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Relationship of age and experience on physical self-concept and sportsmanship orientation in youth Spanish soccer players

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The aim of this study was to assess the relationship of age and experience on the physical self-concept and sportsmanship orientation of youth Spanish athletes. The sample was made up of 138 youth male soccer players aged between 11-18 years old. The Physical Self-Description Questionnaire and the Multidimensional Sportspersonship Orientations Scale were applied in a transversal sectional design. The MANCOVA and follow up analyses showed a descent of several dimensions of physical self-concept regarding the age; an increase perceived coordination, and a descent of sportsmanship regarding the experience. Although more studies are necessary to verify and go in depth with the results, coaches need to be aware of this descent throughout the formation stages in educative soccer practices.

KEY WORDS: Fair play, Physical education, Physical self perception, Sportspersonship.

Physical self-concept is a part of individuals' perception of themselves (Harter, 1990), related to their physical skills and appearance (Stein, 1996). According to Marsh, Richards, Johnson, Roche, and Tremayne (1994), physical self-concept is composed of several global (e.g., global physical self-concept, self-esteem) and specific domains (e.g., endurance, flexibility, strength, health). The experiences and the interpretations of the environment where individuals develop their daily activity (Shavelson, Hubner, & Stanton, 1976), and the knowledge and feelings that they experience during these

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activities (Fox, 1998) could modify these components of physical self-concept.

Sport practice, as a particular form of physical activity, causes modifications on the different domains of physical self-concept. Several studies have demonstrated that a short-term sport practice caused an increment of sport skills and the perception of competence, and it entailed an increase of physical self-concept for boys and girls between 12 to 18 years old (Hopper, Guthrie, & Kelly, 1991; Salokun, 1994). However, Lozano, Cocca, Salinas, Miranda, and Viciana (2007) found that not all the modalities of sport they studied (judo, soccer, volleyball, handball, basketball and rugby) educate athletes in the same way in their perception of physical self-concept, varying all of the dimensions that compose it in each sport, except health and physical activity. Therefore, the influence of sport on physical self-concepts should be studied from the perspective of each sport modality, due to the fact that some of them will develop particular dimensions of this multidimensional construct (e.g., sport competence or endurance), and others could affect different dimensions (e.g., strength or flexibility). Even Steele and Aronson (1995) support this perspective when they confirm that some sport modalities are got loads of gender stereotypes, and peoples' behavior and performance are affected by those social stereotypes (Schmalz & Davison, 2006).

Sport practice is also frequently presented as an ideal environment to foster cooperation, bravery, justice, group work, responsibility and even as a vehicle to shape the individual solving moral and ethical conflicts (Kavus-sanu & Roberts, 2001; Moncada, 2005; Palou, Borrás, Ponseti, García-Mas, & Cruz, 2003). However, nowadays spectacle sport has been developed as a reality distortion element as well as fostering non-desirable and violent behaviors (Guilbert, 2010; Kerr, 2009; Slabbert & Ukpere, 2010; Viciana, Salinas, & Cocca, 2007). Vallerand, *et al.* (2003) Blanchard, Mageau, Koestner, Ratelle, Léonard, *et al.* (2003), authors of the *dualistic model of passion*, explained that when a person is involved in a traditional and rule filled activity, these characteristics could be integrated in the personality of that person, generating a great passion in his behavior. The feeling toward a particular practice could become part of how you live, with a deep process of internalization that could generate a harmonious or obsessive identification, a moment in which the sport could transmit its violent attitudes (Donahue, Rip, & Vallerand, 2009). The social learning theory of Bandura (1986) states that the social environment and the interpersonal relationships produce in the individuals a modification of their behaviors and personality, caused by observing mediator behaviors and their consequences. The sport environment and participation in competitions are also factors that intervene and

modify the moral reasoning and the general character of the participants (Gutiérrez & Vico, 2003).

Cocca, Lozano, Salinas, Miranda, and Viciana (2007) found that different modalities of sport practices shaped different ways of acting in individuals with different moral and ethic behaviors. Soccer in particular generated a lower punctuation than other modalities in some factors of sportsmanship, measured with the Multidimensional Sportspersonship Orientation Scale (Martín-Albo, Núñez, Navarro, & González, 2006). Particularly, soccer showed the lowest punctuations in the opponents factor (compared with handball, swimming, basketball and rugby); and lower punctuations in the rules and officials and social conventions factors than handball or swimming. These results confirmed that this sport constitutes a risk factor for educational formation of youth participants. In a different qualitative study carried out by Viciana and Zabala (2004), the social repercussion of soccer was also confirmed to show characteristics that turned soccer into a phenomenon beyond sport, caused by the rivalry between opponents, the enormous economic amounts that it manages, and the social and media diffusion. Perhaps the more worrisome side is that those behaviors are transferred in a direct and simulated manner to younger athletes (Fields, Collins, & Comstock, 2010). This research line verifies the appearing and consolidation of non-ethical behavior and a lack of sportsmanship in early stages (Shields, Lavoie, Bredemeier, & Power, 2007).

Moreover, the age of participants and the years of experience practicing soccer could influence their behaviors and ethics developed during the game. Olmedilla, Lozano, Aro, Fayos, and Ortega (2009) verified that older and more experienced sport players had generated higher unsportsmanlike behaviors. Also, those behaviors rose more frequently among males than females (Gutiérrez, 1993; Gutiérrez, Carratalá, Guzmán, & Pablos, 2010). Factors described in the model of Bredemeier and colleagues (Bredemeier, 1985; Bredemeier & Shields, 1984; Bredemeier, Shields, & Horn, 2003), and the following researchers that used it (Boixadós, Cruz, Torregrosa, & Valiente, 2004; Ommundsen, Roberts, Lemyre, & Treasure, 2003; Sánchez, Murad, Mosquera, & Proença, 2007) confirmed that perceived motivational climate, attitudes toward fair play, aggression, and significant others have an influence on the behaviors in the socialization of youth players (Olmedilla, *et al.*, 2009). Although there are some studies that have dealt with age or experience and the relationship with physical self concept (Aróstegui, Goñi, Zubillaga, & Infante, 2013) or fair play conducts (Cruz, Boixadós, Valiente, Torregrosa, 2001), there are no studies, to our knowledge, that examine the combined relationship of age and experience on physical self-concept and

sportsmanship in Spanish youth soccer players. Therefore, it is important to know if the soccer context produces changes in school aged players' sportsmanship and physical self-concept, in order to guide teachers and coaches in how to deal with this modality of sport and consequently manipulate the intervention avoiding possible negative effects.

Due to the evidences related to the modifications in physical self-concept and sportsmanship regarding each modality of sport, especially worrisome in soccer and in males, and the effects of age and experience on physical self-concept and sportsmanship, the aim of this study was to assess the relationship of these two variables on the physical self-concept and sportsmanship orientation in a sample of youth male Spanish soccer players. Our hypothesis, due to the results of previous studies consulted, is that age and experience in soccer could vary the physical self-concept from one age group to another, and also between more and less experienced participants in soccer practice. Regarding the sportsmanship orientation, it could diminish significantly across the age and the years of experience in soccer.

Method

A cross sectional design was carried out using validated standard questionnaires to measure physical self-concept and sportsmanship.

PARTICIPANTS

The sample was recruited among youth soccer players with, at least one year of practice and their participation in official competitions (organized by the Spanish soccer federation), in order to assure that the quantity of practice makes an influence on the variables studied. The sample was made up of 138 participants aged from 11 to 18 years ($M = 14.38$, $SD = 2.55$), and with 1 to 15 years of experience in soccer ($M = 5.04$, $SD = 2.17$). According to the Spanish youth soccer player categories, the participants were distributed in the following age groups: 11-12 years ($n = 32$); 13-14 years ($n = 34$); 15-16 years ($n = 40$); and 17-18 years ($n = 32$). Everyone belong to a randomly selected regional soccer club of Andalusia (Spain), and were active players in official competitions within federative championships.

MEASURES

Physical Self-Description Questionnaire. – The physical self-concept evaluation was conducted through the Spanish version (Tomás, 1998) of the *Physical Self-Description Questionnaire* (PSDQ) (Marsh, *et al.*, 1994). This questionnaire consists of 70 items that measure nine specific components of physical self-concept (health, coordination, body fat, physical activity, sports competence, physical appearance, strength, flexibility and endurance) and two global

components (global physical self-concept and self-esteem). Sample items are: "I feel confident when doing coordinated movements," "My body is flexible," "Physically, I am happy with myself." Each physical self-concept component was made up of six items, except health and self-esteem, which had eight items. Its response format is based on a 6-point Likert-type scale (1 = false, 2 = mostly false, 3 = more false than true, 4 = more true than false, 5 = mostly true, 6 = true; higher scores indicating higher physical self-concept). The items have both positively and negatively worded questions. All negatively worded items (21 in total) were reverse scored and summarized with other scores of the correspondent scale. The Spanish version of the PSDQ showed adequate psychometric properties (RMSEA = .03; AGFI = .90; NNFI = .89; Cronbach coefficient alphas ranged from .79 to .93) (Tomás, 1998).

Multidimensional Sportspersonship Orientations Scale. – The *Multidimensional Sportspersonship Orientations Scale* (MSOS), designed by Vallerand, Brière, Blanchard, and Provencher (1997), was used to measure the players' sportsmanship. Particularly, the Spanish version validated by Martín-Albo, Núñez, Navarro, and González (2006) was applied. This questionnaire assesses the attitude toward behaviors suggested by items, not the behavior itself, although it is considered a predictor of sportsmanship-like behavior (Gutiérrez & Ruiz, 2009; Shields, *et al.*, 2007; Vallerand, *et al.*, 1997). The MSOS is composed by 25 items that measure five dimensions: commitment (respect and concern for the commitment toward the players, the training, and the work with the team); social conventions (grade of superiority recognition or the work developed by the opponents); rules and officials (grade of respect showed by players to the game rules and the decisions of the referees and sport comities); opponents (grade of solidarity and positive solicitations for the opponents when injuries or unjust decisions by the referee occurred); and negative approach (grade of recognition of errors committed, and criticism about the coach's decisions). Sample items are: "Congratulate opponent for good play," "Respect official even if not good," "Won't admit own mistakes." A Likert-type scale from "0" to "10" was used, where "0" represents total disagreement regarding the item, and "10" represents total agreement with it. This type of scale has been applied previously in order to facilitate the valuation of the items by Spanish youth, making them similar to the qualifications that they receive in scholar marks (Vicián, Cervelló, & Ramírez, 2007). The Spanish version of the SMOS demonstrated adequate psychometric properties [CFI = .90; RMSEA = .05; Cronbach coefficient alphas ranged from .71 to .81, except for the negative approach dimension ($\alpha = .65$)] (Martín-Albo, *et al.*, 2006).

PROCEDURES

Firstly, researchers made contact with the soccer club and asked permission to carry out the study. The aim of the club is to form quality soccer players and increase the competitive character of training and competition from beginners to more advanced stages, but with an educational and comprehensive view of the training. Although the coaches of the youth soccer players were not assessed, all of them (that had a physical education degree and were between 22 to 26 years old) were informally interviewed in order to inform them on the aim of the study, and to know if they applied homogeneous treatments of fair play in the interaction with their athletes. The club had norms regarding fair play and interactions between them, and all of the coaches should reinforce the positive behaviors of the players during the training and competitions.

The data collection was carried out during the competition season. The questionnaires were administered after an ordinary training session by two researches, following a previously

established protocol in order to deliver the same and appropriate instructions. The athletes were encouraged to respond to the questions seriously and sincerely, assuring the confidentiality of the responses. All participants consented and had at least one year of soccer practice. The questionnaires were administered in approximately 15-20 min, with the consent of the athletes, coaches, and parents.

ANALYSES

Descriptive statistics (means and standard deviations) for age, experience in soccer, PSDQ, and MSOS values were calculated. A one-way multivariate analysis of covariance (MANCOVA), with experience in soccer value as covariable, was used to test the influence of the age categories (11-12 years, 13-14 years, 15-16 years, and 17-18 years) on children's physical self-concept and sportspersonship scores. Significant multivariate interactions were followed up with the univariate analysis of covariance (ANCOVA). Subsequently, the Bonferroni adjustment was used to compare pairs of means. Then, a one-way MANCOVA, with children's age value as covariable, was used to test the influence of experience in soccer (low experience, ≤ 4 years; high experience, ≥ 7 years) on physical self-concept and sportspersonship scores. Significant multivariate interactions were followed up with the ANCOVA. Based on previous studies, previous experience in soccer groups was categorized based on the lower and higher quartiles (García-Artero, *et al.* (2007) Ortega, Ruiz, Mesa, Delgado, González-Gross, *et al.*, 2007; Lonsdale, Sabiston, Raedeke, Ha, & Sum, 2009). Effect size was estimated using the partial eta squared (η^2_p). Internal consistency reliability of the PSDQ and MSOS dimensions were estimated using the intraclass correlation coefficient (ICC) from a two-way analysis of variance (Shrout & Fleiss, 1979), as well as the 95% confidence intervals (CI). All statistical analyses were performed using the SPSS Version 20.0 for Windows (IBM® SPSS® Statistics, Chicago, IL). The statistical significance level was set at $p \leq 0.05$.

Results

Mean values and standard deviations obtained in the PSDQ and MSOS for each age category, as well as the results of the one-way MANCOVA and the follow-up analyses, are presented in Table I. The MANCOVA results indicated overall significant effects on the PSDQ scores (Wilks $\lambda = 1.616$; $p = .020$; $\eta^2_p = .126$). The follow-up ANCOVA revealed significant differences between age categories on perception of coordination, sports competence, physical appearance, strength, endurance, global physical self-concept, self-esteem, and physical self-concept total scores ($p \leq .05$). Subsequently, the *post hoc* analysis with the Bonferroni adjustment showed that the children's 11-12 year age group reported greater values than the 13-14, 15-16, and 17-18 year age groups in perception of coordination, sports competence, physical appearance, strength, global physical self-concept, and physical self-concept total scores ($p < .05$). Furthermore, the 11-12 year age group showed

TABLE 1
Descriptive statistics and One-Way MANCOVA Results of Physical Self-Concept and Sportsmanship for Each Soccer Category

Descriptive statistics and One-way MANCOVA results of 16 variables (see Table 1 for details)													
	ANOVA				Bonferroni adjustment								
	11-12 years (n = 32)	13-14 years (n = 34)	15-16 years (n = 40)	17-18 years (n = 32)	F	p	η^2_p	1-2	1-3	1-4	2-3	2-4	3-4
PSDQ^a					1.616	.020	.126						
Health	4.65 ± .98	4.57 ± .85	4.58 ± .77	4.63 ± .79	0.075	.974	.002	1.000	1.000	1.000	1.000	1.000	1.000
Coordination	4.67 ± .94	4.16 ± .73	4.14 ± .66	4.25 ± .71	6.174	.001	.122	.007	.001	.007	1.000	1.000	1.000
Physical activity	4.89 ± .97	4.53 ± 1.01	4.62 ± .81	4.37 ± .74	2.414	.069	.052	.450	.618	.054	1.000	1.000	1.000
Body fat	5.18 ± .95	4.95 ± .85	4.92 ± .97	4.75 ± 1.09	1.057	.370	.023	1.000	1.000	.472	1.000	1.000	1.000
Sports competence	5.13 ± .70	4.45 ± .73	4.53 ± .59	4.65 ± .65	8.432	<.001	.160	<.001	<.001	.003	1.000	1.000	1.000
Physical appearance	5.06 ± .70	4.37 ± .81	4.33 ± .86	4.47 ± .74	5.726	.001	.114	.003	.002	.029	1.000	1.000	1.000
Strength	4.83 ± .90	4.16 ± .70	4.05 ± .85	4.22 ± .79	5.575	.001	.112	.007	.001	.033	1.000	1.000	1.000
Flexibility	4.14 ± 1.30	3.78 ± .84	3.70 ± 1.09	3.95 ± 1.06	1.312	.273	.029	.922	.362	1.000	1.000	1.000	1.000
Endurance	4.77 ± 1.06	4.25 ± .57	4.31 ± .74	4.55 ± .85	3.845	.011	.080	.023	.020	.451	1.000	1.000	1.000
Global physical self-concept	5.41 ± .59	4.88 ± .64	4.69 ± .63	4.69 ± .80	6.031	.001	.120	.019	.001	.002	1.000	1.000	1.000
Self-esteem	4.95 ± .76	4.70 ± .64	4.45 ± .70	4.63 ± .89	2.678	.050	.057	.893	.033	.419	.833	1.000	1.000
Total	4.88 ± .62	4.44 ± .47	4.39 ± .44	4.47 ± .48	7.456	<.001	.144	.001	<.001	.003	1.000	1.000	1.000
MSOS^b					1.177	.287	.044						
Social conventions	7.50 ± 2.12	6.40 ± 2.48	5.66 ± 2.07	6.20 ± 2.31	1.772	.156	.038	.784	.164	1.000	1.000	1.000	1.000
Rules and referees	7.39 ± 1.69	6.72 ± 1.90	6.06 ± 1.56	6.53 ± 2.01	1.860	.139	.040	1.000	.123	1.000	1.000	1.000	1.000
Commitment	8.78 ± 1.44	8.59 ± .85	8.13 ± 1.39	8.38 ± 1.44	2.293	.081	.049	1.000	.083	.558	.452	1.000	1.000
Opponent	5.94 ± 2.36	4.92 ± 2.10	4.79 ± 1.93	4.59 ± 2.19	1.767	.157	.038	.455	.374	.236	1.000	1.000	1.000
Negative approach	4.59 ± 1.51	4.53 ± 1.53	5.39 ± 1.91	4.78 ± 1.86	1.366	.256	.030	1.000	1.000	1.000	.451	1.000	.699
Total ^c	5.00 ± 1.21	4.42 ± 1.18	3.85 ± .96	4.18 ± 1.43	3.272	.023	.069	.611	.013	.435	.651	1.000	1.000

Note. M = Mean; SD = standard deviation; ^a PSDQ = Physical Self-Description Questionnaire (Marsh, *et al.*, 1994); in the PSDQ the scores range from 1 to 6 on each item, the higher values corresponding to better perception of each variable; ^b MSOS = Multidimensional Sportsmanship Orientations Scale (Vallerand, *et al.*, 1997); in the MSOS the scores range from 0 to 10 on each item, the higher values corresponding to better sportsmanship of each variable, except in the negative approach dimension; ^c Total score was calculated as the sum of social conventions, rules and referees, commitment, and opponent scores, less negative approach scores, all divided by 5.

statistically significant higher values than the 13-14 and 15-16 year age groups in endurance's perception, as well as being higher than the 15-16 year age group in self-esteem's perception ($p < .05$). Nevertheless, the MANCOVA results did not show overall significant effects on the MSOS scores (Wilks $\lambda = 1.177$; $p = 0.287$; $\eta^2_p = .044$). In addition, the follow-up ANCOVA did not reveal significant differences between age categories ($p > .05$), except for the sportsmanship total scores ($F = 3.272$; $p = .023$; $\eta^2_p = .069$). Subsequently, the Bonferroni adjustment showed that the children's 11-12 year age group reported greater values than the 15-16 year age group in sportsmanship total scores.

Table II represents the mean values and standard deviations of the PSDQ and MSOS scores for the low experience (≤ 4 years) and the high experience (≥ 7 years) groups, as well as the results of the one-way MAN-

TABLE II
Descriptive Statistics and One-Way MANCOVA Results of Physical Self-Concept and Sportsmanship for Low and High Experience Groups

	Low ^a ($n = 45$)	High ^b ($n = 60$)	ANCOVA		
	$M \pm SD$	$M \pm SD$	F	p	η^2_p
PSDQ ^c			2.629	.006	.239
Health	4.58 \pm .89	4.58 \pm .81	.016	.901	.000
Coordination	4.18 \pm .85	4.42 \pm .70	4.762	.031	.045
Physical activity	4.61 \pm .96	4.65 \pm .80	.913	.342	.009
Body fat	5.12 \pm .82	4.85 \pm 1.06	1.333	.251	.013
Sports competence	4.72 \pm .73	4.69 \pm .67	.051	.821	.001
Physical appearance	4.63 \pm .80	4.42 \pm .72	.570	.452	.006
Strength	4.40 \pm .87	4.15 \pm .77	.774	.381	.008
Flexibility	3.84 \pm 1.10	3.86 \pm 1.01	.008	.930	.000
Endurance	4.37 \pm .92	4.53 \pm .63	.935	.336	.009
Global physical self-concept	5.13 \pm .65	4.71 \pm .66	5.233	.024	.049
Self-esteem	4.83 \pm .68	4.56 \pm .77	2.730	.102	.026
Total	4.58 \pm .55	4.49 \pm .45	.101	.751	.001
MSOS ^d			2.284	.050	.104
Social conventions	7.38 \pm 1.89	5.70 \pm 2.27	8.966	.003	.081
Rules and referees	7.20 \pm 1.75	6.21 \pm 1.78	7.068	.009	.065
Commitment	8.60 \pm 1.24	8.35 \pm 1.42	1.224	.271	.012
Opponent	5.68 \pm 1.96	4.79 \pm 1.99	1.958	.165	.019
Negative approach	4.60 \pm 1.64	5.07 \pm 1.79	1.693	.196	.016
Total ^e	4.85 \pm 1.18	4.00 \pm 1.22	8.498	.004	.077

Note. M = Mean; SD = standard deviation; ^a Low = The low experience group was defined as children with ≤ 4 years of experience in soccer (\leq percentile 25); ^b High = The high experience group was defined as children with ≥ 7 years of experience in soccer (\geq percentile 75); ^c PSDQ = Physical Self-Description Questionnaire (Marsh, *et al.*, 1994); in the PSDQ the scores range from 1 to 6 on each item, the higher values corresponding to better perception of each variable; ^d MSOS = Multidimensional Sportsmanship Orientations Scale (Vallerand, *et al.*, 1997); in the MSOS the scores range from 0 to 10 on each item, the higher values corresponding to better sportsmanship of each variable, except in the negative approach dimension; ^e Total score was calculated as the sum of social conventions, rules and referees, commitment, and opponent scores, less negative approach scores, all divided by 5.

COVA and the follow-up ANCOVA analyses. The MANCOVA results indicated overall significant effects on the PSDQ scores (Wilks $\lambda = 2.629$; $p = .006$; $\eta^2_p = .239$). Then, the follow-up ANCOVA revealed that children with lower experience in soccer self-perceived statistically significant less coordination than the children with higher experience ($F = 4.762$; $p = .031$; $\eta^2_p = .045$). However, the lower experience group reported statistically significant greater global physical self-concept than the children with higher experience ($F = 5.233$; $p = .024$; $\eta^2_p = .049$). In addition, the MANCOVA results showed overall significant effects on the MSOS scores (Wilks $\lambda = 2.284$; $p = .050$; $\eta^2_p = .104$). Furthermore, the follow-up ANCOVA found that children with lower experience in soccer reported statistically significant greater values on social conventions, rules and referees, and total sportsmanship than children with higher experience in soccer ($p < .05$). Finally, the internal consistency results [ICC (95% CI)] for all the dimensions assessed were acceptable [except for the poor value found in the negative approach dimension (.50, .36-.62)] ranging from .69 (.60-.76) for coordination to .85 (.81-.88) for flexibility in the PSDQ and from .64 (.54-.73) for commitment to .82 (.77-.86) for social conventions in the MSOS.

Discussion

The purpose of the present study was to assess the relationship of age and experience in soccer on physical self-concept and the sportsmanship orientation in Spanish youth soccer players. The 11-12 year old group showed the greatest values in their physical self-concept (all the dimensions except health, physical activity, body fat, and flexibility) regarding the rest of the age stages. However the rest of the subgroups did not show any changes between them.

Some explanations are found in literature to explain this decrease of physical self-concept. Firstly, the importance given to the physical appearance in the stage of puberty could affect the rest of the components in physical self-concept (Caqueo-Urquizar, *et al.*, 2011; Ferrer-García, Toro, Gutiérrez-Maldonado, Peñaloza, Cuadros-Sosa, *et al.*, 2011; Feragen, Kvalen, Rumsey, & Borge, 2010). Secondly, the level of exigency and performance that increase step by step throughout the years could affect this perception of self in athletes who perceive the pressure of this context (Jowett & Cramer, 2010) and the subjective perception of the increase of task complexity (Liukkonen, Barkoukis, Watt, & Jaakkola, 2010; Narayan & Steele-Johnson, 2012). Thirdly, the expectations of coaches and parents for performance suc-

cess is also demonstrated as affecting this decrease of physical self-concept (Amorose & Smith, 2003; Coastworth & Conroy, 2006). Moreover, during the "developmental stage" defined from 13 years till about 20 years (Wylleman, De Knop, Verdet, & Cecic-Erpic, 2007) the influence of parents and coaches on the physical self-concept of athletes is emphasized in the sport context. However, due to the wide age-range in this developmental stage, as the years advance the influence of parents diminishes in favor of that of peers and coaches, transforming their influence in social support but not in being a behavioral model or influencing on physical self-worth (Cantú, et al., 2010; Jowett & Cramer, 2010). Finally, the possibility of tensions or the existence of conflicts in the relationship between coaches and athletes could also affect the perception of physical self-concept (Jowett, 2008; Ullrich-French & Smith, 2006).

The decline in physical self-concept obtained between the 11-12 year old group and the rest of the subgroups did not manifest between the subsequent age groups. However, Marsh (1998) also detected the stability of the perception of physical self-concept throughout this potentially volatile stage of adolescence.

Regarding the experience, there were significant decreases in global physical self-concept and in total sportsmanship, social conventions, and the rules and officials dimensions within more experienced athletes, confirming the influence predicted in the initial hypothesis. The coordination dimension of physical self-concept is the only factor that increased significantly probably due to the experience in soccer.

The contributions of previous research described above could also explain the decline of the global physical self-concept, because it is a global perception of the athletes. Thus, the results could be affected by the level of personal exigency of the more experienced players in advanced stages, where parents, public, mates, and friends usually act in a non desirable way during Spanish regional competitions, dangerously increasing the perception of success (Viciano & Zabala, 2004). Also the level of exigency of the coaches in advanced stages makes a high perception of self-difficult.

The findings of our study are partially in accordance with previous studies that reported several reasons to explain the decrease of moral reasoning and sportsmanship: a) Beller & Stoll (1993) stated that the longer the participants reported participating in sports the lower the moral reasoning score was; b) the cultural learning offered by media comments and other significant behaviors could affect the beliefs and the behavior of youth sports players, justifying the decrease of sportsmanship (Gibson, 1993; Sage, 1998); c) the contributions of Shields and Bredemeier (1995) stated that an increase in

moral reasoning only occurs under certain conditions and not automatically throughout the years of experience and is also a possible influence in our results regarding sportsmanship. Longitudinal studies using educational strategies achieved higher moral reasoning values of athletes, supporting this finding (e.g., Beller & Stoll, 2000; Hansen, Stoll, & Beller, 2000). Thus, we need to intervene specifically in order to increase the sportsmanship throughout the experience as well as making the coaches, parents, and the athletes themselves aware of this process.

Moreover, soccer is a special modality of sport that influences the players in a traditional way of behaving. Unfortunately, these traditions are usually negative from a sportsmanship point of view. The presence of the called "background anger" in competition is frequent, and affect sportsmanship (Omli & La Voi, 2009) and physical self-concept (Fredricks & Eccles, 2002). The desire of victory could cause the fear of failure (Sagar, Boardley, & Kavussanu, 2011) and the consequence is the appearance of antisocial behaviors (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010) affecting sportsmanship and global physical self-concept. The aggressive social environment in soccer could influence the players that act depending on how they perceive that significant others expect them to act (Hindin, 2007). All these aspects in soccer can influence the youth players, shaping them by the socialization of this sport. Nevertheless, as Cruz, et al. (2000) detected, younger players sometimes reveal more frequency of anti-fair play behaviours than professional and older players, due mainly to their inexperience. Therefore, more studies are needed to verify and analyse the causes of deterioration of fair play conduct in youth soccer athletes.

While the participation in physical activities and sport is considered as a potential factor that increases physical self-concept and sportsmanship (Hopper, *et al.*, 1991; Kavussanu & Roberts, 2001; Mayorga-Vega, Viciana, Cocca, & De Rueda, 2012; Moncada, 2005; Palou, *et al.*, 2003), the reality of the results of several studies, as we could verify, are different. Due to the inconsistency of the results among investigations in this research line (Proios, Doganis, & Athanailidis, 2004), further studies are needed to establish clearer explanations of the results obtained.

In conclusion, age affects physical self-concept decreasing it among the youth soccer players (between 11-12 years) studied. The experience in soccer practice also affects the sportsmanship in youth Spanish players, shaping them with less respect toward opponents, making them more willing to cheat, and respect the rules and officials' decisions less. However, experience gives to the youth players the opportunity to achieve a better perception of their coordination due to the improvement in the soccer skills domain.

Moreover, other factors such as economic rewards, coaches' success oriented behavior, parents and public attitudes, and the system of sanctions could influence these anti-fair play behaviors of the youth athletes, increasing the complexity of this process (Cruz, Boixadós, Valiente, & Torregrosa, 2001).

We can confirm that each modality of physical activity and sport require their own treatment and analysis, as we could experience in soccer. The physical self-concept and the sportsmanship of youth athletes could be affected by general aspects of physical activity (normally positive influences) and by specific characteristics of the soccer modality (positive or negative in accordance with the treatment received by the athletes and the influences of the environment) at the same time. The results of this study confirm that practicing soccer could affect the athletes positively or negatively depending on the aforementioned experiences. In order to contribute to the theoretical knowledge of this topic, physical educators and coaches who deal with children and adolescents in educational stages or with educational objectives need to be informed about the risks that the traditional practice of soccer applied during several years, with a competitive environment and an overemphasis on winning could affect their moral reasoning and sportsmanship negatively, leading young players to engage in antisocial behaviors.

The main limitation of this study was the use of a cross-sectional design, which did not allow causal inferences regarding the relationship between age and experience and physical self-concept and sportsmanship. In addition, Harter (1985) suggests that children can idealize their self-image instead of their actual self-image, and this could be a possible effect in the physical self-concept measurement of the present study. Another consideration that we need to take into account is the poor value of reliability in the present study of the negative approach dimension of sportsmanship in the SMOS ($\alpha = .50$). Despite this low punctuation, we need to consider that the value of this dimension in the original version (Vallerand, *et al.*, 1997) and the Spanish version (Martín-Albo, *et al.*, 2006) of this questionnaire obtained similar poor values ($\alpha = .54$; $\alpha = .65$, respectively). Finally, the sample was not representative of the whole range of ages studied, but it could contribute to the total knowledge of these topics in Spanish youth soccer players.

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