Fernández-Río, Javier; Méndez-Giménez, Antonio; Cecchini, José A.; González de Mesa, Carmen
Achievement Goals and Social Goals' Influence on Physical Education Students' Fair Play
Revista de Psicodidáctica, vol. 17, núm. 1, 2012, pp. 73-91
Universidad del País Vasco/Euskal Herriko Unibertsitatea
Vitoria-Gasteiz, España

Available in: http://www.redalyc.org/articulo.oa?id=17523162006
Achievement Goals and Social Goals’ Influence on Physical Education Students’ Fair Play

La influencia de las metas de logro y las metas sociales sobre el fair play de estudiantes de Educación Física de Secundaria

Javier Fernández-Río, Antonio Méndez-Giménez, José A. Cecchini, and Carmen González de Mesa

Universidad de Oviedo

Abstract

This study examined how the different achievement goal profiles (approach-avoidance to mastery or performance), and the social goals (relationship and responsibility) affect physical education students’ fair play. 304 students from two different high schools participated in the study. Results revealed that performance goals positively correlated to hard play and victory, while mastery goals (approach and avoidance) positively correlated to enjoyment. Similarly, social goals (responsibility and social relation) were negatively correlated with hard play and positively with diversion. There were also found significant differences on some of these variables according to gender and sport practice besides physical education. Finally, a hierarchical cluster analysis uncovered three independent fair play profiles related to the other variables studied.

Keywords: Sportspersonship, approach, avoidance, cluster.

Resumen

El presente estudio examinó cómo los diferentes perfiles de metas de logro (aproximación-evitación al aprendizaje y al rendimiento) y de metas sociales (relación y responsabilidad) afectan al fair play del alumnado de Educación Física. 304 estudiantes de 2 institutos de Educación Secundaria participaron en la investigación. Los resultados indican que las metas de rendimiento se relacionan positivamente con las actitudes de juego duro y victoria, mientras que las metas de aprendizaje (aproximación y evitación) lo hacen positivamente con las actitudes de diversión. Asimismo, las metas de relación y de responsabilidad se relacionan negativamente con el juego duro y positivamente con la diversión. También, se encontraron diferencias significativas en algunas de estas variables en función del género y de la práctica deportiva fuera del ámbito educativo. Finalmente, un análisis de conglomerados jerárquico reveló tres perfiles diferentes de fair play que interrelacionan con el resto de variables estudiadas.

Palabras clave: Deportividad, aproximación, evitación, clúster.

Correspondencia: Javier Fernández-Río, Departamento de Ciencias de la Educación, Universidad de Oviedo. C/ Aniceto Sela, s/n. Despacho 239. 33005 Oviedo, (España). E-mail: javier.rio@uniovi.es.
Introduction

Due to the growing interest of our society in sport, socio-moral behavior in sport practice has been an important element of study in the last couple of decades (Boixadós & Cruz, 2000; Bredemeier, Weiss, Shields, & Cooper, 1987; Cecchini, González, Lópeze, & Brustad, 2005; Cecchini, González, & Montero, 2007; Conroy, Silva, Newcomer, Walker, & Johnson, 2001; Kavussanu & Ntoumanis, 2003; Moreno & Vera, 2011). Regarding this issue, research agrees on the idea that the development of this behavior in young people is a complex phenomenon that is influenced by multiple factors. Moreover, sport does not inherently support the development of positive behaviors in young people (Hellison, 1995; Kavussanu & Ntoumanis, 2003).

The term fair play comprises a group of social and moral values that people put into practice through a series of behaviors when they practice sport. Vallerand, Brière, Blanchard, and Provencher (1997) include in its definition the respect for rules, referees, social norms and opponents, and a commitment to sport within a positive sport practice. Authors such as Rudd and Gordon (2010, p. 470) believe that: “sportsmanship can be understood not only in terms of compliance with various moral and social values but also with a desire to act in a manner of sublime nobility”. Boixadós and Cruz (1995a y b) link it to the value athletes place on playing hard, winning or having fun in sport. These different approaches clearly show the complexity of this issue.

Based on this idea, the question that many researchers have asked themselves has been: what factors influence individuals who practice sport to develop different behaviors (positive, negative or neutral) of fair play? The answer obtained through various research works has been that elements such as goal orientation, motivational climate, and social climate (among others) seem to exert a major influence on sportsmanship.

Nicholls (1984) showed that individuals have two possible goal orientations towards learning: task and ego. In a task-oriented subject, skill is experienced through self-improvement. Therefore, criteria for success are self-referenced. On the contrary, an ego-oriented person uses normative standards, and feelings of competence arise from the demonstration of superior ability with respect to others. Based on this idea, several studies have linked ego orientation with poor fair play behaviors (Duda, Olson, & Templin, 1991; Dunn & Caussgrove Dunn, 1999; Kavussanu & Roberts, 2001; Miller, Roberts, & Ommundsen, 2004). Task orientation has been less consistent, but it has also been related to positive sportsmanship (Dunn & Caussgrove Dunn, 1999; Lemyre, Roberts, & Ommunsen, 2002) and with having fun in sport.
Afterward, Elliot and McGregor (2001) developed an evolution of this model considering that each orientation can be separated in two categories (2 × 2): approach and avoidance. The rationale for this split lies in the concept of competence that each individual holds: a positive and desirable opportunity (success) or a non-desirable and negative possibility (failure). According to Wang, Biddle, and Elliot (2007) learning-approach individuals focus on the task and try to reach high levels of personal competence. Meanwhile, learning-avoidance individuals try to avoid low levels of personal competence. On the other hand, performance-approach subjects measure their competence in relation to others. Finally, performance-avoidance subjects compare their level of incompetence with others. Only Singh (2008) has used this model to study the influence of the different types of goals on fair play thoughts of a group of cricketers. She found that those who had higher levels on any of the different goals showed lower levels of sportsmanship. On the other hand, Guan, Xiang, McBride, and Bruene (2006) have shown that this model is also valid to analyze physical education settings. Nevertheless, it has not been used to study fair play behaviors among students.

Regarding the social climate, authors such as Lickona (1992) consider that an individual’s moral development is also formed through social interactions. This idea is rooted in the Social Learning Theory of Bandura (1977), which states that the moral behavior of an individual is socially defined and that the degree of moral action of a person is directly related to his/her learning history. Social competence of young people is a key element of their training as members of a society. According to some, sport practice educates people, but socially incompetent players make negative comments to themselves and to others, criticize and make fun of classmates and even the referee (Vidoni & Ward, 2006). Moreover, the order of factors has been altered and it has been suggested that the promotion of positive values of sportsmanship in physical activity’s contexts facilitates the development of social skills (Weiss & Bredemeier, 1990). Research on socio-moral behavior in physical activity has described two social goals as being associated with achievement goals: “relationship” (Patrick, Hicks, & Ryan, 1977) which is identified with the individual desire to train and maintain positive relationships with peers, and “responsibility” (Wentzel, 1991) which represents the desire to adhere to rules and expectations. Both constructs appear in the definitions of fair play presented earlier, but the relationship between these social goals and fair play has not been studied yet.

The concept of fair play has so many edges that, in relation
to the social climate, researchers have even studied the influence of parents, coaches and spectators on the good or poor sport conduct of young players. It has been found that positive behaviors of these groups are significantly related to positive sporting behaviors of players (Arthur-Banning, Wells, Baker, & Hegreness, 2009; LaVoi & Babkes, 2008, Rudd & Gordon, 2010).

On the other hand, many boys and girls play sports in their free time, but the place where the highest percentage of youngsters plays sports and/or physical activity is the physical education class. Moreover, it is in this setting where they will have their first contact with organized physical activity, and where they will learn the basic skills of most sports. Sadly, some research has shown that up to 70% of children will stop participating in sports before they reach the age of 13 (Engh, 2002). Therefore, physical education could be the only place where many teenagers will perform physical activity and where they would be exposed to the influence of others to develop positive socio-moral values.

Over the last ten years, different authors have reported that one of the main objectives of physical education should be the socio-moral education of students (Kirk, 1993; Siedentop, 1980). Within the educational context, this subject allows for the greatest amount of interaction among students (sharing space and materials, competing in games and matches, etc.). Similarly, compared to other subjects, physical education provides a unique context for moral development of young people, because, theoretically speaking, there is less emphasis on competition and victory (Proios, Doganis, & Proios, 2006; Shields & Bredemeier, 1995). Moreover, physical education provides students with ample opportunities to experience ethical codes of behavior, group cohesion, respect for others, and many other socially desirable behaviors (Sharpe, Brown, & Crider, 1995). For this reason, it is reasonable to think that physical education can help forge the development of values such as sportsmanship in youngsters. However, different studies have shown that in many physical education classes students do not help each other, and many use negative comments about their fellows (Giebink & McKenzie, 1985; Patrick, Ward, & Crouch, 1998). When physical education teachers are asked about the development of social skills in their classes, they show concern for that topic, and indicate that they seek to reinforce attitudes of fair play and sportsmanship. Unfortunately, they are seldom explicitly taught (Ward, 1999). However, there has been several intervention programs in physical education specifically designed to improve the moral reasoning and/or sportsmanship of students who have produced positive results (Hassandra, Bekian, & Sakellariou, 2007; Sharpe et al., 1995).
Based on all the previous arguments, this study has two main objectives: first, to study the influence of various achievement goal profiles on the fair play of school students using the 2 × 2 model; second, to analyze how social goals affect fair play in the same group of subjects, while checking if there are any differences based on gender. If the relationship between the attitudes of fair play and one or another type of goals (achievement and social) in a group of schoolchildren in physical education is proved, teachers should create appropriate classroom climates through specific pedagogical approaches. For that purpose, the following hypothesis are raised: a) student-oriented performance goals (approach and avoidance) in physical education classes will show higher values on negative fair play constructs such as hard play and win in sport; b) since the relationship between task orientation and fair play has been less consistent, we expect to find positive relationships between learning goals (approach and avoidance) and subjects’ views on the importance of fun in sport; c) youngsters with higher values in social goals will show higher levels of fair play; d) hierarchical clusters will show profiles where the different variables studied and fair play correlate, and it represents levels of personal commitment to achievement goals and social goals, and finally, we also anticipate that extracurricular sport does not affect subjects’ attitudes of fair play.

Method

Participants

304 students (133 males and 177 females) from two high schools in the northern part of Spain participated in this project (98 of 9th grade, 115 of 10th grade, and 91 of 11th grade). Their ages ranged from 14 to 19 years old (\( M = 15.60, SD = 1.04 \)). 65.8% practiced extracurricular sport (107 males y 93 females).

Instruments

Achievement Goals. The 2 × 2 Achievement Goal Questionnaire from Elliot and McGregor (2001) was adapted to physical education contexts by Guan et al. (2006) and Wang, Biddle, and Elliot (2007). This instrument was translated into Spanish and validated for Spanish contexts by Moreno, González-Cutre, and Sicilia (2008). It has 12 items that reflect the four existing achievement goals (3 items for each type): learning-approach, performance-approach, performance-avoidance, and learning-avoidance.

Social Goals. The Social Goal Scale from Patrick et al. (1997) was adapted to physical education contexts by Guan et al. (2006). This instrument was translated into Spanish and validated for Spanish contexts by Moreno, González-Cutre, and Sicilia (2008). Six items reflect relationship goals, while 5 items reflect responsibility goals.
Fair play. The “Escala de Actitudes de Fair play” (Cruz et al., 1996) is a 23-items questionnaire divided in three sub-scales: 12 reflect “hard play”, 6 reflect “victory” (winning at all costs), and 5 reflect “fun”. It was validated by Boixadós and Cruz (1995a y b).

The three instruments used a 5-point Likert scale that ranged from 1 = “do not agree” to 5 = “totally agree”.

Data collection

The implementation of this research project involved several steps: first, permission from the Ethics Committee of the University of Oviedo was obtained, as well from the participating schools. Subsequently, informed consent was also obtained from parents of all students who participated and were under age. All questionnaires were administered by two of the three investigators during physical education classes. They carefully monitored the students during the data collection, and they answered all questions when necessary. To minimize the tendency of students to provide socially desirable answers, the researchers encouraged the participants to respond as truthfully as possible. They assured the students that their answers would not affect their physical education’s grades.

Data analysis

Statistical analysis of the data obtained was performed using the software package SPSS 18.0 y AMOS 18.0.

Results

Scales’ psychometric properties

The first goal was to test whether the factor structure of the scales matched the dimensions described above. We also wanted to confirm if they were

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>P</th>
<th>RMR</th>
<th>RMSA</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement goals original model</td>
<td>110.87</td>
<td>&lt; .001</td>
<td>0.08</td>
<td>0.07</td>
<td>0.94</td>
<td>0.90</td>
<td>0.93</td>
<td>0.96</td>
</tr>
<tr>
<td>Respecified</td>
<td>32.83</td>
<td>&gt; .050</td>
<td>0.05</td>
<td>0.04</td>
<td>0.97</td>
<td>0.95</td>
<td>0.97</td>
<td>0.99</td>
</tr>
<tr>
<td>Social goals original model</td>
<td>221.57</td>
<td>&lt; .001</td>
<td>0.07</td>
<td>0.11</td>
<td>0.87</td>
<td>0.81</td>
<td>0.79</td>
<td>0.82</td>
</tr>
<tr>
<td>Respecified</td>
<td>19.37</td>
<td>&gt; .100</td>
<td>0.03</td>
<td>0.04</td>
<td>0.98</td>
<td>0.96</td>
<td>0.96</td>
<td>0.98</td>
</tr>
<tr>
<td>Fair play original model</td>
<td>506.48</td>
<td>&lt; .001</td>
<td>0.10</td>
<td>0.06</td>
<td>0.87</td>
<td>0.84</td>
<td>0.75</td>
<td>0.84</td>
</tr>
<tr>
<td>Respecified</td>
<td>96.92</td>
<td>&gt; .050</td>
<td>0.05</td>
<td>0.03</td>
<td>0.95</td>
<td>0.94</td>
<td>0.91</td>
<td>0.98</td>
</tr>
</tbody>
</table>
valid for the sample. So, we carried out a confirmatory factor analysis. The original model parameters were estimated using the Maximum Likelihood criteria. Table 1 shows all information displayed by the most widely used indexes (García, Gallo, & Miranda, 1998; García, Ruiz, & Abad, 2003; Sandín, Chorot, Santed, & Valiente, 2003).

Besides $\chi^2$, other indexes were also considered: $GFI$ (Goodness of Fit Index), $RMR$ (Root Mean Residual), $RMSA$ (Root Mean Square Error of Approximation), $NFI$ (Normed Fit Index), and $CFI$ (Comparative Fit Index). Regarding GFI, NFI and CFI, it is considered a valuable result that one above .90, and in RMR and RMSA, those below .06. Our results were not satisfactory, which indicates that data do not fit the model (Tabla 1).

The small adjustment achieved globally, coupled with the presence of significant measurement errors associated with some of the items, along with some undesirable cross-loadings suggested by modification indexes provided by the program, suggested some changes in the initial models by eliminating some items. Delete items to improve the factor structure of an instrument is considered a legitimate process, since it keeps the overall structure of the model originally formulated, only with the appropriate indicators (Hofman, 1995). Therefore, in the Achievement Goal Questionnaire, one item of the performance approach subscale (item 3) and one of the learning approach subscale (item 4) had to be disregarded to improve the model. In the Scale of Social Goals two items of the subscale of relationship (items 7 and 9) and two of the responsibility subscale (items 4 and 8) also had to be eliminated. Finally, in the Fair Play Scale, four items of the game subscale (items 3, 10, 18 and 23), three in the victory subscale (items 1, 7 and 12) and one in the fun subscale (item 9) were also eliminated to improve the fit.

Through this process, the initial scale has achieved more parsimonious measures that fit better with the theoretical conception that defends the existence of four dimensions in the Achievement Goals Questionnaire, two in the Scale of Social Goals and three in the Fair Play Scale.

All subscales showed satisfactory internal consistency. The alpha coefficients were .80, .88, .78 and .79 respectively for the subscales of learning-approach, performance-approach, performance-avoidance, and learning-avoidance in the Achievement Goals Questionnaire, .79 and .72 for the subscales responsibility and relationship in the Social Goals scale, and .77, .78 and .70 for the subscales of game, victory and fun of the Fair Play Scale.

Descriptive analysis, bivariate correlations, and manovas

Table 2 shows means and standard deviations of all variables studied. It also includes correlations among learning orientation (ap-
Table 2

Means, Standard Deviations and Correlations Among Variables

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Learning-approach</td>
<td>3.92</td>
<td>.84</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Performance-approach</td>
<td>2.42</td>
<td>1.14</td>
<td>.16**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Learning-avoidance</td>
<td>3.09</td>
<td>.97</td>
<td>.58**</td>
<td>.25**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Performance-avoidance</td>
<td>2.50</td>
<td>1.10</td>
<td>.10</td>
<td>.64**</td>
<td>.31**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Relationship</td>
<td>4.41</td>
<td>.58</td>
<td>.39**</td>
<td>.05</td>
<td>.34**</td>
<td>.13*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Responsibility</td>
<td>4.18</td>
<td>.62</td>
<td>.42**</td>
<td>–.11</td>
<td>.28**</td>
<td>–.01</td>
<td>.35**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Hard play</td>
<td>2.09</td>
<td>.67</td>
<td>–.09</td>
<td>.39**</td>
<td>–.07</td>
<td>.24**</td>
<td>–.16**</td>
<td>–.27**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>8. Victory</td>
<td>2.74</td>
<td>.99</td>
<td>.07</td>
<td>.33**</td>
<td>–.03</td>
<td>.23**</td>
<td>–.09</td>
<td>–.18**</td>
<td>.50**</td>
<td>1.00</td>
</tr>
<tr>
<td>9. Fun</td>
<td>4.04</td>
<td>.85</td>
<td>.21**</td>
<td>–.09</td>
<td>.19**</td>
<td>–.03</td>
<td>.25**</td>
<td>.25**</td>
<td>–.18**</td>
<td>–.37**</td>
</tr>
</tbody>
</table>

Correlation tests among achievement goals, social goals and fair play indicated that there were associations among their subscales. Specifically, the subscales of game and victory positively correlated with approach and avoidance and negatively with responsibility. It also showed a negative correlation between relationship and hard play. In contrast, learning-approach and avoidance goals positively correlated with fun.

Before the MANOVA 2 (gender) × 2 (practice sport), the idea of homogeneity of covariance was discussed using the Box M. Results revealed that the idea was not solved (Box M = 297.68, F = 2.035, p < .001). Therefore, we followed Olson (1979) and Tabachnick and Fidell (1996) suggestions, and we used Pillai’s Trace instead of Wilks’ lambda to assess the multivariate significance of main effects and interactions. The MANOVA yielded a significant main effect for gender Pillai’s Trace = .115, F(9, 292) = 5.94, p < .001, η² = .015. Subsequent univariate ANOVAs revealed that women scored significantly higher values than men in relationship goals [F(1,303) = 28.75, p < .001, η² = .087] and social responsibility goals [F(1,303) = 11.57, p < .01, η² = .037]. No significant differences were found regarding gender in any of the four achievement goals. Significantly lower scores were found among females in hard play [F(1,303) = 6.41, p < .05, η² = .021], while higher in fun [F(1,303) = 5.38, p < .05, η² = .018].

The MANOVA also showed a significant effect regarding extracurricular sport practice Pillai’s Trace = .094, F(9, 292) = 3.36, p < .01, η² = .094. Subsequent univariate ANOVAs revealed that
subjects that practiced extracurricular sport scored higher in relationship goals \( F_{(1,303)} = 5.09, p < .05, \eta^2 = .019 \), learning-approach goals \( F_{(1,303)} = 9.31, p < .01, \eta^2 = .030 \) and performance-avoidance goals \( F_{(1,303)} = 5.68, p < .05, \eta^2 = .019 \). Fair play did not yield any statistical differences.

Hierarchical cluster analysis

Fair play variables were analyzed through a hierarchical cluster analysis. Before this analysis, all variables were standardized using Z scores (mean 0 and standard deviation 1). In the agglomerative hierarchical methods, the analysis starts with as many clusters as individuals. From these initial units, new clusters are formed in an ascending order, grouping individuals in the closest clusters at each stage. At the end of the process, all individuals are grouped into a single cluster. We used Ward’s method to minimize differences in the cluster and to avoid long strings of observations. As we seek a solution in which clusters are different from each other and within each of the elements that are coming up, the appropriate solution would be one in which the corresponding lines will take time before come to a close. In our case, the solution with three clusters, less than 7. It was found

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group 1 (N = 86)</th>
<th>Group 2 (N = 26)</th>
<th>Group 3 (N = 192)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Means (z)</td>
<td>SD</td>
<td>Means (z)</td>
</tr>
<tr>
<td>1. Hard play</td>
<td>2.01 (–0.11)</td>
<td>.48</td>
<td>3.59 (2.22)</td>
</tr>
<tr>
<td>2. Victory</td>
<td>3.04 (.29)</td>
<td>.97</td>
<td>4.02 (1.28)</td>
</tr>
<tr>
<td>3. Fun</td>
<td>3.01 (–1.21)</td>
<td>.53</td>
<td>3.67 (–0.43)</td>
</tr>
<tr>
<td>4. Responsibility goals</td>
<td>4.07 (–0.16)</td>
<td>.76</td>
<td>3.76 (–0.66)</td>
</tr>
<tr>
<td>5. Relationship goals</td>
<td>4.26 (–0.25)</td>
<td>.57</td>
<td>4.23 (–0.30)</td>
</tr>
<tr>
<td>6. Performance-approach goals</td>
<td>2.48 (.05)</td>
<td>.99</td>
<td>3.34 (.80)</td>
</tr>
<tr>
<td>7. Learning-approach goals</td>
<td>3.76 (–0.18)</td>
<td>.86</td>
<td>3.83 (–0.10)</td>
</tr>
<tr>
<td>8. Performance-avoidance goals</td>
<td>2.53 (.02)</td>
<td>1.16</td>
<td>3.02 (.46)</td>
</tr>
<tr>
<td>9. Learning-avoidance goals</td>
<td>2.88 (–0.21)</td>
<td>.95</td>
<td>3.25 (.16)</td>
</tr>
</tbody>
</table>

Clusters or groups’ characteristics

<table>
<thead>
<tr>
<th></th>
<th>Males n (%)</th>
<th>Females n (%)</th>
<th>Extracurricular sport participation n (%)</th>
<th>No Extracurricular sport participation n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47 (54.7%)</td>
<td>18 (69.2%)</td>
<td>55 (64.0%)</td>
<td>31 (36.0%)</td>
</tr>
<tr>
<td></td>
<td>39 (45.3%)</td>
<td>8 (30.8%)</td>
<td>68 (76.9%)</td>
<td>27 (23.1%)</td>
</tr>
<tr>
<td></td>
<td>124 (64.6%)</td>
<td>49 (65.1%)</td>
<td>49 (65.1%)</td>
<td>36 (34.9%)</td>
</tr>
</tbody>
</table>

Table 3
Hierarchical Cluster Analysis

Revista de Psicodidáctica, 2012, 17(1), 73-91
that the solution of three clusters was the one that created a major shift in the coefficients (11.1). This indicated that from this point different clusters were merging. Consequently, it was determined that the solution of three clusters or groups was more appropriate. This decision was also supported by the corresponding dendrogram.

Figure 1 shows three different fair play profiles identified through the cluster analysis. Cluster 1 was characterized by an intermediate hard play profile, moderately high in victory and low in fun. It was composed of 86 students, 45.3% were female, and 64.0% participated in extracurricular activities. Cluster 2 consisted of 26 students with a very high profile of hard play, high on victory and moderately low in fun. 30.8% were female, and 71.9% participated in extracurricular sport. Students in cluster 3 had a moderately low profile of hard play and victory, and moderately high in fun. It had 192 individuals, most of them women (64.6%) that participated (65.1%) in sports activities outside school hours (fig 1).

A one-way MANOVA was carried out using social goals and achievement goals as dependent variables and the clusters as independent variable. It yielded a multivariate significant effect, Lambda de Wilks = .851, F(12, 596) = 4.14, p < .001, \eta^2 = .08. The following univariate analysis showed significant differences in all variables except the learning-approach and avoidance ones: relationship goals, F(1, 301) = 6.44, p < .001, \eta^2 = .06, responsibility goals, F(1, 301) = 10.08, p < .001, \eta^2 = .07, performance-approach
goals, F(1, 301) = 10.93, p < .001, η² = .08, and performance-avoidance goals, F(1, 301) = 3.38, p < .05, η² = .03 (fig. 2).

On the other hand, post hoc tests were performed using the HSD of Tukey to compare pairs within each group (Table 3). No significant differences were observed among clusters in learning-approach and avoidance variables. Significant differences were observed in responsibility goals among clusters, scoring higher cluster 3 and lower cluster 2 (p < .001). Significant differences were also observed in relationship goals. Once again, cluster 3 scored higher (p < .001) and no differences were observed between the other two clusters. Regarding the performance-approach variable, no significant differences were observed between clusters 1 and 3, but both showed significant differences with cluster 2 (p < .001). Finally, there were significant differences among clusters 2 and 3 in performance-avoidance goals (p < .05).

Discussion

This study has examined the relationships that can exist among achievement goals, social goals and perceptions of fair play in a sample of physical education students in secondary education. Overall, we can say that the results have shown that there are several significant direct relations among different subscales of these psychosocial variables.

First, we assess the influence of achievement goals on the fair play of the participants. The answers of those students that presented a performance-approach and perform-
ance-avoidance profile were positively correlated with the variables of fair play: “hard play” and “victory”. The Goal Achievement Theory (Nicholls, 1984) considers that individuals who are ego-oriented (performance) tend to exhibit behaviors that include negative actions during the game in order to “win at all costs”. In our case, the use of the 2 × 2 model of Elliot and McGregor (2001) has allowed us to see that not only students seeking a positive result (performance-approach), but also those who want to escape from a negative result (performance-avoidance) seem to be willing to exhibit negative behaviors of fair play such as hard play or the pursuit of victory over any other type of motivation.

In line with this argument, the implementation of the 2 × 2 model (Elliot & McGregor, 2001) also allowed us to verify that both learning-approach students (doing the activity better), as well as learning-avoidance students (avoiding doing wrong the activity) positively correlated with one variable of fair play: “fun”. Thus, it seems reasonable to think that those individuals concerned with “doing well the activities” regardless of their outcome, and not wanting to compare themselves with their peers, would give answers that emphasize their interest in having fun while doing physical activity. The novelty that has emerged in this study is that students oriented to “avoid making wrong an activity” also sent messages which pointed out that having fun was very significant and important for them.

Unfortunately, we know only one study that has used the 2 × 2 achievement goal model to assess fair play attitudes of a group of subjects (Singh, 2008). In this case, a group of young cricketers were studied and the results obtained did not match ours, since all the profiles (performance-approach and avoidance and learning-approach and avoidance) were correlated with low values of fair play. This fact was explained through the idea that all study subjects (athletes participating in competitions) were oriented towards success. Therefore, they all were willing to do “whatever it takes to win”. In our case, although many students participated in extracurricular sport, only those performance-oriented (approach and avoidance) showed low levels of fair play.

In line with this argument, results of the existing literature that have used the dichotomous model have also shown a direct relationship between the performance approach (ego) and negative attitudes of fair play. Stuntz and Weiss (2003) found in a sample of schoolchildren (11-15 years) that those who were ego-oriented (performance) showed a greater intention to conduct unsportsmanlike behavior than those who were learning-oriented (task). Recently, Gutiérrez and Ruiz (2009:323) found in a simple of secondary school students that “vari-
ables that measured a learning-oriented motivational climate (task) had a greater ability to predict attitudes of sportsmanship in the students”. As in our study, individuals concerned about doing well the activity were more likely to show fair play positive behaviors than performance-oriented students.

In a sport context, this direct relationship between learning goals and positive behaviors of fair play has also been observed, but less consistently (Boixadós, Cruz, Torregrosa, & Valiente, 2004; Cecchini, González, & Montero, 2007; Dunn & Dunn, 1999). Unfortunately, as pointed out earlier, none of them has used the 2 × 2 model to assess the relationship between achievement goals and fair play among athletes. So, we cannot compare their results with ours. However, we can say that the correlations found in this study, in an educational context, are maintained when the dichotomous model is used in sport contexts.

Second, we have assessed the influence of social goals on the fair play behavior of high school students. According to authors such as Vallerand and Losier (1994), this relationship seems to be a fact in the development of an individual’s behavior. As Hassandra et al. (2007, p. 100) state: “ Modifications in behavior occur because of imitation, of knowing what is acceptable, and as a result of the need to be socially accepted”. Unsportsmanlike behavior is not generally accepted in our society. So, individuals learn socially appropriate behaviors mimicking significant others to be accepted by them. In the present study, subjects were assessed in two social goals: responsibility and relationship. Results show a negative correlation between both types of goals and a variable of fair play: “hard play”. It seems that young people believe that behaviors such as playing sport hard do not allow appropriate social relationships with others, and they do not reflect socially acceptable and responsible behavior. In this line of argument, social responsibility values also correlated negatively with another variable of fair play: “victory”. As we suggested earlier, the pursuit of victory in a game over fun or respect for others is seen by our youngsters as the opposite to a very important social value: responsibility. Our results support the hypothesis that good fair play conducts facilitate the development of social skills (Weiss & Bredemeier, 1990). Unfortunately, we are unaware of other studies that have evaluated the relationship between fair play and social goals. Therefore, we cannot compare the results obtained in this study with those obtained in other subjects and/or contexts. However, the idea is clear: social values such as responsibility and relationship are positively related to positive attitudes of fair play. That is, social behavior of individuals is directly related to their sportsmanship’s attitude.

Third, we examined whether there were significant differences
based on gender in the three types of variables. Regarding achievement goals, there were no significant differences in any of the four targets studied. On the other hand, results did show a significant effect in social goals: women had significantly higher values than men in relationship and responsibility goals. Similar results have been described in previous studies (Cecchini et al., 2008; Cecchini et al., 2011; Guan et al., 2006), which indicates that women, in education settings, show higher levels of important social values such as responsibility, and they value more social relations.

With regard to fair play, we also found lower levels in the variable “play hard” and higher in the variable “fun” in females. In line with this idea, Hassandra, Beki and Sakellariou (2007) found higher values in male than female students in antisocial fair play. Similarly, results from the present study agree with those presented by Proios, Doganis and Proios (2006), and Gutierrez and Pils (2006) where higher values of fair play in women were also obtained. According to Gilligan (1982), women’s moral reasoning tend to reflect a greater orientation towards “caring for others” than men. Hence, they value more positive elements of physical activity such as fun than negative ones such as hard play or victory. Based on this argument, positive social values such as responsibility and relationship would also be higher in women.

Fourth, we also checked whether there were significant differences regarding extracurricular sport participation (other than physical education) of our subjects. Those who practiced sport showed higher scores in relationship goals, learning-approach and performance-avoidance goals. It is reasonable to think that sport makes possible a greater number of social relations, of contacts with other people. Our subjects were more concerned with improving their sport’s performance than outperforming their peers.

On the other hand, no significant differences were found in any of the values of fair play among our subjects in regard to their extracurricular sport participation. This finding leads us to believe that, as shown in previous studies (Hassandra et al., 2007; Ryska, 2003, Weiss & Bredemeier, 1990) sport participation has the potential to produce positive and negative behaviors of fair play. Other variables (social, motivational or educational) may tip the balance to develop behaviors in either direction.

Finally, we proceeded to conduct a cluster analysis to group subjects based on the characteristics they possessed regarding the different variables of fair play. It was possible to identify three different profiles: cluster 1 was composed in almost equal percentage of women and men. The majority played sport after school, and they showed low levels of fun and hard play, and intermediate of victory. Cluster 2 con-
sisted mainly of men who played extracurricular sports. They showed high levels of hard play and victory, and low of fun. Finally, cluster 3 was composed mostly of women that played extracurricular sport. They showed moderately high levels of fun, and moderately low levels of hard play and victory. From this information, it can be highlighted that clusters 1 and 3 were very similar, except for how important is for them having “fun”: number 3 is the most adaptive. Cluster 2 is composed mostly of men who play extracurricular sport, and they show intentions of fair play oriented towards hard play and victory. This group is the less adaptive one.

A final analysis of the identified groups including social goals and achievement goals revealed that cluster 3 had significantly higher levels of social goals: responsibility and relationship, while cluster 2 had significantly lower levels of responsibility. These data are consistent with previous ideas: group 3 was composed mostly of women with high levels of positive behaviors of fair play (fun) and social goals (responsibility and relationship). By contrast, group 2 was composed mostly of men who have high levels of negative behaviors of fair play (hard play and win) and social goals (responsibility). In line with this idea and with the arguments developed throughout this section, this same group also had high levels of approach and avoidance-performance (ego). We found no statistically significant differences in learning-approach and avoidance-approach goals among either group. Therefore, we can infer that these variables are less consistent explaining fair play behaviors.

One limitation of this study has been the sample size. Our results should be confirmed with a larger population. Future research should verify whether the patterns and correlations among the different profiles of achievement goals, social goals and fair play found in this study appear in other groups of students. Similarly, another line of research could be to compare our results with groups of young athletes. Finally, other studies should employ other instruments to assess fair play and moral reasoning to check the results obtained in this study.

References


Engh, F. (2002). Why Johnny hates sport: Why organized youth sports are failing our children and what we
can do about it. Garden City Park, NY: Square One.


ACHIEVEMENT GOALS AND SOCIAL GOALS’ INFLUENCE ON PHYSICAL...


Javier Fernández-Río, Profesor TEU en el área de Didáctica de la Expresión Corporal de la Universidad de Oviedo. Sus principales líneas de investigación están centradas en los modelos de enseñanza como el aprendizaje cooperativo, así como en los perfiles motivacionales de los estudiantes.

Antonio Méndez-Giménez, Profesor TU (interino) en el área de Didáctica de la Expresión Corporal de la Universidad de Oviedo. Sus principales líneas de investigación están centradas en los modelos de enseñanza como el modelo comprensivo y el de educación deportiva, así como en los perfiles motivacionales de los estudiantes.

José Antonio Cecchini Estrada, Catedrático de Universidad en el área de Didáctica de la Expresión Corporal de la Universidad de Oviedo. Sus principales líneas de investigación están centradas en los perfiles motivacionales de los estudiantes y de los deportistas.

Carmen González de Mesa, Profesora TU en el área de Didáctica de la Expresión Corporal de la Universidad de Oviedo. Sus principales líneas de investigación están centradas en los perfiles motivacionales de los estudiantes y de los deportistas.

Received date: 13-4-11 Review date: 12-5-11 Accepted date: 27-6-11