



## Research Article

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# Examination of Boxers' Aggression and Anger Levels and Vengeance Tendency in Sports in Terms of Different Variables

Aydogan Aydin<sup>1</sup>, Mehtap Yildiz<sup>2</sup>

1. Physical Education and Sports Department, Necmettin Erbakan University Educational Sciences Institute, Konya, Turkey
2. Assoc. Prof. Dr., Physical Education and Sports Department, Necmettin Erbakan University Educational Faculty, Konya, Turkey

## Abstract

Research is a descriptive study conducted to examine aggression and anger levels and vengeance tendencies of boxers in different age categories who continue their active boxing lives in terms of different variables. The research was conducted on a voluntary basis in January 2023 on a total of 146 boxers, 125 men and 21 women, who continue their active boxing lives throughout Turkey. Research data have been gathered via the Personal Information Form, Competitive Aggressiveness and Anger Scale (CAAS) and Vengeance Scale (VS). Data analysis has been evaluated descriptive analysis techniques such as frequency, arithmetic mean, standard deviation and percentage distribution, independent sample t test, ANOVA test and Pearson correlation test. In conclusion, it has been designated that the anger level of national and international boxers was significantly higher, and athletes who trained 9 hours or more a week were more aggressive. It has been determined that athletes' anger, aggression and vengeance tendencies affect each other positively and at a high level.

**Keywords:** Athlete, Boxing, Anger, Aggression, Vengeance.

## INTRODUCTION

Sport has a crucial place in individuals' lives <sup>[1]</sup>. While solutions to the racism, doping and match-fixing incidents that are commonly encountered in sports have not been found, the number of aggressive attitudes and disrespectful behaviors contrary to the spirit of sportsmanship is increasing, and this causes the main purposes of sports to go beyond, people to think negatively about sports and athletes, and prejudices to form <sup>[2]</sup>. However, one of the most important purposes of sports is to form the foundations of a modern and contemporary society by raising individuals who are physically and spiritually healthy, responsible, moral, virtuous, characterful, hard-working and cultured <sup>[3]</sup>. Moreover, sport impart values such as justice, sportsmanship, team loyalty and teamwork, cooperation with teammates, consultation and finding solutions to moral conflicts <sup>[4]</sup>.

It is known that a bad performance in competitions, a heavy defeat in the past or threatening words of an opponent are situations that increase, hinder or reinforce the motivation of athletes. Anger is actually a very common emotional state in sports. Although anger is a natural emotion, failure to control this emotion can lead to aggression. Therefore, it can be said that there is a significant connection among anger and aggression <sup>[5]</sup>.

When feelings of aggression and anger cannot be controlled or expressed properly, these behaviors can become a dangerous weapon that can cause negative consequences for both individuals and the people around them <sup>[6]</sup>.

Self-esteem, which is an important part of personality, and anger, aggression, which is one of the most intense emotions that arise in interpersonal relationships, and its natural consequence, the feeling of vengeance, can affect all aspects of an individual's life and direct his behavior <sup>[7]</sup>.

### \*Corresponding author:

**Dr. Mehtap Yildiz**

Associate Professor, Physical Education and Sports Department, Necmettin Erbakan University Educational Faculty, Konya, Turkey  
Email: yildizmehtap77@gmail.com

Anger is one of the most natural emotions found in humans. Anger, this emotional feature, forms the basis of aggression. Anger will affect people's communication, causing friction and conflict, resulting in resentment or aggression [8].

Aggression is an important problem that is frequently encountered in all areas of human life, on the street, at school, within the family and in recent years, it has started to be seen more frequently in sports competitions. Since aggression causes some negative consequences, its causes and prevention studies have become a subject that is constantly researched by the scientific world [9].

This is the same for boxers, as it is for all people who feel that they are treated badly and subjected to injustice. When human beings encounter a problem and cannot find a solution, they may reveal feelings of anger and aggression with natural impulses. These feelings can sometimes turn into feelings of vengeance [10].

Boxing sport is defined as the struggle of two boxers or people to gain superiority over each other by using their technique, skill, strength and intelligence in accordance with the rules, without the use of tools, in a ring of certain sizes [11]. Boxers try to gain superiority over their

opponents with many mind games during the fight. When this fight goes beyond the spirit of sportsmanship, feelings of anger, aggression and revenge may arise in boxers, as in all people.

The objective of the study is to investigate aggression and anger levels and revenge tendencies of boxers who maintain an active boxing life in different age categories throughout Turkey in terms of different variables.

## MATERIAL AND METHOD

### Model of the Research

Descriptive survey model has been used in the research. This model is a research that describes an existing situation as it is [12].

### Participants

Participants consisted of a sum of 146 boxers, 21 women and 125 men, who actively continue their sports life in different age categories in different provinces of Turkey. Data collection tools have been implemented in regard to volunteering, and the personal information of athletes is given in Table 1.

**Table 1:** Personal Information Characteristics of Athletes

Gender	N	%	Weekly Training Duration	N	%
Female	21	14.4	4 hours and under	28	19.2
Male	125	85.6	5-8 hour	32	21.9
Age	N	%	9 hours or above	86	58.9
18 years and under	35	24.0	Weight	N	%
19-22 years	33	22.6	60 kg and below	42	28.8
23-26 years	28	19.2	63,5 kg-80 kg	73	50.0
27 years and above	50	34.2	86 kg and above	31	21.2
Education Level	N	%	Are you a national athlete?	N	%
High school	58	39.7	Yes	71	48.6
College / University	88	60.3	No	75	51.4
How long have you been boxing?	N	%	Your international degree is there?	N	%
3 years or less	45	30.8	Yes	53	36.3
4-7 years	34	23.3	No	93	63.7
8-10 years	18	12.3			
11 years and above	49	33.6			

### Data collection tool

Personal Information Form:

The form created by researchers and comprised of gender, age, education level, boxing time, weekly training duration, status as a national athlete, and international ranking status questions.

The Competitive Aggressiveness and Anger Scale (CAAS):

The Competitive Aggressiveness and Anger Scale (CAAS), developed by Maxwell and Moores [13] and adjusted into Turkish culture by Gurbuz, Kural and Ozbek [14], has been used in research. CAAS has a 5-point Likert type structure and a total of 12 items and 2 dimensions (anger, aggression) each consisting of 6 items. A high score on the scale indicates a high level of anger and aggression. Cronbach's Alpha coefficients of CAAS have been specified as .79 for aggression, .79 for anger and .83 for the scale [14].

Vengeance Scale (VS):

Vengeance Scale (VS), developed by Stuckless and Goranson [15] and adapted to Turkish culture by Satici, Can and Akin [16], has been used in research. VS is seven-point Likert type and consists of 20 items and 1 sub-dimension. The internal consistency reliability coefficient of scale has been designated as 0.92, and test-retest reliability coefficient obtained at four weeks interval has been determined as 0.90. In criterion-related validity of VS, it has been seen that feeling of revenge was negatively associated with empathy ( $r = -0.38$ ) and positively associated with anger ( $r = 0.56$ ) [16].

### Analysis of Data

In research, data analysis has been carried out through SPSS 22.00 package program. Descriptive analysis techniques (frequency, arithmetic mean, standard deviation and percentage distribution) have been used in analysis of data. Also, data have been evaluated with independent sample t test to determine the differentiation between

two different independent variables, ANOVA test to investigate differentiation among more than two different variables and Pearson correlation test. The meaningful level has been evaluated as  $p < 0.05$ .

## RESULTS

This section contains tables and comments determined as a result of different statistical tests performed on the data obtained during the research process.

**Table 2:** Mean and standard deviation of boxers' anger, aggression and vengeance scale results

	X	Sd
Anger	2.6941	0.76465
Aggression	1.9932	0.65591
Vengeance	3.7151	0.98559

In the research, it was found to be the average anger score of the participants was 2.6941, standard deviation of 0.76465, average aggression score was 1.9932, standard deviation of 0.65591 and average vengeance score was 3.7151, standard deviation of 0.98559.

**Table 3:** T test results of boxers' anger, aggression and vengeance levels as regards gender

	Gender	N	X	Sd	t	p
Anger	Male	125	2.6827	.73854	-0.438	0.662
	Female	21	2.7619	.92281		
Aggression	Male	125	2.0307	.67581	1.697	0.092
	Female	21	1.7698	.47573		
Vengeance	Male	125	3.7016	.97716	-0.402	0.689
	Female	21	3.7952	1.05581		

\* $p < 0.05$

In results of t-test analysis as regards gender variable of boxers, no meaningful difference has been assigned among levels of anger, aggression and vengeance (anger;  $t = -0.438$ ,  $p = 0.662$ , aggression;  $t = 1.697$ ,  $p = 0.092$ , vengeance;  $t = -0.402$ ,  $p = 0.689$ ).

**Table 4:** T test results of boxers' anger, aggression and vengeance levels in comparison with national athlete

	National athlete	N	X	Sd	t	p
Anger	Yes	71	2.8263	.73053	2.055	0.042*
	No	75	2.5689	.77986		
Aggression	Yes	71	2.0047	.69635	0.206	0.837
	No	75	1.9822	.61973		
Vengeance	Yes	71	3.6627	.95434	0.624	0.534
	No	75	3.7647	1.01821		

\* $p < 0,05$

In results of t test analysis comparison with national athlete status variable, no meaningful difference has been attained among levels of aggression and vengeance (aggression;  $t = 0,206$ ,  $p = 0,837$ , vengeance;  $t = 0,624$ ,  $p = 0,534$ ). However, it has been determined that there was a meaningful difference in anger levels among groups in variable of being a national athlete or not ( $t = 2,055$ ,  $p = 0,042$ ). In regard to this result, it has been observed that anger levels of national athletes were meaningfully higher than those who were not national athletes.

**Table 5:** T-test results of boxers' anger, aggression and revenge levels according to the international degree

	International Degree	N	X	Sd	t	p
Anger	Yes	53	2.9025	.67656	2.533	0.012*
	No	93	2.5753	.78962		
Aggression	Yes	53	2.0786	.72398	1.190	0.236
	No	93	1.9444	.61254		
Vengeance	Yes	53	3.6283	.99482	-0.802	0.424
	No	93	3.7645	.98225		

\* $p < 0.05$

In results of t test analysis in reference to variable of whether boxers had an international degree or not, no meaningful difference has been ascertained among levels of aggression and vengeance (aggression;  $t = 1.190$ ,  $p = 0.236$ , vengeance;  $t = -0.802$ ,  $p = 0.424$ ). However, it has been designated that there was a meaningful difference in anger levels among groups in variable of having an international degree or not ( $t = 2,533$ ,  $p = 0,012$ ). According to this result, it was observed that the anger levels of those with international degrees were significantly higher than those of athletes without international degrees.

**Table 6:** T-test results of boxers' anger, aggression and revenge levels in proportion to their educational status

	Educational Status	N	X	Sd	t	p
Anger	High School	58	2.6609	.74140	-0.424	0.672
	College/ University	88	2.7159	.78303		
Aggression	High School	58	2.0460	.70212	-0.789	0.431
	College/ University	88	1.9583	.62527		
Vengeance	High School	58	3.9112	1.08244	1.971	0.051
	College/ University	88	3.5858	.89933		

\* $p < 0.05$

In results of t test analysis in proportion to educational status variable, no meaningful difference has been discovered levels of anger, aggression and vengeance (anger;  $t = -0.424$ ,  $p = 0.672$ , aggression;  $t = 0.789$ ,  $p = 0.431$ , vengeance;  $t = -1.971$ ,  $p = 0.051$ ).

**Table 7:** ANOVA results of boxers' anger, aggression and vengeance levels in compliance with age

	Age	N	X	Sd	F	p
Anger	18 years and under	35	2.7190	.83702	0.077	0.972
	19-22 years	33	2.7273	.73458		
	23-26 years	28	2.6429	.87808		
	27 years and above	50	2.6833	.68118		
	Total	146	2.6941	.76465		
Aggression	18 years and under	35	4.1102	.75491	0.849	0.470
	19-22 years	33	4.1538	.58198		
	23-26 years	28	4.0696	.74595		
	27 years and above	50	4.2587	.57223		
	Total	146	4.1693	.65591		
Vengeance	18 years and under	35	3.7474	1.03372	2.470	0.064
	19-22 years	33	3.8462	.92882		

	23-26 years	28	3.7194	1.02198		
	27 years and above	50	3.8020	.92281		
	Total	146	3.7792	.98559		

\*p<0.05

In results of Anova test analysis in compliance with age variable, no meaningful difference has been identified among levels of anger, aggression and vengeance (anger; t=0.077, p=0.972, aggression; t=0.849, p=0.470, vengeance; t=2.470, p=0.064).

**Table 8:** ANOVA results of boxers' anger, aggression and vengeance levels in regard to boxing age

	Boxing Age	N	X	Sd	F	p
Anger	3 and under	45	2.5889	.79423	0.461	0.710
	4-7	34	2.7157	.78445		
	8-10	18	2.8056	.75893		
	11 and above	49	2.7347	.73749		
	Total	146	2.6941	.76465		
Aggression	3 and under	45	1.9444	.55732	0.152	0.929
	4-7	34	2.0343	.55774		
	8-10	18	2.0370	.74657		
	11 and above	49	1.9932	.77427		
	Total	146	1.9932	.65591		
Vengeance	3 and under	45	3.8167	1.13097	0.395	0.757
	4-7	34	3.6912	.88021		
	8-10	18	3.7972	1.05878		
	11 and above	49	3.6082	.89886		
	Total	146	3.7151	.98559		

\*p<0.05

In results of ANOVA test analysis in regard to boxing age variable, no meaningful difference has been dedected among anger, aggression and vengeance levels (anger; t=0.461, p=0.710, aggression; t=0.152, p=0.929, vengeance; t=0.395, p=0.757).

**Table 9:** ANOVA results of boxers' anger, aggression and vengeance levels in accordance with the weekly training duration

	Weekly Training Duration	N	X	Sd	F	P
Anger	4 hours and under	28	2.5357	.77294	1.412	0.247
	5-8 hours	32	2.5990	.83694		
	9 hours or above	86	2.7810	.72997		
	Total	146	2.6941	.76465		
Aggression	4 hours and under	28	1.8155	.55061	3.352	0.038*
	5-8 hours	32	1.8385	.51931		
	9 hours or above	86	2.1085	.71161		
	Total	146	1.9932	.65591		
Vengeance	4 hours and under	28	3.4250	.98126	2.787	0.065
	5-8 hours	32	3.5516	.94770		

	9 hours or above	86	3.8703	.98056		
	Total	146	3.7151	.98559		

\*p<0.05

In results of ANOVA test analysis in accordance with weekly training duration variable, no meaningful difference has been assessed among anger and vengeance levels (anger; t=1.412, p=0.247, vengeance; t=2.787, p=0.065). However, it has been appointed that there was a meaningful difference in aggression levels between groups in weekly training duration variable (t=3.352, p=0.038). According to this result, it has been observed that aggression levels of athletes who trained for 9 hours or more per week were significantly higher than those who trained for 4 hours or less and 5-8 hours.

**Table 10:** ANOVA results of boxers' anger, aggression and vengeance levels as regards weight

	Weight	N	X	Sd	F	p
Anger	60 kg and under	42	2.8452	.75295	1.180	0.310
	63,5 kg-80 kg	73	2.6438	.73980		
	86 kg and above	31	2.6075	.83172		
	Total	146	2.6941	.76465		
Aggression	60 kg and under	42	2.0000	.70998	0.079	0.924
	63,5 kg-80 kg	73	2.0068	.61139		
	86 kg and above	31	1.9516	.70078		
	Total	146	1.9932	.65591		
Vengeance	60 kg and under	42	3.7714	1.09233	0.368	0.692
	63,5 kg-80 kg	73	3.7390	.96951		
	86 kg and above	31	3.5823	.88568		
	Total	146	3.7151	.98559		

\*p<0.05

In results of Anova test analysis as regards weight variable, no meaningful difference has been specified among levels of anger, aggression and vengeance (anger; t=1.180, p=0.310, aggression; t=0.079, p=0.924, vengeance; t=0.368, p=0.692).

**Table 11:** Pearson correlation analysis results of boxers' anger, aggression and vengeance sub-dimensions

		Anger	Aggression	Vengeance
Anger	r	1	0.553**	0.509**
	p		0.000	0.000
Aggression	r	0.553**	1	0.413**
	p	0.000		0.000
Vengeance	r	0.509**	0.413**	1
	p	0.000	0.000	

Pearson correlation test has been implemented to assign whether there was a meaningful difference among anger, aggression and vengeance sub-dimensions of boxers participating in research. In compliance with results of correlation analysis between anger and aggression, anger-aggression correlation coefficient was determined as r=0.553 and the significance value was p=0.000. In reference to results of correlation analysis between anger and vengeance, anger-vengeance correlation coefficient was designated as r=0.509 and significance value was p=0.000. In accordance with results of correlation analysis between vengeance and aggression, vengeance-

aggression correlation coefficient was specified as  $r=0.413$  and significance value was  $p=0.000$ . According to this result, a positive meaningful connection was adjusted among anger, aggression and vengeance. In other words, an increase in level of anger, aggression and vengeance tendency causes an increase in others.

## DISCUSSION

Anger is defined as a psychological state and consists of emotions varying in intensity, from mild irritation or distress to intense anger. He/she may become hostile and display negative attitudes towards others, aggressive and often spiteful behavior towards others. This behavior, of course, has often been observed in angry emotions [17]. It is known that a bad performance in competitions, a heavy defeat in the past or threatening words of an opponent are situations that increase, inhibit or reinforce the motivation of athletes. Anger is actually a very common emotional state in sports. Although anger is a natural emotion, failure to control this emotion can lead to aggression. Therefore, it can be said that there is a significant relationship between anger, aggression and vengeance [5; 18; 13].

Table 3 shows that there is no meaningful difference in level of anger, aggression and vengeance tendencies in compliance with gender variable. İlhan and Ucar [19] found that the anger levels of 212 university students doing sport in taekwondo, muaythai, kickboxing and karate did not differ in as far as gender. Unlike current research, Guvendi and Pehlivan [20] stated in their study with 418 athletes from judo, taekwondo, kickboxing, muaythai, boxing and karate branches that there was no meaningful difference among gender in aggression sub-dimension, but anger was higher in male athletes. Aggression, anger and unsportsmanlike behaviors in athletes are related to personal, environmental and emotional variables, as well as social variables such as lack of interpersonal skills and anti-social behavior [21]. There is a prevailing belief in society that male individuals are generally more aggressive and angry. However, as is the case all over the world, females' active participation in almost all branches of business and sports has prevented male hegemony and led to the formation of competitive feelings similar to males.

In Table 4, as regards national athlete variable, it has been designated that anger levels of national athletes were meaningfully higher than those of non-national athletes. There was no meaningful difference in levels of aggression and vengeance. Likewise, in Table 5, the anger level of national athletes with international degrees was found to be significantly higher than athletes without a degree. Demir [22] concluded that there was no meaningful difference in aggression and anger levels of national and non-national boxers. However, it has been detected that average aggression and anger points of national athletes were higher. Turkcapar and Yasul [23] reported that the anger levels of national athletes were similar to other athletes, and they found that national athletes had a high average score. Imamoglu Kaya [24] found that the trait anger and external anger scores of the first league females' football team players were higher than the second league females' football team players, depending on the league levels. Based on this, it can be stated that as competition increases, the level of anger and aggression increases, as in the current research.

As a result of the analysis made according to education level and age variables in Table 6 and Table 7; it was finalized that educational status and age ranges of the athletes did not make a difference in the level of anger, aggression and vengeance tendencies. Kalkavan et al. [25] found that the education level of amateur and professional football players between the ages of 20-38 did not make a significant difference in their trait anger levels. Baykan [26] stated that among taekwondo players in the Y and Z generations, athletes in the university/graduate group differ significantly from athletes with primary/middle school and high school education in the trait anger dimension and their mean scores are high. Havadar and Kalkavan [27] stated that there was a meaningful

difference in hostility sub-dimension of aggression scale among football players, skiers and athletes competing in indoor sports, in favor of those with university education and graduate degrees. Kafali et al. [28], Erdogan et al. [29], Kirkbir [30] stated that the aggression levels of athletes do not differ according to age. Konter [31] stated that as the education level of athletes increases, the more effectively they will be able to solve their problems, feel more independent, and need less coercive power.

It is observed that when athletes are exposed to injustice or have an uncontrolled desire to win, they take action and discourse with anger, aggression and vengeance against all stakeholders of the sport, regardless of their education level and age. Therefore, it can be thought that obtaining different results from the education level and age variables may be due to the sample group, type of sport, personal characteristics of the athletes, economic conditions and the audience factor.

In results of Table 8 and Table 9 according to the sports age and weekly training duration variables of the boxers, it was concluded that the sports age of the athletes did not make a difference in the level of anger, aggression and vengeance tendency. It was observed that aggression levels of athletes who trained for 9 hours or more per week were significantly higher than those who trained for 4 hours or less and between 5-8 hours. Saglam [32] found that those who have been doing taekwondo for many years have the highest average in the physical aggression, anger and hostility sub-dimensions, and that they differ significantly from the groups with lower sports age in the hostility sub-dimension and exhibit more aggressive attitudes. Dogan [33] found that the anger level was similar among team athletes in terms of sports age variable, but there was a meaningful difference in anger level of individual athletes. Karadag [34] stated that there was no meaningful difference in anger levels of defense and combat athletes (muaythai, wrestling, taekwondo, kickboxing and karate) according to the year of doing sports. Kalafatoglu [35] found that there was a meaningful difference in anger levels of professional football players with regards to sports age. Uluc [36] reported that sports age made a meaningful difference in level of anger and aggression in karate athletes. In literature is investigated, there are different researches that overlap or contradict findings of research. It is thought that the structure of the sample groups creates differences in research results.

In research result of boxers' anger, aggression and vengeance tendency levels according to the weight variable in Table 10, it has been accomplished that there was no meaningful difference in anger, aggression and vengeance tendency levels. Although there is no significant difference in the current study, the averages of lightweights are higher than heavyweights in the level of aggression, anger and vengeance.

Biricik et al. [37] found that the average aggression level of boxing, wrestling, taekwondo and karate athletes was higher in the aggression level in proportion to weight variable, and that there was a meaningful difference in impulsive aggression sub-dimension. It is a fact that active lightweight athletes constantly lose weight in order to stay in the weight they compete in. It has been stated that athletes experience rapid and excessive weight loss, muscle glycogen depletion in metabolism, the athlete's inability to maintain performance for a long time, a decrease in heart function during submaximal loads, and similar negativities [37]. Therefore, it can be thought that the decreases in performance that may occur as a result of the negative effects of losing weight further reinforce the aggression in lightweight athletes.

As a consequence of Pearson correlation analysis in Table 11, it has been accomplished that there is a high positive connection among anger, aggression and revenge levels in boxers. Anger is a common emotion in sports and is considered a precursor to aggression [38]. It is stated that the competitive anger of athletes playing contact sports will

also have a positive impact on their performance [39]. But there are two types of anger; these are trait and state anger. Trait anger is defined as the continuation of angry behavior [40]. Therefore, constant anger will negatively affect the performance of athletes, as well as have a negative effect on their levels of aggression and vengeance.

## CONCLUSION

As a result, it has been designated that anger level of national and international boxers was significantly higher, and athletes who trained 9 hours or more a week were more aggressive. It has been concluded that anger, aggression and vengeance tendencies in athletes affect each other positively and at a high level.

## Disclosure

No conflicts of interest nor financial interest in this work.

## ORCID ID

Aydogan Aydin: <https://orcid.org/0000-0003-4717-7033>

Mehtap Yıldız: <https://orcid.org/0000-0001-8558-7154>

## REFERENCES

1. Gumus H. Sportspersonship orientation in X generation. *International Journal of Society Researches*, 2019; 10(17):740-755. <https://doi.org/10.26466/opus.524867>
2. Gorgut I, Tuncel S. Adaptation of sport character scale to Turkish. *Spormetre*, 2017; 15(3):149-156. [https://doi.org/10.1501/Sporm\\_0000000319](https://doi.org/10.1501/Sporm_0000000319)
3. Yetim AA. Social aspects of sport. *Gazi Journal of Physical Education and Sport Sciences*, 2000; 5(1):63-72. <https://dergipark.org.tr/en/download/article-file/284137>
4. Jang CY. Development and validation of the sport character scale. Ph.D. Thesis, The University of Utah Department of Exercise and Sport Sciences, USA, 2013.
5. Mowlaie M, Besharat MA, Pourbohloul S, Azizi L. The mediation effects of self-confidence and sport self-efficacy on the relationship between dimensions of anger and anger control with sport performance. *Procedia-Social and Behavioral Sciences*, 2011; 30, 138-142. <https://doi.org/10.1016/j.sbspro.2011.10.027>
6. Gultekin H. Research of security policies towards the prevention of violence in Turkish football within the law. Master's Thesis, Nigde University Social Sciences Institute, Nigde, Turkey, 2008.
7. Certel Z, Bahadır Z. Analysis of the relationship between self-esteem, trait anger and anger expression in athletes making team sports. *Selcuk University Journal of Physical Education and Sport Science*, 2012; 14(2):157-164. <https://www.ajindex.com/dosyalar/makale/acarindex-1423931791.pdf>
8. Riches D. *The anthropology of violence*. Oxford, Basil Blackwell, 1986.
9. Birinci R. Exercising and comparison of self-esteem and aggression levels of artificial individuals. Master's Thesis, Erzincan Binali Yildirim University Health Sciences Institute, Erzincan, Turkey, 2019.
10. Ambrose ML, Seabright MA, Schminke M. Sabotage in the workplace: The role of organizational injustice. *Organizational Behavior and Human Decision Processes*, 2002; 89(1):947-965. [https://doi.org/10.1016/S0749-5978\(02\)00037-7](https://doi.org/10.1016/S0749-5978(02)00037-7)
11. Beyleroglu M, Hazar M, Yalcin S, Uca M, Akkus M. Research of sudden weight loss effects on pulse of boxers. *Social and Behavioral Sciences*, 2014; 152:495-499. <https://doi.org/10.1016/j.sbspro.2014.09.239>
12. Erkus A. *Bilimsel araştırma sarmalı [Scientific research spiral]*. Ankara, Seckin Publishing, 2005.
13. Maxwell JP, Moores E. The development of a short scale measuring aggressiveness and anger in competitive athletes. *Psychology of Sport and Exercise*, 2007; 8(2):179-193.
14. Gurbuz B, Kural S, Ozbek O. Competitive aggressiveness and anger scale: validity and reliability study. *Sportive Sight: Journal of Sports and Education*, 2019; 6(2):206-217. <https://dergipark.org.tr/en/pub/sbsebd/issue/49432/631861>
15. Stuckless N, Goranson R. The vengeance scale: Development of a measure of attitudes toward revenge. *J Soc Behav Pers*, 1992;7(1):25-42.
16. Satici SA, Can G, Akin A. The vengeance scale: Turkish adaptation study. *Anatolian Journal of Psychiatry*, 2015; 16(Special issue 1), 36-43.
17. Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical psychology review*, 2010; 30(2):217-237.
18. Christoforidis C, Kalivas V, Matsouka O, Bebetos E, Kambas A. Does gender affect anger and aggression in handball players?. *The Cyprus Journal of Sciences*, 2010; 8:3-11.
19. İlhan A, Ucar CT. Investigation of anger levels of combat athletes. *Bozok International Journal of Sport Sciences*, 2021; 2(2):217-223.
20. Guvendi B, Pehlivan MY. The examination of self-talks and aggression and anger behaviors in combat athletes. *Physical Education and Sport Sciences Journal*, 2020; 14(2):168-176. <https://dergipark.org.tr/en/pub/bsd/issue/56097/722438>
21. Pelegrin A, Serpa S, Rosado A. Aggressive and unsportsmanlike behaviours in competitive sports: an analysis of related personal and environmental variables. *Anales de Psicologia*, 2013; 29(3):701-713.
22. Demir S. Investigation of the relationship between elite level boxers' in sports motivation, aggression and anger levels. Master's Thesis, Bartın University Postgraduate Education Institute, Bartın, Turkey, 2020.
23. Turkcapar U, Yasul Y. Analysis of individual and team sports students in university school teams according to different variables. *MANAS Journal of Social Studies*, 2021; 10(3):1923-1931. <https://dergipark.org.tr/en/pub/mjss/issue/64315/891966>
24. Imamoglu Kaya M. The effect of training on perceived stress, sport motivation, trait anger and anger expression in women football players. Master's Thesis, Hitit University Health Sciences Institute, Corum, Turkey, 2019.
25. Kalkavan A, Karaca B, Isik U. Investigation of anger levels of amateur and professional footballers. *Sportive*, 2022; 5(2):55-68. <https://dergipark.org.tr/en/pub/sportive/issue/72776/1185677>
26. Baykan E. Determination of continuous anger levels and examination of related factors between y and z generations taekwondo athletes. Master's Thesis, Bozok University Health Sciences Institute, Yozgat, Turkey, 2018.
27. Havadar T, Kalkavan A. Investigation of aggression levels of amateur football players, skiers and athletes participating in indoor sports (Kars province example). *Journal of COMU Sport Sciences*, 2022; 5(1):24-38. <https://dergipark.org.tr/en/pub/comusbd/issue/71126/1100383>
28. Kafali S, Hunkar I, Kececi O, Demiray E. The investigation of aggression levels of athletes who do individual sport and team sport. *The Journal of International Social Research*, 2017; 10(50):386-390. <https://www.sosyalarastirmalar.com/articles/the-investigaton-of-aggression-levels-of-athletes-who-do-individual-sport-andteam-sport.pdf>
29. Erdogdu M, Kocyigit M, Kayisoglu NB, Yilmaz B. Aggression approaches of young females playing in football and futsal branches. *International Journal of Cultural and Social Studies*, 2018; 4(Special Issue 3):1-14. <https://dergipark.org.tr/en/download/article-file/612341>
30. Kirkbir F. Investigation of football players' continuous anger and anger expression styles and their aggression levels. Ph.D. Thesis, Manisa Celal Bayar University Health Sciences Institute, Manisa, Turkey, 2020.

31. Konter E. Leadership power perceptions of soccer coaches and soccer players according to their education. *Journal of Human Kinetics*, 2012; 34(1):139-146. Doi:10.2478/v10078-012-0073-x
32. Saglam M. Survey of aggression and impulsive behaviour reactions in competitor taekwondo. Master's Thesis, Kahramanmaraş Sutcu Imam University Health Sciences Institute, Kahramanmaraş, Turkey, 2018.
33. Dogan S. Constant rage level in athletes an analysis of the expression types of anger in different parameters. Master's Thesis, Gaziantep University Health Sciences Institute, Gaziantep, Turkey, 2017.
34. Karadag DG. Investigation of mental endurance and trait anger/anger expression styles of defense and martial athletes. Master's Thesis, Mersin University Educational Sciences Institute, Mersin, Turkey, 2021.
35. Kalafatoglu A. Examination of the angry levels of athletes playing professionally football in the 2nd league and the 3rd league. Recep Tayyip Erdogan University Postgraduate Education Institute, Rize, Turkey, 2022.
36. Uluc EA. Examination of the effect of sports character on aggression and anger in karate athletes. *Gumushane University Journal of Health Sciences*, 2022; 11(1):1559-1568. <https://doi.org/10.37989/gumussagbil.1181544>
37. Biricik YS, Ozan M, Sivrikaya MH, Cakmakci S. Examination of aggressiveness levels of individuals active in different individual sports in Erzurum province. *Atatürk University Journal of Physical Education and Sports Sciences*, 2017; 19(3):7-16.
38. Campo M, Mellalieu S, Ferrand C, Martinet G, Rosnet E. Emotions in team contact sports: A systematic review. *The Sport Psychologist*, 2012; 26(1):62-97. <https://doi.org/10.1123/tsp.26.1.62>
39. Robazza C, Bortoli L. Perceived impact of anger and anxiety on sporting performance in rugby players. *Psychology of sport and exercise*, 2007; 8(6):875-896. <https://doi.org/10.1016/j.psychsport.2006.07.005>
40. Ozer AK. Preliminary study of trait anger (SI-Anger) and anger expression style (Anger-Style) scales. *Turkish Journal of Psychology*, 1994; 9(31):26-35.

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