

## Examination of aggression profiles of athletes and sedanter individuals

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### SUMMARY

#### Objective

The aim of this research is to examine the aggression profiles of athletes and sedentary individuals. In the research, scanning model was used to determine the current situation.

#### Methods

The population of the research consists of individuals who live in Yozgat, do sports and do not. The sample of the study consists of 191 individuals randomly selected. As data collection tools in the research, the "Personal Information Form" created by the researcher and the "aggression scale" developed by Buss and Perry were translated into Turkish by H Andaç Demirtaş in 2012, a reliability study was carried out. In the analysis of the data, the frequency and percentage distributions describing the personal characteristics of the participants were extracted, the arithmetic averages and standard deviations of the answers given to the scales were calculated, and the distributions regarding the violence tendencies and aggression levels were determined. With independent variables related to sub-problems; Violence tendency and aggression levels were tested with parametric tests, t-test was used for pairwise comparisons and One-Way Analysis of Variance (ANOVA) was used for comparisons of three or more groups. The level of significance in the analysis was taken as " $p < 0.05$ ".

#### Results

According to the research results; it was determined that there was a significant difference between the variables of gender, licensed sports, nationality status and aggression level, and there was no significant difference between the level of aggression, income level, sports age and aggression level.

#### Conclusions

In the literature, it is thought that there is a study that supports and does not support the results obtained from the study.

**Key word:** sports, aggression, sedanter

### Introduction

Sports are of great importance for individuals to make use of their time, to create an environment of fun and competition in a peaceful environment <sup>1</sup>. Today, sport, which shows a rapid development and spread, affects individuals with emotions such as excitement, sadness, love and stress. Individuals (referee, trainer, athlete, press, spectator, manager, etc.) who take charge in different positions in sports can exhibit different behaviors depending on the events they experience during sports. Events such as defeat and wrong decision during and after sports can cause unwanted events and violence during and after sports <sup>2</sup>. Violence is a concept that has taken its place as a quality and identity in every period of humanity. Violence has taken its place in the history of humanity as a tool that sometimes causes social destruction and sometimes a psychological trauma that damages the personality <sup>3</sup>.

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While the increase in the changes in the society has been a solution to the economic and physical problems of the individuals, it causes the rapid proliferation of psychological problems. One of the most important factors affecting the health of the individual is violence. Violence is a health and human rights problem that is seen in almost every aspect of an individual's life and is growing with an increase all over the World <sup>4</sup>.

Although there is aggressive behavior at the source of violence, there are many individual and social reasons behind the tendency to violence. However, throughout history, people with a different mentality have seen themselves as justified when they display violent behavior and have argued that their violent behavior is right and appropriate. Individuals who have this thought will not be tolerant towards individuals who do not think like themselves <sup>5</sup>.

According to Tiryaki <sup>6</sup>, aggression is a form of hostile, damaging, oppressive, painful and painful behavior in order to win against an opponent, to try to direct him, to spoil a job, to make it futile. It is emphasized that aggressive behaviors are purpose-oriented behaviors and may be directed towards a person, group or society, and that people who encounter such behaviors will either act in the form of avoidance or opposition.

In the light of this information, the aim of this study is; The aim of this study is to examine the aggression levels of individuals who do and do not do sports in terms of different variables.

## Methods

### Participants

The study group of this research consists of 191 individuals who do or do not do sports, randomly selected.

### Procedures

In this study, the screening model was applied because it was aimed to determine the aggression levels of individuals who do and do not do sports. This model can be defined as "research models aiming to determine the existence and/or degree of change together between two or more variables". The research has a descriptive nature as it will be done due diligence.

The aggression level questionnaire was applied to the

research group. The survey consists of two parts. In the first part, the Personal Information Form, in the second part; Developed by Buss and Perry <sup>7</sup> and translated into Turkish by H Andaç Demirtaş <sup>8</sup> in 2012, reliability study was carried out and "aggression scale" was used. The questionnaire is a 5-point Likert-type scale, which includes "Not at all suitable for my character", "Very suitable", "Slightly appropriate", "Very appropriate" and "Exactly". It aims to measure these sub-dimensions of four different aggressions: Physical aggression, Verbal aggression, Anger and Hostility. Physical aggression sub-dimension is expressed with 9 questions (items 13,8,2,11,25,16,29,22 and 5) that physically measure harming others. Verbal aggression sub-dimension includes 5 questions (27,6,21,14 and 4<sup>th</sup> items) that relate and measure hurting others verbally. The anger sub-dimension was expressed with 7 questions (items 19,28,1,18,9,23 and 12) aiming to measure the dimension of aggression emotionally. The hostility sub-dimension includes these 8 questions (20,24,3,26,10,15,7<sup>th</sup> and 17<sup>th</sup> items) that aim to measure the cognitive dimension of aggression <sup>8</sup>.

The data collected for the problems whose answers are sought within the framework of the purpose of the research were first processed into the data coding form. All of the data were included in the research. Then, statistical analyzes were applied on the data transferred to the computer on the SPSS 22.0 program. T-test was used for comparing differences between two groups, and one-way ANOVA followed by Tukey's HSD test for comparing differences between multiple groups. Differences were considered significant at  $p < 0.05$ . The results of the personal information of the candidates, scale and inventory total scores, factor scores, frequency and percentage values were analyzed. The normal distribution of the scores, their curves, and the values of the skewness and kurtosis coefficients were examined. When the skewness coefficients were examined, it was determined that the scores were in the range of  $\pm 2$ . While Cooper-Cutting explains that the skewness and kurtosis values are in the range of  $\pm 2$ , it is a suitable situation in terms of normality, while Büyüköztürk interprets that these values are in the range of  $\pm 1$  as no deviation from normality.

Since the skewness and kurtosis values of the scores

**TABLE I.** Normality distributions of the data.

	N	Skewness	Kurtosis
Physical aggression	190	1.425	1.589
Verbal aggression	190	0.502	-0.103
Anger	190	0.563	0.123

**TABLE II.** T Test results between the genders and aggression levels of the individuals participating in the study.

		N	$\bar{x} \pm SD$	T	P
<b>Physical aggression</b>	<b>Man</b>	100	2.21 ± 0.81	3.130	0.02
	<b>Female</b>	90	1.90 ± 0.56		
<b>Verbal aggression</b>	<b>Man</b>	100	2.73 ± 0.73	3.049	0.03
	<b>Female</b>	90	2.42 ± 0.67		
<b>Anger</b>	<b>Man</b>	100	2.57 ± 0.71	-0.023	0.92
	<b>Female</b>	90	2.56 ± 0.53		

$p < 0.05$

were not at extreme levels in the study, they were in the range of  $\pm 2$  and there were no extreme deviations in the normal distribution curves, it was decided to use the T test in 2-variable analyzes from parametric techniques, and the One Way Anova test in analyzes with 3 or more variables.

## Results

### Is there a significant difference between the gender of the individuals participating in the research and aggression?

In the registered examination subsection in Table II, male practices are  $2.21 \pm 0.81$ , femininity examination is  $1.90 \pm 0.56$ , male dimensions are  $2.73 \pm 0.73$  in dictionary sub-dimensions, standard practices are 2.42 in femininity model. In the anger sub-dimensions, the mean scores of men were found to be  $\pm 0.67$  and  $2.56 \pm 0.53$ .

In terms of statistical analyzes within the scope of the research, there was a significant difference in aggression and verbal aggression sub-units with  $p < 05$ , while there was a significant difference between alpha classes.

### Is there a significant difference between the active sports status of the individuals participating in the research and aggression?

When Table III is examined, it is seen that the mean of the individuals participating in the research in the physical aggression sub-dimension who do sports is  $2.21 \pm 0.76$ , the individuals who do not do sports are  $2.02 \pm 0.69$ , and the mean of the individuals who participate in the verbal aggression sub-dimension is  $2.68 \pm 0.71$ ,  $2.52 \pm 0.72$  for the individuals who do not do sports,  $2.48 \pm 0.62$  for the individuals who participate in the anger sub-dimension, and  $2.62 \pm 0.64$  for the individuals who do not do sports.

As a result of the statistical analyzes made within the scope of the research, no significant difference was found between the physical aggression, verbal aggression and anger sub-dimensions at  $p < 0.05$  alpha level between the individuals who do sports and those who do not.

### Is there a significant difference between licensed sports and aggression?

When Table IV is examined, it is seen that the mean of licensed individuals participating in the study in the physical aggression sub-dimension is  $2.37 \pm 0.86$ , while the average of unlicensed individuals is  $2.01 \pm 0.67$ , while the mean of licensed individuals is  $2.85 \pm 0.81$  and unlicensed individuals are 2 in the anger sub-dimension,

**TABLE III.** T-Test results of the individuals participating in the study between their sporting status and aggression levels.

		N	$\bar{x} \pm SD$	T	P
<b>Physical aggression</b>	<b>Yes</b>	80	2.21 ± 0.76	1.067	0.28
	<b>No</b>	110	2.02 ± 0.69		
<b>Verbal aggression</b>	<b>Yes</b>	80	2.68 ± 0.71	1.559	0.12
	<b>No</b>	110	2.52 ± 0.72		
<b>Anger</b>	<b>Yes</b>	80	2.48 ± 0.62	-1.485	0.13
	<b>No</b>	110	2.62 ± 0.64		

$p < 0.05$

**TABLE IV.** *T Test results between the licensed sports status and aggression levels of the individuals participating in the study.*

		N	$\bar{x} \pm SD$	T	P
<b>Physical aggression</b>	<b>Licences</b>	27	2.37 ± 0.86	2.054	0.043
	<b>Unlicensed</b>	53	2.01 ± 0.67		
<b>Verbal aggression</b>	<b>Licences</b>	27	2.85 ± 0.81	1.458	0.152
	<b>Unlicensed</b>	53	2.59 ± 0.65		
<b>Anger</b>	<b>Licences</b>	27	2.75 ± 0.65	2.926	0.004
	<b>Unlicensed</b>	53	2.34 ± 0.56		

$p < 0.05$

it was determined that the mean of licensed individuals was  $2.75 \pm 0.65$ , and the mean of unlicensed individuals was  $2.34 \pm 0.56$ .

As a result of the statistical analyzes made within the scope of the research, it was determined that there was a significant difference between the licensed sports status and aggression in the sub-dimensions of physical aggression and anger at  $p < 0.05$  alpha, and there was no significant difference in the verbal aggression sub-dimension.

#### Is there a significant difference between the nationality status of the athletes and aggression?

When Table V is examined, the average of the national athletes participating in the study in the physical aggression sub-dimension is  $2.56 \pm 0.90$ , and the non-national athletes are  $2.00 \pm 0.66$ , while the averages of the national athletes participating in the verbal aggression sub-dimension are  $2.95 \pm 0.75$ , in the anger sub-dimension, the mean of non-national athletes was  $2.60 \pm 0.69$ , the mean of national athletes was  $2.79 \pm 0.54$ , and the mean of non-national athletes was  $2.39 \pm 0.62$ .

As a result of the statistical analyzes made within the scope of the research, it was determined that there was a significant difference between the national and non-national athletes at  $p < 0.05$  alpha level in physical aggression and anger sub-dimensions, but no signifi-

cant difference was found in the verbal aggression sub-dimension.

#### Is there a significant difference between the average income and aggression levels of the athletes?

When Table VI is examined, it is seen that in the physical aggression sub-dimension, the average of those with an income of 1000 TL or less is  $2.06 \pm 0.41$ , those with 1001-2000 TL income is  $2.17 \pm 0.81$ , those with 2001-3000 TL income are  $1.92 \pm 0.77$ , 3001 it was determined that those with TL and above were  $2.07 \pm 0.72$ .

In the verbal aggression sub-dimension, those with an income of 1000 TL or less mean  $2.80 \pm 0.84$ , those with 1001-2000 TL average  $2.75 \pm 0.47$ , those with 2001-3000 TL income  $2.42 \pm 0.89$ , 3001 TL and above It was determined that those with the highest score were  $2.58 \pm 0.71$ .

In the anger sub-dimension, the mean of those with 1000 TL or less income is  $2.39 \pm 0.43$ , those with 1001-2000 TL are  $2.72 \pm 0.61$ , those with 2001-3000 TL are  $2.53 \pm 0.48$ , those with 3001 TL and above and it was found to be  $2.56 \pm 0.66$ .

#### Is there a significant difference between sports age and aggression levels of athletes?

Looking at Table VII, in the physical aggression sub-dimension, the mean of those with a sports age of less than 1 year was  $1.92 \pm 0.57$ , those with 1-2 years of age

**TABLE V.** *T Test results between the nationality status of the individuals participating in the study and their aggression levels.*

		N	$\bar{x} \pm SD$	T	P
<b>Physical aggression</b>	<b>National</b>	18	2.56 ± 0.90	2.424	0.024
	<b>Non-national</b>	62	2.00 ± 0.66		
<b>Verbal aggression</b>	<b>National</b>	18	2.95 ± 0.75	1.846	0.069
	<b>Non-national</b>	62	2.60 ± 0.69		
<b>Anger</b>	<b>National</b>	18	2.79 ± 0.54	2.471	0.016
	<b>Non-national</b>	62	2.39 ± 0.62		

$p < 0.05$

**TABLE VI.** The results of the Anova Test between the income status and aggression levels of the individuals participating in the research.

		N	$\bar{x} \pm SD$	F	P Tukey HSD
Physical aggression	<b>1000 TL and under</b>	8	2.06 ± 0.41	0.359	0.78
	<b>1001-2000 TL</b>	13	2.17 ± 0.81		
	<b>2001-3000 TL</b>	20	1.92 ± 0.77		
	<b>3001 TL and above</b>	149	2.07 ± 0.72		
Verbal aggression	<b>1000 TL and under</b>	8	2.80 ± 0.84	0.814	0.48
	<b>1001-2000 TL</b>	13	2.75 ± 0.47		
	<b>2001-3000 TL</b>	20	2.42 ± 0.89		
	<b>3001 TL and above</b>	149	2.58 ± 0.71		
Anger	<b>1000 TL and under</b>	8	2.39 ± 0.43	0.480	0.69
	<b>1001-2000 TL</b>	13	2.72 ± 0.61		
	<b>2001-3000 TL</b>	20	2.53 ± 0.48		
	<b>3001 TL and above</b>	149	2.56 ± 0.66		

 $p < 0.05$ **TABLE VII.** Anova Test results between the sports age and aggression levels of the individuals participating in the research.

		N	$\bar{x} \pm SD$	F	P Tukey HSD
<b>Physical aggression</b>	<b>Less than 1 year</b>	14	1.92 ± 0.57	1.706	0.173
	<b>1-2 year</b>	16	1.88 ± 0.50		
	<b>3-4 year</b>	18	2.38 ± 0.86		
	<b>5 years and over</b>	32	2.20 ± 0.84		
<b>Verbal aggression</b>	<b>Less than 1 year</b>	14	2.54 ± 0.56	1.365	0.260
	<b>1-2 year</b>	16	2.51 ± 0.68		
	<b>3-4 year</b>	18	2.95 ± 0.77		
	<b>5 years and over</b>	32	2.68 ± 0.74		
<b>Anger</b>	<b>Less than 1 year</b>	14	2.32 ± 0.63	3.069	0.33
	<b>1-2 year</b>	16	2.14 ± 0.39		
	<b>3-4 year</b>	18	2.61 ± 0.68		
	<b>5 years and over</b>	32	2.64 ± 0.62		

 $p < 0.05$ 

1.88 ± 0.50, and those with 3-4 years of age 2.38 ± 0.86, it was found to be 0.86, while those with 5 years and above were 2.20 ± 0.84.

In the verbal aggression sub-dimension, the mean of those with a sports age of less than 1 year was 2.54 ± 0.56, those with 1-2 years of age were 2.51 ± 0.68, those with 3-4 years of age were 2.95 ± 0.77, 5 years and It was observed that those with a higher value were 2.68 ± 0.74.

In the anger sub-dimension, the mean of those with a

sports age of less than 1 year was 2.32 ± 0.63, the mean of those with 1-2 years of age was 2.14 ± 0.39, the mean of those with 3-4 years of age was 2.61 ± 0.68, 5 years or more It was observed that the ones with the highest score were 2.64 ± 0.62.

## Discussion

Is there a significant difference between the gender of

the individuals participating in the research and aggression? As a result of the statistical analyzes made within the sub-problem, it was determined that there was a significant difference between the genders at the  $p < 0.05$  alpha level in the physical aggression and verbal aggression sub-dimensions, while no significant difference was found in the anger sub-dimension.

When the literature is examined, it is seen that there are studies contrary to the results obtained in the study. As a result of studies and determinations on gender variability, it has been revealed that male students show more aggressive behaviors than female students; this is not unexpected<sup>9</sup>. According to these findings, it can be said that the aggression levels of boys are generally higher than that of girls, and that aggressive behaviors are expressed in different ways<sup>10</sup>. These studies are in contradiction with the results obtained from the research.

Is there a significant difference between the active sports status of the individuals participating in the research and aggression? As a result of the statistical analyzes made within the sub-problem, no significant difference was found between the physical aggression, verbal aggression and anger sub-dimensions at  $p < 0.05$  alpha level between the individuals who do sports and those who do not.

Although it is thought that the destructive aggression levels of the students who do sports will be lower than the students who do not do sports, the findings show the opposite. It can be said that students who do sports are physically stronger than students who do not do sports, they are pressured by their peers to use this power when necessary, and when they act calmly during an argument, they can be accused of cowardice because they do not use force.

There is an inverse relationship between sports and aggression. When the rate of doing sports increases, the tendency to aggression decreases; When doing sports decreases, the tendency to aggression increases<sup>10</sup>.

When athlete students encounter bad examples in sports environments, they believe that everything can be done to win, and considering that they have a lot of ambition to win due to their age, it can be said that they are more likely to exhibit aggressive behavior<sup>11</sup>.

Is there a significant difference between licensed sports and aggression? As a result of the statistical analyzes made within the sub-problem, it was determined that there was a significant difference between the licensed sports status and aggression in the sub-dimensions of physical aggression and anger at  $p < 0.05$  alpha, and there was no significant difference in the verbal aggression sub-dimension.

There is a decrease in the aggression tendencies of the students who do licensed sports, and there is an

increase in the aggression tendencies of those who do not do sports. We see again that there is an inverse proportion between sports and aggression. When the rate of doing sports increases, the tendency to aggression decreases; when doing sports decreases, the tendency to aggression increases<sup>10</sup>.

Is there a significant difference between the nationality status of the athletes and aggression? As a result of the statistical analyzes made within the sub-problem, it was determined that there was a significant difference between the national and non-national athletes at  $p < 0.05$  alpha level in the physical aggression and anger sub-dimensions, but no significant difference was found in the verbal aggression sub-dimension.

When the literature is examined, it is thought that there is no study belonging to the sub-problem, so this result will contribute to the literature and the researches to be done later.

Is there a significant difference between the average income level of athletes and their aggression levels? Within the sub-problem, it was determined that there was no significant difference at the  $p < 0.05$  level in all of the sub-dimensions.

In the study conducted by Tiryaki<sup>6</sup> to determine the aggression levels of individuals who do sports, it was revealed that there was no significant difference between the aggression scores of individuals in all comparisons made considering the income level<sup>6</sup>. This result supports the study.

Is there a significant difference between sports age and aggression levels of athletes? Within the sub-problem, it was determined that there was no significant difference at the  $p < 0.05$  level in all of the sub-dimensions.

In their study, Afyon and Metin<sup>12</sup> concluded that the experience of the athletes who played football for a long time increased in parallel with the passing of the years, that they could better analyze which situation is aggression and which situation is the protection of their right, and that they know how to protect both their own rights and the rights of their opponents within the framework of competition rules<sup>12</sup>. This study contrasts with the obtained result. Summing up, the analysis of fouls committed in professional football matches in terms of frequency, timing, place, category, and player interactions, was made to determine the relationship of the fouls with aggressive behaviors from a theoretical perspective. The fouls could be attributed to the social learning theory that values the environmental factor in the cognitive process of aggression<sup>13</sup>. The presented results may be of help to football coaches and sport psychologists teaching players how to control aggression and how to play the game with minimum harm while increasing their performance<sup>13</sup>. frustration, aggression or as a result of excessive pressure from both the trainer and the audience and the press, he

sees his opponent as a hostile, and can perform actions to injure him in one-on-one struggle. But if we look at the general behavior, that is, if we look at fouls committed by professional football mags, there is a big <sup>14</sup>.

### Ethical consideration

All participants voluntary agreed to participate to the on-line survey and World Health Organization's COVID-19 protocol implemented.

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### Conflict of interest

The Authors declare no conflict of interest.

### Author contributions

Authors significantly contributed to study conception, data acquisition, data analysis, or interpretation.

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