığın, olumsuz (Mestre ve diğerleri, 2011), pasif (Remillard ve Lamb, 2005), uyumsuz (Balıkçı, 2010) ve etkisiz (Basut, 2004) başa çıkma ile olumlu yönde anlamlı ilişkiler sergilediği tespit edilmiştir. Bu sonuçlar ile araştırmadan elde edilen sonuçların benzerlik gösterdiği anlaşılmaktadır.

Özetle bu çalışmada saldırganlık eğilimleri ile mükemmeliyetçilik, başa çıkma ve affetme değişkenleri arasında farklı düzeylerde anlamlı ilişkiler tespit edilmiştir. Bu çalışmanın belli sınırlılıkları mevcuttur. Kurulan YEM'lerin içinde demografik değişkenlere yer verilmemesi temel sınırlılıklardan bir tanesidir. Değişkenler arasındaki ilişkilerin katsayıları dikkate alındığında açıklanan varyansın belli bir düzeyde kaldığı anlaşılmaktadır. Bu durumda saldırganlık davranışlarının açıklanması için daha fazla bağımsız değişkene dayalı modellerin oluşturulması gerekliliği ön plana çıkmaktadır. Kesitsel çalışmaların yanında boylamalı araştırmalara yer verilmesi gerekliliği ikinci öneridir. Araştırmadan elde edilen sonuçların politika yapıcılar tarafından dikkate alınması ve bu şekilde ilgili kitleye dönük olarak önleyici, geliştirici ve problem çözücü uygulamaların başlatılması da bir öneri olarak ortaya konmaktadır.