



## Prosocial and Antisocial Behaviour in School Sports

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### Abstract

The purpose of this study was to analyse prosocial and antisocial behaviour in school sport. It involved 247 girls and boys between the ages of 8 and 12 years, organised into five groups: athletics, football, basketball, multisport and sedentary. The results suggest that in the groups of sportspersons, boys present greater antisocial behaviour than girls and girls show greater empathy. The football group presents less perspective-taking and the sedentary group greater empathic concern. In turn, the football group exhibits greater aggression than the other groups, with significant differences in relation to athletics. It may be concluded that participation in competitive children's sport is not directly related to greater prosocial behaviour and less antisocial behaviour.

**Keywords:** sport, children, socialisation, competition

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## Introduction

The importance of physical activity (PA) for health is widely recognised. Research indicates physical and psychological benefits when it is performed by children (Ahn & Fedewa, 2011; Janssen & Leblanc, 2010). Furthermore, physical education and sport have been considered to be important instruments in the development of personal and social values, hence their educational and teaching relevance (Ruiz & Cabrera, 2004). Sport is therefore often viewed as an instrument for the moral and social development of children and adolescents (Bortoli et al., 2012) as it is an appropriate means for achieving personal and social development values, a desire for self-improvement, integration, respect for others, tolerance, acceptance of rules, perseverance, teamwork, overcoming limits, self-discipline, etc. (Ruiz & Cabrera, 2004). Gutiérrez (2004) points out the socialising power of sport and as a tool for integrating immigrant groups, teaching responsibility to young people at risk, preventing and treating drug addiction, fostering reintegration in prisons, social recovery of disadvantaged neighbourhoods, furthering the socialisation of the elderly, etc.

However, participation in sport is also associated with negative outcomes, primarily because it is competitive and there is undue pressure to win (Li et al., 2015), which can lead to aggressive and unsportspersonlike behaviour (Pelegrin et al., 2013). In some cases, sportspeople are swept up by the models of entertainment sport and its most negative expressions: aggressiveness, violence, a disproportionate craving for victory and other socially undesirable qualities (Gutiérrez, 2004).

Socialisation through sport is about learning general attitudes, values and skills (fair play, team spirit or aggressive behaviour) which are acquired during sport. It also involves considering how socialisation agents, the organisational structure, the philosophy of sports programmes, the family and the coach's guidance and behaviour can impact the sports experience and the orientation of children's values (Boixadós et al., 1998). This socialising potential of sport can have negative or positive consequences, depending on how the interaction between the socialising person, socialisation agents and social contexts is constructed (Ramírez et al., 2004). Hence, sport is a neutral environment for socialisation where the determining factors in the socialisation process are: 1) socialisation agents (parents, coaches and organisers of sports competitions); and 2) the various socialising situations in children's sport, i.e. time, place, person, circumstances and consequences (Cruz et al., 1996).

Prosocial behaviour involves acting with humanity, while the inhibitory aspect represents antisocial behaviour (Bortoli et al., 2012). For example, verbally encouraging a teammate and physically intimidating an opponent are prosocial and antisocial behaviours in sport, respectively (Hodge & Lonsdale, 2011). In terms of education, it would be preferable for school sport to encourage prosocial behaviour. Both person (goal orientations) and contextual (motivational climate) variables should be considered with respect to prosocial and antisocial behaviours in sport (Hodge & Lonsdale, 2011). Task orientation and mastery climate are positive predictors of prosocial behaviour, while ego orientation and performance climate are positive predictors of antisocial behaviour (Kavussanu, 2006). Accordingly, there is a significant and positive relationship between the highest levels of self-determination, i.e. of intrinsic motivation, which involves an athlete's commitment to an activity due to the pleasure, enjoyment and satisfaction it yields for them and the emergence of prosocial behaviours and intentions (Prat et al., 2019; Sánchez-Oliva et al., 2011).

Consequently, socialisation and moral development are important factors in school sport. However, empirical data are still scant, and more studies would be needed to analyse the potential differences between sports and the age and gender of participants in relation to prosocial and antisocial behaviours in sport. Therefore, the aim of this study was to analyse these behaviours in federation-registered school athletes in relation to gender and compares to girls and boys who do not do sport.

## Methodology

### Participants

This study included 247 primary education (PE) children (140 boys, 107 girls) aged 8 to 12, selected from a number of sports clubs and PE schools in Jaen province and divided into five groups: athletics ( $n = 40$ ), football ( $n = 54$ ), basketball ( $n = 47$ ), multisport ( $n = 52$ ) and sedentary ( $n = 54$ ). Convenience sampling was used, and the inclusion criteria were going to school and not having any physical and/or intellectual disabilities. Furthermore, children doing athletics, football and basketball had to be registered with a federation. Parents signed an informed consent form for their children's voluntary participation in this research. The study was approved by the Bioethics Committee of the University of Jaen.

**Table 1**  
Socio-demographic results of the children's parents in relation to the analysed group

		Sedentary	Multisport	Football	Athletics	Basketball	p-value
Educational level n (%)	No formal education	4 (7.4)	2 (3.8)	7 (13)	1 (2.5)	3 (6.4)	.016
	Primary	47 (87)	39 (75)	39 (72.2)	23 (57.5)	32 (68.1)	
	Secondary	3 (5.6)	8 (15.4)	6 (11.1)	14 (35.0)	9 (19.1)	
	University	0 (0.0)	3 (5.8)	2 (3.7)	2 (5.0)	3 (6.4)	
Marital status n (%)	Married	48 (88.9)	47 (90.4)	45 (83.3)	32 (80.0)	41 (87.2)	.736
	Separated/divorced	6 (11.1)	5 (9.6)	7 (13.0)	7 (17.5)	5 (10.6)	
	Widow/widower	0 (0.0)	0 (0.0)	2 (3.7)	1 (2.5)	1 (2.1)	
Socioeconomic status n (%)	Low	3 (5.6)	3 (5.8)	6 (11.1)	1 (2.5)	4 (8.5)	.533
	Medium	51 (94.4)	49 (94.2)	48 (88.9)	39 (97.5)	43 (91.5)	
Boys/girls		19/35	27/25	36/18	32/8	26/21	<.001

## Materials and Instruments

The Spanish version of the Interpersonal Reactivity Index (IRI) was used for the analysis of prosocial behaviour (Pérez-Albéniz et al., 2003). It is a scale consisting of 28 items divided into four subscales which in turn measure four different magnitudes of the general concept of empathy: Perspective-Taking, Fantasy, Empathic Concern and Personal Distress, each one comprised of seven items. This instrument measures the cognitive attitude and emotional reaction of the individual and their empathic attitude and presents appropriate psychometric properties (Cronbach's  $\alpha = .70-.78$ ).

The Antisocial Behaviour Questionnaire (*Cuestionario de Conducta Antisocial*, CCA) was used for the analysis of antisocial behaviour (Martorell & González, 2011). It consists of 36 items, including four alternative answers ("never", "sometimes", "often" and "always"). This instrument is divided into three subscales. The first subscale is aggression, which alludes to verbal or physical aggression towards others. The second subscale is isolation, and it evaluates the need to be alone, fleeing from and avoiding situations that involve interacting with others. The last subscale is called anxiety/withdrawal, and it evaluates difficulty in interacting with others, this time taking vital or functional reactions into account. This instrument also presents appropriate psychometric properties (Cronbach's  $\alpha = .91$ ).

Finally, an *ad hoc* socio-demographic questionnaire was used to gather information from the parents (age, marital status, educational level and socioeconomic status).

## Procedure

The permission of the school management and the coordinators of the sports clubs was secured prior to the

completion of the questionnaires. Once the permission has been given, the questionnaires were administered in small groups in the presence of research staff from the study. The questionnaires were self-administered, all queries were answered and the confidentiality and anonymity of the responses was ensured. The questionnaires took approximately 30 minutes to complete. Data were gathered throughout the 2015-2016 school year.

## Statistical Analysis

The data in this study were analysed using the statistical program SPSS v.19.0 for Windows (SPSS Inc, Chicago, USA). The level of significance was set at  $p < .05$ . The data are presented as descriptive mean, standard deviation and percentage statistics. Normal data distribution and equality of variances were checked by the Kolmogorov-Smirnov and Levene contrast tests, respectively. Differences between genders and types of sport were examined by analysis of variance (ANOVA) with *post hoc* analysis (Bonferroni correction). Finally, a Pearson correlation analysis was performed between prosocial and antisocial behaviour.

## Results

Table 1 shows the socio-demographic results of the children's parents in relation to each group analysed and the number of boys and girls per group. There were significant differences in the level of education, and the football group had the highest percentage of parents without academic qualifications.

Table 2 and Figures 1, 2, 3 and 4 present the results of prosocial and antisocial behaviour in relation to

**Table 2**  
Results of prosocial and antisocial behaviour in the groups analysed and in relation to gender

	Sedentary			Multisport			Football			Athletics			Basketball		
	Boys (M, SD)	Girls (M, SD)	Total group (M, SD)	Boys (M, SD)	Girls (M, SD)	Total group (M, SD)	Boys (M, SD)	Girls (M, SD)	Total group (M, SD)	Boys (M, SD)	Girls (M, SD)	Total group (M, SD)	Boys (M, SD)	Girls (M, SD)	Total group (M, SD)
Perspective-taking	24.53 (3.58)	25.29 (4.54)	25.02 (4.21) <sub>a</sub>	23.15 (4.89)	28.24 (4.90) <sub>&gt;</sub>	25.60 (5.48) <sub>a</sub>	23.42 (4.49)	28.11 (5.54) <sub>&gt;</sub>	24.98 (5.30) <sub>b</sub>	27.75 (5.16)	32.75 (2.18) <sub>&gt;</sub>	28.75 (5.11) <sub>a</sub>	23.15 (5.06)	30.00 (3.46) <sub>&gt;</sub>	26.21 (5.56) <sub>a</sub>
Fantasy	22.26 (5.77)	22.40 (5.16)	22.35 (5.33)	23.37 (5.98)	25.00 (5.85)	24.15 (5.91)	21.14 (6.08)	21.78 (7.82)	21.35 (6.64)	18.16 (6.58)	25.88 (6.31) <sub>&gt;</sub>	19.70 (7.16)	22.27 (7.07)	22.48 (10.35)	22.36 (8.59)
Empathic concern	27.16 (4.65)	28.17 (4.79)	27.81 (4.73) <sub>a</sub>	24.89 (5.48)	28.32 (3.93) <sub>&gt;</sub>	26.54 (5.06) <sub>ab</sub>	23.19 (6.07)	26.56 (6.09) <sub>&gt;</sub>	24.31 (6.23) <sub>ab</sub>	21.56 (6.35)	31.75 (1.66) <sub>&gt;</sub>	23.60 (7.04) <sub>ab</sub>	22.77 (6.11)	25.24 (6.82)	23.87 (6.49) <sub>b</sub>
Personal distress or discomfort	24.84 (4.63)	22.40 (3.79) <sub>&gt;</sub>	23.26 (4.23)	23.56 (6.72)	25.12 (6.28)	24.31 (6.50)	21.36 (4.18)	26.11 (6.63) <sub>&gt;</sub>	22.94 (5.55)	20.03 (4.35)	27.25 (4.71) <sub>&gt;</sub>	21.48 (5.25)	22.27 (4.96)	26.62 (4.90) <sub>&gt;</sub>	24.21 (5.34)
Total empathy	98.79 (8.93)	98.26 (13.35)	98.44 (11.90)	94.96 (14.41)	106.68 (12.54) <sub>&gt;</sub>	100.60 (14.61)	89.11 (15.41)	102.56 (17.20) <sub>&gt;</sub>	93.59 (17.11)	87.50 (12.96)	117.62 (11.92) <sub>&gt;</sub>	93.53 (17.55)	90.46 (14.28)	104.33 (19.207) <sub>&gt;</sub>	96.66 (17.88)
Total antisocial behaviour	64.42 (10.76)	64.23 (9.56)	64.30 (9.90)	67.52 (10.48)	61.60 (11.68) <sub>&gt;</sub>	64.67 (11.37)	72.67 (13.55)	62.50 (8.82) <sub>&gt;</sub>	69.28 (13.03)	62.91 (11.17)	61.38 (7.80)	62.60 (10.51)	71.38 (13.56)	63.10 (9.95) <sub>&gt;</sub>	67.68 (12.66)
Aggression	25.00 (6.91)	24.11 (4.75)	24.43 (5.5) <sub>a,c</sub>	27.63 (5.21)	23.20 (4.20) <sub>&gt;</sub>	25.50 (5.21) <sub>a,c</sub>	29.00 (6.20)	24.56 (4.19) <sub>&gt;</sub>	27.52 (5.96) <sub>b,c</sub>	24.41 (5.15)	19.63 (3.33) <sub>&gt;</sub>	23.45 (5.18) <sub>a</sub>	28.58 (6.29)	23.24 (4.85) <sub>&gt;</sub>	26.19 (6.24) <sub>b,c</sub>
Isolation	18.16 (4.31)	17.23 (4.25)	17.56 (4.25)	18.30 (5.43)	16.80 (4.25)	17.58 (4.91)	20.42 (5.65)	17.33 (5.02) <sub>&gt;</sub>	19.39 (5.60)	17.84 (4.65)	17.25 (2.55)	17.73 (4.29)	19.96 (4.74)	17.52 (4.28)	187.87 (4.66)
Anxiety/withdrawal	18.26 (5.41)	20.06 (4.98)	19.43 (5.16)	18.70 (4.47)	18.72 (5.36)	18.71 (4.87)	19.81 (5.01)	17.72 (4.76)	19.11 (4.98)	17.25 (4.45)	21.88 (3.39) <sub>&gt;</sub>	18.17 (4.62)	19.88 (5.92)	19.19 (4.14)	19.57 (5.16)

>: significant differences ( $p < .05$ ) with the boys' group; different letter subscript: significant differences ( $p < .05$ ) between the total sample of each group.

gender and athlete groups. The differences between the genders in prosocial behaviour and its various factors start to become evident in the groups of boy athletes, with girls showing higher levels of empathy, with this difference only existing between genders in the empathic concern factor in the sedentary group. There were no significant differences in antisocial behaviour between genders in the sedentary group, whereas these differences did emerge in the athletes groups, with boys evincing greater antisocial behaviour. In terms of the total group, the football group presented less perspective-taking than the other groups, and the sedentary group showed more empathic concern than the rest of the groups, there being significant differences with the basketball group. In turn, the football group showed more aggression than the rest of the groups, with significant differences in relation to athletics. In the analysis by gender and taking sport and prosocial behaviour into account, the boys in the athletics group presented significantly more perspective-taking than the multisport, football and basketball groups. In addition, the sedentary group presented more empathic concern than the other groups, there being significant differences with the athletics group. Finally, the sedentary group presented more personal distress and discomfort than the rest of

the groups, with significant differences in relation to the basketball group (Figure 1).

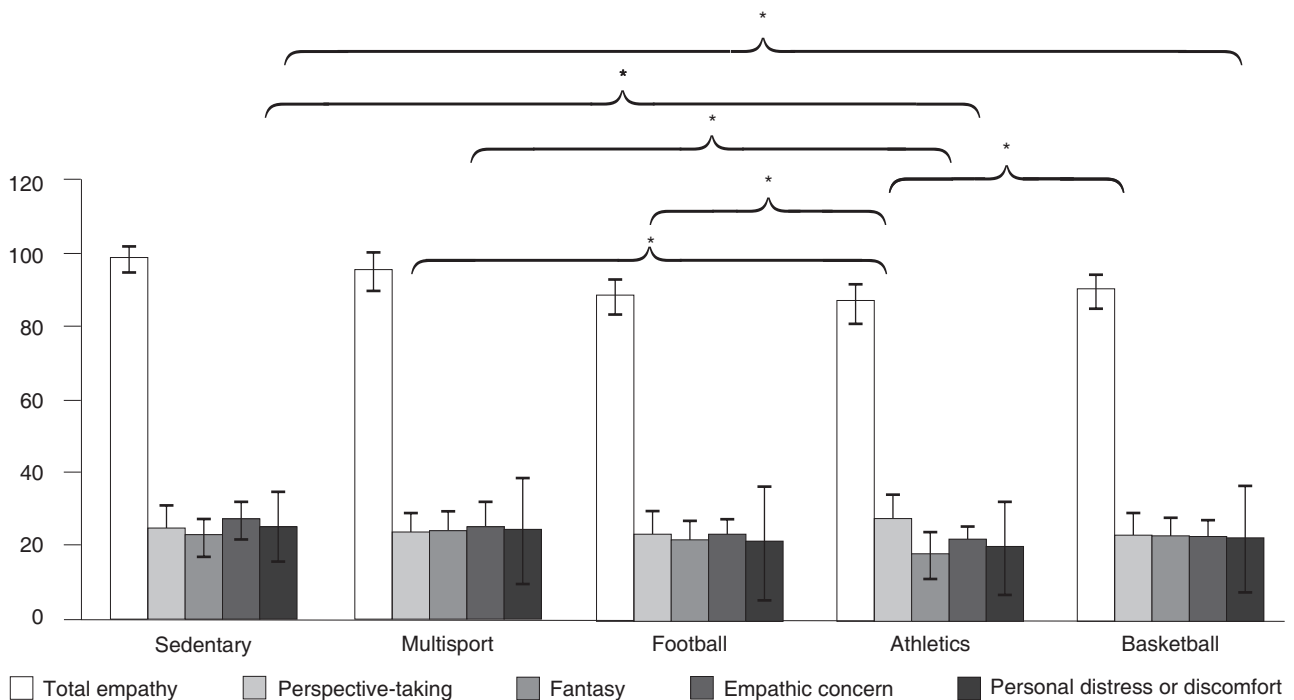
In girls, the sedentary group showed less perspective-taking than the rest of the groups, and significant differences with the athletics and basketball groups. Finally, the sedentary group showed more personal distress and discomfort than the other groups, with significant differences in relation to the basketball group (Figure 2).

In terms of antisocial behaviour, boys who played football had the highest score in antisocial behaviour, with significant differences in relation to the athletics group; in turn, boys in the athletics group showed less aggression than the rest of the groups, with significant differences in relation to the football and basketball groups (Figure 3).

There were no significant differences for girls (Figure 4).

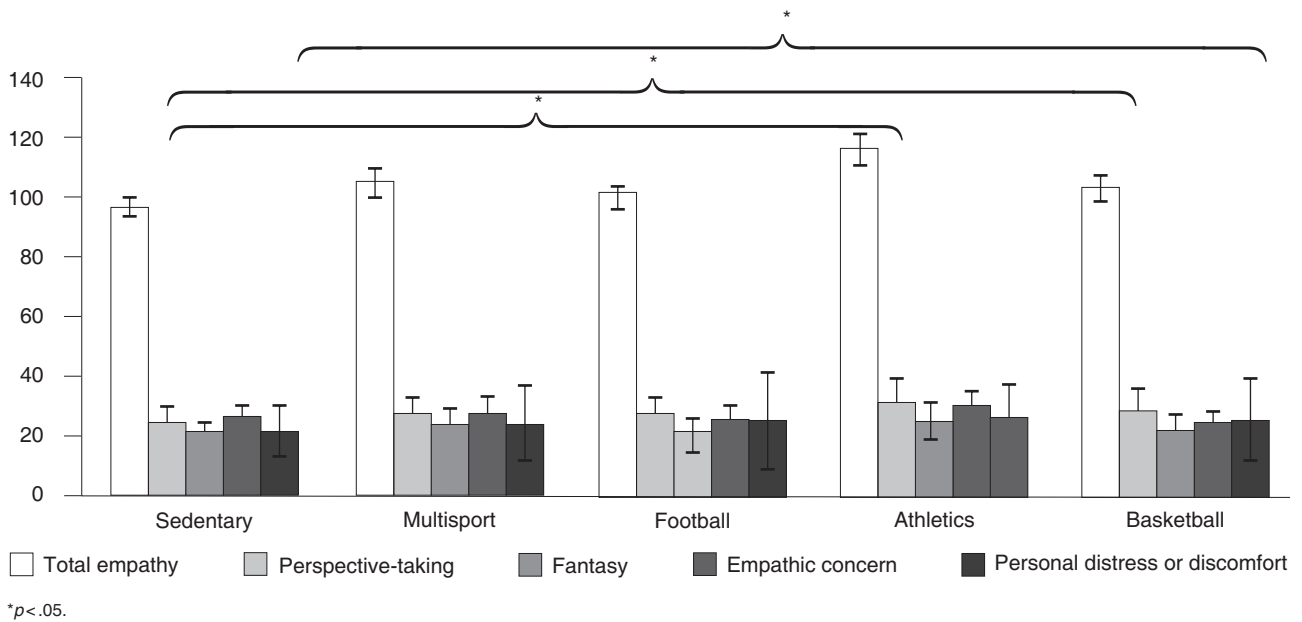
Pearson's correlation analysis shows a negative association between the score in total empathy with aggression ( $r = -0.345, p < .01$ ) and isolation ( $r = -0.202, p < .01$ ) and a positive one with anxiety/withdrawal ( $r = .301, p < .01$ ). In the total antisocial behaviour score, there was only a negative association with perspective-taking ( $r = .360, p < .01$ ).

**Figure 1**  
Differences in empathy in boys depending on the sport played

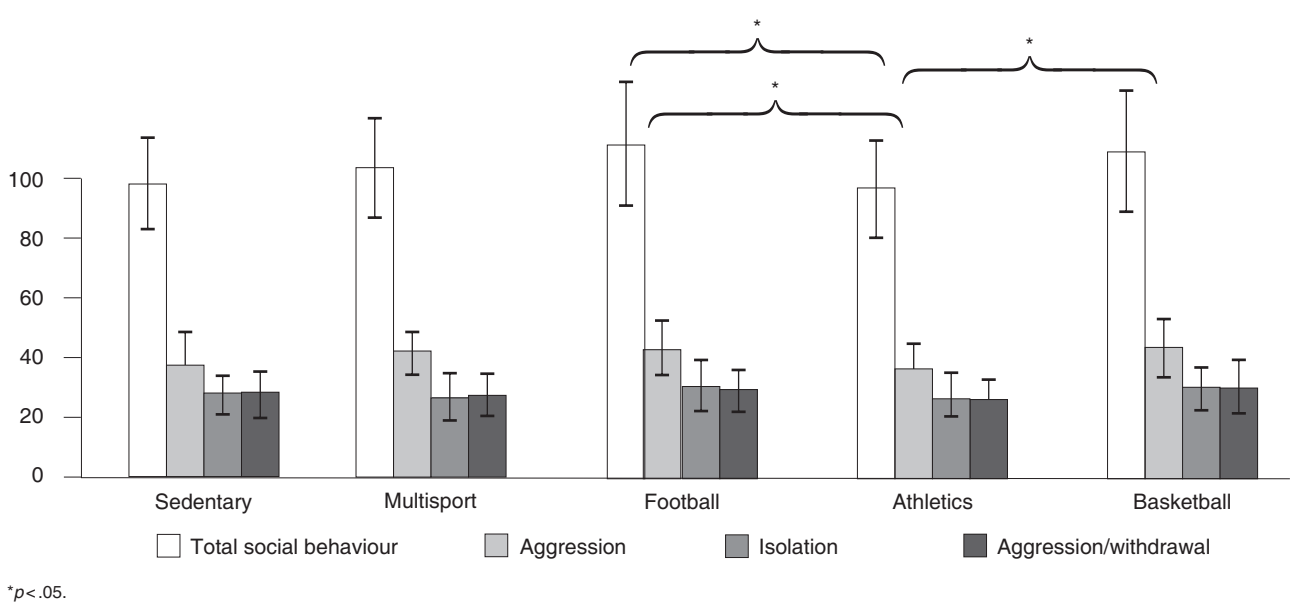


\*  $p < .05$ .

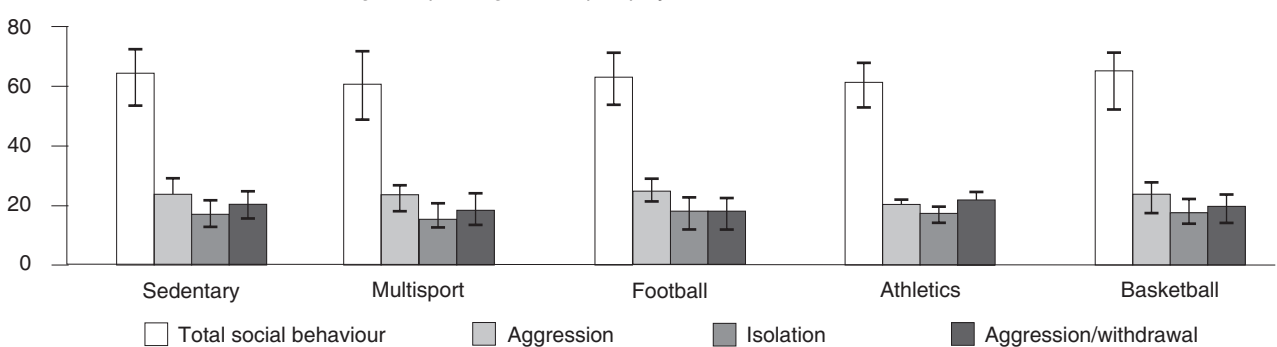
**Figure 2**  
Differences in empathy in girls depending on the sport played



**Figure 3**  
Differences in antisocial behaviour in boys depending on the sport played



**Figure 4**  
Differences in antisocial behaviour in girls depending on the sport played



## Discussion

The main purpose of this study was to analyse the prosocial and antisocial behaviour of various school athletes in relation to gender and versus children who do not engage in sport. The most important finding of this study is that children who do sport and are registered with a federation do not develop higher levels of empathy or lower levels of antisocial behaviour than children who do not do sport, although there are some significant differences in these behaviours depending on the sport performed. Therefore, simply taking part in sports competitions does not guarantee the formation of character or the acquisition of sporting behaviour (Cruz et al., 1996).

In terms of gender, differences in prosocial behaviour start to emerge in groups of athletes, with girls showing greater empathy than boys, whereas these differences did not appear in the sedentary group. A similar pattern is observed in antisocial behaviour, in which there were no significant differences between genders in the sedentary group, while there were in the sports group, except in the athletics group, with boys showing greater antisocial behaviour. In children and adolescents, previous studies (Garaigordobil & Galdeano, 2006; Gorostiaga et al., 2014) have found that girls are more empathetic than boys. More specifically in sports, unlike this study, Kavussanu et al. (2009) found no differences in empathy between men and women football players aged 15 to 47, although in line with this study, men presented more antisocial behaviour. Studies on this subject are scarce and sometimes contradictory. Thus, Pelegrín et al. (2010) suggest that young people who do a sport have a lower risk of developing aggressive behaviour as they are more extroverted, sensitive and respectful towards others.

When the groups analysed are considered, the football group presented less perspective-taking than the other groups, while the sedentary group showed more empathic concern than the rest of the groups, there being significant differences with the basketball group. In turn, the football group showed greater aggression than the other groups, with significant differences in relation to athletics. When the socio-demographic factors of the parents were considered, there were significant differences in educational level between the groups, with the highest percentage with no or few academic qualifications being in the football group, although this study cannot address the association between morality and level of education in this group. In addition, a number of factors may influence these results: the introduction to sports

model, the approach to competition, environmental pressure in relation to parents, friends, clubs and the influence of the media. In this respect, and based on analyses by several authors, Sáenz et al. (2015) stress that prosocial and antisocial behaviour in sports contexts may be influenced by several factors such as the peer group, physical education teachers, parents and spectators, referees, the media and institutional representatives. According to social learning theory, strong aggressiveness may be triggered in the child merely by exposing them to successful aggressive role models and intermittently rewarding aggressive behaviour (Bandura & Walters, 2002).

In connection with the previous question, the role of entertainment sports in children's sport is significant, as their main objective is victory, financial reward and meritocracy. In this respect, Sáenz et al. (2015) suggest that negative values such as winning at all costs, humiliation, revenge, etc. can be conveyed to educational sport through professional sports. Aggressive behaviour has become all too common in the stands, on the benches and above all on the field of play (Blasco & Orgilés, 2014). Particularly in the context of children's football, and after analysing 240 competitions, Gimeno et al. (2007) report that it is parents who are responsible for 19% of verbal attacks on referees and for 4% of physical attacks on coaches. Parent pressure is therefore a predictor of the intention and performance of antisocial behaviour in child athletes (Sánchez et al., 2014). However, the behaviour of coaches during training and competition has a greater impact on the behaviour of young athletes than the behaviour of their parents (Palou et al., 2013).

Moreover, coaches need to focus on the actual task so that athletes can satisfy their needs for autonomy and social relations better, which in turn would lead to the emergence of more intrinsic motives for practise, greater prosocial behaviour and a reduction in antisocial behaviour (Sánchez-Oliva et al., 2012). A motivational climate associated with the task on the part of peers, coaches and parents will be negatively related to antisocial actions, while an ego-oriented motivational climate created by peers, coaches and parents is positively related to antisocial actions (Leo et al., 2009). Thus, task orientation and mastery climate are positive predictors of prosocial behaviour, whereas ego orientation and performance climate are positive predictors of antisocial behaviour in footballers aged 12 to 17 (Kavussanu, 2006).

In addition, coaches who maintain good relationships with their athletes reduce antisocial behaviour, and exposure to relatively high levels of sociomoral reasoning

in the immediate context of sporting activities promotes prosocial behaviour (Rutten et al., 2007). Therefore, supportive coach-athlete relationships are associated with less antisocial behaviour (Rutten et al., 2011). In this respect, autonomously motivated athletes should therefore be more prone to behaving in line with their sense of self and internalised values, which would include respect for others and themselves and, in turn, be more likely to engage in prosocial behaviour and less likely to engage in antisocial behaviour (Hodge & Lonsdale, 2011).

## Conclusion

It is concluded from this research that taking part in competitive children's sport does not guarantee greater prosocial behaviour and less antisocial behaviour than children who do not do sports. Indeed, in certain sports, such as football, antisocial behaviour increases, whereas the sedentary group evinces greater empathic concern.

The greatest limitation of this study is that it did not address certain moral correlates and behaviour of coaches and parents in relation to school sport, which might more clearly underpin its results. Accordingly, when analysing the prosocial and antisocial behaviour of young athletes, few studies have examined the moral values of coaches, parents, peer groups and the principles of the clubs. Future research should address study options that would make it possible to determine the relationship between the moral behaviour of young people and sports more precisely.

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