THE PREDISPOSITION TO PHYSICAL EDUCATION OF
HIGH SCHOOL STUDENTS ATTENDING TO SCHOOL SPORTS
AND INVESTIGATION OF THEIR SPORTMANSHIP BEHAVIORS
IN PHYSICAL EDUCATION COURSE

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Abstract:
The aim of this study was to investigate the predisposition towards physical education of high school students attending to school sports and sportmanship behaviors in physical education course. In this study, the subjects were 1049 high school students who participated in school sports. Personal Information Form, Physical Education Predisposition Scale (PEPS) and Sportmanship Behaviour Scale in Physical Education Course (SBSPEC) were used for data collection. The data were analysed by using Pearson Product-Moment Correlation Coefficient, Multivariate Analysis of Variance (MANOVA), Multiple Regression Analysis. In this study, the significance level was identified as p<.05 and p<.01. PEPS results showed that gender and sports branch variables as the sub-dimensions of self-efficacy are significantly different (p<.05) whereas attitude as other sub-dimension and the mean of PEPS did not show any significant difference. Also, SBSPEC results showed that gender variable is significantly different (p<.05) in terms of Exhibiting Positive Behaviours (EPB), Avoidance Negative Behaviours (ANB) and SBSPEC. However, there was no significant difference in sports branch variable. The analysis showed that there was a small and positive correlation between PEPS and SBSPEC. In the study, it was found that attitude and self-efficacy levels predict sportmanship behaviors positively, low level and statistically significant in physical education course. The attitude and self-efficacy levels of high school students who participated in school sports were positive, low level and statistically significant predictive factors of sportmanship acts displayed through physical education classes.

Keywords: sports, physical education, sportmanship, predisposition

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1. Introduction

Physical education and sports is a complementary part of educational programs, which enables individuals to improve their psychomotor, affective and cognitive skills through physical activities (1). Thus, physical education and sports not only address all areas of one’s development but also contribute to the improvement of society (2). In addition to this, they stimulate a person to do physical activities. By physical education, the ones who have a predisposition to sports could easily be identified. Without this education, future talents of sports might go unnoticed (3). However, this is not the only aim of physical education. Helping individuals to form a lifelong habit of doing sports and internalize related values are also considered as some of its aims. Objectives of physical education and sports programs could be gained through school sports.

School sports contain both the educational objectives and spirit of competition. The general aim of such activities is to raise physical, cognitive and psychological awareness among students. In accordance with this aim, improving cooperation and interdependence among students, enhancing rule awareness and getting them to internalize values such as sharing, helpfulness, tolerance, and justice could be achieved (4). School activities have an important impact on internalizing values, socializing, being a part of society by learning the rules, improving self-confidence and staying away from bad habits (5). Besides improving self-confidence and self-regulation, they help build team spirit and lead to sportmanship behaviours (6). It should be noted that to achieve these aims students should feel competent enough and exhibit positive attitudes in physical education and sports lessons.

It is widely known that self-efficacy affects how individuals set a goal, make an effort to achieve it and deal with possible difficulties through the way (7). Attitude, on the other hand, is known as a tendency, which is shown before adopting certain behaviour. Also, it could divert the behaviour (8). In other words, attitude shapes one’s thoughts, feelings, and behaviours towards a psychological object (9). Self-efficacy and attitudes not only affect individuals’ behaviours but also affects how they exhibit sportmanship or non-sportmanship behaviours. Sportmanship here means the behaviours men or women exhibit during sports competitions. To put it another way, it is defined as not committing fouls to win but being fair and kind to the rival (10). Sportsman, on the other hand, is defined as an individual who has good manners, is noble, affectionate to the younger, respectful to the elders, beneficial to the society and always improves himself/herself both physically and mentally (11). For spreading such ethical values in sports to the whole society and increasing the number of sportsmen, education is the most vital action to take. This education is offered in schools through physical education and sports courses. By these courses, creating awareness and internalizing ethical values in sports are aimed to achieve. When educational program of physical education and sports is analysed to show how ethical values are important in sports and sports lessons (12), it was seen that there are specific aims as “to raise students as being aware of sports and as social individuals by enabling them to participate in sports
activities” and “to have them learn to accept, respect and be honest to others, displaying fair play and making it a lifelong habit”. At this point, school sports’ ethical and humanistic general aims are identified as creating awareness among children and youth about physical, psychological, moral and social health and having them internalize these values. By these general aims, besides internalizing values such as interdependence, cooperation, justice, tolerance, and helpfulness, creating rule awareness for enabling individuals to adapt to society is also hoped to achieve (4). Giving the fact that in Turkey, as part of the formal education, there are 18.108.860 students (13), the importance of physical education and sports classes on raising future sportsmen could be revealed. Motivating from this fact, in this study the aim is to investigate the relationship between high school students’, who participate in school sports, capability in physical education and sportmanship acts displayed through physical education classes.

2. Material and Methods

The population consisted of 15,312 high school students who participated in school sports in the city the study was conducted. The sample group consisted of 1049 high school students who participated in school sports. Also, 18 high schools which include different types of schools participated in the study. Students were selected randomly, and volunteer students were given a volunteer consent form.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Female</td>
<td>436</td>
<td>41.6</td>
</tr>
<tr>
<td>Male</td>
<td>613</td>
<td>58.4</td>
</tr>
<tr>
<td>Sports branch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual sports</td>
<td>370</td>
<td>35.3</td>
</tr>
<tr>
<td>Team sports</td>
<td>679</td>
<td>64.7</td>
</tr>
<tr>
<td>Total</td>
<td>1049</td>
<td>100</td>
</tr>
</tbody>
</table>

2.1. Physical Education Predisposition Scale (PEPS)

To investigate the attitudes and self-efficacy of students towards physical education, Physical Education Predisposition Scale (PEPS) which was developed by Hilland, Stratton, Vinson and Fairclough (14) and adapted to Turkish as Boden Eğitimi Yatkınlık Ölçeği [Physical Education Predisposition Scale] by Öncü, Gürbüz, Kıcık, Kılç and Keskin (15) was used. The scale consists of 11 items and 2 factors (Attitude and Self-efficacy). The items were in a five-point Likert scale form. The options were like “Totally Disagree (1)”, “Disagree (2)”, “Neutral (3)”, “Agree (4)”, “Totally Agree (5)” and the scale was scored accordingly. In the original form of the scale, the internal consistency value was measured as 0.91 for ‘Attitude’ and 0.89 for ‘Self-efficacy’ (14). However, while adapting it to Turkish, Cronbach Alpha value was measured 0.84 for ‘Attitude’ and 0.85 for ‘Self-efficacy’ (15). In this study, PEPS’ Cronbach Alpha value was measured as .838. Attitude’s, one of the sub-dimensions of PEPS, Cronbach Alpha value was .771, and self-
efficacy’s, another sub-dimension of the scale, was .865. These results demonstrated that the scale was highly reliable.

2.2. Sportmanship Behaviour Scale in Physical Education Course (SBSPEC)
SBSPEC which was prepared for secondary school students by Koç (16) has two factors (EPB: Exhibiting Positive Behaviours, ANB: Avoidance Negative Behaviours). It is a scale consists of a five-point Likert scale with 22 items. The rating of the items aimed to measure the frequency of given behaviours in the scale. It was like: “Always (5)”, “Very often (4)”, “Sometimes (3)”, “Rarely, (2)” and “Never (1)”. It was seen that the higher the scores students get from the scale, the higher the level of sportmanship of students. Koç (2013) measured Cronbach Alpha value as .88. One of the sub-dimensions of the scale, EPB’s (Exhibiting Positive Behaviours) Cronbach Alpha value was .86 and the other sub-dimension, ANB's (Avoidance Negative Behaviours) was .84. (16). In this study, SBSPEC’s Cronbach Alpha value was measured as .856. This result showed that the scale is highly reliable.

2.3. Data Analysis
To analyse the data IBM SPSS Statistics 25 was used. To investigate high school students’, who participated in school sports, predispositions to physical education and sportmanship behaviours displayed through physical education course, Pearson Product-Moment Correlation Coefficient, MANOVA, Multiple Regression Analysis were used. The significance level was identified as p<.05 and p<.01 in this study.

3. Results
MANOVA analysis of SBSPEC showed that gender’s main effect was statistically significant (Pillai’s Trace= .089, F(2.1044)=51.092, p=.000, η²=.089) while for sports branch there was no significant difference (Pillai’s Trace= .001, F(2.1044)=0.376, p=.687, η²=.001). The results of Multiple Regression Analysis made after identifying significant differences in gender could be seen in Table 2.

Table 2: Multiple comparison test on finding gender effect significant

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SS</th>
<th>F2,1044</th>
<th>p</th>
<th>η²</th>
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</thead>
<tbody>
<tr>
<td>EPB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3.82</td>
<td>.04</td>
<td>12.886</td>
<td>.000**</td>
<td>.012</td>
</tr>
<tr>
<td>Male</td>
<td>3.64</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3.92</td>
<td>.04</td>
<td>98.779</td>
<td>.000**</td>
<td>.086</td>
</tr>
<tr>
<td>Male</td>
<td>3.33</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBSPEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3.87</td>
<td>.03</td>
<td>83.774</td>
<td>.000**</td>
<td>.074</td>
</tr>
<tr>
<td>Male</td>
<td>3.48</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01
EPB: Exhibiting Positive Behaviours;
ANB: Avoidance Negative Behaviours;
SBSPEC: Sportmanship Behaviour Scale in Physical Education Course.
According to Table 2, the results of the analysis showed that female students’ SBSPEC scores (mean=3.87, SS=.03) were significantly higher than males’ scores (mean=3.48, SS=.03). In one of the sub-dimensions of SBSPEC, EPB, female students’ mean scores (mean=3.82, SS=.04) were significantly higher than males’ mean scores (mean=3.64, SS=.03). In the other sub-dimension of SBSPEC, ANB, again females’ mean scores (mean=3.92, SS=.04) were significantly higher than males’ mean scores (mean=3.33, SS=.04).

MANOVA results of PEPS showed that the main effect of the gender variable (Pillai’s Trace=.016, F(2.1044)=8.669, p=.000, η²=.016) and sports branch variable (Pillai’s Trace=.005, F(2.1044)=2.836, p=.05, η²=.005) were significant for self-efficacy. The results of the MANOVA of gender and sports branch are presented in the Table 3.

<table>
<thead>
<tr>
<th>Dimension Variable</th>
<th>n</th>
<th>Mean</th>
<th>SS</th>
<th>F(2,1044)</th>
<th>p</th>
<th>η²</th>
</tr>
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<td>Gender</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>1049</td>
<td>3.38</td>
<td>.05</td>
<td>12.584</td>
<td>.000**</td>
<td>.012</td>
</tr>
<tr>
<td>Male</td>
<td>1049</td>
<td>3.61</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports branch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Sports</td>
<td>1049</td>
<td>3.58</td>
<td>.04</td>
<td>5.654</td>
<td>.018*</td>
<td>.005</td>
</tr>
<tr>
<td>Team Sports</td>
<td>1049</td>
<td>3.42</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

According to the analysis in Table 3, it was found that male students’ self-efficacy scores (mean=3.61, SS=.04) were significantly higher than female students’ self-efficacy scores (mean=3.38, SS=.05). In terms of the sports branch variable, the mean scores of the students that participated in team sports (mean=3.58, SS=.04) were significantly higher than the students that participated in individual sports (mean=3.42, SS=.05).

Table 4: Standard multiple regression analysis of the effect of PEPS (Attitude and self-efficacy sub-dimensions) on SBSPEC

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>Std. Error</th>
<th>β</th>
<th>t</th>
<th>p</th>
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<tr>
<td>Constant</td>
<td>2.759</td>
<td>.089</td>
<td></td>
<td>31.122</td>
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</tr>
<tr>
<td>Attitude</td>
<td>.180</td>
<td>.024</td>
<td>.244</td>
<td>7.567</td>
<td>.000**</td>
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<tr>
<td>Self-efficacy</td>
<td>.074</td>
<td>.021</td>
<td>.111</td>
<td>3.435</td>
<td>.001**</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td>54.035</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td>.30**</td>
<td></td>
</tr>
<tr>
<td>ΔR²</td>
<td></td>
<td></td>
<td></td>
<td>.094</td>
<td></td>
</tr>
</tbody>
</table>

**p<.01, Method: Enter

The analysis of Table 4 revealed that attitude and self-efficacy levels of the high school students that participated in school sports predicted their physical education course sportmanship behaviours at a low level and in a positive and statistically significant way (F=54.035, p<.01, R²=.094). It was found that attitude and self-efficacy, which are sub-dimensions of PEPS, accounted for 9.4% of the total variance in sportmanship behaviours in physical education classes. Moreover, the results of the analyses revealed that there was a small and positive correlation (r=.30, n=1049, p<.001) between PEPS (attitude and
self-efficacy sub-dimensions) and SBSPEC. According to these results, the increase in physical education course sportmanship behaviours is related to the increase in physical education predisposition scores.

4. Discussion and Conclusion

Negative situations that occur during sports competitions suggest that sports stakeholders have not received sufficient education on sports ethics. Sports fans present in various parts of sports view it in accordance with their aims and wishes, and this situation causes sports to lose its essence in time. When the comments of a sports commentator, the behaviour of a soccer player, the attitude of a trainer or the content of a fan’s cheers are not appropriate due to objectives such as the ambition to win, prestige, respectability, and money, it becomes a research area for ethics and morals because ethics and morals are concerned with whether a behaviour is good, correct, fair, and applied. Raising morally good individuals that really love sports only seems possible through education. Schools, where decision-makers of the future are raised, are especially important. They define the structure of the future society through lessons taught in accordance with curriculums that are created in this context. In that vein, physical education and sports courses are considered to be really important in order to raise future sportspeople that are morally good.

The results of the MANOVA test on the gender variable in Table 2 revealed that there was a significant difference in favor of female students between the mean scores of SBSPEC, EPB, and ANB. The review of the literature shows that while in some studies a significant difference was not found (17, 18, 19), some found a significant difference in favor of female students in sportmanship behaviours (20, 21, 22, 23, 24). The current study showed similarities with studies that were analysed through the literature review. The society does not approve of females’ unethical behaviours and females are believed to be more sentimental. These factors were considered as the reason for female students getting higher sportmanship behaviour scores than male students in this study. Males’ inclination towards sports where there is more physical interaction and their ambition to win were believed to influence their inappropriate sportmanship behaviours. Moreover, males expressing behaviours that could be qualified as inappropriate for sportmanship in an open and physical way and females expressing them in a mental and verbal way (25) were considered to be another reason. The mean scores of the students’ SBSPEC were also found to be high (mean=3.64, SS=.67). This indicates that students behave appropriately as sportspeople.

The results of the MANOVA test on sports branch variable in Table 2 revealed no significant difference between the mean scores of SBSPEC. While some studies found a significant difference between team and individual sports (21, 20, 23, 18), some reported not finding any significant difference (17, 26, 25). The results of the current study show similarities with studies that did not find any significant difference between team and individual sports.
According to the results of the MANOVA test on the gender variable in Table 3, there was no significant difference between the mean scores of PEPS and attitude levels of female and male students. While some studies in the literature did not find any significant difference between attitude levels, which is a sub-dimension of PEPS, in terms of gender (27, 28), some found a significant difference (29, 30, 31, 32). When compared to the studies in the literature, the current study showed parallel results with the studies that found no significant difference between attitude levels in terms of gender while showing no similarities with studies that found a difference. It is believed that the participation of students of both genders in school sports was the reason for not finding a significant difference in terms of gender in this study. School sports involve the participation of students that love sports in the sports competitions organized between schools in accordance with their own wishes. Therefore, they require the students to participate in them with their free will and to love physical education and sports activities.

In the current study, a significant difference in self-efficacy, which is another sub-dimension of PEPS, was found in terms of gender. The review of the literature reveals that the self-efficacy levels of the students in terms of the gender variable were found to be significantly different in some studies (33, 34) while some studies could not find any significant difference (35, 36). The results found in this study were in contrast with the studies that did not find a significant difference whereas they were similar to the studies that found a significant difference. It is believed that male students being involved in sports from an early age was one of the reasons for their higher levels of self-efficacy. The soccer branch, in particular, has an influence on many boys’ inclination towards and participation in this branch, whether they are skilled or not. Therefore, boys view themselves as more experienced and efficient due to the games that they have played in neighborhood fields from an early age. Girls, on the other hand, prefer to play different games with friends who are around their age. Even during physical education courses, almost all of the boys prefer to play soccer while girls play different games in small groups or prefer to participate in different sports branch. Moreover, it was found that students had high levels of self-efficacy in terms of the gender variable (mean=3.54, SS=1) in the current study. This result indicates that the students that participated in this study viewed themselves as efficient in physical education courses. The analysis of the literature in this field reveals that some studies also found similar results (35, 36).

The results of the MANOVA test on sports branch variable in Table 3 showed that there was no significant difference between the students’ mean scores of PEPS and attitude levels. The literature review revealed that while there were no studies investigating PEPS in relation to sports, there was only one study investigating attitude towards physical education (37). The findings of that study show similarities with the findings of the current study.

It was found that there was a significant difference in terms of sports branch variable in self-efficacy, a sub-dimension of PEPS. This difference was in favor of the students that participated in team sports. In a study conducted with high school students
consisting of athletes and non-athletes, there was no significant difference in the subdimensions of athletic self-efficacy and global efficacy of students who played soccer, basketball, volleyball, and handball (38). In another study, the locus of control and physical self-focus of elite athletes were compared in terms of gender, sports branch, and sports experience. The results of the analysis reported that there was not a significant difference between sports branch and groups (39). The studies in the literature show no similarities with the findings of the current study. The results of this study indicate that succeeding as a team has a positive effect on the self-efficacy levels of students that participate in team sports. When teams succeed, individuals could think that their efforts contribute to the success of the team, which would increase their self-efficacy beliefs. However, in individual sports, individuals could attribute success as well as failure merely to their self-efficacy. In this case, when students participating in individual sports lose a game due to an insignificant error, they could attribute this to their inadequacy. Moreover, while another teammate can compensate for a mistake in team sports, a mistake made in individual sports could result in the loss of a game. This could cause athletes to stop believing in their abilities.

According to the results of the standard multiple regression analysis of the effect in Table 4, the power of attitudes and self-efficacy of secondary school students participating in school sports to predict sportsmanship behaviors was investigated and it was found that attitude and self-efficacy explained 9.4% of the total variance of sportsmanship behaviors.

According to this result, it can be said that attitude and self-efficacy explain a small part of the total variance of sportsmanship behaviors. Bandura (1977) stated that competence belief has a significant effect on aggression behaviors (40). Anderson and Bushman (2002) stated that attitudes and self-efficacy of the individual had a significant effect on aggression behaviors in the general aggression model (41). Kumar and Lal (2006) also found that self-efficacy affects individual's behavior choice and emotional responses in their research (42).

In exhibiting behaviors contrary to sportsmanship; performance (43), moral climate (44, 45, 46) prevention (47), instinct (43, 48), social learning (49, 50), sporting attitudes (51), task and ego orientation (52) and motivational climate (53) It has been found to be effective. Yousefi et al. (2012), in their study, perceived motivation of climate; found that rules are a good predictor of respect for the opponent and suitability for society (53).

Shields et al. (2007) reported that the best predictors of non-sporting behaviors were; coach behaviors, team norms, sportsmanship attitudes and reported that the coach's attitude.

In addition, they found that gender and competition experience explained 8.6% of sportsmanship, and motivational pattern explained 10% of sportsmanship (51). They stated that competitiveness, cooperation and high status explained 15% of sportsmanship. Stornes and Ommundsen (2004) found that task orientation and perceived motivational climate predicted sportiness at a high level. On the other hand,
they found that players with ego orientation had less compliance with the rules, showed less respect for the opponent and exhibited non-sporting behaviors. As a result of their analysis of task and ego objectives; explained 14% of respect to the rules and authorities. They found that ego goals and performance climate accounted for 31% of negative approaches to sporting together (52).

It is believed that conducting the study with different sample groups (e.g., athletes and non-athletes) and using different variables (e.g., age and sports branch) could be effective in finding the factors affecting sportmanship.

References


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