Asian Journal of Education and Training Vol. 4, No. 4, 363-370, 2018 ISSN(E) 2519-5387 DOI: 10.20448/journal.522.2018.44.363.370 Ocheck for the check for updates

The Comparison of High School Students' Level of Aggression Based on Demographic Features

Oktay ÇOBAN<sup>1</sup>> D Mehmet YILDIRIM<sup>2</sup>

<sup>14</sup>University of Yozgat Bozok, School of Physical Education and Sports, Yozgat, Turkey <sup>1</sup>Email: <u>oktay.coban@bozok.edu.tr</u>



# Abstract

This study aims to determine high school students' level of aggression and compare their level of aggression based on some demographic features. The population of the study comprises of high school students attending public and private schools in Yozgat province of Turkey during 2017-2018 school year. The sample of the study comprises of 300 students selected using random sampling method in public and private schools in Yozgat province of Turkey during 2017-2018 school year. The study benefits from survey as a method. Students' demographic features were obtained using "personal information form". "Buss Perry Aggresion Scale" was used to measure students' level of aggression. The obtained data were processed using SPSS 18 software program. Finally, frequency analysis, percentage analysis, arithmetic means, t test, ANOVA and post-hoc tests were used for data analysis. The findings of the study indicated statistically significant differences were found among students' level of aggression in terms of different variables such as their gender, age, school type, mother's employment status, mother's education level, monthly expenses and number of siblings (p<0.05).

Keywords: Aggression, High school, Student.

<b>Citation</b>   Oktay ÇOBAN; Mehmet YILDIRIM (2018). The Comparison of High School Students' Level of Aggression Based on Demographic Features. Asian Journal of Education and Training,	<b>Contribution/Acknowledgement:</b> Both authors contributed to the conception and design of the study. <b>Funding:</b> This study received no specific financial support.				
4(4): 363-370.	<b>Competing Interests:</b> The authors declare that they have no conflict of				
History:	interests.				
Received: 31 May 2018 Transparency: The authors confirm that the manuscript is an h					
Revised: 16 July 2018	accurate, and transparent account of the study was reported; that no vital				
Accepted: 4 September 2018	features of the study have been omitted; and that any discrepancies from the				
Published: 9 October 2018	study as planned have been explained.				
Licensed: This work is licensed under a Creative Commons	Ethical: This study follows all ethical practices during writing.				
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Publisher: Asian Online Journal Publishing Group					

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#### 1. Introduction

Aggression involves deliberate attitudes and behaviors that aim to physically or emotionally damage another living being (Ballard *et al.*, 2004) and is defined as deliberately injuring or damaging another person (Hetherington and Parke, 1993). From a theoretical perspective, whether aggression results from an individual's character or environmental factors and whether it can be controlled is a controversial issue. Emotional definitions of aggression associate it with a feeling of anger, while motivational definitions argue that only a person's intents determine whether a behavior is aggressive or not. Behaviors that directly aim to harm can be considered as aggressive. According to behavioral definitions, the intent underlying a behavior is not important and thus any behavior that physically or emotionally damages another person is aggression (Erkuş, 1994).

Aggression is theoretically divided into four categories as physical aggression, anger, hostility and indirect aggression (Buss and Warren, 2000). Another theory classifies aggression or violent behaviors as physical violence, verbal aggression, anger and inconsiderate or sudden aggressive behaviors (Novaco, 1994). Buss and Perry (1992) argues that physical, verbal and indirect aggression involved behaviors that aim to "hurt or harm" others, which represent the behavioral component of aggression. Freedman, Sears and Carlsmith categorizes aggression into three groups as altruistic (pro-social), hostile (anti-social) and allowed aggression. They also list causes of aggression as instinct, disturbance, frustration, emotive stimulation and elements controlling aggressive behaviors as learning, reinforcement and imitation (Freedman *et al.*, 1998).

Schools have a very complex structure due to both its educational agents that comprise its body and students on whose behaviors these agents study. Any system that aims at educating people is called school and given different names such as university, faculty, institute, high school, primary school, nursery school etc (Başaran, 1996). It is one of the primary goals of schools to offer students an environment that prevents them from being immersed in useless behaviors and harmful habits or models (Başaran, 1996). Therefore, in order to fulfill this function, schools should aim at building a safe atmosphere which will exclude dangerous behaviors in the vicinity and thus set good examples and role models for students, providing students with a positive set of behaviors. However, students still witness examples of violence in schools such as beating, theft and aggression (Oğülmüş, 1995).

Family is one of the most important elements that influence an individual's level of aggression. For instance, Patterson (1974) states that children who grow up in a family with aggressive relationships tend to display more aggressive behaviors in the future. Similarly, Bandura (1983) believes that an individual encounters aggressive models in daily life in their family, sub-culture and mass communication tools. Children whose parents resort to physical punishment are more likely to display aggressive behaviors in their relationships with other people. It was demonstrated that parents who were exposed to domestic violence and abuse during their childhood treated their children in a very similar way. Yavuzer (1991) reports that children who are exposed to oppression and authoritarian, inconsistent attitudes by their parents display more aggressive behaviors later in their lives.

This study aims to determine high school students' level of aggression and compare their level of aggression based on some demographic features.

#### 2. Material and Methods

This section describes the population, sample, data collection tools and data analysis of the present study.

## 2.1. The Population and Sample of the Study

The population of the study comprises of high school students attending public and private schools in Yozgat province of Turkey during 2017-2018 school year. The sample of the study comprises of 300 students selected using random sampling method in public and private schools in Yozgat province of Turkey during 2017-2018 school year.

#### 2.2. Data Collection Tools

In the present study, students' demographic features were obtained using "personal information form". "Buss Parry Aggresion Scale" was used to determine students' views on aggressive behaviors. Further information about data collection tool can be found in the following section.

#### 2.2.1. Buss Perry Aggression Scale

The present study calculated Cronbach Alpha value as 0.88 for the whole scale. Additionally, it was calculated as 0.81, 0.52, 0.73 and 0.70 for physical aggression, verbal aggression, anger and hostility sub-dimensions, respectively. A reliability coefficient varying between .70 and .90 means a high level of reliability (Bagozzi and Yi, 1988; Nunnally and Bernstein, 1994). Therefore, it can be safely argued that that the scale is acceptable in terms of internal reliability coefficients.

## 2.2.2. Data Analysis

The data obtained from the present study were transferred to SPSS 18 statistics program. In the data analysis, frequency, percentage and arithmetic means analyses were used to describe students' demographic features. In addition, Cronbach alpha was used to test scale reliability, t test and ANOVA were used to determine differences between mean total aggression scores and mean sub-dimension scores in terms of demographic variables, and, finally, post hoc (Tukey, Tamhane 2) tests were used depending on the variance homogeneity.

# 3. Findings

Findings related to students' demographic features are given in Table 1.

		Ν	%
Gender	Male	150	50.0
	Female	150	50.0
	14	13	4.3
Age	15	70	23.3
	16	85	28.3
	17	84	28.0
	18	40	13.3
	19	8	2.7
	With Family	209	69.7
	With Relatives	2	.7
Residence Type	At Dormitory	85	28.3
	With (a) flat mate(s)	4	1.3
School Type	Public school	150	50.0
	Private School	150	50.0
Mother's Employment Status	Employed	71	23.7
1 0	Non-employed	229	76.3
	Illiterate	9	3.0
	Primary School	100	33.3
Mother's Education Level	Secondary School	71	23.7
	High School	75	25.0
	University	37	12.3
	Post-graduate	8	2.7
	Primary School	47	15.7
	Secondary School	61	20.3
Father's Education Level	High School	108	36.0
	University	74	24.7
	Post-graduate	10	3.3
	250 TL and less	64	21.3
	251 TL - 500 TL	76	25.3
Monthly Expenses	501 TL - 750 TL	68	22.7
	751 TL - 1000 TL	43	14.3
	1001 TL and more	49	16.3
	No siblings	18	6.0
Number of Siblings	1 sibling	105	35.0
0	2 siblings	85	28.3
	3 siblings	50	16.7
	4 siblings	26	8.7
	5 siblings and more	16	5.3

Table-2. Aggression scale mean total scores						
Aggression Scale N Minimum Maximum Mean Standard Deviation						
	300	34.00	124.00	80.54	18.51	

When Table 2 is analyzed, it can be noted that the minimum and maximum aggression scale scores were 34 and 124, respectively, and mean score was 80.54. Therefore, it can be argued that students in the study group do not display highly aggressive behaviors.

Buss Perry Aggression Scale Sub-dimensions N Mean Standard Deviation						
Physical Aggression	300	2.58	.82			
Verbal Aggression	300	2.78	.71			
Anger	300	2.84	.83			
Hostility	300	2.93	.78			

Table-3. Aggression scale mean sub-dimension scores

It can be observed in Table 3 that the highest aggression level among sub-dimension is hostility ( $\bar{x}=2.93$ ).

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	Gender	Ν	Mean Score	Sd	t	р
Physical Aggression	Male	150	2.74	.767	3.41	.001
	Female	150	2.42	.853		
Verbal Aggression	Male	150	2.77	.700	193	.847
	Female	150	2.79	.734		
Anger	Male	150	2.79	.743	-1.071	.285
	Female	150	2.89	.911		
Hostility	Male	150	2.80	.702	-2.831	.005
	Female	150	3.05	.840		

Table-4. t test findings related to mean sub-dimension scores in terms of gender

Table 4 indicates that a statistically significant difference was found among mean sub-dimension scores for physical aggression and hostility in terms of gender (p<.05). While male students had a higher level of aggression compared to female students in the sub-dimension of physical aggression, female students had a higher level of aggression compared to male students in the sub-dimension of hostility.

		sd	F	р
Physical Aggression	Between groups	5	1.63	.150
	Within groups	294		
	Total	299		
Verbal Aggression	Between groups	5	3.03	.011*
	Within groups	294		
	Total	299		
Anger	Between groups	5	2.47	.033*
	Within groups	294		
	Total	299		
Hostility	Between groups	5	3.10	.009***
	Within groups	294		
	Total	299		

Table-5. ANOVA findings related to mean sub-dimension scores in terms of age

\*p<.05, \*\*p<.01

Table 5 indicates that statistically significant differences were found among mean sub-dimension scores for physical aggression, anger and hostility in terms of age (p<.05).

Table-6. Multiple compa	rison test results for	r the significant	difference related to mean	n sub-dimension	scores in terms of age

	Age		Mean Difference	Standard Error	р
Verbal Aggression	14 years	16 years	68	.20	.016
		18 years	64	.22	.048
Anger	14 years	16 years	54	.24	.026
		18 years	70	.26	.007
Hostility	14 years	16 years	61	.22	.007
		17 years	56	.22	.015
		18 years	55	.24	.024
		19 years	76	.34	.029

It can be understood from Table 6 that a statistically significant difference was found between students aged 14 years and those aged 16 and 18 years old for verbal aggression and anger (p<.05). This difference is in favor of those aged 16 and 18 years old. In the sub-dimension of hostility, similarly, a significant difference was found between students aged 14 years old and those aged 16, 17, 18 and 19 years old. This difference is in favor of those aged 16, 17, 18 and 19 years old. This difference is in favor of those aged 16, 17, 18 and 19 years old. Therefore, it can be suggested that increasing age is directly proportional to aggressive behaviors.

Table-7. ANOVA findings related to mean sub-dimension scores in terms of residence type

		sd	F	Р
Physical Aggression	Between groups	3	1.772	.152
	Within groups	296	]	
	Total	299		
Verbal Aggression	Between groups	3	.536	.658
	Within groups	296	]	
	Total	299		
Anger	Between groups	3	2.360	.072
	Within groups	296	]	
	Total	299		
Hostility	Between groups	3	1.297	.276
	Within groups	296		
	Total	299		

\*p<.05, \*\*p<.01

Table 7 indicates no statistically significant differences among mean sub-dimension scores in terms of residence type (p>.05).

	School Type	Ν	Mean	Sd	t	р
Physical Aggression	Public school	150	2.43	.738	-3.120	.002
	Private school	150	2.72	.883		
Verbal Aggression	Public school	150	2.66	.720	-2.771	.006
	Private school	150	2.89	.696		
Anger	Public school	150	2.73	.798	-2.296	.022
	Private school	150	2.95	.852		
Hostility	Public school	150	2.83	.722	-2.055	.041
	Private school	150	3.02	.833		

Table-8. t test findings related to mean sub-dimension scores in terms of school type

It can be understood from Table 8 that a statistically significant difference was found among mean subdimension scores for physical aggression, verbal aggression, anger and hostility in terms of school type (p<.05). While students attending a public school had a higher level of aggression in the sub-dimension of physical aggression compared to those attending a private school, students attending a private school had a higher level of aggression.

Table-9. t test findings related to mean sub-dimension scores in terms of mother's employment status

	Employment Status	N	Mean	Ss	t	р
Physical Aggression	Employed	71	2.58	.835	.064	.949
	Non-employed	229	2.58	.825		
Verbal Aggression	Employed	71	2.90	.657	1.603	.110
	Non-employed	229	2.74	.731		
Anger	Employed	71	2.82	.818	-298	.766
	Non-employed	229	2.85	.837		
Hostility	Employed	71	3.09	.798	1.999	.047
	Non-employed	229	2.88	.774		

Table 9 indicates that a statistically significant difference was found among mean sub-dimension scores for hostility in terms of mother's employment status (p<.05). It was found out that students whose mothers were employed had a higher level of aggression in the sub-dimension of hostility.

		sd	F	р
Physical Aggression	Between groups	5	.400	.849
	Within groups	294		
	Total	299		
Verbal Aggression	Between groups	5	2.594	.026*
	Within groups	294		
	Total	299		
Anger	Between groups	5	4.069	.001**
-	Within groups	294		
	Total	299		
Hostility	Between groups	5	2.699	.021*
	Within groups	294	]	
	Total	299	1	

Table-10. ANOVA findings related to mean sub-dimension scores in terms of mother's education level

\*p<.05, \*\*p<.01

Table 10 indicates that a statistically significant difference was found among mean sub-dimension scores for verbal aggression, anger and hostility in terms of mother's education level (p < .05).

Table-11. Multiple comparison test results for the significant difference related to mean sub-dimension scores in terms of mother's education level

	Mother's Educatio	on Level	Mean Differences	Standard Error	р	
Verbal Aggression	Secondary School	High school	36	.11	.002	
	-	University	29	.14	.039	
	Primary School	High school	27	.10	.013	
Anger	Illiterate	Primary School	.86	28	.002	
		Secondary School	.89	.28	.002	
		University	.63	.30	.035	
		Post-graduate	1.14	.39	.002	
Hostility	Secondary School	High school	33	.12	.010	
		University	34	.15	.028	
	High school	Primary School	.27	.11	.021	

It can be seen in Table 11 that a statistically significant difference was found between students whose mothers graduated from secondary school and those whose mothers graduated from high school and university, and between students whose mothers graduated from primary school and high school in the sub-dimension of verbal aggression (p<.05). These differences are in favor of those who graduated from high school and university. In other words, students whose mothers graduated from high school and university. In other words, students whose mothers graduated from high school and university display more verbal aggression. When it comes to the sub-dimension of anger, a statistically significant difference was found between students whose mothers were illiterate and those whose mothers graduated from primary, secondary and high school, university and post-graduate (p<.05). This difference is in favor of those whose mothers were illiterate. It is thus evident that

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students whose mothers were illiterate had a higher level of aggression in the sub-dimension of anger. In the subdimension of hostility, a statistically significant difference was found between students whose mothers graduated from secondary school and those whose mothers graduated from high school, and between students whose mother graduated from high school and those whose mothers graduated from primary and secondary school (p<.05). These differences are in favor of those whose mothers graduated from high school and university. To put it another way, students whose mothers graduated from high school and university had a higher level of aggression in the subdimension of hostility.

		sd	F	р
Physical Aggression	Between groups	4	.450	.773
	Within groups	295		
	Total	299		
Verbal Aggression	Between groups	4	1.129	.343
	Within groups	295		
	Total	299		
Anger	Between groups	4	.686	.602
	Within groups	295		
	Total	299		
Hostility	Between groups	4	1.256	.287
	Within groups	295	]	
	Total	299		

Table-12. ANOVA findings related to mean sub-dimension scores in terms of father's education level

\*p<.05, \*\*p<.01

Table 12 indicates no statistically significant differences among mean sub-dimension scores in terms of father's education level (p>.05).

		sd	F	р
Physical Aggression	Between groups	4	2.387	.051
	Within groups	295		
	Total	299		
Verbal Aggression	Between groups	4	2.221	.067
	Within groups	295		
	Total	299		
Anger	Between groups	4	1.799	.129
_	Within groups	295		
	Total	299		
Hostility	Between groups	4	2.078	.084
·	Within groups	295	1	
	Total	299		

Table-13. ANOVA findings related to mean sub-dimension scores in terms of monthly expenses

Table 13 indicates no statistically significant differences among mean sub-dimension scores in terms of monthly expenses (p>.05).

Table-14. ANOVA findings related to mean sub-dimension scores in terms of number of siblings

		sd	F	р
Physical Aggression	Between groups	5	.326	.897
	Within groups	294		
	Total	299		
Verbal Aggression	Between groups	5	2.658	.023*
	Within groups	294		
	Total	299		
Anger	Between groups	5	.314	.904
	Within groups	294		
	Total	299		
Hostility	Between groups	5	1.090	.366
	Within groups	294		
	Total	299		

\*p<.05, \*\*p<.01

Multiple comparison test results for the significant difference related to mean sub-dimension scores in terms of number of siblings are given in Table 15.

	Number of siblings		Mean Differences	Standard Error	р
Anger	3 siblings	No siblings	59	.19	.002
		1 sibling	29	.12	.016
		2 siblings	29	.12	.019

It can be understood from Table 15 that statistically significant differences were found between students who have 3 siblings and those who have no siblings, 1 sibling and 2 siblings in the sub-dimension of anger (p<.05). This

difference is in favor of those who have no siblings, 1 sibling and siblings. Thus, it can be suggested that the number of siblings is directly proportional to the level of aggression.

## 4. Discussion

The findings of the present study indicate a statistically significant difference among high school students' mean sub-dimension scores in the sub-dimensions of physical aggression and hostility. While male students' level of aggression were higher compared to females when it comes to physical aggression, female students' level of aggression were higher compared to males in the sub-dimension of hostility.

Statistically significant differences were observed in the sub-dimensions of verbal aggression, anger and hostility in terms of age. A statistically significant difference was found between students aged 14 years and those aged 16 and 18 years old in the sub-dimensions of verbal aggression and anger. This difference is observed to be in favor of those aged 16 and 18 years old. In the sub-dimension of hostility, similarly, a significant difference was found between students aged 14 years old and those aged 16, 17, 18 and 19 years old. This difference is in favor of those aged 16, 17, 18 and 19 years old. Therefore, it is quite likely that age is directly proportional to increasing aggressive behaviors.

A statistically significant difference was found in the sub-dimensions of physical aggression, verbal aggression, anger and hostility in terms of school type. Whereas students attending a public school had a higher level of aggression in the sub-dimension of physical aggression compared to those attending a private school, students attending a private school had a higher level of aggression compared to those attending a public school in other sub-dimensions.

A statistically significant difference was observed in the sub-dimension of hostility in terms of mother's employment status. It was evident that students whose mothers were employed had a higher level of aggression in the sub-dimension of hostility.

A statistically significant difference was found in the sub-dimensions of verbal aggression, anger and hostility in terms of mother's education level. In the sub-dimension of verbal aggression, a statistically significant difference was found between students whose mothers graduated from secondary school and those whose mothers graduated from high school and university, and between students whose mothers graduated from primary school and high school. These differences are in favor of high school and university. In other words, students whose mothers graduated from high school and university display more verbal aggression. As for the sub-dimension of anger, a statistically significant difference was found between students whose mothers were illiterate and those whose mothers graduated from primary, secondary and high school, university and post-graduate. This difference is in favor of those whose mothers were illiterate. It can be stated that students whose mothers were illiterate had a higher level of aggression in the sub-dimension of anger. In the sub-dimension of hostility, a statistically significant difference was found between students whose mothers graduated from secondary school and those whose mothers graduated from high school, and between students whose mother graduated from high school and those whose mothers graduated from primary and secondary school. This difference is in favor of those whose mothers graduated from high school and university. In other words, students whose mothers graduated from high school and university had a higher level of aggression in the sub-dimension of hostility.

No statistically significant differences were observed among mean sub-dimensions scores in terms of father's education level, monthly expenses and residence type.

When students' level of aggression is analyzed in terms of number of siblings, statistically significant differences were found between students who have 3 siblings and those who have no siblings, 1 sibling and 2 siblings in the sub-dimension of anger. This difference is in favor of those who have no siblings, 1 sibling and siblings. It is evident that the number of siblings is directly proportional to the level of aggression.

- The present study was conducted in Yozgat province of Turkey. Further and extensive studies to be carried out in other regions and provinces will yield more holistic results.
- A different study focusing on a clear socio-economic level may be carried out in order to determine level of aggression among people with a high and low socio-economic status.
- The role of parents in child rearing is undeniable. In this respect, the relationship between parents' attitudes towards their children and aggression may be analyzed using different scales.
- New courses may be added to the school curricula in order to teach students how to solve and overcome their problems.

Students may be encouraged to explore their skills and thus participate in activities such as sports, art and music to keep them away from violence and aggression. In addition, new counselling systems may be designed to help talented students become specialized in these fields.

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