



## Investigation of Aggression Levels of University Students (Kocaeli University Case)

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### Abstract

The aim of this study was to investigate the aggression levels of university students in different departments in terms of sport and other variables. The population of the study consists of university students studying at Kocaeli University; the sample group consists of a total of 700 students, 378 male and 322 female, studying in the Faculty of Sports Sciences, Faculty of Communication and Faculty of Education of Kocaeli University. A screening model was used in this survey. A Personal Information form developed by the investigator and a Turkish-adapted Buss-perry aggression scale was utilized to determine the aggressive attitudes of the individuals. The frequency distribution specified the demographic features and analyzed the data; the T-test examined the relationship between the two independent variables; Anova Variance was used to review the connections between more than one variable. Finally, the significance level is accepted as  $p < 0.05$ . According to the findings of the research, there are statistically significant differences ( $p < 0.05$ ) in terms of gender, family structure, school department, family attitude, mother still living, sporting situation, kind of sport performed, reason for involvement in sport, cigarette-alcohol abuse and income level. We can state that sport positively affects the aggression levels of university students. Sport also varies by the gender variable, and males are more aggressive than females. It can also be pointed out that aggression varies by the school department, family attitude, cigarette-alcohol abuse, mother still living, reason for playing sport and income level.

**Keywords:** Sport, Aggression, University students.

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## 1. Introduction

When we think that the existential history of humanity has consisted of various events such as wars, deaths, pillage, and conquest, the place of aggression in the life of a human being can be easily understood. Nowadays, an incremental increase in aggressive behaviors tending towards violence is known around the world (Korkut, 2002; Özdevecioğlu, 2003).

Aggression is a behavior type arising in people in different ways. It is quite difficult to distinguish the reasons that induce this behavior from some of the behavior types because aggression includes destroying, hurting, anger and hate, as well as several verbal reactions. On the other hand, aggression is a concept that is used to express the situations or the attitudes involving different reactions (Cox, 1985; Gergen and Gergen, 1986; Köksal, 1991; Tiryaki, 2000).

Verbal and symbolic behaviors that arise from moods like irritability and tension avoid improvement. Aggression can be exhibited peacefully, can be self-protective and also be harmful behaviors. Aggression is aimed at the people around one, at institutions and at the physical environment as well. One of the reasons put forward for aggression is that the things desired have not gone well or have hit an obstacle. An aggressive attitude can be described as the action-reaction for a feeling of frustration. Some of the aggressive behaviors displayed to eliminate these situations create a feeling of frustration, while some other aggressive actions are affected by maltreatment, being exposed to domestic violence, unkind and punishing child-rearing methods, divorced parents, economic insufficiencies, and social relationship deficiencies (Budak, 2000; Kocacık, 2001; Tok, 2001; Star, 2004; Cüceloğlu, 2005; Leary *et al.*, 2006).

Sports have also been affected by the increase in violence and aggressive events happening in society. An increasing interest in sports, especially football and basketball, and the simultaneous massive increase in sponsorship and advertisement revenue has led to hard competition in these sports branches. As the conditions of the game become harder, the sport arena witnesses vicious conflicts, unethical attitudes, fights and immoralities (Russell, 2003; Özerkan, 2004; Güner, 2006; Kurtic, 2006; Asma, 2008). Sport is not only a struggle to be the most powerful and most successful but also a game, competition, and entertainment that has specific principles and rules. Some athletes or followers who ignore, distort, misemploy or pass off these principles make sport an environment where violence and aggressive behaviors are exhibited (Yetim, 2005).

Aggression in sport can be defined as the athlete, trainer or one or more followers trying to verbally or physically destroy another person by using psychological, social or biological factors and ignoring the universal rules and principles of the sport. There is a need to know the roots of this aggression; trainers, athletes and club managers should take responsibility; media organizations should inhibit such programs that trigger aggression; followers, watchers and society need to be educated within the framework of fair-play to attempt to prevent the violence and aggression (Tiryaki, 2000; Acet, 2005; Derwent, 2007; Erşan *et al.*, 2009; Tutkun *et al.*, 2010)

Aggression has lived in humanity's pocket and also attracted notice as a behavior arising as a result of being affected by events. In this sense, our study was conducted to analyze the aggression levels of the students studying in different departments of universities in terms of sports, sports branches and different demographic variables.

## 2. Material and Methods

### 2.1. Research Method

This paper was created by using the screening model from quantitative research methods. The screening model describes the global tendencies, attitudes or opinions as quantitative or numerical data via studies on a sample selected from the population. This method is advantageous regarding economy, collecting data quickly and determining the features belonging to a large population by using fewer people (Creswell, 2012).

### 2.2. Population and Sample

A total of 700 students, 378 male and 322 female, who study in the Faculty of Sports Sciences and Faculty of Education in Kocaeli University participated in this survey.

### 2.3. Data Collection Tools

**Sociodemographic Information Form:** All the students received the socio-demographic information form including the information about Gender, Age, Family Structure, Personal Monthly Income Levels, Mother Still Living, Father Still Living, Smoking Habits, Alcohol Habits, Family Attitudes, Playing Sports, Kind of Sports Played, Weekly Sports Hours and Reason for Playing Sport.

**Buss-Perry Aggression Scale:** The Buss-Perry aggression scale was developed by Buss and Perry (1992) and adapted to Turkish by Madran (2012). It is a five-point Likert scale that analyzes the aggressive attitudes of university students. This scale consists of 29 items. Nine of these items (13, 8, 2, 11, 25, 16, 29, 22, 5) constitute physical aggression sub-titles, eight of them (20, 24, 3, 26, 10, 15, 7, 17) constitute hostility sub-titles; seven of them (19, 28, 1, 18, 9, 23, 12) constitute anger sub-titles; five of them (27, 6, 21, 14, 4) constitute verbal aggression sub-titles. High scores taken from the sub-dimensions of the scale refer to the person's characteristics being high on the relevant dimension. The items of this five-point Likert scale are coded as (1) Absolutely Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Absolutely Agree. The ninth and sixteenth items of the scale are inversely coded (Madran, 2012).

### 2.4. Analysis of Data

Frequency distribution was used to analyze the data; a T-test reviewed the relationship between the two independent variables; an Anova Variance analysis test was applied to examine the connections between more than two variables. All these tests were analyzed in SPSS 21, the significance level was accepted as  $p < 0.05$ .

### 3. Findings

Table-1. Frequency Table by Socio-Demographic Features

		n	%
Gender	Male	372	53,1
	Female	328	46,9
Age	Under 20 ages	190	27,1
	20-25	342	48,9
	Over 25 ages	168	24,0
Family Structure	Elementary Family	489	69,9
	Extended Family	211	30,1
School Department	Faculty of Sport Sciences	208	29,7
	Faculty of Education	285	40,7
	Faculty of Communication	207	29,6
Family Attitude	Careless	114	16,3
	Democratic	189	27,0
	Authoritative	188	26,9
	Nurturing	209	29,9
Aliveness of Mother	Yes	569	81,3
	No	131	18,7
Aliveness of Father	Yes	569	81,3
	No	131	18,7
Personally Monthly Income Level	Between 0-1000	174	24,9
	Between 1000-3000	342	48,9
	3000 and over	184	26,3
Smoking Habit	Yes	337	48,1
	No	363	51,9
Alcohol Habit	Yes	248	35,4
	No	452	64,6
Sport Situation	Yes	392	54,6
	No	308	45,4
Kind of Sport	Personal	239	34,1
	Team	153	21,9
	None	308	44,0
Weekly Sports Hour	0-1	47	6,7
	2-4	196	28,0
	4-7	153	21,9
	None	304	43,4
Reason to Sport	Physical	119	17,0
	Health	114	16,3
	Physical Health	149	21,3
	None	318	45,4

N=700

As is seen in Table 1, 328 of the attendees were females, 372 of them were males. The frequency distributions of the attendees by the departments are found as 208 for the faculty of sports sciences; 285 for the faculty of education; 207 for the faculty of communication.

Table-2. Significance Table of Aggression Levels Sub-Scales by the Gender Variable

	Gender	n	$\bar{x}$	$\pm ss$	t	p
Physical aggression	Male	372	30,91	6,41	2,405	,016*
	Female	328	29,72	6,52		
Hostility	Male	372	27,92	5,93	2,201	,028*
	Female	328	26,95	5,64		
Anger	Male	372	24,50	4,84	3,513	,000*
	Female	328	23,22	4,72		
Aggression	Male	372	17,14	3,48	394	,693
	Female	328	17,03	3,60		
Total Aggression	Male	372	97,14	17,63	2,970	,003*
	Female	328	93,08	17,57		

\*p<0,05

In Table 2, a significant difference is seen between male and female when looking at the sub-scales of aggression levels by the Gender variable. A significant difference is also observed between the male and female in Hostility sub-scale. One other significant difference ( $P<0,05$ ) can be seen between male and female in Anger sub-scale. Total aggression scale has a significant difference ( $P<0,05$ ) as well. There is no significant difference between the genders in Verbal Aggression sub-scale

**Table-3.** Significance Table of Aggression Levels Sub-Scales by the Department Variable.

Your Department		Gender	n	x	sd	t	p	
Faculty of Sports Sciences	Physical Aggression	Male	109	28,96	7,85	,815	,416	
		Female	99	28,06	8,00			
	Hostility	Male	109	26,53	6,62	,012	,990	
		Female	99	26,52	6,34			
	Anger	Male	109	23,42	5,39	,762	,447	
		Female	99	22,87	4,82			
	Verbal Aggression	Male	109	16,67	3,60	,145	,885	
		Female	99	16,60	4,04			
	Total Aggression	Male	109	92,34	20,60	,626	,532	
		Female	99	90,51	20,59			
	Faculty of Education	Physical Aggression	Male	109	31,78	5,04	1,18	,237
			Female	99	31,07	4,98		
Hostility		Male	109	28,17	5,01	1,42	,156	
		Female	99	27,32	4,97			
Anger		Male	109	25,16	4,13	2,90	,004*	
		Female	99	23,71	4,21			
Verbal Aggression		Male	109	17,40	3,35	,009	,993	
		Female	99	17,40	3,07			
Total Aggression		Male	109	99,19	14,26	2,10	,036*	
		Female	99	95,57	14,17			
Communication		Physical Aggression	Male	109	31,66	6,17	2,31	,022*
			Female	99	29,62	6,32		
	Hostility	Male	109	28,94	6,23	2,45	,015*	
		Female	99	26,88	5,76			
	Anger	Male	109	24,65	5,04	2,39	,017*	
		Female	99	22,91	5,23			
	Verbal Aggression	Male	109	17,22	3,54	,479	,633	
		Female	99	16,97	3,76			
	Total Aggression	Male	109	99,01	18,03	2,56	,011*	
		Female	99	92,35	18,11			

\*p<0,05

As is seen in Table 3, when looking at the sub-scales of aggression levels by the gender and department, there is a significant difference between male and females in Anger and Total Aggression sub-scales in the faculty of education. A significant difference (P<0,05) is observed in Physical Aggression, Hostility, Anger and Total Aggression sub-scales in the faculty of communication. No significant difference is found in other research groups.

**Table-4.** Table of Aggression Levels Sub-Scales by Family Structure

Family Structure		n	x	sd	t	p
Physical aggression	Elementary Family	489	30,00	6,33	-2,190	,029*
	Extended Family	211	31,18	6,78		
Hostility	Elementary Family	489	27,20	5,66	-1,850	,065
	Extended Family	211	28,10	6,13		
Anger	Elementary Family	489	23,60	4,73	-2,546	,011*
	Extended Family	211	24,61	4,97		
Verbal Aggression	Elementary Family	489	16,93	3,45	-1,799	,072
	Extended Family	211	17,45	3,70		
Total Aggression	Elementary Family	489	94,19	17,18	-2,389	,017*
	Extended Family	211	97,75	18,68		

\*p<0,05

When looking at aggression level sub-scale of the family structure, since the Physical Aggression is p=0,029<0,049 and Anger are p=0,011<0,049, there is a significant difference between the Family Structures. Since p>0,049, there is no significant difference between Hostility and Verbal Aggression.

**Table-5.** Significance Table of Aggression Levels Sub-Scales by Department Variable.

School Department		n	x	sd	t	p	Significance
Physical Aggression	Faculty of Sport Sciences	208	28,53	7,92	12,91	,000*	Faculty of Sport Sciences - Faculty of Education Faculty of Sport Sciences – Faculty of Communication
	Faculty of Education	285	31,46	5,01			
	Communication	207	30,69	6,30			
	Total	700	30,36	6,48			
Hostility	Faculty of Sport Sciences	208	26,53	6,47	3,81	,023*	Faculty of Sport Sciences-Faculty of Communication
	Faculty of Education	285	27,79	5,00			
	Communication	207	27,96	6,08			
	Total	700	27,47	5,81			
Anger	Faculty of Sport Sciences	208	23,16	5,12	4,70	,009*	Faculty of Sport Sciences-Faculty of Education
	Faculty of Education	285	24,50	4,23			
	Communication	207	23,82	5,19			
	Total	700	23,90	4,82			
Verbal Aggression	Faculty of Sport Sciences	208	16,64	3,80	2,79	,062	Faculty of Sport Sciences-Faculty of Education
	Faculty of Education	285	17,40	3,22			
	Communication	207	17,10	3,64			
	Total	700	17,09	3,53			
Total Aggression	Faculty of Sport Sciences	208	91,47	20,57	7,11	,001*	Faculty of Sport Sciences - Faculty of Education Faculty of Sport Sciences – Communication Faculty
	Faculty of Education	285	97,56	14,31			
	Communication	207	95,89	18,33			
	Total	700	95,26	17,70			

\*p<0,05

In Table 5, when looking at the aggression levels sub-scales by departments, a significant difference ( $p < 0,05$ ) is seen between faculty of sports sciences and faculty of communication and also between faculty of sports sciences and faculty of education in Physical Aggression sub-scale. One more significant difference ( $p < 0,05$ ) can be observed between faculty of sports sciences and faculty of communication in Hostility sub-scale. There is a significant difference ( $p < 0,05$ ) between the faculty of sports sciences and faculty of education in Anger sub-scale. A significant difference ( $p < 0,05$ ) is observed between faculty of sport sciences and faculty of communication and also between faculty of sports sciences and faculty of education in Total aggression scores.

**Table-6.** Significance Table of Aggression Levels Sub Scales by Family Attitude Variable

Family Attitude		n	x	sd	t	p	Significance
Physical Aggression	Careless	114	30,3243	6,77047	5,156	,002*	Democratic – Nurturing, Authoritative - Nurturing
	Democratic	189	30,8075	6,32501			
	Authoritative	188	31,4565	4,54946			
	Nurturing	209	29,0000	7,65729			
	Total	700	30,3619	6,48937			
Hostility	Careless	114	27,4071	5,90193	2,054	,105	
	Democratic	189	27,3422	6,38887			
	Authoritative	188	28,3135	4,69726			
	Nurturing	209	26,8719	6,09361			
	Total	700	27,4753	5,81890			
Anger	Careless	114	23,6460	5,01412	1,712	,163	
	Democratic	189	23,7923	4,93034			
	Authoritative	188	24,5691	3,97862			
	Nurturing	209	23,5481	5,28672			
	Total	700	23,9061	4,82770			
Verbal Aggression	Careless	114	17,1593	3,93602	1,064	,364	
	Democratic	189	17,1337	3,54363			
	Authoritative	188	17,3797	2,98026			
	Nurturing	209	16,7548	3,76129			
	Total	700	17,0906	3,53885			
Total Aggression	Careless	114	94,2407	19,27706	3,251	,021*	Nurturing - Authoritative
	Democratic	189	95,5587	18,27077			
	Authoritative	188	98,3278	12,98552			
	Nurturing	209	92,8109	19,59219			
	Total	700	95,2650	17,70845			

\*p<0,05

As is seen in Table 6, when looking at aggression levels sub-scales by the family attitude variable, there is seen a significant difference between democratic — nurturing and also between authoritative and nurturing in Physical aggression sub-scale. A significant difference ( $P < 0,05$ ) is observed between Nurturing and Authoritative when looking at total aggression score.



Table-7. Significance Table of Aggression Levels Sub Scales by Aliveness of Mother Variable

Is your mother alive?		n	x	sd	t	p
Physical aggression	Yes	569	30,0071	6,45252	-3,017	,003*
	No	131	31,9141	6,44666		
Hostility	Yes	569	27,1577	5,77062	-2,983	,003*
	No	131	28,8385	5,85060		
Anger	Yes	569	23,6014	4,77193	-3,479	,001*
	No	131	25,2231	4,86447		
Verbal Aggression	Yes	569	16,8619	3,36103	-3,582	,000*
	No	131	18,0846	4,09393		
Total Aggression	Yes	569	94,2099	17,32903	-3,232	,001*
	No	131	99,8480	18,65954		

\*p&lt;0,05

There is seen a significant difference between yes and no in physical aggression sub-scale when looking at aggression levels sub-scales by their 'aliveness of mother' status. A significant difference is seen between yes and no in Hostility sub-scale. There is the significant difference between yes and no in Anger sub-scale. Verbal aggression sub-scale has the significant difference between yes and no. There is seen significant difference ( $p<0,05$ ) between yes and no in total aggression scores.

Table-8. Significance Table of Aggression Levels Sub Scales by Aliveness of Father Variable

Is your father alive?		n	x	sd	t	p
Physical aggression	Yes	569	30,2890	6,52878	-,628	,530
	No	131	30,6935	6,32221		
Hostility	Yes	569	27,3476	5,75996	-1,210	,227
	No	131	28,0394	6,06369		
Anger	Yes	569	23,7815	4,84054	-1,419	,156
	No	131	24,4496	4,75158		
Verbal Aggression	Yes	569	17,0071	3,49365	-1,298	,195
	No	131	17,4538	3,72111		
Total Aggression	Yes	569	94,9418	17,61013	-1,018	,309
	No	131	96,7712	18,15998		

p&gt;0,05

There is no significant difference ( $p>0,05$ ) between physical aggression, hostility, anger, verbal aggression sub-scales and total aggression scores when looking at aggression levels sub-scales by aliveness of mothers variable.

Table-9. Significance Table of Aggression Levels Sub Scales by Playing Sports Variable

Do you play sports?		n	x	sd	t	p
Physical aggression	Yes	382	29,02	6,72	-6,008	,000*
	No	318	31,93	5,82		
Hostility	Yes	382	26,49	5,98	-4,970	,000*
	No	318	28,66	5,38		
Anger	Yes	382	23,03	4,87	-5,313	,000*
	No	318	24,96	4,55		
Verbal Aggression	Yes	382	16,37	3,59	-5,963	,000*
	No	318	17,94	3,27		
Total Aggression	Yes	382	91,54	18,22	-6,159	,000*
	No	318	99,80	15,95		

\*p&lt;0,05

In Table 9, there is seen a significant difference ( $p<0,05$ ) between yes and no in physical aggression sub-scale when looking at aggression levels sub-scales by playing sports status. A significant difference ( $p<0,05$ ) is also observed between yes and no in Hostility sub-scale. There is a significant difference ( $p<0,05$ ) between yes and no in Anger sub-scale. A significant difference ( $p<0,05$ ) is also seen between yes and no in Verbal aggression sub-scale. We can see the significant difference ( $p<0,05$ ) between yes and no in Total aggression sub-scale.

**Table-10.** Significance Table of Aggression Levels Sub Scales by Type of Sports Played Variable

Do you play sports?		n	x	sd	t	p	Significance
Physical aggression	Individual	239	28,62	7,00	28,483	,000*	Individual – None Team– None
	Team	153	28,97	6,64			
	None	308	32,37	5,36			
	Total	700	30,36	6,48			
Hostility	Individual	239	26,05	6,15	18,561	,000*	Individual – None Team– None
	Team	153	26,77	6,00			
	None	308	28,94	5,08			
	Total	700	27,47	5,81			
Anger	Individual	239	22,70	4,97	17,776	,000*	Individual – None, Team– None
	Team	153	23,45	4,89			
	None	308	25,07	4,40			
	Total	700	23,90	4,82			
Verbal Aggression	Individual	239	16,41	3,53	20,727	,000*	Individual – None Team– None
	Team	153	16,24	3,68			
	None	308	18,03	3,24			
	Total	700	17,09	3,53			
Total Aggression	Individual	239	90,24	18,59	26,155	,000*	Individual – None Team– None
	Team	153	92,50	18,28			
	None	308	100,60	15,08			
	Total	700	95,26	17,70			

\*p<0,05

As is seen [Table 10](#), when looking at aggression levels sub-scales by the ‘type of sport performed’ variable, there is a significant difference (p<0,05) between individual and none and also between the team and none in Physical aggression sub-scale. A significant difference (p<0,05) is seen between individual and none and also between the team and none in Hostility sub-scale. A significant difference (p<0,05) is seen between individual and none and also between the team and none in Anger sub-scale. There is a significant difference (p<0,05) between individual and none and also between the team and none in Verbal aggression sub-scale. When looking at total aggression scores, there is seen a significant difference (P<0,05) between individual and none and also between team and none.

**Table-11.** Significance Table of Aggression Levels Sub Scales by Reason to Sport Variable

Reason to Sport		n	x	sd	t	p	Significance
Physical Aggression	Physical	119	29,15	6,63	22,785	,000*	Physical – None Health – None Physical health – None
	Health	114	27,36	8,84			
	Physical Health	149	29,28	5,08			
	None	318	32,37	5,30			
	Total	700	30,36	6,48			
Hostility	Physical	119	26,86	5,85	15,535	,000*	Physical – None Health – None Physical Health – None
	Health	114	25,34	7,67			
	Physical Health	149	26,31	4,73			
	None	318	29,01	5,07			
	Total	700	27,47	5,81			
Anger	Physical	119	23,50	4,84	15,100	,000*	Physical – None Health – None Physical Health – None
	Health	114	22,20	6,32			
	Physical Health	149	22,85	3,69			
	None	318	25,15	4,35			
	Total	700	23,90	4,827			
Verbal Aggression	Physical	119	16,37	3,81	15,054	,000*	Physical – None Health – None Physical Health – None
	Health	114	16,09	4,34			
	Physical Health	149	16,38	2,66			
	None	318	18,04	3,24			
	Total	700	17,09	3,53			
Total Aggression	Physical	119	92,30	18,31	20,784	,000*	Physical – None Health – None Physical Health – None
	Health	114	88,08	24,12			
	Physical Health	149	91,41	13,03			
	None	318	100,79	14,92			
	Total	700	95,26	17,70			

\*p<0,05

As is seen Table 11, when looking at aggression levels sub-scales by 'reason to sport' variable, a significant difference ( $p < 0,05$ ) is seen between health and none and also between physical health and none in Physical aggression sub-scale. There is seen a significant difference ( $p < 0,05$ ) between physical and none, between health and none and also between physical health and none in Hostility sub-scale. A significant difference ( $p < 0,05$ ) is observed between physical and none, between health and none and also between physical health and none in Anger sub-scale. A significant difference ( $p < 0,05$ ) can be seen between physical and none, between health and none and also between physical health and none in Verbal aggression sub-scale. There is seen a significant difference ( $p < 0,05$ ) between physical and none, between health and none and also between physical health and none in Total aggression sub-scale.

Table-12. Significance Table of Aggression Levels Sub Scales by Smoking Variable (T-test)

Do you smoke?		n	x	sd	t	p
Physical aggression	Yes	337	29,88	5,98	-1,875	,061
	No	363	30,80	6,90		
Hostility	Yes	337	27,20	5,41	-1,165	,244
	No	363	27,72	6,16		
Anger	Yes	337	23,50	4,52	-2,095	,037*
	No	363	24,27	5,07		
Verbal Aggression	Yes	337	16,83	3,47	-1,813	,070
	No	363	17,32	3,58		
Total Aggression	Yes	337	93,71	16,60	-2,195	,029*
	No	363	96,71	18,59		

\* $p < 0,05$

As is seen in Table 12, since  $p = 0,037 < 0,049$ , there is seen a significant difference ( $p < 0,05$ ) in Anger sub-scale when looking at aggression levels sub-scales by the Smoking variable. A significant difference ( $p < 0,05$ ) is found between aggression scores of aggression levels by the smoking variable. Since  $p > 0,049$  between Physical aggression, Hostility and Verbal aggression, there is no significant difference ( $p > 0,05$ ).

Table-13. Significance Table of Aggression Levels Sub Scales by Alcohol Use Variable.

Do you use alcohol?		n	x	sd	t	p
Physical Aggression	Yes	248	29,69	6,90	-2,005	,045*
	No	452	30,72	6,23		
Hostility	Yes	248	26,84	6,16	-2,109	,035*
	No	452	27,82	5,59		
Anger	Yes	248	23,13	5,12	-3,132	,002*
	No	452	24,32	4,60		
Verbal Aggression	Yes	248	16,83	3,76	-1,420	,156
	No	452	17,23	3,40		
Total Aggression	Yes	248	92,52	18,99	-2,957	,003*
	No	452	96,74	16,80		

\* $p < 0,05$

Table-14. Significance Table of Aggression Levels Sub Scales by Income Level Variable

Income Level		n	x	sd	f	p	Significance
Physical Aggression	Between 0-1000	174	27,98	7,81	20,827	,000*	Between 0-1000- 1000-30000-1000- more than 3000 1000-3000 - over 3000
	1000-3000	342	30,52	5,60			
	3000 and over	184	32,30	5,94			
	Total	700	30,36	30,36			
Hostility	Between 0-1000	174	25,57	6,64	20,585	,000*	Between 0-1000 - 1000-3000 Between 0-1000 - over 3000 1000-3000 -over 3000
	1000-3000	342	27,37	4,97			
	3000 and over	184	29,43	5,82			
	Total	700	27,47	5,81			
Anger	Between 0-1000	174	22,17	5,59	24,352	,000*	0-1000-1000-3000 0-1000-over 3000 1000-3000- over 3000
	1000-3000	342	23,84	4,15			
	3000 and over	184	25,63	4,64			
	Total	700	23,90	4,82			
Verbal Aggression	Between 0-1000	174	16,38	3,92	8,342	,000*	Between 0-1000 - over 3000-1000 -3000 - over 3000
	1000-3000	342	17,01	3,16			
	3000 and over	184	17,89	3,66			
	Total	700	17,09	3,53			
Total Aggression	Between 0-1000	174	88,58	21,12	24,908	,000*	Between 0-1000- 1000-3000 Between 0-1000- 3000 and over 1000-3000 -over 3000
	1000-3000	342	95,15	14,66			
	3000 and over	184	101,61	17,09			
	Total	700	95,26	17,70			

\* $p < 0,05$



As is seen in [Table 13](#), when looking at aggression levels sub-scales by 'Alcohol use' variable, since Physical aggression is  $p=0,045<0,049$ , Hostility is  $p=0,035<0,049$  and Anger are  $p=0,002<0,049$ , there is found a significant difference ( $p<0,05$ ) between these variables and alcohol use. Since  $p>0,049$ , there is no significant difference ( $p>0,05$ ) between verbal aggression and alcohol use.

As is seen in [Table 14](#), there is found the difference between Physical Aggression, hostility, Verbal Aggression and Income levels as between 0-1000, between 1000-3000, 3000 and over.

#### **4. Discussion and Conclusion**

It is seen in our study that the aggression levels of male students are higher than the aggression levels of female students. [Kırmoğlu et al. \(2008\)](#) and [Efiltili \(2008\)](#) found that the aggression levels of students in secondary education institutions are higher than those of female students. [Scharf \(2000\)](#) conducted a survey to determine the differences in aggression by gender. According to the findings, verbal aggression does not vary by gender; physical aggression is used more by males. [Camadan and Yazıcı \(2017\)](#) conducted a study called 'Analyzing the aggression tendencies of students regarding some of the variables.' At the end of the study, they found differences between aggression scores of female and male students. On the other hand, [Yönet et al. \(2016\)](#) conducted a research called 'Reviewing Aggression-Violence Tendencies of High School Students with Attendance to Recreative Activities.' In their findings, there is no significant difference between the aggression levels of students by the gender variable.

[Giles and Heyman \(2005\)](#) analyzed the relationship between gender and aggression in teenagers. They found that the aggression levels of males are higher than those of females. As is mentioned by [Fromm \(1993\)](#) testosterone increases aggression levels; while estrogen decreases aggression levels. Our study shows parallels with the literature.

Although there is no significant difference between the students studying in the faculty of sports sciences by gender, it is seen that the aggression levels of male students studying in the faculty of education and faculty of communication are higher in comparison with the aggression levels of female students. This result confirms the findings in [Table 3](#).

It is seen when the departments are compared that the aggression levels of the faculty of communication and faculty of education are higher than those of the students studying in the faculty of sport sciences. [Sargın \(2010\)](#) actualized a survey called 'Reviewing teacher candidates' awareness levels relating to conflict and violence by several variables'. Sargın analyzed the teacher candidates' awareness levels relating to conflict and violence by the department they study in. With reference to the findings, the conflict and violence awareness levels of teacher candidates in private areas are higher than the teacher candidates in numeric fields. [Erşan et al. \(2009\)](#) conducted a study called 'To evaluate the aggression levels of students in school of physical education and sports in terms of socio-demographic aspect'. According to the results of their study, there is no statistically significant difference in terms of department and branch. [Erden \(2007\)](#) examined the differences between the departments that the teacher candidates study in and the types of aggression. There is no significant difference between the departments. [Yurттаş \(2016\)](#) found that the point averages of students studying in the faculty of sport sciences are higher than the students studying in other faculties. As is understood above, there are different results in the literature. Moreover, it is thought within the scope of our research that the statuses, such as socio-demographic structure, personal differences, and region lived in, affected the aggression levels of the students studying in different departments.

We can say based upon our study that the children of authoritative parents have the highest aggression levels when looking at the physical aggression sub-scales by the family attitudes and total aggression scores. Under these circumstances, we are of the opinion that the children of domineering parents are more aggressive. [Camadan and Yazıcı \(2017\)](#) conducted a study named 'Reviewing the Aggression Tendencies Observed in University Students in terms of Several Variables'. According to the results of their study, the highest aggression levels belong to children who perceive the child-rearing method of their parents as authoritarian; the lowest aggression levels belong to children who perceive the child-rearing method of their parents as democratic. The aggression levels of university students statistically vary by the perception about the child rearing method of their parents. [Yönet et al. \(2016\)](#) conducted a survey named 'To examine the aggression-violence tendencies of high school students with their attendance to recreative activities'. With reference to their findings, there is a significant difference between the aggression levels of students by the family attitude variable.

It is seen that the aggression levels of students whose mothers are alive are higher than the aggression levels of students whose mothers are dead. However, there is no difference between the aggression scores of students whose fathers are alive and students whose fathers are dead. Moreover, we can point out that the students who lost their mothers are more aggressive than the students who lost their fathers. [Erdogdu \(2010\)](#) conducted a study called 'To analyze the aggression tendencies of students regarding different variables.' They found that the aggression tendencies significantly vary by the reaction status of their mother and father. The aggressive tendencies of students whose mother and father are dead are higher than those of students whose parents live together.

Per the results of our findings, the aggression levels of the students who do not play sports are higher in comparison with the students who play sports. [Yıldız \(2009\)](#) mentioned in his study that the people who play sports are more aggressive than the people who do not play sports on the disruptive aggression sub-scale; there is no statistically significant difference in the aggression sub-scale. [Cobanoglu \(1993\)](#) compared students who are athletes and students who are not athletes. He found that the aggressive tendencies of athletes are significantly higher than others. [Kırmoğlu et al. \(2008\)](#) and [Derwent \(2007\)](#) mentioned that males who play sports are more aggressive than males who do not play sports. However, there is no significant difference between them in other aggression features. [Erdogdu \(2010\)](#) and [Sili \(2012\)](#) conducted a survey 'to examine the aggression tendency of students regarding various variables.' They found that the aggression tendency of the students is associated with their regularly playing sports status. The aggressive tendencies of students who regularly play sport are significantly lower than those of students who do not play sports. Much as we monitor different results, the sporting activities increase the determination to win and aggression by force of the training and competitions. It

can be thought that decreasing the aggression levels of people who play sports can be accepted as normal and foregone conclusions.

The aggression levels of students who do not smoke are higher than the students who smoke.

The aggression levels of students who do not use alcohol are higher than the students who use alcohol.

We can highlight in our study that people who have extended family are more aggressive, namely, as the number of people in the family increases, the aggression level increases at the same time. Factors such as being limited to meeting demands, discrepancies, dissidences and similar situations in extended families may increase the aggression.

According to the data of frustration-aggression hypothesis, when the relationship between socio-economic income level and aggression is analyzed, it is expected that the students who have a low-income status are more aggressive as a natural result of experiencing frustration because of economic insufficiencies (Kılınç, 2012). But, it is seen in our survey that as the income level increases, the level of aggression increases at the same time. Camadan and Yazıcı (2017); Sili (2012); Yılmaz (2008); Masalçı (2001) and Ağlamaz (2006) mention that as the income level decreases, the level of aggression increases. On the other hand, Kaynak (2013) expressed that increasing the income level affects the aggression level. According to the results of the study of Ece (2014) the general aggression scores of participants who have medium family income are lower than the attendees who have high family income. The conclusions of both the surveys confirm our study.

In conclusion, we can state that males are more aggressive than females; playing sport affects aggression levels; and people who do not play sports are more aggressive than people who play sports. It can be noted that this circumstance may stem from the characteristics of sports, such as renewing and discharging people. Much as there are different results in the literature, it is thought that aggression increases with the increase in income level. Moreover, the children of authoritative parents are more aggressive by the family attitude. It is also seen that students whose parents are dead are more aggressive in comparison with students whose parents are alive. Thus, lack of family love and an authoritarian attitude towards life may cause the aggression.

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