

Impact of Anger Management Program on High School Students' Levels of Anger

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Abstract

This is an experimental study aimed at investigating how anger management education affects anger expression and trait anger of high school students. For this purpose, the study was conducted with 162 high school students in Zonguldak, Türkiye during the 2014-2015 academic year. An experimental group and a control group, each of which included 15 people, were formed among 30 students who were identified to have a high level of anger and who volunteered to participate in the study. The education program was administered to the experimental group once a week for 10 weeks. The study revealed significant differences in the experimental group's anger scores except for anger-in, yet no difference was observed in the control group. The follow-up assessment carried out later yielded similar results.

Keywords: Adolescence, anger, anger management training program.

Lise Öğrencilerine Yönelik Hazırlanan Öfke Denetimi Programının Öğrencilerin Öfke Düzeylerine Etkisi

Öz

Bu çalışma; lise öğrencilerine yönelik hazırlanan öfke denetimi programının öğrencilerin öfke ifade tarzları ve sürekli öfkelerine etkisinin incelendiği deneysel bir çalışmadır. Bu amaçla çalışmada Zonguldak İlinde bir liseye giden 162 öğrenci ile çalışılmıştır. Araştırma 2014-2015 eğitim-öğretim yılında gerçekleştirilmiştir. Araştırmada öfkesi yüksek ve çalışmaya katılmak isteyen toplamda 30 öğrenci belirlenmiş ve 15'er kişilik kontrol ve deney grubu oluşturulmuştur. Çalışmada deney grubunda yer alan öğrencilere haftada bir defa 10 hafta süre ile hazırlanan program uygulanmıştır. Çalışmanın sonucunda; programdan faydalanan öğrencilerin öfke puanlarında öfke içte puanı hariç anlamlı farklılıklar olduğu görülmüştür. Kontrol grubundaki öğrencilerde ise herhangi bir değişme olmadığı görülmüştür. Daha sonra yapılan izleme ölçümünde de aynı yönde sonuçlar olduğu saptanmıştır.

Anahtar kelimeler: Ergenlik, öfke, öfke denetimi eğitim programı

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INTRODUCTION

The majority of people in the world, no matter what religion, ethnic origin, or mentality they have, want to live in an atmosphere of peace and happiness. However, when we look at the historical periods, we witness that the events, wars and destructions constantly have repeated themselves and continued to the present day. The negative effect of these great events on human psychology cannot be denied. In addition, the consequences of seemingly simple problems can sometimes be very serious. For example, a negative reaction to a driver requesting road in traffic can result in injury or even death. What comes to mind here is that what is the basis of events that seems traumatic or simple.

The anger as an emotion is the main reason of the events that we can consider as a reflection of aggression and violence. Anger can be defined as an emotion that arises in situations such as frustration, being ignored, being wronged (Kulaksızoğlu, 2001; Yazgan, 2007), not being able to reach one's desires and needs, and causes reactions such as anger and aggression (Köknel, 1997; Taylor, 1988). Anger can appear in various ways in daily life, for instance at home, at work (Öztürk, 2012), in a cafe, in traffic (Özbay, 2008), and can disturb the individual. One of the places where anger is experienced is the school environment. In general, schools have an important role in terms of gaining terminal behaviors and raising individuals who are beneficial to society. However, undesirable situations such as anger and aggression can also be encountered in schools. Since anger lays the groundwork for situations that may result in injury, harm or even death, it is beneficial to develop students' awareness of this emotion. In addition, students can be taught how to control anger in a healthy way through prevention studies and education programs. In the study, the effect of the anger management program, prepared for high school students regarding their anger levels, is examined.

The Significance of the Study

Human beings have several basic emotions, such as happiness, sadness, fear and hatred, which they experience many times throughout their lives. One of these basic human emotions is anger (Lopez & Thurman, 1986; Özyeşil, 2012). Although anger as an emotion firstly calls a negative meaning to mind, nevertheless it has been stated in the studies that anger is essentially beneficial. It was also emphasized that anger is neither a good nor a bad emotion. What is really important here is the change of people's reactions to anger. From childhood to old age, the individual may face many situations that contain anger. Even though anger is observed at all stages from childhood to old age, the period with the most obvious and destructive effects is adolescence. After a long period of childhood, the individual suddenly enters adolescence, which is an unstable and irregular phase (Yavuzer, 2005). In this period, identity conflict experienced especially for identity formation and achievement continues as an important process (Garrett, 1995). In this period, individuals need appropriate role models in order to express themselves correctly. Adolescents can learn how to express their anger properly, especially when adults serve as appropriate role models for anger and other issues. On the contrary, adolescents who witness adults' improper reactions, especially in the presence of anger, lack the chance to learn these skills and are likely to give inappropriate reactions in situations causing anger due to improper experiences they observe in adults (Güçray, 2001).

If behaviors such as injury, aggressive behavior, swearing, punching occur as a result of anger, of course, this emotion will call to mind that it is negative (Gümüş Şekerci, Terzi, Kitiş & Birimoğlu Okuyan, 2017). For this reason, it is beneficial for individuals who experience emotional turmoil and constant tides, especially during the turbulent adolescence period, to have the ability to control their anger. In this respect, this research is important in helping adolescents to internalize the concepts of anger and expression styles and, to cope with anger in a healthy way.

Moreover anger is an increasing problem in schools. When the programs developed to prevent anger are examined, it is observed that they differ from each other in content. In the present study, by including issues such as "recognition of emotions, causes of anger, changes in human body due to anger, dimensions of anger, anger expression methods, irrational thoughts, ABCDE theory, restructuring irrational beliefs, alternative thoughts, anger management methods, problem solving skills, taking responsibility, communication skills, empathy, I-you language", previous studies were referred to and a program was developed considering the subjects lacked in those studies. In this respect, this study is considered to be important. In addition, this study may contribute to other studies in our country in terms of recognizing the anger, its causes, knowing its dimensions, and expressing it in a positive way.

The Aim of the Study

The aim of this study; is to examine the effect of anger management training program prepared for high school students regarding their anger levels.

The study tests the following hypotheses:

1. The experimental and control groups' pretest mean scores indicate no significant difference.
2. The experimental and control groups' posttest mean scores show a significant difference in favor of the former group.
3. The experimental and control groups' pretest – follow-up test mean scores show a significant difference in favor of the former group.
4. The experimental group's pretest and posttest mean scores differ significantly.
5. The control group's pretest and posttest mean scores do not differ significantly.
6. The experimental group's pretest and follow-up test mean scores differ significantly.
7. The control group's pretest and follow-up mean scores do not differ significantly.

Literature Review

Throughout the world, humanity strives for survival in a violence spiral caused by a variety of events (wars, vandalism, acts of terrorism, mass actions) and copes with violence-based negative situations every year. Archaeological and historical remains indicate that violence dates back to hunter-gatherer societies that lived 25000 years ago. It is also observed that violence was common among Greek, Egyptian and Roman societies (2000-3000 years ago), and has continued to exist in the last two centuries and in today's societies. The aforementioned events, which are referred to as reflections of aggression and violence are based on anger, one of the most primitive human emotions. Anger has been considered as the breath of life in literary works or mythological tales since ancient times (Orozco, 2004).

The concept of anger has a variety of definitions in the literature. It is defined as "A reaction of aggression, wrath, rage, fury expressed when blocked, hurt or intimidated" in the dictionary Türk Dil Kurumu (TDK), (2022), whereas Kısaç (2005) refers to anger as emotions that one feels when he/she faces unfair behaviors, assaults or threats. Lerner (2015) addresses anger in the context of individuals' personality and rights, and notes that it can be considered as a message that warns people when they cannot achieve their goals and meet their needs as they are emotionally worn out or their rights are violated. Lowth (2015) also defines anger as a way to release mental and emotional pressure.

Gentry (2007), on the other hand, has a broader perspective and describes anger as an emotion that is kept in reserve for enemies to be used, when necessary, precedes or frequently accompanies aggressive behaviors and triggers the fight-or-flight response of the nervous system.

Anger is a natural emotion that is generally characterized as negative and cannot be prevented most of the time. Soykan (2003) specifies that anger may be harmful both for the individual and for the others around when it is out of control. Relevantly, Öztürk (2012) also states that anger appears in many places (workplace, market, street, traffic, etc.) as a negative emotion. One of these places where anger is experienced is school environment. The school environment may lead to the feeling of anger since it may also cause students to have some anxiety (academic processes, physical or behavioral experiences) by its nature (Fryxell & Smith, 2000). If students do not learn to control their anger at school, it may lead to aggressive behaviors. The transformation of anger into violent behavior may cause many problems in the individual's quality of life (Paull & Gerhart, 2019). Especially a sudden outburst of anger is indicated as a significant risk factor for school violence (Helman, 2010). Therefore, anger-related behavioral problems have become an issue for teachers and counsellors to deal with at schools (Sütçü, 2006, p.5). According to Sabatino (1997), traditional intervention and punishment methods adopted to control the anger in children and adolescents are inconvenient and far from leading to a conclusion, and punitive and inhuman treatment methods reinforce anger even more with tough behavior control manners. In addition, studies indicate that unhealthy discharging of anger (verbal or physical violence) does not relieve the individual, yet increases rage and aggression, contrary to the common belief (Sülün, 2013, p.42).

Just as its nature and dose, the way of expressing anger can also vary from person to person. Expressing anger is typically the direct and uncontrolled projection of the emotion to cope with the stress of anger-provoking

elements (Starnier & Peters, 2004). When anger is expressed in a proper and desirable way, it may yield positive results (relaxing, getting rid of problems, expressing oneself in a healthy way and establishing good relationships), whereas the contrary case may result in some negative consequences (aggression, grudge, hatred, stress) (Öztürk, 2012, p.8). Individuals express anger in various ways such as holding in (anger-in), releasing (anger-out) or controlling (anger control). Westermayer (2001) describes anger-in as suppressing or repressing rage or directing it towards oneself. Individuals who hold their anger in may mask their rage with passive reactions in the form of avoiding communication, withdrawing, frowning, sulking, or they may want the other people to read their minds and understand that they are angry (Westermayer, 2001, as cited in Gök, 2009, p.3). Individuals can also express their anger by releasing, as well as holding in. Release of anger can be in various ways, including verbal expression (yelling, arguing, cursing) and aggressive behavior (hitting, throwing or breaking something, beating, slamming the door) (Navaro, 2003, p.150). The most effective and healthy way for an individual to express anger may be recognizing the emotion, properly presenting his/her feelings and opinions about events and people, and expressing them without hurting others (Akmaç, 2009, p.50). This situation, which can be referred to as anger management, is not hiding or suppressing anger, but describing it correctly. Anger management can be defined as the process of learning measures to be taken to calm down and cope with anger (Fossum, Handegård, Adolfsen, Vis, & Wynn, 2016). Individuals need to recognize their anger to protect themselves from its adverse effects and to express it in a positive manner (Özyeşil, 2012, p.323). Therefore, identifying the sources and antecedents of anger is important for mental health and learning how to control and cope with anger without losing oneself (Sülün, 2013, p.42).

Anger management methods are referred to in many studies. Morganett (2005) mentions a three-stage path for adolescents to follow in anger management and describes these ways as “being aware of behaviors that may hurt oneself and/or others, learning the skills and techniques to replace these hurtful behaviors, and practicing until new and more adaptive behaviors become usable in real life”. Moreover, Karip (1999) exemplifies anger management methods as talking instead of cursing or shouting, drinking water, leaning back while sitting, trying to listen to the other party, paying attention to body organs, avoiding gestures, and choosing a calm and quiet environment (Karip, 1999, as cited in Önem, 2010, p.71). Furthermore, Gültekin (2008) states that methods including individual or group counseling, muscle relaxation techniques, and drug therapy can be used. Fink (2010) also emphasizes the importance of relaxation methods (relaxation exercises starting from the eye, neck, head, then arm and pectoral muscles, back, legs, back of the neck, facial muscles, and muscles in the upper part of the head). In addition, Feindler and Star (2003) notes that individuals need anger management methods such as problem solving, effective communication and assertiveness education.

Individuals should have the ability to control and change their behavior in order to manage their anger (Özmen, 2004, p.5). Unfortunately, there are a limited number of programs (individual or group counseling) that can be administered for anger-related problems in our country. It is of great importance to prevent these problems, and at least by raising awareness, to teach students that this emotion is natural and controllable. With the education program developed in this study, it was aimed that the participating students would become aware of emotions, specifically anger, understand the antecedents of anger and their self-control mechanisms during and following the state of anger, adopt these as behaviors in their lives, and help other individuals.

METHOD

Research Design

The pretest posttest control group design, an experimental research model, was adopted in the research (Karasar, 2003, p.97). In the pretest-posttest control group design, the participants are administered a measurement before and after the experimental procedure in relation to the dependent variable (Büyüköztürk, 2001). Anger management education was identified as the independent variable, and the participants' scores in the “State-Trait Anger Expression Inventory” (STAXI) (trait anger, anger-in, anger-out, anger control) as the dependent variable.

Table 1. Experimental Design of the Study

Group	P re-test	Program	Post-test	Follow-up test
Experimental	S TAXI	Anger Management Training Program(AMTP)	STAXI	STAXI
Control	S TAXI		STAXI	STAXI

As observed in Table 1, the “State-Trait Anger Expression Inventory (STAXI) was administered to the experimental and control groups before the implementation. Following the pretest, the “Anger Management Training Program” (AMTP) consisting of 10 sessions was delivered to the experimental group. The control group received nothing in the process. After the implementation, posttest and follow-up test were administered to the experimental and control groups.

Table 2. Distribution of the Groups by Gender

Group	N	Female	Male
Experimental	15	8	7
Control	15	7	8

Study Sample

The study sample consists of 162 high school students in Zonguldak, Türkiye. STAXI was administered to these students as the pretest. The arithmetic mean of the students’ scores was found by scoring each sub-scale. If the trait anger, anger-in and -out scores were above the mean, and the anger control score was below the mean, it was considered that the student had low-level anger management. Using random sampling, 15 of these students (8 females, 7 males) were assigned to the experimental group, and the remaining 15 (7 females, 8 males) to the control group. Parent permission forms were obtained from the students who were willing to participate in the study. While forming the groups, the students were matched considering their genders, and these students were randomly assigned to two groups.

Table 3. Inclusion and Exclusion Criteria

The inclusion criteria within the scope of the study are;
- Being a student with a high score in trait anger, anger-in, anger-out and low score in anger control,
- Willingness to participate in the study,
- Having parent permission to participate in the study,
- Having no learning difficulties,
- Being able to attend the training sessions regularly.
The exclusion criteria are;
- Having below-average low scores in State-Trait Anger Expression Inventory pretest
- Reluctance to participate in trainings

Table 4. Workflow Chart

Scanning	The number of students having the pretest (n=162)
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Suitability	The number of students excluded based on the exclusion criteria (n=132)
Inclusion	The number of students included in the study based on the inclusion criteria (n=30)

Data Collection Tool

State-Trait Anger Expression Inventory (STAXI)

In the study, STAXI developed by Spielberger, Jacobs, Russell, and Crane (1988) and adapted into Turkish language by Özer (1994) was utilized to determine high school students' level of anger. The inventory consists of 10 items for trait anger, and 8-item sub-scales for each style of anger expression including anger-in, anger-out, and anger control (Özer, 1994). Regarding the scale's internal consistency, the item-total correlations were calculated to be between .14 and .56, and the Cronbach's Alpha values to be between .73 and .84 (Özer, 1994).

In the reliability analysis of the Turkish version of the inventory, alpha values were observed between α : .67 and α : .92; anger control values between α : .80 and α : .90; anger-out values between α : .69 and α : .91, and anger-in values between α : .58 and α : .76. The relevant values are within acceptable limits, and consistent with those of the original inventory (Gürbüz, 2008, p.44).

Personal Information Sheet

The researcher designed a personal information sheet for the participants to fill in relevant information on age, gender, department of study, grade level, family (alive-dead/biological-step) and number of siblings.

Data Analysis

SPSS 18.0 software was used to analyze the research data. Since the scores obtained from the measurements of the group members in the study were not normally distributed, and the number of subjects in the experimental and control groups was 30 (thirty), non-parametric statistics were used in the data analysis (Büyüköztürk, 2012). To identify the level of significance in the differences in the results obtained from experimental and control groups in line with the purposes of the study, Mann Whitney U-Test and Wilcoxon Signed Rank Test (SRT) were administered for the statistical operations. The former was utilized to test whether the scores obtained from two unrelated samples differed significantly (Büyüköztürk, 2014, p.165), and the latter to test how significant the difference was between the scores of two related samples (Büyüköztürk, 2014, p.174). The level of significance was estimated as 0.05.

Implementation of the Anger Management Training Program (AMTP)

AMTP was initiated in the second term of the 2014-2015 school year (10 February-30 April) and completed in two and a half months. First, STAXI was administered to 162 students who were attending high school at the time. As a result, the experimental and control groups, each including 15 people, were formed on a voluntary basis among the students who scored high in trait anger, anger-in and -out, and low in anger control. The duration of the sessions was determined to be 75 minutes, and they were held between 15:30-16:45 every Wednesday, considering the lessons of the students. Group sessions were utterly accomplished by the students. However, sometimes, one or two students failed to be present in the sessions for various reasons, yet they received the necessary explanations and their homework. Upon completion of all sessions, the posttest was administered, and then the certificates of participation were distributed to the students. Two months after the implementation, a follow-up test was carried out for the experimental and control groups.

The program developed consists of ten sessions. The contents of the sessions are as follows:

In the first session, the purpose and objectives of the program are introduced, and group rules are set. Also, information on adolescence and emotional development in this period is given. In the second session, the concepts of emotion, thought, and behavior are defined, and the concept of anger is introduced. In the third session, the reasons for anger and the changes in human body caused by anger are mentioned. In the fourth session, information about theoretical explanations, irrational beliefs of human beings and the "ABC" theory are presented. In the fifth session, activities are performed regarding the development of rational thinking styles by restructuring irrational beliefs and thoughts affecting the occurrence of anger, and understanding the A-B-C of anger. In the sixth session, the concepts of communication, empathy, and I-You language, which are prominent in anger management, are presented. In the seventh session, problem solving skills are discussed. In the eighth session, anger management methods are again addressed, and various activities are carried out. In the ninth session, the concept of

responsibility is associated with anger, and its importance is explained. The reflection of anger management methods on daily life is also discussed. Finally in the tenth session, closure activity is performed.

Research Ethics

Ethical processes related to the study and the program prepared were taken into consideration. After the anger management training program was prepared, opinions were received from three expert faculty members about the program. In accordance with the opinions, the final form of the program has been given. Before the program was implemented in schools, necessary permissions were obtained from the Directory of National Education. In addition, parental consents were obtained from parents for the related students. Consent was also obtained from the students who were to participate in the research, whether they would participate in the research voluntarily or not.

FINDINGS

The research findings for each hypothesis are presented in this section.

The results regarding the first hypothesis (The experimental and control groups' pretest mean scores indicate no significant difference.) are as follows:

Table 5: Results of Mann Whitney-U Test for STAXI Pretest Mean Scores

Dependent Variable	Group	N	Rank Mean	Rank Total	U	P
Trait Anger	Experimental	15	16.00	240.00	105.000	.755
	Control	15	15.00	225.00		
Anger-out	Experimental	15	16.53	248.00	97.000	.519
	Control	15	14.47	217.00		
Anger-in	Experimental	15	18.60	279.00	66.000	.053
	Control	15	12.40	186.00		
Anger Control	Experimental	15	15.03	225.50	105.500	.768
	Control	15	15.97	239.50		

As observed in Table 5, the experimental and control groups' mean scores in the pretest for trait anger ($U=105.000$, $p>.05$), anger-out ($U=97.000$, $p>.05$), anger-in ($U=66.000$, $p>.05$) and anger control ($U=105.500$, $p>.05$) do not differ significantly. It can thus be stated that both groups were similar in trait anger, anger-out and -in, and anger control variables prior to implementation, which indicates that the hypothesis has been confirmed.

The results regarding the second hypothesis (The experimental and control groups' posttest mean scores show a significant difference in favor of the former group.) are presented below:

Table 6: Results of Mann Whitney-U Test for STAXI Posttest Mean Scores

Dependent Variable	Group	N	Rank Mean	Rank Total	U	P
Trait Anger	Experimental	15	8.97	134.50	14.500	.000
	Control	15	22.03	330.50		
Anger-out	Experimental	15	9.20	138.00	18.000	.000
	Control	15	21.80	327.00		
Anger-in	Experimental	15	13.93	209.00	89.000	.327
	Control	15	17.07	256.00		

Anger Control	Experimental	15	20.90	313.50	31.500	.001
	Control	15	10.10	151.50		

As observed in Table 6, the experimental group differs significantly from the control group as regards the posttest mean scores for trait anger ($U=14.500$, $p<.05$), anger-out ($U=18.000$, $p<.05$) and anger control ($U=31.500$, $p<.05$). This result indicates that the trait anger, anger-out and anger control mean scores of students attending the education program are significantly different from those of the students who were not involved in the program. As a result, the hypothesis has been confirmed partially, regarding the trait anger scale, and anger-out and anger control sub-scales. However, as observed in Table 2, the posttest anger-in mean scores show no difference in favor of the experimental group ($U=89.000$, $p>.05$). It is inferred from this result that the program was not helpful for the anger-in scores of students attending the anger management education program, which indicates that “anger-in” part of the hypothesis has not been confirmed.

Here are the results regarding the third hypothesis (The experimental and control groups’ pretest – follow-up test mean scores show a significant difference in favor of the former group.):

Table 7: Results of Mann Whitney-U Test for STAXI Pretest & Follow-up Mean Scores

Dependent Variable	Group	N	Rank Mean	Rank Total	U	P
Trait Anger	Experimental	15	8.83	132.50	12.500	.000
	Control	15	22.17	332.50		
Anger-out	Experimental	15	9.00	135.00	15.000	.000
	Control	15	22.00	330.00		
Anger-in	Experimental	15	15.00	225.00	105.000	.755
	Control	15	16.00	240.00		
Anger Control	Experimental	15	21.97	329.50	15.500	.000
	Control	15	9.03	135.50		

It is observed in Table 7 that the pretest and follow-up trait anger mean scores show a significant difference for the experimental group ($U=12.500$, $p<.05$), anger-out ($U=15.000$, $p<.05$) and anger control ($U=15.500$, $p<.05$), and the values are correspondingly maintained in the posttest mean scores. Accordingly, the hypothesis has been confirmed for trait anger, anger control and anger-out scales. However, it is also observed in the table that the experimental and control groups’ anger-in mean scores indicate no significant difference in favor of the former group in pretest and follow-up (anger-in $U=105.000$, $p>.05$). Therefore, the hypothesis has not been confirmed for “anger-in sub-scale”.

The results regarding the fourth hypothesis (The experimental group’s pretest and posttest mean scores differ significantly.) are as follows:

Table 8: Results of Wilcoxon SRT for Experimental Group’s Pretest & Posttest Mean Scores

Dependent Variable	N	Rank Mean	Rank Total	z	P
<i>Trait Anger Pretest – Posttest</i>					
Negative Rank	14	8.50	119.00	3.362	.001
Positive Rank	1	1.00	1.00		
Equal	0	-	-		
<i>Anger-out Pretest – Posttest</i>					
Negative Rank	14	7.50	105.00	3.301	.001

Positive Rank	0	.00	.00		
Equal	1	-	-		
<i>Anger-in Pretest – Posttest</i>					
Negative Rank	10	8.45	84.50	2.01	0.04
Positive Rank	4	5.13	20.50		
Equal	1	-	-		
<i>Anger Control Pretest – Posttest</i>					
Negative Rank	0	.00	.00	3.41	.001
Positive Rank	15	8.00	120.00		
Equal	0	-	-		

Table 8 presents “Wilcoxon SRT” results for whether the experimental group students’ pretest and posttest mean scores for the sub-scales including trait anger, anger-out, anger-in and anger control show a significant difference or not. According to the analysis results, the mean scores for trait anger ($z=3.362$, $p<.05$), anger-out ($z=3.301$, $p<.05$), anger-in ($z=2.01$, $p<.05$) and anger control ($z=3.41$, $p<.05$) differ significantly, which shows that the hypothesis has been confirmed.

The results regarding the fifth hypothesis (The control group’s pretest and posttest mean scores do not differ significantly.) are as follows:

Table 9: Results of Wilcoxon SRT for the Control Group’s Pretest & Posttest Mean Scores

Dependent Variable	N	Rank Mean	Rank Total	z	P
<i>Trait Anger Pretest – Posttest</i>					
Negative Rank	4	8.88	35.50	1.07	.284
Positive Rank	10	6.95	69.50		
Equal	1	-	-		
<i>Anger-out Pretest – Posttest</i>					
Negative Rank	8	5.63	45.00	.474	.635
Positive Rank	6	10.00	60.00		
Equal	1	-	-		
<i>Anger-in Pretest – Posttest</i>					
Negative Rank	3	8.50	25.50	1.402	.161
Positive Rank	10	6.55	65.50		
Equal	2	-	-		
<i>Anger Control Pretest – Posttest</i>					
Negative Rank	7	6.64	46.50	.378	.706
Positive Rank	7	8.36	58.50		
Equal	1	-	-		

Table 9 demonstrates the “Wilcoxon SRT” results for whether the control group students’ pretest and posttest mean scores for the four sub-scales exhibit a significant difference or not (no program was provided). The analysis results have revealed that the control group students’ mean scores for trait anger ($z=1.07$, $p>.05$), anger-out ($z=.474$, $p>.05$), anger-in ($z=1.402$, $p>.05$) and anger control ($z=.378$, $p>.05$) do not differ significantly, thus showing that the hypothesis has been confirmed.

The results regarding the sixth hypothesis (The experimental group’s pretest and follow-up test mean scores differ significantly.) are as follows:

Table 10: Results of Wilcoxon SRT for the Experimental Group’s Pretest & Follow-up Mean Scores

Dependent Variable	N	Rank Mean	Rank Total	z	P
<i>Trait Anger Pretest – Follow-up Test</i>					
Negative Rank	14	7.50	105.00	3.302	.001
Positive Rank	0	.00	.00		
Equal	1	-	-		
<i>Anger-out Pretest – Follow-up Test</i>					
Negative Rank	13	8.77	114.00	3.073	.002
Positive Rank	2	3.00	6.00		
Equal	0	-	-		
<i>Anger-in Pretest – Follow-up Test</i>					
Negative Rank	10	7.50	75.00	1.421	.155
Positive Rank	4	7.50	30.00		
Equal	1	-	-		
<i>Anger Control Pretest – Follow-up Test</i>					
Negative Rank	1	4.50	4.50	3.159	.002
Positive Rank	14	8.25	115.50		
Equal	0	-	-		

In Table 10, the results of Wilcoxon SRT are presented, in regard to if the experimental group’s pretest and follow-up test mean scores for the four sub-scales show a significant difference. The analysis results have revealed that the participating students’ pretest and follow-up test mean scores differ significantly for trait anger ($z=3.302$, $p<.05$), anger-out ($z=3.073$, $p<.05$) and anger control ($z=3.159$, $p<.05$). Considering these results, it can be stated that anger management education program maintained its effectiveness on the mean scores for trait anger, anger-out and anger control, and the hypothesis has been confirmed as regards the relevant scales. Yet, there isn’t a significant difference in the anger-in mean scores ($z=1.421$ $p>.05$), which shows that the hypothesis has not been confirmed regarding “anger-in sub-scale”.

The results regarding the seventh hypothesis (The control group’s pretest and follow-up mean scores do not differ significantly.) are as follows:

Table 11: Results of Wilcoxon SRT for the Control Group's Pretest & Follow-up Mean Scores

Dependent Variable	N	Rank Mean	Rank Total	z	P
<i>Trait Anger Pretest – Follow-up Test</i>					
Negative Rank	4	8.13	32.50	1.569	.117
Positive Rank	11	7.95	87.50		
Equal	0	-	-		
<i>Anger-out Pretest – Follow-up Test</i>					
Negative Rank	5	5.40	27.00	1.908	.056
Positive Rank	10	9.30	93.00		
Equal	0	-	-		
<i>Anger-in Pretest – Follow-up Test</i>					
Negative Rank	4	6.00	24.00	1.512	.131
Positive Rank	9	7.44	67.00		
Equal	2	-	-		
<i>Anger Control Pretest – Follow-up Test</i>					
Negative Rank	6	5.83	35.00	.736	.462
Positive Rank	7	8.00	56.00		
Equal	2	-	-		

In Table 11, the results of Wilcoxon SRT are presented, with regard to if the control group's pretest and follow-up test mean scores for the four sub-scales show a significant difference or not. The analysis results have revealed that the control group students' pretest and follow-up test mean scores do not differ significantly for trait anger ($z=1.569$, $p>.05$), anger-out ($z=1.908$, $p>.05$), anger-in ($z=1.512$, $p>.05$) and anger control ($z=.736$, $p>.05$), which indicates that the hypothesis has been confirmed.

DISCUSSION AND CONCLUSION

This research aims to present the effects of anger management education program on high school students' trait anger and anger expression. For this purpose, experimental and control groups were formed, and their mean scores obtained from the pretest, posttest and follow-up test were compared. Hypotheses were put forward suggesting that the pretest and posttest mean scores for the inventory to be administered at the end of the education program would be significantly different in favor of the experimental group and the relevant effect would also be retained in the follow-up test. It was observed from the results that trait anger, anger-out and anger control mean scores were significant in favor of the experimental group, yet there was no statistical difference in the anger-in scores (4th hypothesis – except for the anger-in sub-scale). In the follow-up assessment carried out two months after the study, similar results were obtained regarding the scores for each sub-scale, and the situation remained the same. In addition, the relevant scores of the control group, who were not exposed to any kind of process, indicated no difference at a significant level, and the result was retained in the follow-up test.

Considering the hypotheses in the study;

1. "The experimental and control groups' pretest mean scores indicate no significant difference." hypothesis has been confirmed.

2. “The experimental and control groups’ posttest mean scores show a significant difference in favor of the former group.” hypothesis has been confirmed for trait anger, anger-out and anger control, yet it has not been proven correct for anger-in since the relevant scores showed no significant difference.

3. “The experimental and control groups’ pretest – follow-up test mean scores show a significant difference in favor of the former group.” hypothesis has been confirmed for trait anger, anger-out and anger control, but it has not been proven correct for anger-in since the relevant scores showed no significant difference.

4. “The experimental group’s pretest and posttest mean scores differ significantly.” hypothesis has been confirmed since the relevant scores were found to be significant.

5. “The control group’s pretest and posttest mean scores do not differ significantly.” hypothesis has been confirmed by the results obtained.

6. “The experimental group’s pretest and follow-up test mean scores differ significantly.” hypothesis has been confirmed for trait anger, anger-out and anger control, yet it has not been proven correct for anger-in because the relevant results showed no significant difference.

7. “The control group’s pretest and follow-up mean scores do not differ significantly.” hypothesis has been confirmed considering the results obtained.

It is observed in the literature that the findings of studies where anger management education program was carried out and STAXI was administered are similar to the findings of this study (Bedel, 2011; Çekiç, 2009; İskit, 2019; Sütcü, Aydın & Sorias, 2010). However, contrary to the other studies, the anger-in sub-score in the 4th hypothesis here (the difference between the experimental group’s pretest & posttest scores) was significant, and the hypothesis was confirmed. The other results for the anger-in sub-scale were parallel to those of similar studies, and no significant difference was encountered.

The results of the anger management education program developed by Esen et al. (2016) for secondary school students revealed that the program had a significant effect on trait anger and anger-out scores, yet there was no change in anger-in scores. According to the authors, the reason why anger-out scores were significant was that the program focused on anger-out because anger usually had the risk of harming others, and they emphasized that activities for anger-in dimension should also be included in future studies. Moreover, in the cognitive behavioral education program developed by Gümüş Şekerci et al. (2017), there was a significant change in the anger control score at the end of the program, and the training was effective, but there was no change in the anger-in and anger-out scores. In this respect, it was stated that the activities should be continued and extended over a period of time. Relevantly, Bilge (1996) also noted in her study that anger varied from society to society, from culture to culture. Especially in such societies as ours, it is not considered normal when the younger display anger to the elder, the women to the men, and the subordinate to the superior; even when they feel anger, it is an issue. Therefore, individuals may hold in their anger instead of releasing it. Also in the present study, there was no significant change in anger-in scores. Similar to other studies, it is believed that activities that can help with proper anger expression (I-you language activities, stories and visuals) were not adequate, and the activities should be maintained with an expert and extended over a longer period of time.

Besides, considering the research results in the literature, where anger management education program is provided and STAXI is administered, a significant decrease is observed in the experimental and control groups’ trait anger, anger-in and -out scores, yet a significant increase in the anger control scores (Akgül, 2000; Eldeleklioğlu & Duran, 2005; Genç, 2007; Gürbüz, 2008; Öz, 2008; Özmen, 2004; Sütcü, 2006). These results are in parallel with those of the present study. However, the experimental and control group anger-in scores and the experimental group pretest and follow-up test scores in the relevant studies are different from those in the present study. Besides, it is observed that anger management education programs about anger control conducted under various names and using different inventories have significant effects on and are helpful for the experimental group (Akdeniz, 2007; Gebeş, 2011; Gültekin, 2008; Kaplan, 2007; Özbay, 2008).

The results of the anger management education programs carried out abroad using STAXI have revealed significant differences in favor of the experimental group, as in the present findings (Escamilla, 2000). Again, in anger management education programs developed abroad under various names, it is noted that pretest - posttest scores show significant differences, and the education program is effective (Breslin, 2004; Briscoe, 2001; Campbell, 2004; Coonerty Femiano, 2008; Colletti, 2000; Johansen, 2005; Nickerson, 2003; Sharp, 2003; Udrow, 2009).

In the study by Farisandy and Hartini (2020) on the effect of anger management education program on adolescents’ aggressive behaviors, a one-group pretest-posttest quasi-experimental design was used. In the study conducted with 15 adolescents using the aggression scale, it was identified that the anger management program

developed was effective in increasing the level of knowledge about aggression (different types of emotion, positive and negative emotions, expression of emotion and different types of aggressive behavior), raising awareness, and reducing aggressive behaviors (awareness of anger, understanding inappropriate behaviors in anger expression, and ability to use anger management in daily life).

Steffgen (2017) developed an anger management education program for table tennis players. In the study, the experimental and control groups consisting of 18 people received a six-session training of cognitive relaxation and coping skills with respect to their social skills for two months, in company with an expert group leader, and the groups were compared. Considering the measurements, it was concluded that the program was effective, and unlike the control group, the experimental group showed a significant decrease in both table tennis-specific anger reactions and negative anger-out expression. This is also in parallel with the present study regarding the effectiveness of the program. Nevertheless, considering the results of the foreign studies with anger management education programs, no significant differences have been observed in some studies (Alvarez, 1997; Lawson, 2009). They show no similarity to the present study. It is also observed in some research that follow-up assessment has been conducted at varying times as in this study (Akdeniz, 2007; Bedel, 2011; Gebeş, 2011; Gültekin, 2008; Sharp, 2003; Sütcü, Aydın & Sorias, 2010).

It is considered that teaching and developing anger management skills, raising awareness of these skills, and acquiring coping skills for anger situations that can be encountered in all areas of life will substantially contribute to the healthy and compliant adolescent behaviors. For this reason, it is important to make anger management trainings more common among schools and families. With this study, it is aimed to help adolescents raise awareness of anger problems that can often be experienced during puberty. Today anger-related problems are experienced in almost every part of the society, and any individual may be exposed to this kind of anger situations, which are often encountered especially on social media, television or web pages. These platforms constitute a disadvantage in the spread of anger and learning of violent behaviors, yet they can be turned into an advantage. It was observed that the videos and visuals used in the study attracted the students' attention. In this context, videos, short films or successive short-term anger management education programs are considered important in observing the antecedents, the state and the consequences of anger. In addition, considering the students' developmental periods, this kind of programs can be developed and implemented starting from the early years. Even young people and adults who are excluded from formal education can be provided with this kind of programs by public education centers and non-governmental organizations. In addition, since the program developed within the scope of the study is aimed at anger management of high school students, it can be recommended that school counselors, especially those working at high schools, administer this program to students with anger problems. Indeed, this is not something held only by school counselors. For this kind of social skill programs to be implemented by school counselors, it is essential that necessary updates should be made in the regulation on counseling services. Considering the study results, it is believed that the anger management education program developed can have a long-lasting and permanent effect on high school students' trait anger and anger expression.

Limitations

The findings of the study are limited to the items measured by the "Trait Anger - Anger Expression Style Scale". The research findings are limited to the high school students included in the research. The scope of the research is limited to the resources that the researcher could access. The findings can only be generalized to similar groups. Besides, the findings obtained from the research are limited to the anger management program, which was developed by the researcher and served as the independent variable of the research.

Statements of Publication Ethics

This research has been conducted based on the PhD thesis of the first author. Thus, approval was taken for the thesis, and this article's data was used from the same study. The permission for research was granted by the Provincial Directorate of National Education, dated 22.01.2015, numbered 45865702/605.01/699182-45865702/605.01/621182. This study was presented as an oral presentation at (INES-4) (International Academic Research Congress-4-2018).

Conflict of Interest

The author has no conflicts of interest.

REFERENCES

- Akdeniz, M. (2007). *Öfke kontrolü eğitiminin lise öğrencilerinin öfke kontrolü becerilerine etkisi [The effect of anger control skills on high school students anger control education]*. Master Thesis, Çukurova University.
- Akgül, H. (2000). *Öfke denetimi eğitiminin ilköğretim ikinci kademe öğrencilerinin öfke denetimi becerilerine etkisi [The effect of education given by group guidance on anger control skill levels of students in the second year of elementary school]*. Master Thesis, Gazi University.
- Akmaz, N. (2009). *Eğitim yöneticilerinin bağlanma stilleri ve sürekli öfke ve öfke ifade tarzları arasındaki ilişkinin incelenmesi. [Search in the relationship between the attachment styles of the education directors, and the permanent anger and anger explanation styles]*. Master Thesis, Yeditepe University.
- Alvarez, J.R. (1997). *The effects of anger management education on depression, anger, self-concept, and treatment responsibility in a sample of drug dependent individuals in a therapeutic community*. Doctorate Dissertation, Columbia University.
- Bedel, A. (2011). *Kişiler arası sorun çözme beceri eğitiminin ergenlerin sürekli öfke ve öfke ifade tarzlarına etkisinin incelenmesi [Examining the effect of the interpersonal problem-solving skills education on the adolescents? Trait anger and anger expression styles.]*. Doctorate Dissertation, Selçuk University.
- Bilge, F. (1996). *Danışandan hız alan ve bilişsel davranışçı yaklaşımlara yapılan grupla psikolojik danışmanın üniversite öğrencilerinin kızgınlık düzeylerine etkileri [The effect of group counseling with client-centered or cognitive-behavioral approach on the anger level of university students]*. Doctorate Dissertation, Hacettepe University.
- Breslin, J.H. (2004). *Effectiveness of a rural anger management program in preventing domestic violence recidivism*. Doctorate Dissertation, Capella University.
- Briscoe, Y. B. (2001). *A cognitive behavioral anger management intervention for women with histories of substance abuse*. Doctorate Dissertation, San Francisco University.
- Büyüköztürk, Ş. (2001). *DeneySEL desenler. [Experimental patterns]*. Pegem Academy Publishing.
- Büyüköztürk, Ş. (2012). *Sosyal bilimler için veri analizi el kitabı. [Manual of data analysis for social sciences]*. Pegem Academy Publishing.
- Büyüköztürk, Ş. (2014). *Veri analizi el kitabı (20. bs.) [Data analysis handbook]*. Pegem Academy Publishing.
- Campbell M.P. (2004). *The efficacy of an anger management program for middle school students with emotional handicaps*. Doctorate Dissertation, Walden University.
- Colletti, L.A.E. (2000). *Effects of an anger management program in the classrooms of emotionally disturbed adolescents*. Doctorate Dissertation, Rutgers The State University.
- Coonerty Femiano, A. (2008). *Developing and evaluating an anger management intervention for boys: What does gender have to do with it?* Doctorate Dissertation, Boston College Lynch School of Education.
- Çekiç, A. (2009). *Grupla psikolojik danışmanın ilköğretim ikinci kademe öğrencilerinin öfke ile başa çıkabilme becerilerine etkisi. [The effect of group counselling on helping anger management skills of second grade student at primary education]*. Master Thesis, Gaziantep University.
- Eldeleklioğlu, J. & Duran, Ö. (2005). *Öfke kontrol programının 15–18 yaş arası ergenler üzerindeki etkililiğinin araştırılması [Investigation of the efficiency of the anger control programme over 15-18 years old adolescents]. Journal of Gazi Education Faculty, 25(3), 267-280.*
- Escamilla, A.G. (2000). *Effects of self-instructional cognitive-behavioral techniques on anger management in juveniles*. Doctorate Dissertation, Texas University.
- Esen, B.K., Bozkur, B., Gökçakan, N.Ç. & Baykal, F. (2016). *Ortaokul öğrencilerinin sürekli öfke ve öfke kontrolüne psiko-eğitim programının etkisi [Effect of program of psycho-education over anger and anger management of secondary school students], International Journal of Social Sciences and Education Research, 2 (4), 1352-1361.*

- Farisandy, E.D. & Hartini, N. (2020). The effect of anger management training toward aggressive behavior in adolescents, *Jurnal Psikologi*, 19(1), 95-107. DOI:10.14710/jp.19.1.95-107.
- Feindler, E.L. & Star, K.E. (2003). From steaming mad to staying cool: A constructive approach to anger control. *Reclaiming Children and Youth*, 12(3), 158–160.
- Fink, D.H. (2010). *Gerginlik ve öfkeden çıkış yolları* (Zeynep Özkurt, trans.). [Release from nervous tension]. Alter Publishing.
- Fossum, S., Handegård, B. H., Adolfsen, F., Vis, S. A., & Wynn, R. (2016). A meta-analysis of long-term outpatient treatment effects for children and adolescents with conduct problems. *Journal of Child and Family Studies*, 25(1), 15–29. <https://doi.org/10.1007/s10826-015-0221-8>
- Fryxell, D. & Smith, D. C. (2000). Personal, social, and family characteristics of angry students. *Professional School Counseling*, 4(2), 86–94.
- Garrett, D. (1995). Violent behaviors amongs African-American adolescents. *Adolescence*, 30(117), 209-216
- Gebeş, H. (2011). *Akran eğitimi ile desteklenen öfke kontrolü eğitiminin lise öğrencilerinin öfke kontrol becerilerine etkisi*. [The effect of peer supported anger management education program on anger management skills of high school students]. Master Thesis, Çukurova University.
- Genç, H. (2007). *Grupla öfke denetimi eğitiminin lise 9. sınıf öğrencilerinin sürekli öfke düzeylerine etkisi*. [The effect of anger management education with a group on the continuous anger level of 9th class students]. Master Thesis, Dokuz Eylül University.
- Gentry, W.D. (2007). *Anger for dummies*. Indiana: Wiley Publishing.
- Gök, M. (2009). *Aile içi şiddet ve öfke ifade tarzları arasındaki ilişkinin incelenmesi* [An investigation between domestic violence and style of anger-trait]. Master Thesis, Çukurova University.
- Gültekin, F. (2008). *Saldırganlık ve öfkeyi azaltma programının ilköğretim ikinci kademe öğrencilerinin saldırganlık ve öfke düzeyleri üzerindeki etkisi*. [The effect of aggression and anger reduce program (SOAP) on level of aggression and anger of middle school students]. Doctorate Dissertation, Hacettepe University.
- Gümüş Şekerci, Y., Terzi, H., Kitiş, Y. & Birimoğlu Okuyan, C. (2017). Sekizinci Sınıf Öğrencilerine Bilişsel Davranışçı Yaklaşımına Göre Uygulanan Öfke Kontrol Programının Etkinliği, [Anger Control Program's Effectiveness Applied to Eighth Grade Students According to Cognitive-Behavioural Approach], *DEUHFED*, 10(4), 201-207.
- Gürbüz, A. G. (2008). *Öfke denetimi eğitiminin lise son sınıf öğrencilerinin öfkeyle başa çıkma, yaşam doyumları ve depresyon düzeylerine etkisinin incelenmesi*. [The effect of anger management education on coping with anger, satisfaction with life and the level of depression of the third year high school students]. Master Thesis, Dokuz Eylül University.
- Güçray, S. S. (2001). Yaşam becerileri ergenler için grupla psikolojik danışma uygulamaları. [Life skills, group counseling practices for adolescents]. Baki Publishing.
- Helman, A. (2010). *Running head: A CBT anger management comic book a cognitive-behavioral anger management comic book for adolescents*. Doctorate Dissertation, Alliant International University at San Francisco.
- İskit, Y. (2019). *Beş basamaklı öfke kontrol eğitiminin yetişkinlerdeki öfke düzeyine etkisi*. [The effect of five-step anger management program on anger level in adults]. Master Thesis, İbn Haldun University.
- Johansen, T.M. (2005). *Predicting treatment outcomes of an anger management treatment program using the stages of change model*. Doctorate Dissertation, Chicago, Illinois.
- Kaplan, A. (2007). *Öfke yönetimi becerileri programının ilköğretim 5. Sınıf öğrencilerinin saldırganlık düzeyi ve benlik saygısına etkisi*. [The effects of anger management skills program on the levels of aggression and self-esteem of primary school students in the fifth grades]. Master Thesis, Dokuz Eylül University.
- Karasar, N. (2003). *Bilimsel araştırma yöntemi (12. bs.)* [Scientific research method]. Nobel Publishing.

- Kısaç, İ. (2005). Gençlerin öfkelerini ifade ettikleri hedef kişiler [*Targets of the young people in expressing their anger*]. *Journal of Gazi Education Faculty*, 25(2), 71-81.
- Köknel, Ö. (1997). *Kaygıdan mutluluğa kişilik, [Personality from anxiety to happiness]*. Altın Kitaplar Publishing.
- Kulaksızoğlu, A. (2001). *Ergenlik Psikolojisi. [Adolescent Psychology]*. Remzi Publishing.
- Lawson, A.E. (2009). *Anger management treatment groups in a community mental health setting: a program evaluation*. Doctorate Dissertation, San Francisco, CA.
- Lerner, H. (2015). *Öfke dansı. (Sinem Gül, trans.). [The dance of anger]*. Varlık Publishing.
- Lopez, F.G. & Thurman, C.W. (1986). A cognitive-behavioral investigation of anger among college students. *Cognitive Thrapy and Research*, 10(2), 245–256. <https://doi.org/10.1007/BF01173729>
- Lowth M. (2015). Managing anger in adolescents. *Practice Nurs*, 45(12), 18-23.
- Morganett, R. S. (2005). *Yaşam becerileri, Ergenler için grupla psikolojik danışma uygulamaları. [Skills for living group counseling activities for young adolescents]*. (Sonay Gürçay, Alim Kaya & Mesut Saçkes, trans.). Pegem A Publishing.
- Navaro, L. (2003). *Gerçekten beni duyuyor musun? [Do you really hear me?]*. Remzi Publishing.
- Nickerson, K.F. (2003). *Anger in adolescents: The effectiveness of a brief cognitive behavioral anger management education program for reducing attitudinal and behavioral expressions of anger*. Doctorate Dissertation, Capella University.
- Orozco, M. (2004). *Controlling your anger: Anger management program designed for incarcerated men*. Doctorate Dissertation, Carlos Albizu University.
- Önem, Ç. (2010). *Üniversite öğrencilerinin öfke ve öfkeyi ifade etme biçimlerinin akılcı olmayan inançlar ve bazı değişkenler açısından incelenmesi [Expressing anger and anger expression styles of university students irrational beliefs and ways of investigation of some factors]*. Master Thesis, Selçuk University.
- Öz, F.S. (2008). *Öfke yönetimi eğitiminin ergenlerde öfke ile başa çıkma ve iletişim becerilerine etkisi [The effect of anger management education on anger coping and communication skills adolescents]*. Doctorate Dissertation, Dokuz Eylül University.
- Özbay, Ö. (2008). *Öfke kontrolü eğitim programının etkililiğinin tutuklu bir grup ergen örneğinde incelenmesi. [Efficacy of anger management education programme in a delinquent adolescent sample]*. Master Thesis, Ankara University.
- Özer, A. K. (1994). Sürekli öfke (sl-öfke) ve öfke ifade tarzı (öfke-tarz) ölçekleri ön çalışması. [Preliminary study of trait anger and anger expression scales]. *Turkish Journal of Psychology*, 9(31), 26-35.
- Özmen, A. (2004). *Seçim kuramına ve gerçeklik terapisine dayalı öfkeyle başa çıkma eğitim programının ve etkileşim grubu uygulamasının üniversite öğrencilerinin öfkeyle başa çıkma becerileri üzerindeki etkisi. [The impact of coping with anger education program based on choice theory and reality therapy and encounter group experience on students skills in coping with anger]*. Doctorate Dissertation, Ankara University.
- Öztürk, E. (2012). *İlköğretim kurumlarında çalışan öğretmenlerin öfke nedenleri ve öfke kontrol yönetimleri (Elazığ ili örneği) [Control management and causes of anger in trainers who work in primary school: Sample of Elazığ city]*. Master Thesis, Fırat University.
- Özyeşil, Z. (2012). Five factor personality traits as predictor of trait anger and anger expression. *Education and Science*, 37(163), 322-332.
- Paull D. & Gerhart, J. (2019). “Anger-Proneness”, *Encyclopedia of Evolutionary Psychological*, Eds. Shackelford TK, Weekes-Shackelford VA, *Springer International Publishing*, Switzerland, s.1-4.
- Sabatino, D.A. (1997). Replacing anger with trust, *Reclaiming Childeren And Youth*, 6(3), 167-170.
- Sharp, S.R. (2003). *Effectiveness of an anger management education program based on rational emotive behavior theory (REBT) for middle school students with behavior problems*. Doctorate Dissertation, The University of Tennessee at Knoxville.

- Soykan, Ç. (2003). Öfke ve öfke yönetimi. [*Anger and anger management*]. *Journal of Crisis*, 11(2), 19-27.
- Starnier, T.M. & Peters, R.M. (2004). Anger expression and blood pressure in adolescents. *J Sch Nurs*, 20(6): 335-342.
- Steffgen, G. (2017). Anger management - evaluation of a cognitive-behavioral training program for table tennis players, *Journal of Human Kinetics*, 55, 65-73 DOI: 10.1515/hukin-2017-0006.
- Sülün, Ö. (2013). *Futbol hakemlerinin öfke ve kızgınlık düzeyleri ile empatik eğilim düzeylerinin karşılaştırılması. [The comparison of levels of football referees empathic tendency and levels of anger and resentment]*. Master Thesis, Karamanoğlu Mehmetbey University.
- Sütcü, G. S. (2006). *Ergenlerde öfke ve saldırganlığı azaltmaya yönelik bilişsel davranışçı bir müdahale programının etkililiğinin değerlendirilmesi. [Investigating the effect of the cognitive-behavioral group intervention to reducing anger and aggression for adolescents]*. Doctorate Dissertation, Ege University
- Sütcü, S., Aydın, A. & Sorias, O. (2010). Ergenlerde öfke ve saldırganlığı azaltmak için bilişsel davranışçı bir grup terapisi programının etkililiği [The effectiveness of a cognitive behavioral group therapy program to reduce anger and aggression in adolescents]. *Turkish Journal of Psychology*, 25(66), 57-72.
- Taylor, E. (1998). Anger invention. *The American Journal of Occupational Therapy*, 42(3), 147-155. DOI: 10.5014/ajot.42.3.147.
- Türk Dil Kurumu. (2022). Turkish language institution large Turkish dictionary. <http://tdk.gov.tr>. Date of access: 09.12.2022.
- Udrow, W. (2009). *Evaluation of cogitive behavior anger management groups and levels of clinical anger on the recovery process in a substance abuse/dependent population*. Doctorate Dissertation, Chicago, Illinois.
- Yavuzer, H. (2005). *Çocuk Psikolojisi. [Child psychology]*. Remzi Publishing.
- Yazgan, B. (2007). *Gelişim Psikolojisi: Çocuk ve Ergen Gelişimi. [Developmental Psychology: Child and Adolescent Development]*. Nobel Publishing.