Investigation of aggression levels of anatolian and vocational high school students

Abstract
In this study, it is aimed to examine the aggression levels of high school students studying in Anatolian and Vocational High Schools and competing in teams according to some parameters. Aggression scale was applied to 296 students in total. Student-t test, one-way Anova and LSD tests were used to determine the differences in branches. The differences between the aggression scale scores of the students according to gender and age were not statistically significant (p>0.05). In the comparison of aggression levels in Anatolian and Vocational High Schools, there was a significant difference in the assertiveness sub-dimension (p<0.05), while the difference in destructive aggression, passive aggression and total aggression scores was insignificant (p>0.05). The differences in destructive aggression, assertiveness, passive aggression sub-dimensions and total aggression scores were found to be statistically significant (p<0.05 and p<0.001). Conclusion: It was concluded that while the aggression status of the students studying in Anatolian and Vocational high schools and doing
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active sports are similar according to gender and age, it varies according to the school they attend, the income status of their families and the sports branch they compete in. Passive aggression of students with high destructive aggression was also high. It can be suggested to investigate the aggression tendencies of high school students according to their sports background. It may be beneficial to conduct similar studies with students from different socio-demographic regions.

**Keywords:** High School. Student. Aggression. Gender. Competition.

**Introduction**

Aggression is any act that aims to harm another person verbally, physically, or indirectly. Although the word aggression is generally perceived as a negative behaviour, it
means to approach a place or someone, start something, and attack simultaneously. However, aggression is defined today as behaviours that harm, injure, or even kill and injure any living or inanimate object (Kesen et al., 2007). Aggression is a behaviour that aims to harm, injure and torture oneself or others. Aggression is associated with psychoticism, distancing, anti-social behaviour, and insensitivity towards others (Koçyiğit, 2018). All the acts that may lead to destructive and judicial consequences (stabbing, wounding with a gun, etc.), significantly more brutal acts such as such, can be defined as aggression (Süslü et al., 2023).

Aggression; destructive aggression, assertiveness, and passive aggression. Assertiveness is one of the healthy behaviours in establishing interpersonal communication and interaction. Assertiveness is also an individual's way of protecting his rights, expressing his thoughts, feelings, and beliefs in direct, honest, appropriate ways and observing the rights of others (Dervent et al., 2010). While trying to impose thought in assertive behaviour, it is done within the framework of respect—destructive aggression is considered synonymous with hostile aggression. When people cannot fulfil their expectations, they may experience negative emotions such as disappointment, sadness, and fear. A person with this intensity of emotion may exhibit an aggressive attitude that society will not accept. Here, the person aims to harm himself by moving towards the source he believes to harm himself. Passive aggression is the satisfaction of the feeling of aggression without angering the person. Since passive aggression is a passive behaviour, there is a constant avoidance of struggle. Passive aggression can be evaluated as an indirect type of aggression (Tutkun et al., 2010). Aggression may vary according to personality traits (Koca et al., 2018). Aggression is the physical and psychological harm of one or more living things to one or more living things. As a result of aggression, physical and mental destruction occurs in the attacked person. Aggressive behaviour is a typical behaviour that occurs with a feeling of inhibition. While some of the aggressive behaviours help eliminate the situation that causes the feeling of inhibition, some worsen the situation (Çolakoğlu & Solak, 2014, Karaca & İlkım 2021).

Situations such as the ambition to struggle in sports activities, exerting excessive effort, and being under a high-stress level to win can make the individual aggressive and uncontrolled (Erdoğan et al., 2018). Aggression in sports is the act of one or more of the elements (athletes, trainers and spectators) involved in the event mentioned during the sportive competition or competition, influenced by psychological, biological or social factors, to harm the opponent or to reach a goal by going beyond the determined rules specific to the sports branch. It can be verbal or physical actions (Devret, 2007). Aggression in sports is the act of
one or more of the elements (athlete, trainer, spectator) involved in the event mentioned during the sportive competition or competition, influenced by psychological, biological, or social factors, to harm the other person or to reach a goal, by going beyond the determined rules specific to the sports branch. It can be verbal or physical actions (Yamak et al., 2019). *Aggression* can be defined as actions that involve violence, which is carried out for a target, cause damage, injury, or death as a result, and threaten the safety of people and society (Yıldız, 2004). *Aggression* is a behaviour seen in individuals at all levels of education, from pre-school to university, and is associated with negative characteristics (Camadan & Yazıcı, 2017).

This study it is aimed to examine the aggression levels of high school students studying in Anatolian and Vocational High Schools and competing in teams according to some parameters.

**Methodology**

**2.1 Participants**

Students studying at Anatolian and Vocational High Schools were included in the study. Of the 296 students, 141 are girls, and 155 are boys. Anatolian high school students are 152, and vocational high school students are 144. The students selected for the research are the participants of the competitions in different branches in their schools' teams.

**2.2 Data Collection Tools**

Apart from personal information, students were asked to fill out an aggression inventory. Permission was obtained from the parents of the students.

**2.3 Aggression Inventory Scale**

The "Aggression Inventory" (Kiper, 1984), consisting of 30 items, was used in the study. This aggression scale consists of three subtests: destructive, passive, and assertiveness. The scale, which includes ten items for each subtest, consists of 30 items. 1, 2, 3, 13, 14, 15, 22, 23, 24, 29 with destructive aggression, 7, 8, 9, 16, 17, 18, 25, 26, 27, 30 with passive aggression, 4, 5, 6, 10, 11, 12, 19, 20, 21, 28 are about assertiveness. Participants were asked
a 7-point Likert-type scale for each item (3=Very suitable for me, 2=Adjustable to me partially, 1=Adjustable to me, 0=Undecided, -1=Not suitable for me, -2 Partially unsuitable, - 3=Not suitable at all) evaluate themselves. Participants who tick "Very suitable for me" get 30 points from the survey, while those who tick "Not at all suitable" get -30 points. However, since negative scores cannot be used during statistical analysis and the number of zeros will cause problems, 31 numbers are added to the total score, the lowest score from each subtest is 1, and the highest score is 61. Based on the total scores of all three subscales, a general aggression score is obtained, where the lowest score will be three and the highest score will be 183 (Albayrak, 2016). The Cronbach alpha reliability coefficients of the Aggression scale applied for this study were calculated as .82 for destructive aggression, .85 for passive aggression, and .88 for assertiveness.

2.4 Statistical Analysis

The conformity of the data to the normal distribution was evaluated with the Kolmogorov-Smirnov test. Student's t-test, one-way ANOVA and LSD tests were used to determine the different groups in the data evaluation.

2.5 Ethical Report

This study was approved under the letter dated 27.11.2019 and numbered 923408882-050.04.06 of the Research Ethics Committee of the Non-Invasive Clinic of the Faculty of Health Sciences of Aydın Adnan Menderes University.

Results

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>St. Deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Destructive aggression</strong></td>
<td>Girls</td>
<td>141</td>
<td>29.61</td>
<td>11.93</td>
<td>1.93</td>
<td>0.054</td>
</tr>
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<td></td>
<td>Boys</td>
<td>155</td>
<td>27.03</td>
<td>11.08</td>
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</tr>
<tr>
<td><strong>Assertiveness</strong></td>
<td>Girls</td>
<td>141</td>
<td>45.01</td>
<td>7.91</td>
<td>-1.30</td>
<td>0.194</td>
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<td>46.21</td>
<td>7.93</td>
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<tr>
<td><strong>Passive aggression</strong></td>
<td>Girls</td>
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<td>27.99</td>
<td>11.11</td>
<td>1.83</td>
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<td>155</td>
<td>25.86</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>General aggression</strong></td>
<td>Girls</td>
<td>141</td>
<td>102.61</td>
<td>21.06</td>
<td>1.52</td>
<td>0.127</td>
</tr>
<tr>
<td></td>
<td>Boys</td>
<td>155</td>
<td>99.10</td>
<td>18.47</td>
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</tr>
</tbody>
</table>

*Table 1. Comparison of students' aggression scale scores by gender*

Source: Research Results
The differences between the aggression scale scores of the students according to
gender were not statistically significant (p>0.05).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>St. Deviation</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destructive aggression</td>
<td>Anatolian High School</td>
<td>152</td>
<td>27.82</td>
<td>12.12</td>
<td>-0.67</td>
<td>0.528</td>
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<td></td>
<td>Vocational high School</td>
<td>144</td>
<td>28.72</td>
<td>10.93</td>
<td></td>
<td></td>
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<tr>
<td>Assertiveness</td>
<td>Anatolian High School</td>
<td>152</td>
<td>46.66</td>
<td>8.54</td>
<td>2.28</td>
<td>0.023*</td>
</tr>
<tr>
<td></td>
<td>Vocational high School</td>
<td>144</td>
<td>44.57</td>
<td>7.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive aggression</td>
<td>Anatolian High School</td>
<td>152</td>
<td>26.28</td>
<td>10.23</td>
<td>-1.04</td>
<td>0.296</td>
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<tr>
<td></td>
<td>Vocational high School</td>
<td>144</td>
<td>27.50</td>
<td>9.86</td>
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<tr>
<td>General aggression</td>
<td>Anatolian High School</td>
<td>152</td>
<td>100.75</td>
<td>20.50</td>
<td>-0.108</td>
<td>0.986</td>
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<tr>
<td></td>
<td>Vocational high School</td>
<td>144</td>
<td>100.79</td>
<td>19.08</td>
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</table>

Table 2. Comparison of aggression levels according to Reading Status in Anatolian and Vocational High Schools
*p<0.05
Source: Research Results

In the comparison of aggression levels in Anatolian and Vocational High Schools, there was a significant difference in the assertiveness sub-dimension (p<0.05), while the
difference in destructive aggression, passive aggression and total aggression scores was
insignificant (p>0.05). Assertiveness scores of Anatolian high school students are higher than
vocational high school students.
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*Table 3. Comparison of aggression levels by age*
Source: Research Results

The differences between the aggression scale scores of the students by age were not statistically significant (p>0.05).

*Table 4. Comparison of aggression levels by income level*
p<0.05 and p<0.001
Source: Research Results

In the comparison of aggression levels according to income status, no significant difference was found in destructive and passive aggression (p>0.05), while a significant difference was found in assertiveness and total aggression scores (p<0.05 and p<0.001).
The differences in destructive aggression, assertiveness, passive aggression sub-dimensions and total aggression scores were found to be statistically significant (p<0.05 and p<0.001).

**Discussion**

According to some research results, gender influences aggression, and men tend to have a higher level of physical aggression than women (Güner, 2007; Eliöz et al., 2019). Studies showing that gender affects aggression levels show that women are more assertive and passive aggressive (Eliöz et al., 2018; Yıldız, 2009; Çolakoğlu & Solak, 2014). There are also studies where men are high in physical, impulsive, verbal and all aggression dimensions (Bjorkqvist et al., 1992; Yaşankul, 2007; Pekince, 2012; Yurttas, 2016). In the comparisons made in terms of the gender variable, it was concluded that the aggression of male students was higher than that of females (Camadan & Yılmaz, 2017). Other studies state that physical aggression is higher in men than in women (Yamak et al., 2019). Araz (2017) found a significant difference in the destructive aggression, assertiveness and passive aggression scores of the participants who do sports according to the gender variable. As a result of the study conducted by Erşan et al. (2009), it was determined that the mean destructive aggression score of men was higher than that of women. On the other hand, Tutkun et al. (2010), contrary to the results obtained in previous studies, the aggression sub-scores of female athletes were higher than those of male athletes, but no statistically significant difference was found. Akandere et al. (2006) and Menteş (2008) found that women's mean score of assertiveness was higher than that of men. In their study, Dilek and İmamoğlu (2020) found the anger status of sports-trained students to be similar according to gender. Anger can increase their aggression. Veziroğlu et al. (2020) found that gender did not affect aggression levels in secondary school students. Süslü et al. (2023) found that male students tended to be more aggressive than female students in secondary school students. In this study, when the

<table>
<thead>
<tr>
<th>General aggression</th>
<th>Total</th>
<th>296</th>
<th>26.87</th>
<th>10.05</th>
<th>6.02</th>
<th>0.000**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volleyball (1)</td>
<td>97</td>
<td>108.16</td>
<td>19.29</td>
<td></td>
<td></td>
<td>1&gt;2,3,4</td>
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<tr>
<td>Football (2)</td>
<td>84</td>
<td>95.48</td>
<td>17.17</td>
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<tr>
<td>Futsal (3)</td>
<td>50</td>
<td>97.48</td>
<td>21.89</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Basketball (4)</td>
<td>42</td>
<td>97.17</td>
<td>19.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (5)</td>
<td>23</td>
<td>102.65</td>
<td>18.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>296</td>
<td>100.77</td>
<td>19.79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Aggression status in school teams according to Competition branch

Source: Research Results
aggressive tendencies of high school students by gender were examined, the difference between assertiveness, destructive and passive aggression sub-dimensions and general aggression scores were found to be statistically insignificant (p>0.05). The fact that the students are in a similar age group may also affect the results like Veziroğlu's study. Although the aggression scores of the boys were higher than the women in general, in this study, the aggression scores of the girls were found to be higher than the boys, although it was not significant. This may be due to many factors, as well as the fact that high school girls arrive earlier than boys and are situations for women (menstruation, etc.).

Araz (2017) found a significant difference between the students' destructive aggression, assertiveness and passive aggression scores depending on the departments they studied. Yamak et al. (2019) found that university students had higher aggression levels compared to Sports high school students in their study. In this study, in the comparison of aggression levels in Anatolian and Vocational High Schools, there was a significant difference in the assertiveness sub-dimension (p<0.05), while the difference in destructive aggression, passive aggression and total aggression scores was found to be insignificant (p>0.05). Assertiveness scores of Anatolian high school students are higher than vocational high school students. In Turkey, there is an impression that the children of families with a high economic and cultural level generally attend Anatolian high schools. In contrast, students studying at vocational high schools come from families with lower economic and cultural levels. Children with a high economic and cultural level are expected to be more assertive than others.

In their study, Süslü et al. (2023) did not find a significant difference between the aggressive tendencies of the students and their age and class levels according to the age and grade level variables in middle school students. In this study, the differences between the aggression scale scores of the students by age were not statistically significant (p>0.05). The fact that there is no significant difference according to age may also be because the ages of the students participating in the research are generally in the age range where the same similar characteristics are shown.

In the study of Albayrak (2016), no significant difference was found between the aggressive tendencies of football fans according to their income level. In their study, Dilek and İmamoğlu (2020) found little difference in anger levels in students with sports education according to income status. In this study, no significant difference was found in destructive and passive aggression when comparing aggression levels according to income (p>0.05). In contrast, a significant difference was found in assertiveness and total aggression scores (p<0.05 and p<0.001). Children with higher income levels generally have higher aggression
scores. This height is seen more clearly, especially at the high assertiveness scores. The fact that the assertiveness scores of Anatolian high school students are significantly higher than those of vocational high school students also supports this situation.

In the study of Çolakoğlu and Solak (2014), no significant difference was found in general, passive, and assertive aggression according to the school type variable. A study found that the aggression levels of Fine Arts and Sports High School Painting Department students were lower when compared to General High School students (Taşkesen, 2013). A study by Demirtaş et al. (2018) found a similar tendency to aggression, apart from assertiveness, in students studying sports and fine arts at the University. Dervent et al. (2010) found in their study that the assertiveness scores of the subjects doing sports were higher than those of the subjects who did not do sports, and the mean of destructive aggression was lower, while there was no significant difference between the groups in passive and general aggression scores. Eliöz et al. (2019) found a significant difference in all dimensions according to the state of doing sports. Veziroglu et al. (2020) found that the aggression levels of secondary school students did not differ according to whether they did sports or not. Assertiveness in sports is athletes' use of physical strength to the extent permitted by the rules but up to the limit (Aktaş et al., 2004). High assertiveness scores in this study will contribute to the success of students.

In this study, the differences in destructive aggression, assertiveness, passive aggression sub-dimensions and total aggression scores were statistically significant (p<0.05 and p<0.001). In this study, the aggression scores of the students competing in the volleyball branch were higher than those competing in football, futsal, basketball, and other branches. Mainly assertiveness scores are higher in students competing in volleyball and basketball branches. In addition to the student characteristics, this may be because these branches are preferred by the children of families with a higher economic and cultural level in Turkey than the others.

**Conclusion**

It was concluded that while the aggression status of the students studying in Anatolian and Vocational high schools and doing active sports are similar according to gender and age, it varies according to the school they attend, the income status of their families and the sports branch they compete in. Passive aggression of students with high destructive aggression was also high. It can be suggested to investigate the aggressive tendencies of high school students according to their sports background. Conducting similar studies with students from different socio-demographic regions may be beneficial.
References


Çolakoğlu F.F., Solak N. (2014). Analysis And Examination of Aggression Levels And Empathetic Tendency Levels Of Secondary School Students According to The Type of School and Gender (Case of Çorum Province), The Journal of Academic Social Science Studies, Number: 26, 57-66. Doi number:http://dx.doi.org/10.9761/JASSS2392


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